East Bay Regional Communications System Authority

Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Rodeo-Hercules Fire Protection District and San Ramon Valley Fire Protection District

EAST BAY REGIONAL COMMUNICATION SYSTEM AUTHORITY
MITIGATED NEGATIVE DECLARATION

Project Title:	Patterson Pass Communication Repeater Facility
Description of Project:	Proposed construction of an unmanned telecommunication facility to be operated by the East Bay Regional Communication System Authority to improve emergency wireless communication to public safety providers in East Alameda County. The facility would include an approximately 150-foot tall freestanding monopole with associated ground-mounted equipment on an approximately 920-square foot leased area.
Project Location:	North side of Patterson Pass Road, east of Greenville Road. The site address is 1300 Patterson Pass Road and the Assessor Parcel Number is 99A-1820-2.
Name Applicant	East Bay Regional Communications System Authority
Proposed Finding:	The attached initial study identifies potentially significant effects, but: a) revisions in the project made by or agreed to by the applicant before the proposed Mitigated Negative Declaration/Initial Study was released for public review would avoid or mitigate the effects to a point where clearly no significant effects would occur; and b) there is no substantial evidence, in light of the whole record before the County that the project as revised may have a significant effect on the environment.

William J. McCammon, Executive Director

May 7, 2010
Date

Alameda County Office of Homeland Security and Emergency Services
4985 Broder Blvd, Dublin CA 94568 • (925) 803-7802 • www.ebrcsa.org

Copies of the Initial Study documenting the reasons to support the above finding are available at the East Bay Regional Communication System Authority, 4895 Broder Blvd., Dublin CA 94568, or by calling (925) 803 7802 .

Initial Study/ Mitigated Negative Declaration

Project:
Patterson Pass Communication Repeater Site

Lead Agency:
East Bay Regional Communications System Authority

May 2010

Environmental Checklist Form
Prepared Pursuant to the California Environmental Quality Act (CEQA)
and Implementing Guidelines

A. PROJECT DESCRIPTION

1. **Project title**: Patterson Pass Communication Repeater Facility

2. **Project location**: North side of Patterson Pass Road, east of Greenville Road. The site address is 1300 Patterson Pass Road and the Assessor Parcel Number is 99A-1820-2.

   See **Exhibit 1**, Site Location. Exhibits are appended to the Initial Study as Attachment I.

3. **Project Sponsor & Lead Agency name and address**:

   East Bay Regional Communications System Authority

   4985 Broder Blvd.

   Dublin CA 94558

   Attn: William McCammon, Executive Director

4. **General plan designation**: Large Parcel 5. **Zoning**: A-B-E (Agriculture) Agricultural

6. **Description of project**: Proposed construction of an unmanned telecommunication facility to be operated by the East Bay Regional Communications Authority for the purpose of improving emergency wireless communication for public safety providers in East Alameda County. The applicant would lease approximately 918 square feet of land from the property owner (Alameda County Waste Management Authority) and would construct an approximately 150-foot tall freestanding monopole within the leased area. The monopole would be constructed of galvanized metal that would oxidize to a non-reflective, neutral color.

   The monopole would have one microwave dish antenna attached to it, approximately four feet in diameter as well as two whip antennas, each approximately 1 ½ inches in diameter and 12 feet in length. The antennas would be painted light gray.

   Associated improvements would include one small equipment building totaling approximately 224 square feet of gross floor area and would not exceed a height of approximately 10 feet above existing ground level. One concrete pad approximately 50 square feet for placement of an emergency generator. The building and monopole would be surrounded by an approximately 6.7-foot tall chain link fence that would be constructed around the leased area for security purposes. Fuel for the emergency generator would be stored within a double-wall tank with a leak detection system and a spill containment area to limit leakage and spills.

   Access to the site would be provided by an existing unpaved gated access road from Patterson Pass Road that serves the existing facility. Occasional visits would be made to the site for maintenance purposes, approximately one visit per month. No water or sewer service would be provided since the site would not be staffed.

   Related improvements would include extending an electrical and telephone lines in an

Environmental Checklist Form
Prepared Pursuant to the California Environmental Quality Act (CEQA)
and Implementing Guidelines

A. PROJECT DESCRIPTION

1. **Project title**: Patterson Pass Communication Repeater Facility

2. **Project location**: North side of Patterson Pass Road, east of Greenville Road. The site address is 1300 Patterson Pass Road and the Assessor Parcel Number is 99A-1820-2.

   See **Exhibit 1**, Site Location. Exhibits are appended to the Initial Study as Attachment H.

3. **Project Sponsor & Lead Agency name and address**:

   East Bay Regional Communications System Authority

   4985 Broder Blvd.

   Dublin CA 94558

   Attn: William McCammon, Executive Director

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6. **Description of project**: Proposed construction of an unmanned telecommunication facility to be operated by the East Bay Regional Communications Authority for the purpose of improving emergency wireless communication for public safety providers in East Alameda County. The applicant would lease approximately 918 square feet of land from the property owner (Alameda County Waste Management Authority) and would construct an approximately 150-foot tall freestanding monopole within the leased area. The monopole would be constructed of galvanized metal that would oxidize to a non-reflective, neutral color.

   The monopole would have one microwave dish antenna attached to it, approximately four feet in diameter as well as two whip antennas, each approximately 1 ½ inches in diameter and 12 feet in length. The antennas would be painted light gray.

   Associated improvements would include one small equipment building totaling approximately 224 square feet of gross floor area and would not exceed a height of approximately 10 feet above existing ground level. One concrete pad approximately 50 square feet for placement of an emergency generator. The building and monopole would be surrounded by an approximately 6.7-foot tall chain link fence that would be constructed around the leased area for security purposes. Fuel for the emergency generator would be stored within a double-wall tank with a leak detection system and a spill containment area to limit leakage and spills.

   Access to the site would be provided by an existing unpaved gated access road from Patterson Pass Road that serves the existing facility. Occasional visits would be made to the site for maintenance purposes, approximately one visit per month. No water or sewer service would be provided since the site would not be staffed.

   Related improvements would include extending an electrical and telephone lines in an

underground alignment from Patterson Pass Road. Trenching would be required for this utility extension.

Exhibit 2a shows the location of the site in relation to Patterson Pass Road. **Exhibit 2b** shows the proposed site plan for the facility and **Exhibit 2c** shows an elevation of the proposed facility.

7. **Surrounding land uses and setting**: The approximately 160-acre parcel is largely devoted to cattle grazing. A privately owned telecommunication facility with an approximately 20 to 30 foot tall lattice tower, a number of dish antennas and ground mounted equipment building a exists immediately northeast of the proposed telecommunication facility.

   Surrounding properties are all vacant and used for agricultural purposes.

8. **Other public agencies whose approval may be required**:

   -Permit from Bay Area Air Quality Management District for emergency generator

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture Resources	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Geology /Soils
☒	Hazards & Hazardous Materials	☒	Hydrology / Water Quality	☐	Land Use / Planning
☐	Mineral Resources	☐	Noise	☐	Population / Housing
☐	Public Services	☐	Recreation	☐	Transportation/Traffic
☐	Utilities / Service Systems	☐	Mandatory Findings of Significance		

C. LEAD AGENCY DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

William J. McC

Signature

April 29, 2010

Date

D. EVALUATION OF ENVIRONMENTAL EFFECTS:

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 16 different broad environmental categories, such as air quality, cultural resources, land use and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. Each question in the Checklist essentially requires a "yes" or "no" reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination. The Checklist table provides, in addition to a clear "yes" reply and a clear "no" reply, two possible "in-between" replies, including one that is equivalent to "yes, but with changes to the project that the proponent and the Lead Agency have agreed to, *no*", and another "no" reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple "no" reply. Each possible answer to the questions in the Checklist, and the different type of discussion required, is discussed below:

a) Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

b) Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

c) Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

d) No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g. the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

The discussions of the replies to the Checklist questions must take account of the whole action involved in the project, including off-site as well as on-site effects, both cumulative and project-level impacts, indirect and direct effects, and construction as well as operational impacts. Except when a "No Impact" reply is indicated, the discussion of each issue must identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance, with sufficient description to briefly explain how they reduce the effect to a less than significant level.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D) of the Guidelines). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

1. AESTHETICS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect on a scenic vista?	❑	❑	×	❑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	❑	❑	×	❑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	×	❑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	❑	×	❑	❑

Setting: The Project site is located within an agricultural area of eastern, unincorporated Alameda County. Surrounding properties are used for cattle grazing or are vacant. A small number of residences exist in the immediate vicinity of the site. The site and surrounding properties exhibit moderate to steep topographic elevations. A major PG&E transmission line is located in the general area, characterized by tall (approximately 200 feet) towers and sets of transmission wires. Adjacent properties also contain windmill farms.

The Project site is visible from two Scenic Routes as identified in the Alameda County *Scenic Route Element of the General Plan.* There are distant limited views of the site from the I-580 freeway to the north and more immediate views of the site from Patterson Pass Road that forms the southern boundary of the Project site.

The Project site includes an existing private unmanned telecommunication facility with multiple antennas and dishes, (approximately 30-40 feet tall) but does not include any significant stands of trees, rock outcroppings or other significant scenic features.

Impacts:

a) The proposed facility would be located within the viewshed of both I-580 to the north and Patterson Pass Road to the south. It would also be visible from a number of roadways to the west, in both the City of Livermore and the unincorporated portion of Alameda County.

To assess potential impacts on scenic vistas, three photosimulations were prepared and included as **Exhibits 3, 4** and **5**. Each of these exhibits show existing pre-project views, then a simulation of the Project facility. Simulation vantage points were selected to represent typical views from nearby public places that, in this instance, include public roads nearest the Project site. Generally, views from nearby private properties are not analyzed in CEQA documents.

The pole would be constructed of galvanized metal and would oxidize to a light gray color so as not to create a reflective surface and to blend in with surrounding colors.

Exhibit 3 shows the site from Patterson Pass Road east of the site as would be seen by westbound passersby on Patterson Pass Road. The view is looking westward from Patterson Pass Road east of the site approximately 1.12 miles east of the Project site. Vantage points of the site further west (closer to the site) are obscured by rolling hillsides. The proposed 150-foot tower would be visible to motorists along Patterson Pass Road in the distance but would not represent a significant impact on this particular vista due to the distance to the site and the presence of taller and bulkier electrical transmission towers in this portion of Alameda County.

Exhibit 4 shows the site from south of I-580 at Midway Road, northeast of the Project site. This exhibit represents typical views of the site from motorists eastbound on I-580. From this distance, approximately 4.78 miles, the proposed monopole is minimally visible to motorists. Other views of the Project site from eastbound I-580 are blocked by intervening rolling hills.

Exhibit 5 shows the site as seen from Greenville Road near the intersection of Patterson Pass Road and Greenville Road northeast of the Project site in Livermore. From this distance, approximately 3.65 miles, the proposed monopole would be minimally visible from this vantage point. The exhibit also shows that other public facility structures are present in the foreground, including water tanks and electrical transmission towers that currently degrade the scenic vista from this vantage point.

b,c) Construction of the proposed Project would not damage any existing visual or scenic resources on the site or on surrounding properties, since no significant stands of trees would be removed or major rock outcroppings removed to accommodate the proposed telecommunication facility. The proposed facility would be located adjacent to an existing similar facility on the site, so this impact would be less-than-significant.

d) Construction of the proposed facility could add a new source of light on the site in the form of exterior security lighting fixtures included within the Project. This could be a potentially significant impact and would be reduced to a less-than-significant level by adherence to Mitigation Measure VIS-1.

Mitigation Measure: Adherence to the following measure will reduce aesthetic impacts to a less-than significant level:

Mitigation Measure VIS-1: Exterior lighting shall be limited to one light each at the doorway of each accessory building, with each fixture containing a maximum of one 60-watt bulb. Each fixture shall be shielded to prevent light and glare off of the leased area.

2. AGRICULTURE RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				x
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				x
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				x

Setting: The Project site is within an agricultural area of eastern Alameda County and is currently used for cattle grazing. Existing General Plan and zoning districts designate the property and surrounding areas for agricultural uses.

Based on information provided by the Alameda County Community Development Agency (Jana Beatty, 9/13/09), the Project site is not located in an agricultural preserve area and is not covered by a Williamson Act Land Conservation contract.

Impacts:

a-c) Although the proposed Project would be located in an agricultural area, the proposed lease area, approximately 1000 square feet, would not significantly impact existing cattle grazing operations on the site or lead to conversion of the main portion of the site (the non-leased area) to non-agricultural uses. The Project site is not located within an Agricultural Preserve and is not covered by a Williamson Act Land Preservation Contract. No impact would therefore result with respect to this topic.

Mitigation Measures: None required.

3. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	x
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	x	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	x
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	x	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	x

Setting: The Project is within the Livermore Valley. The Livermore Valley forms a small sub regional air basin distinct from the larger San Francisco Bay Area Air Basin. The Livermore Valley air basin is surrounded on all sides by high hills or mountains. Local air quality regulations have been adopted by the multi-county Bay Area Air Quality Management District (BAAQMD).

Under the California Clean Air Act, Alameda County is a non-attainment area for ozone and particulate matter (PM_{10} and $PM_{2.5}$). The county is either attainment or unclassified for other pollutants.

Impacts:

a) The proposed Project would not involve any habitable structures that would generate a significant number of vehicle trips or any other type of pollutants on a long-term, operational level. There would be no impact with respect to this topic.

b) There would be limited grading and trenching associated with the Project for construction of tower and building foundations and for extension of underground electrical and telephone lines from Patterson Pass Road to the lease area. These construction activities could result in short-term air emissions that could exceed air emissions. This would be a potentially significant impact. Adherence to Mitigation Measure AIR-1 will reduce this impact to a less-than-significant level.

In terms of greenhouse gas (GHG) emissions, the California Energy Commission reports that California is the 12th to 16th largest emitter of C02 in the world and produced 492 million metric tons of CO2e in 2004. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in the state, followed by the electric power sector and the industrial sector. The increased concentration of GHG in the atmosphere has been linked to global warming, which can lead to changes in climate such as loss of snow pack and more drought years. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the

following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas
- Higher minimum temperature, fewer cold days and frost days over nearly all land areas
- Reduced diurnal temperature rand over most land areas
- Increase of heat index over land areas
- More intense precipitation events

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social and economic consequences over the long-term may be great.

c) With adherence to Mitigation Measure AIR-1, there would be no significant air quality impacts, including cumulative considerable air pollutants.

d) The Project parcel and surrounding parcels are substantially inhabited, with one single-family dwelling in the immediate vicinity of the Project site that could be affected by intermittent fumes and pollutants from testing of the on-site generator. There would therefore be a less-than-significant impact with respect to sensitive receptors.

e) The proposed Project would not include any manufacturing, processing or similar uses or activities and there would be no impact with respect to creation of objectionable odors.

Mitigation Measures: The following measure will reduce short-term air emissions to a less-than-significant level:

Mitigation Measure AIR-1: Project plans and specifications shall include the following construction air quality impacts, as recommended by the BAAQMD:

a) Use alternative fueled construction equipment to the extent of availability of such equipment;
b) Limit construction equipment idling time to a maximum of 5 minutes;
c) Ensure equipment is properly tuned;
d) Water disturbed area frequently;
e) Halt grading operations during periods of sustained 25+ mph winds; and
f) Cover stockpiled material with tarps if such material is not to be used for 14 or more days; otherwise stockpiled material shall be watered to prevent wind erosion.

4. BIOLOGICAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	x	❑	❑
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	❑	❑	❑	x
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	❑	❑	❑	x
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❑	❑	❑	x
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	❑	x
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	x
g) Result in conversion of oak woodlands that will have a significant effect on the environment?	❑	❑	❑	x

Setting: This section of the Initial Study is based on a biological reconnaissance prepared by WRA biological consultants. This report is incorporated by reference into this document and is also included as Appendix G.

The Project area was examined and classified according to biological communities or habitats present. The soils within the Project area are mapped as Los Osos silty clay loam, 45 to 75 percent slopes, eroded.

The footprint of the Project area is located on an old foundation from a previous tower. Portions of this foundation protrude from the soil. Grazed non-native grassland dominates the portions of the Project Area that do not have this remnant infrastructure. This community typically occurs in open areas of valleys and foothills throughout California, usually on fine textured clay or loam soils that are somewhat poorly drained (Holland 1986). Non-native grassland is typically dominated by non-native annual grasses and forbs that occur together with scattered native wildflowers. Common species found in the non-native grasslands of northern and central California include wild oats (*Avena* spp.), brome grasses (*Bromus* spp.), wild barley (*Hordeum* spp.), Italian and perennial ryegrass (*Lolium multiflorum* and *Lolium perenne*), field bindweed (*Convolvulus arvensis*), fiddleneck (*Amsinckia* spp.), and California poppy (*Eschscholzia*

californica), among many other species.

Special-status Plant Species. Based upon a review of the resources and databases, special status plant species have been documented in the general vicinity of the Project area. Appendix C (contained in the full report) summarizes the potential for occurrence of these plant species in the Project area. Of these plant species, none have a moderate or higher potential for occurrence. For those species unlikely to occur, or those that have no potential to occur, the Project area clearly does not contain suitable habitat.

The Project area is within the range of several special status plant species, but within the tower Project area itself no suitable habitat for these species is present. Historic ground disturbance and grazing activity associated with the Project area reduces the potential for occurrence in that area. However, some special status plant species may occur in the adjacent open space area.

Special Status Wildlife Species. Fifty-two special status species of wildlife have been recorded in the vicinity of the Project area. Appendix C contained in the full biological reconnaissance report) summarizes the potential for occurrence of these species in the Project area. Of these wildlife species, four species have a moderate potential for occurrence in the Project area. For those species rated unlikely to occur, or those that have no potential to occur, the Project area clearly does not contain suitable habitat. In addition, the entire Project area is located within proposed Critical Habitat Unit 15 for California Red-legged Frog (*Rana draytonii*).

Special status wildlife species that are most likely (moderate or higher potential) to occur in the Project area are discussed below.

American Badger (*Taxidea taxus*), CDFG Species of Special Concern. Badgers occur in drier open stages of most scrub, forest, and herbaceous habitats where friable soils and prey populations are present. This species has been observed 1.4 miles to the northwest of the Project area (CDFG 2009). There is potential for this species to occur in the Project area because suitable grassland habitat is present, prey is abundant, and badgers have been documented to occur in the region.

San Joaquin Kit Fox (*Vulpes macrotis mutica*), Federal Endangered Species; State Threatened Species. In the northern portion of its range, San Joaquin Kit Fox typically occurs in grassland habitats supporting California Ground Squirrel (*Spermophilus beecheyi*) populations. Ground squirrels are important as both a prey item and a source of den habitat. The Project area is within the known range of the kit fox and provides suitable foraging, denning, and dispersal habitat. This species has been documented 1.3 miles east of the Project area (CDFG 2009).

Western Burrowing Owl (*Athene cunicularia hypugea*), CDFG Species of Special Concern. Western Burrowing Owl typically favor flat, open grassland or gentle slopes and sparse shrub land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. In California, Western Burrowing Owl is found in close association with California Ground Squirrel. Western Burrowing Owl exhibits high site fidelity and usually use the abandoned burrows of ground squirrels for shelter and nesting. This species has been documented one mile east of the Project area (CDFG 2009). There is potential for occurrence for this species

in the Project area due to the abundance of burrow habitat in the adjacent areas and nearby occurrences.

San Joaquin Coachwhip (*Masticophis flagellum ruddocki*), CDFG Species of Special Concern. San Joaquin Coachwhip occur in open, dry, vegetative associations with little or no tree cover. It probably requires one or more mammal associates because it uses burrows for refuge, and may sometimes be dependent on mammals for food (CDFG 1994). Suitable foraging and refuge habitat is located within and adjacent to the Project area. The nearest occurrence is 3.7 miles to the southwest of the property boundary (CDFG 2009).

All of the wildlife species observed in the Project area during the site assessment were common species or abundant in the region. Two special status wildlife species were observed within the adjacent property: California Red-legged Frog and Loggerhead Shrike (*Lanius ludovicianus*).

Impacts:

a) Of the 52 special status wildlife species known to occur within the vicinity of the Project area, four have a moderate potential to occur within the Project area. Most of the remaining species found in the review of background literature occur in habitats not found within or in the vicinity of the Project area. These are listed below. Construction of the proposed Project could impact some or all of these special-status biological resources.

American Badger and San Joaquin Kit Fox-A number of California Ground Squirrel burrows were observed in and near the Project area. Both the badger and kit fox are often associated with grassland habitat that contain ground squirrel colonies. The ground squirrel offers these species a prey base as well as potential den habitat. No potentially occupied burrows were observed within the Project area, however, suitable habitat is available and species have potential to den in or near the Project area. Project impacts could be potentially significant and will be reduced to a less-than-significant level by adherence to Mitigation Measure BIO-1.

Breeding Birds-A number of common ground nesting avian species may use the Project area for breeding and foraging. Project construction could result in a potentially significant impact with respect to breeding birds. Most non-special status songbirds and raptors are protected under the federal Migratory Bird Treaty Act (MBTA). Additionally, the MBTA prevents the destruction or disturbance of the nest of most songbirds and raptors. Impacts to these nests are also considered significant under the California Environmental Quality Act (CEQA). Special status avian species are often afforded more protection under state and federal law than common species are under the MBTA. Adherence to Mitigation Measure BIO-2 will reduce this impact to a less-than significant level.

Western Burrowing Owl-Ground disturbance associated with grading could result in disturbance to nesting or roosting Western Burrowing Owl. Adherence to Mitigation Measures BIO-3 and BIO-4 will reduce this impact to a less-than-significant level.

Herpetofauna- San Joaquin Coachwhip has nearby occurrences and suitable burrow habitat is available within the Project area. This species may use burrow habitat as winter refugia and as an egg-laying site. Adherence to Mitigation Measures BIO-3 and BIO-4 will reduce this impact to a less-than-significant level.

California Tiger Salamander (*Ambystoma californiense*) (CTS) has been documented on the property (CDFG 2009), and California Red-legged Frog (CRLF) was observed in the stock pond during the site visit. The Project area is approximately 1,300 feet from the stock pond on the property. Adult CTS have been observed up to 2,092 m (1.3 mi) from breeding ponds. The Project area is within the dispersal capabilities of this species, however, CTS variation in distances between breeding and refuge sites is poorly studied. Loredo et al. (1996) found that tiger salamanders may use burrows that are first encountered during movements from breeding to upland sites. In their project area, where the density of California Ground Squirrel burrows was high, the average migration distances between breeding and refuge sites for adults and juveniles was 118 feet (35.9 m) and 85 feet (26.0 m), respectively. Therefore, although salamanders may migrate up to one mile, migration distances are likely to be less in areas supporting refugia closer to breeding sites (Jones and Stokes, 2006). The density of burrows is much higher in the immediate vicinity of the stock pond than within the Project area. There are many burrows surrounding the stock pond and only a few in and near the Project area. Therefore, no significant impacts are expected to CTS refuge habitat within the Project area. Additionally, the monitor that is recommended above to avoid potential impacts to San Joaquin Coachwhip may also be utilized to salvage CTS in the unlikely event that they become unearthed during construction activities.

Though CTS and CRLF are unlikely to occur in the Project area, potential exists for the injuring, killing or harassment of CRLF and CTS by ground disturbance, vehicular traffic and/or other activities during frog and salamander dispersal periods. Adherence to Mitigation Measure BIO-5 will reduce this impact to a less-than-significant level.

b,c) No impacts would result to wetlands, other waters of the U.S. or riparian habitat, since none exist on the site.

d) Proposed Project improvements would consist of a fenced telecommunication facility. The fenced area would enclose approximately 1,000 square feet. Other portions of the site are also fenced for the keeping of cattle. With the presence of existing fencing, no impacts would occur with regard to blockage of wildlife or fish migration.

e) No trees would be removed from the site, since non exist. Construction of the proposed telecommunication facility would not conflict with any other local ordinances or regulations protecting the environment.

f) The Project site is not located in either a Habitat Conservation Plan area or Natural Community Conservation Plan area boundary, although Alameda County and a number of local agencies have proposed the East Alameda County Conservation Strategy (EACCS) to address potential conflicts between future development and protection of threatened species in the East Alameda County area. No impacts would result.

g) No oak woodlands exist on the site, so no impacts would result.

Mitigation Measures: The following measures will reduce impacts to biological resources to a less-than-significant level.

Mitigation Measure BIO-1: A pre-construction den survey shall be performed in and near the Project area prior to ground disturbance to ensure that neither American Badger or San Joaquin Kit Fox species have an occupied den site in the vicinity. If kit fox or kit fox sign are found within 200 feet of the Project area, consultation with the Service is required to determine appropriate avoidance and minimization measures. Observation of badger or badger sign will require consultation with CDFG.

Mitigation Measure BIO-2: For breeding bird impacts, vegetation removal, ground disturbance, and other potential disturbances to potentially occupied nesting habitats shall be conducted during the non-breeding season from September 1 to January 31. Pre-construction breeding bird surveys would not be required during this period. During the breeding season from February 1 to August 31, pre-construction breeding bird surveys shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal, ground disturbance, and/or other disturbances to potentially occupied nesting habitats. Surveys shall be conducted in all suitable nesting habitat within 250 feet of potentially impacted areas. All active non-status passerine nests identified at that time shall be protected by a 50-foot radius minimum exclusion zone, but the buffer size may be dependent upon the species. Each exclusion zone will remain in place until the fledging of all young. Survey results are valid for 14 days from the survey date. Should ground disturbance continue, or start beyond 14 days from the survey date, surveys shall be repeated.

Mitigation Measure BIO-3: Pre-construction surveys for burrowing owl shall be conducted within 14 days of grading within 500 feet of the Project site for burrowing owl. If active burrows are observed, a mitigation and monitoring plan, which would recommend passive owl relocation during the non-breeding season, shall be prepared and approved by CDFG. Owls cannot be relocated during the breeding season, which typically extends from February into mid-July. These surveys may be conducted concurrently with badger and kit fox surveys.

Mitigation Measure BIO-4: If proposed construction activities impact burrow habitat within the Project area, a biological monitor shall be present during the initial ground disturbance in order to investigate burrow excavation and salvage snakes that may be unearthed. Once all burrows are removed or ground disturbance activities have ceased, a monitor shall not be required.

Mitigation Measure BIO-5: To avoid impacts to CRLF and CTS, ground disturbance shall occur during the day and during the dry season (roughly from June 1 to October 31), when CTS and CRLF dispersal is less likely. If ground disturbance is to occur during the rainy season (roughly from November 1 to May 31), construction activities shall be halted following major rain events until a qualified biologist further assesses the condition of the area with regard to the presence of and suitability for CRLF and CTS. This inspection may result in the recommendation of additional pre-construction checks following subsequent rain events.

5. CULTURAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5.	☐	☐	☐	x
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5.	☐	x	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	☐	x	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries.	☐	x	☐	☐

Setting: The Project site is largely vacant, although there is an existing private telecommunication facility immediately adjacent to the proposed Alameda County facility. The existing facility is of relatively recent construction (estimated 10 years) and would not qualify as an historic resource. There are no other above-ground facilities on the site.

The site has not been surveyed by a qualified archeologist to determine the presence or absence of pre-historic, Native American, paleontological or similar resources.

Impacts:

a) No impacts would occur with regard to any adverse change to above-ground historic resources, since none exist.

b-d) There is a possibility that proposed Project construction activities could disturb pre-historic, Native American, paleontological or similar resources. This would be a potentially significant impact.

Mitigation Measures: The following measure will reduce impacts to cultural resources to a less-than-significant level:

> *Mitigation Measure CUL-1*: In the event that cultural, archaeological or paleontological resources, including human remains, are encountered during trenching for utilities or other grading activities, excavation or disturbance of the site or portions expected to overlie the resources (to the satisfaction of the Planning Director) shall cease until the following procedures are completed:
>
> a) The Alameda County Coroner shall be contacted to determine if cause of death must be investigated, and if determined to be of Native American origin, the Coroner shall contact the California Native American Heritage Commission, who shall in turn notify the most likely descendants, as designated by the Commission.
> b) If such remains are identified as Native American in origin, the most likely descendants designated by the Commission shall make recommendations to the landowner or contractor for means of treating or disposing of the remains, and associated grave goods,

in an appropriate, dignified manner. If the Commission is unable to ascertain the identity of the most likely descendants, the descendent does not make a recommendation, or following mediation by the Commission of a disagreement on procedures between the landowner and the most likely descendant (s), the landowner or their representative shall rebury the remains and any associated grave goods with appropriate dignity on the property in a location not subject to further surface disruption.

c) In the event that other cultural resources are located on the site, the contractor shall contact a qualified archaeologist to inspect the site. If the archaeologist determines that potentially significant archaeological materials or human remains are encountered, the archaeologist must record, recover, retrieve, rebury and/or remove appropriate archaeological materials.

d) The archaeologist shall study any archaeological resources found onsite and publish data concerning these resources, and shall provide a copy of documentation of all recovered data and materials found on-site to the regional information center of the California Archaeological Inventory (CAI) for inclusion in the permanent archives, and another copy shall accompany any recorded archaeological materials and data.

e) Monitoring for these measures must be performed by the applicant on a continual basis during site disturbance activities. At the completion of work, the applicant shall submit a summary of findings to the Planning Director for review and for the final record.

6. GEOLOGY AND SOILS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
I) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.	☐	x	☐	☐
ii) Strong seismic ground shaking.	☐	x	☐	☐
iii) Seismic-related ground failure, including liquefaction.	☐	☐	x	☐
iv) Landslides.	☐	☐	x	☐
b) Result in substantial soil erosion or the loss of topsoil.	☐	x	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	☐	x	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	x	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	☐	☐	☐	x

Setting: The Project site is largely vacant and contains moderate to steep slopes. Based on Association of Bay Area Government mapping, the site lies near the Greenville Fault, a generally north-south trending fault located in eastern Alameda County.

Impacts:

a) Given the close proximity of the site to the Greenville Fault, there is a possibility of moderate to strong ground shaking during movement of this fault. The proposed monopole (approximately150 feet tall) could be damaged by seismic ground shaking. Since the precise location of this fault in relation to the Project site is not known, the potential for ground rupture is unknown, but this could be a potentially significant impact and will be mitigated by adherence to Mitigation Measure GEO-1.There are no sources of water on the site, so the potential for liquefaction is considered low.

b) Proposed site grading, trenching and excavation could result in significant loss of topsoil due to high winds in the Altamont Pass area. This would be a potentially significant impact. Adherence to Mitigation Measure AIR-1 and HYDRO-2 will reduce this impact to a less-than-significant level.

c,d) Soil types on the Project site are unknown and the proposed construction could be subject to damage from unstable soil as a result of lateral spreading, expansive soil or similar hazards. This would be a potentially significant impact. The risk from landslide is

considered low, since the lease area is located on a small knoll and is not located near any major slope areas. Compliance with Mitigation Measure GEO-1 will reduce this impact to a less-than-significant level.

e) Since Project improvements would not be inhabited, no wastewater effluent would be generated and no impacts would result.

Mitigation Measures: The following measures will mitigate soils and geology impacts to a less-than-significant level:

Mitigation Measure GEO-1: The Project proponent shall retain a qualified geologist, engineering geologist or equivalent to prepare a soils and geotechnical report to assess the risk of seismic ground rupture, seismic ground shaking, liquefaction, lateral spreading, differential settlement and other soil risks. The report shall include detailed construction measures to reduce seismic and soil risks to a less-than-significant level. Construction methods shall be incorporated into construction plans and specifications.

7. HAZARDS AND HAZARDOUS MATERIALS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	☐	☐	☐	×
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	☐	☐	☐	×
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	☐	☐	☐	×
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	☐	☐	☐	×
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	☐	☐	☐	×
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.	☐	☐	☐	×
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	☐	☐	☐	×
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	☐	×	☐	☐

Setting: The Project site is located in a rural, agricultural area. No evidence exists that previous uses on the site manufactured, stored, used or transported significant quantities of hazardous materials. The site is not located on the Cortese List of contaminated sites as published by the California Department of Toxic Substance Control as of September 17, 2009.

A significant amount of native grasslands is present on the site that is likely subject to wildland fires.

Impacts:

a-d) Project would consist of an unmanned telecommunication facility on the site. Although fuel may be stored on the site to power an emergency back up generator, this would not be a significant quantity of hazardous material. Fuel would be stored in a double-wall tank with a lead detection system and a containment area to minimize spills or leaks to surrounding properties. No impacts are therefore anticipated.

e,f) The site is located approximately 3 to 5 miles east of Livermore Municipal Airport. The Project site lies outside of the Alameda County Airport Land Use Commission (ALUC) General Referral; Area or Height Referral Areas for the airport (see Maps XXI and XXII of

the Alameda County Airport Land Use Policy Plan, 1986) and no impacts would result with respect to these topics.

g) The site is not located within or adjacent to a public right-of-way that could block or impede any emergency response plan or an evacuation plan. No impacts are anticipated.

h) Native grasslands near the site are susceptible to wildland fire, some of which could be caused from sparks from the site. The potential to cause wildland fire would be a potentially significant impact and Mitigation Measure HAZ-1 will reduce this to a less-than-significant level.

Mitigation Measures: Adherence to the following measure will reduce hazard impacts to a less-than-significant level:

Mitigation Measure HAZ-1: Final Project plans shall include a minimum 20-foot wide band of crushed gravel or similar non-flammable ground cover around the base of the facility and any emergency generator to prevent wildland fire from sparks.

8. HYDROLOGY AND WATER QUALITY Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Violate any water quality standards, conflict with water quality objectives, fail to meet waste discharge requirements, or otherwise cause significant degradation of beneficial uses of surface water bodies or groundwater, including public uses, aquatic, wetland and riparian habitat?	☐	x	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	x
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (i.e. within a watershed)?	☐	☐	☐	x
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?	☐	☐	☐	x
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?	☐	☐	☐	x
f) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical stormwater pollutants such as heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?	☐	x	☐	☐
g) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?	☐	☐	☐	x
h) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	x
i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	x
j) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	x
k) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	x

Setting: The Project site is undeveloped, with the exception of an existing telecommunication facility on the same property. Remnants of a previous structure also exist on the site.

No drainage structures, including pipes, culverts, retention basins or similar facilities exist and stormwater runoff is via sheet flow onto downhill properties, including Patterson Pass Road.

No creeks, streams or other bodies of water are present near the proposed construction site.

The construction site lies outside of a 100-year flood hazard area (see FEMA Flood Insurance Rate Map CP# 0600 180360C).

Impacts:

a) Construction of the proposed Project would include grading, excavation and trenching activities, all of which would disturb the exiting ground plane and cause potentially significant impacts in terms of erosion from the site. This would be a potentially significant impact and would be reduced to a less-than-significant level with adherence to Mitigation Measure HYDRO-1.

b) The proposed Project would not use any water for long-term operation of the facility. There would be limited, short-term use of water to implement mitigation measures; however, construction water would be trucked to the site. No impacts would result.

c) There would be a potential for siltation and erosion off of the site (see item "a," above), which would be a potentially significant impact. A portion of the Project site is covered by a previous building foundation, which is an impervious surface, so that the total amount of additional runoff from new impervious surfaces on the site would not be significantly increased. With the estimated amount of increased stormwater runoff, the overall drainage pattern on the site would not be changed.

d,e) As indicated in item "c," proposed project improvements would have no impact on significantly increasing the amount of stormwater runoff or discharge of water.

f) With adherence to Mitigation Measure HYDRO-1, there would not be any polluted runoff into impaired or non-impaired bodies of water.

g) The proposed Project does not include construction of a housing development, and the site is not located within a 100-year flood hazard area, as indicated in the setting section. No impact would result.

h) The site is well inland from San Francisco Bay and is not located near any large lakes. The site is on a small knoll and is not located near any slope areas that could generate mudflow. Therefore, no impact would result with respect to this topic.

Mitigation Measure: Adherence to the following measure will reduce erosion impacts to a less-than-significant level:

> *Mitigation Measure HYDRO-1*: An erosion control plan shall be approved by Alameda County for any site grading, excavation and trenching activities that occur during the rainy season (generally October 15 through April 15 of any year). The plan shall include

features to limit polluted runoff from the site and include use of sandbags, silt fences, silt basins and other techniques.

In addition, the plan shall include on-site areas for washout of concrete trucks so that wash water does not leave the site.

9. LAND USE AND PLANNING Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Physically divide an established community.	❑	❑	❑	x
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	❑	❑	❑	x
c) Conflict with any applicable habitat conservation plan or natural community conservation plan.	❑	❑	❑	x

Setting: The Project site is located in an agricultural area within eastern Alameda County. The Project site is used for a mix of cattle grazing and one existing telecommunication facility.

The East County General Plan (ECAP) and County zoning depicts the area for agricultural uses.

Impacts:

a) The site vacant and no existing established communities would be disrupted. Although additional land use permits may be required from Alameda County, the proposed Project is generally consistent with Alameda County land use regulations.

b) The proposed facility would be used exclusively to provide for improved communications for emergency service providers in the Eastern Alameda County area and would be consistent with overall County goals related to public safety.

c) See 4 f of this initial Study document.

Mitigation Measures: None required.

10. MINERAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	❑	❑	❑	x
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	❑	❑	❑	x

Setting: No known major resources are identified on or adjacent to the Project site in the ECAP. Based on a site visit, no identified mineral extraction operations have occurred on the site.

Impacts:

a,b) The proposed Project would involve minimal disturbance of the soil that could not affect any locally important deposits of mineral resources. No impacts are anticipated.

Mitigation Measures: None required

11. NOISE Would the project result in:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	❑	❑	❑	x
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	❑	❑	❑	x
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	❑	❑	❑	x
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	❑	❑	❑	x
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.	❑	❑	❑	x
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.	❑	❑	❑	x

Setting: The Project area consists of cattle grazing and other non-urban uses that generate minimal noise. Primary noise near the Project site is a result of vehicles using Patterson Pass Road just east of the site.

Livermore Municipal Airport exists approximately 4 to 5 miles west of the Project site.

Impacts:

a-d) Properties surrounding the Project site largely uninhabited and used for cattle grazing. Although construction of the proposed facility would generate noise associated with utility trenching, foundation construction and placement of the monopole, the few scattered single family residences in the area that are sensitive noise receptors would not be affected by construction noise or vibration since they are out of the line of sight of the proposed telecommunication facility. Minimal noise is anticipated from on-going operation of the facility, which could include localized noise from air conditioning equipment and periodic maintenance visits to the site.

e,f) The facility would be located approximately 4 to 5 miles of the Livermore Municipal Airport. Since the facility would be uninhabited, there would be no significant noise on the site from aircraft overflights from this or other airports.

Mitigation Measures: None required.

12. POPULATION AND HOUSING Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	❑	❑	❑	x
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	x
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	x

Setting: The Project site is located within an agricultural area of unincorporated Alameda County. The area is used for cattle grazing and other agricultural uses with scattered residential farmsteads, but no major population concentrations near the site.

Impacts:

a-c) The proposed Project includes an unmanned telecommunication facility and would not induce population growth within this portion of Alameda County or displace existing residents. No impacts are anticipated.

Mitigation Measures: None required.

13. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Fire protection.	❑	×	❑	❑
b) Police protection.	❑	❑	❑	×
c) Schools.	❑	❑	❑	×
d) Parks.	❑	❑	❑	×
e) Other public facilities.	❑	❑	❑	×

Setting: The Project site receives services from the following:

- Fire Service: Alameda County Fire Department. The closest fire station is Station #8 located at 1617 College Avenue, Livermore
- Police Protection: Alameda County Sheriff

Impacts:

a) Operation of the proposed facility has the potential to release sparks from electrical equipment that could result in wildfires. This would be a significant impact. Adherence to Mitigation Measure HAZ-1, contained in the Hazards and Hazardous Materials section of this Initial Study, will reduce this impact to a less-than-significant level.

b) No impacts are anticipated with respect to police protection, since the site will be uninhabited and fenced to preclude public access.

c-e) No impacts are anticipated to schools, parks or other governmental facilities, since the proposed telecommunication facility would be uninhabited and would not generate any population that would require increased schools or park service.

Mitigation Measures: None required.

14. RECREATION Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	❑	❑	❑	x
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	❑	❑	❑	x

Setting: The Project site is generally vacant, with the exception of an existing telecommunication facility. No parks, playgrounds or other recreation facilities exit on the site.

Impacts:

a,b) The proposed Patterson Pass telecommunication facility would not include a residential component that would increase use of any local or regional parks. It would also not include a recreational component. No impacts would therefore occur with respect to this topic.

Mitigation Measures: None required.

15. TRANSPORTATION Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).	❑	❑	❑	x
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.	❑	❑	❑	x
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	❑	❑	❑	x
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	❑	❑	❑	x
e) Result in inadequate emergency access.	❑	❑	❑	x
f) Result in inadequate parking capacity.	❑	❑	❑	x
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).	❑	❑	❑	x

Setting: The Project site is served by a private unpaved roadway off of Patterson Pass Road. Patterson Pass Road links the Tracy area in western San Joaquin County with Livermore in eastern Alameda County. This road carries heavy vehicle volumes during weekday peak hours, since it serves as an alternative east-west commute route to I-580 to the north.

No bus stops or other public transit facilities exist near the site. Patterson Pass Road does not include sidewalks or dedicated bicycle lanes.

Impacts:

a,b) The proposed Project would add minimal traffic to existing vehicle volumes on Patterson Pass Road. The applicant anticipates approximately one to trips per month to the site for on-going inspection and maintenance, following installation of the facility. It is likely that these trips would occur in non-peak hours. No impacts to local or regional roads monitored by the Alameda County Congestion Management Agency (ACCMA) would occur.

c) No impacts to air traffic patterns would occur.

d) There is an existing hairpin turn in Patterson Pass Road at the Project driveway that would not be affected by the proposed Project and no impact would result.

e) The site would not be inhabited, so there is no need for emergency access.

f) Adequate on-site parking exists on the site to accommodate maintenance vehicles that would visit the site.

g) Project facilities would not conflict with existing plans, policies or programs to promote non-automotive transit since there would not include any construction near the right-of-way of Patterson Pass Road that could conflict with roadway widening for bicycle lanes or bus facilities. No impacts would result.

Mitigation Measures: None required.

16. UTILITIES AND SERVICE SYSTEMS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.	❑	❑	❑	x
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	❑	❑	❑	x
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	❑	❑	❑	x
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.	❑	❑	❑	x
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	❑	❑	❑	x
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	❑	❑	❑	x
g) Comply with federal, state, and local statutes and regulations related to solid waste.	❑	❑	❑	x

Setting: No water or sewer service exists to serve the Project site. No stormwater drainage facilities exist on the site, drainage is by sheet flow onto adjacent properties or onto Patterson Pass Road.

Impacts:

a-g) Operation of the proposed facility would not require water or generate wastewater, since the facility would be uninhabited. Water used for construction purposes would be trucked to the site. Existing drainage patterns would remain with minimal increases in stormwater runoff, as described in the Hydrology section of this Initial Study. Operation of the facility would not generate any solid waste, since the facility would not be inhabited.

Mitigation Measures: None required.

17. MANDATORY FINDINGS OF SIGNIFICANCE	YES: Potentially Significant Impact	NO: Less Than Significant Wth Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	❑	❑	❑	x
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	❑	❑	❑	x
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❑	❑	❑	x

Discussion

a) The preceding analysis indicates that the proposed Project would not have a significant adverse impact on cultural resources or have the potential to restrict the range of rare or endangered species, beyond impacts previously identified.

b) No such cumulative impacts have been identified in this Initial Study.

c) Based on the preceding Initial Study, no substantial effects to human beings, either directly or indirectly have been identified.

E. SOURCES

Alameda County Airport Land Use Policy Plan, Airport land Use Commission of Alameda County, 1986

East County Area Plan, Alameda County Community Development Agency, Planning Department, Volume 1, May 1995

Scenic Route Element of the General Plan, Alameda County, amended through May, 1994

F. MITIGATION MEASURES TO BE INCLUDED IN THE PROJECT AND AGREED TO BY THE PROJECT SPONSOR AND ALL SUBSEQUENT PROPERTY OWNERS AND PERMITTEES

The following mitigation measures are required to reduce potentially significant impacts of the proposed project to a "Less Than Significant" or "No Impact" level. These mitigation measures shall be made conditions of approval for the project. For every mitigation measure, the Permittee will be responsible for implementation actions, schedule, funding and compliance with performance standards, unless otherwise stated in the measure.

Mitigation Measure VIS-1: Exterior lighting shall be limited to one light each at the doorway of each accessory building, with each fixture containing a maximum of one 60-watt bulb. Each fixture shall be shielded to prevent light and glare off of the leased area.

Mitigation Measure AIR-1: Project plans and specifications shall include the following construction air quality impacts, as recommended by the BAAQMD:

a) Use alternative fueled construction equipment to the extent of availability of such equipment;
b) Limit construction equipment idling time to a maximum of 5 minutes;
c) Ensure equipment is properly tunes
d) Water disturbed area frequently;
e) Halt grading operations during periods of sustained 25+ mph winds;
f) Cover stockpiled material with tarps if such material is not to be used for 14 or more days; otherwise stockpiled material shall be watered to prevent wind erosion.

Mitigation Measure BIO-1: A pre-construction den survey shall be performed in and near the Project area prior to ground disturbance to ensure that neither American Badger or San Joaquin Kit Fox species have an occupied den site in the vicinity. If kit fox or kit fox sign are found within 200 feet of the Project area, consultation with the Service is required to determine appropriate avoidance and minimization measures. Observation of badger or badger sign will require consultation with CDFG.

Mitigation Measure BIO-2: For breeding bird impacts, vegetation removal, ground disturbance, and other potential disturbances to potentially occupied nesting habitats shall be conducted during the non-breeding season from September 1 to January 31. Pre-construction breeding bird surveys would not be required during this period. During the breeding season from February 1 to August 31, pre-construction breeding bird surveys shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal, ground disturbance, and/or other disturbances to potentially occupied nesting habitats. Surveys shall be conducted in all suitable nesting habitat within 250 feet of potentially impacted areas. All active non-status passerine nests identified at that time shall be protected by a 50-foot radius minimum exclusion zone, but the buffer size may be dependent upon the species. Each exclusion zone will remain in place until the fledging of all young. Survey results are valid for 14 days from the survey date. Should ground disturbance continue, or start beyond 14 days from the survey date, surveys shall be repeated.

Mitigation Measure BIO-3: Pre-construction surveys for burrowing owl shall be

conducted within 14 days of grading within 500 feet of the Project site for burrowing owl. If active burrows are observed, a mitigation and monitoring plan, which would recommend passive owl relocation during the non-breeding season, shall be prepared and approved by CDFG. Owls cannot be relocated during the breeding season, which typically extends from February into mid-July. These surveys may be conducted concurrently with badger and kit fox surveys.

Mitigation Measure BIO-4: If proposed construction activities impact burrow habitat within the Project area, a biological monitor shall be present during the initial ground disturbance in order to investigate burrow excavation and salvage snakes that may be unearthed. Once all burrows are removed or ground disturbance activities have ceased, a monitor shall not be required.

Mitigation Measure BIO-5: To avoid impacts to CRLF and CTS, ground disturbance shall occur during the day and during the dry season (roughly from June 1 to October 31), when CTS and CRLF dispersal is less likely. If ground disturbance is to occur during the rainy season (roughly from November 1 to May 31), construction activities shall be halted following major rain events until a qualified biologist further assesses the condition of the area with regard to the presence of and suitability for CRLF and CTS. This inspection may result in the recommendation of additional pre-construction checks following subsequent rain events.

Mitigation Measure CUL-1: In the event that cultural, archaeological or paleontological resources, including human remains, are encountered during trenching for utilities or other grading activities, excavation or disturbance of the site or portions expected to overlie the resources (to the satisfaction of the Planning Director) shall cease until the following procedures are completed:

a) The Alameda County Coroner shall be contacted to determine if cause of death must be investigated, and if determined to be of Native American origin, the Coroner shall contact the California Native American Heritage Commission, who shall in turn notify the most likely descendants, as designated by the Commission.
b) If such remains are identified as Native American in origin, the most likely descendants designated by the Commission shall make recommendations to the landowner or contractor for means of treating or disposing of the remains, and associated grave goods, in an appropriate, dignified manner. If the Commission is unable to ascertain the identity of the most likely descendants, the descendent does not make a recommendation, or following mediation by the Commission of a disagreement on procedures between the landowner and the most likely descendant (s), the landowner or their representative shall rebury the remains and any associated grave goods with appropriate dignity on the property in a location not subject to further surface disruption.
c) In the event that other cultural resources are located on the site, the contractor shall contact a qualified archaeologist to inspect the site. If the archaeologist determines that potentially significant archaeological materials or human remains are encountered, the archaeologist must record, recover, retrieve, rebury and/or remove appropriate archaeological materials.
d) The archaeologist shall study any archaeological resources found onsite and publish data concerning these resources, and shall provide a copy of documentation of all recovered data and materials found on-site to the regional information center of the California

Archaeological Inventory (CAI) for inclusion in the permanent archives, and another copy shall accompany any recorded archaeological materials and data.

e) Monitoring for these measures must be performed by the applicant on a continual basis during site disturbance activities. At the completion of work, the applicant shall submit a summary of findings to the Planning Director for review and for the final record.

Mitigation Measure GEO-1: The Project proponent shall retain a qualified geologist, engineering geologist or equivalent to prepare a soils and geotechnical report to assess the risk of seismic ground rupture, seismic ground shaking, liquefaction, lateral spreading, differential settlement and other soil risks. The report shall include detailed construction measures to reduce seismic and soil risks to a less-than-significant level. Construction methods shall be incorporated into construction plans and specifications.

Mitigation Measure HAZ-1: Final Project plans shall include a minimum 20-foot wide band of crushed gravel or similar non-flammable ground cover around the base of the facility and any emergency generator to prevent wildland fire from sparks.

Mitigation Measure HYDRO-1: An erosion control plan shall be approved by Alameda County for any site grading, excavation and trenching activities that occur during the rainy season (generally October 15 through April 15 of any year). The plan shall include features to limit polluted runoff from the site and include use of sandbags, silt fences, silt basins and other techniques.

In addition, the plan shall include on-site areas for washout of concrete trucks so that wash water does not leave the site.

G. BIOLOGICAL REPORT

Biological Resources Assessment
Lamb Property Tower Site

EASTERN ALAMEDA COUNTY, CALIFORNIA

Prepared For:
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Date:
September 2009

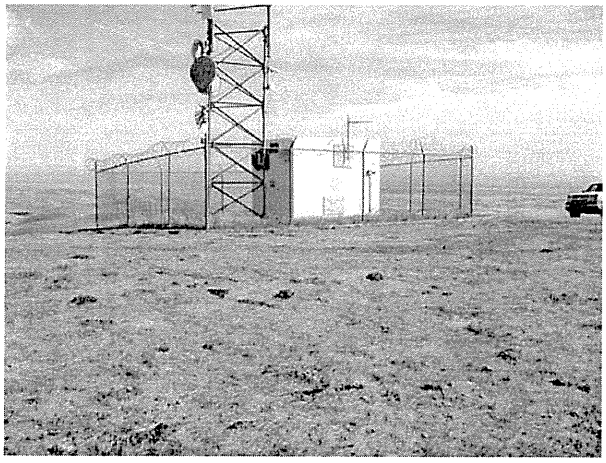

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TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

On August 28, 2009, WRA, Inc. performed an assessment of biological resources at an approximately 1,000 square foot project site (Project Area) on an approximately 150 acre parcel (APN:0099A-1820-002-00) in eastern Alameda County, California (Appendix A). This report describes the results of the site visit, which assessed the Project Area for the (1) potential to support special status species; and (2) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. If special status species were observed during the site visit, they were recorded. Specific findings on the habitat suitability or presence of special status species or sensitive habitats may require that protocol level surveys be conducted. This report also contains an evaluation of potential impacts to special status species and sensitive biological resources that may occur as a result of the proposed project and potential mitigation measures to compensate for those impacts.

A biological resources assessment provides general information on the potential presence of sensitive species and habitats. The biological resources assessment is not an official protocol level survey for listed species that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study and on site conditions that were observed on the date of the site visit.

1.1 Project Area Description

The Project Area is approximately 1,000 square feet and is located east of the City of Livermore, California (Appendix A). A gravel road currently provides access to the Project Area from Patterson Pass Road, and an active tower and out buildings are located adjacent to the project footprint. The property in which the Project Area is located is bordered to the south by Patterson Pass Road and is surrounded by grazing land. A windmill farm abuts its northeast corner. A single family residence is located in the southeast corner, PG & E power lines traverse the northwest corner and a stock pond is located in the southern portion of the property. The following sections present the results and discussion of the biological assessment within the Project Area.

1.2 Proposed Project

The project currently proposed involves the installation of a telecommunications tower, a 16 foot by 8 foot trailer and a 12 foot by 8 foot building. Total height of the tower will be 37 feet. The footprint of the entire project will be 27 feet by 34 feet. Access to the project site will be attained by a gravel road that is currently in place.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

2.1 Special Status Species

Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Game (CDFG) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFG special status invertebrates are all considered special status species. Although CDFG Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on California Native Plant Society (CNPS) Lists 1 and 2 are also considered special status plant species. Impacts to these species are considered significant according to CEQA. CNPS List 3 plants have little or no protection under CEQA, but are included in this analysis for completeness.

Critical Habitat

Critical habitat is a term defined and used in the Federal Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard." However, areas that are currently unoccupied by the species but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

2.2 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are protected under federal regulations (such as the Clean Water Act), state regulations (such as the Porter-Cologne Act, the CDFG Streambed Alteration Program, and CEQA), or local ordinances or policies (City or County Tree Ordinances, Special Habitat Management Areas, and General Plan Elements).

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. "Waters of the U.S." are defined broadly as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands stated in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated for sufficient

duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into "Waters of the U.S." (including wetlands) generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFG. CDFG ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its Natural Diversity Database. Sensitive plant communities are also identified by CDFG on their *List of California Natural Communities Recognized by the CNDDB*. Impacts to sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFG or USFWS must be considered and evaluated under CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3,

Appendix G). Specific habitats may also be identified as sensitive in City or County General Plans or ordinances.

3.0 METHODS

On August 28, 2009, the Project Area was traversed on foot to determine (1) plant communities present within the Project Area, (2) if existing conditions provided suitable habitat for any special status plant or wildlife species, and (3) if sensitive habitats are present. All plant and wildlife species encountered were recorded, and are summarized in Appendix B.

3.1 Biological Communities

Prior to the site visit, the Soil Survey of Alameda County, California [U.S. Department of Agriculture (USDA) 1977] was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Project Area. Biological communities present in the Project Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special status plant or wildlife species and are identified or described in Section 4.1.1 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Waters

The Project Area was surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFG were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status[1] of OBL, FACW, or FAC as given on the U.S. Fish and Wildlife Service List of Plant Species that Occur in Wetlands (Reed 1988). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation,

[1] OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

surface sediment deposits, algal mats and drift lines, or indirect indicators (secondary indicators), such as oxidized root channels. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual (Environmental Laboratory, 1987) and Field Indicators of Hydric Soils in the United States (NRCS, 2002).

The preliminary waters assessment was based primarily on the presence of unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high water mark or a defined drainage course. Collection of additional data will be necessary to prepare a delineation report suitable for submission to the Corps.

Other Sensitive Biological Communities

The Project Area was evaluated for the presence of other sensitive biological communities, including riparian areas and sensitive plant communities recognized by CDFG. If present in the Project Area, these sensitive biological communities were mapped and are described in the Section 4.1.2 below.

3.2 Special Status Species

3.2.1 Literature Review

Potential occurrence of special status species in the Project Area was evaluated by first determining which special status species occur in the vicinity of the Project Area through a literature and database search. Database searches for known occurrences of special status species focused on the Altamont, Midway, Byron Hot Springs, Clifton Court Forebay, Mendenhall Springs and Cedar Mountain 7.5 minute USGS quadrangles. The following sources were reviewed to determine which special status plant and wildlife species have been documented to occur in the vicinity of the Project Area:

- California Natural Diversity Database records (CNDDB) (CDFG 2009)
- USFWS quadrangle species lists (USFWS 2009)
- CNPS Electronic Inventory records (CNPS 2009)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins, R.C. 2003)

3.2.2 Site Assessment

A site visit was made to the Project Area to search for suitable habitats for species identified in the literature review as occurring in the vicinity. The potential for each special status species to occur in the Project Area was then evaluated according to the following criteria:

1) No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

2) Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

5) Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment is intended to identify the presence or absence of suitable habitat for each special status species known to occur in the vicinity in order to determine its potential to occur in the Project Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if a special status species is observed during the site visit, its presence will be recorded and discussed. Appendix C presents the evaluation of potential for occurrence of each special status plant and wildlife species known to occur in the vicinity of the Project Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above. Recommendations for further surveys are made in Section 5.0 below for species with a moderate or high potential to occur in the Project Area.

4.0 RESULTS

The following sections present the results and discussion of the biological resources assessment within the Project Area.

4.1 Biological Communities

The Project Area was examined and classified according to biological communities or habitats present. The soils within the Project Area are mapped as Los Osos silty clay loam, 45 to 75 percent slopes, eroded. Descriptions for each biological community are presented in the following sections.

4.1.1 Non-sensitive biological communities

Ruderal non-native grassland

The footprint of the Project Area is located on an old foundation from a previous tower. Portions of this foundation protrude from the soil. Grazed non-native grassland dominates the portions of the Project Area that do not have this remnant infrastructure. This community typically occurs in open areas of valleys and foothills throughout California, usually on fine textured clay or loam soils that are somewhat poorly drained (Holland 1986). Non-native grassland is typically dominated by non-native annual grasses and forbs that occur together with scattered native wildflowers. Common species found in the non-native grasslands of northern and central California include wild oats (*Avena* spp.), brome grasses (*Bromus* spp.), wild barley (*Hordeum* spp.), Italian and perennial ryegrass (*Lolium multiflorum* and *Lolium perenne*), field bindweed (*Convolvulus arvensis*), fiddleneck (*Amsinckia* spp.), and California poppy (*Eschscholzia californica*), among many other species.

4.2 Special Status Species

4.2.1 Plants

Based upon a review of the resources and databases given in Section 3.2.1, 26 special status plant species have been documented in the general vicinity of the Project Area. Appendix C summarizes the potential for occurrence of these plant species in the Project Area. Of these plant species, none have a moderate or higher potential for occurrence. For those species unlikely to occur, or those that have no potential to occur, the Project Area clearly does not contain suitable habitat.

The Project Area is within the range of several special status plant species, but within the tower Project Area itself no suitable habitat for these species is present. Historic ground disturbance and grazing activity associated with the Project Area reduces the potential for occurrence in that area. However, some special status plant species may occur in the adjacent open space area.

4.2.2 Wildlife

Fifty-two special status species of wildlife have been recorded in the vicinity of the Project Area. Appendix C summarizes the potential for occurrence of these species in the Project Area. Of these wildlife species, four species have a moderate potential for occurrence in the Project Area. For those species rated unlikely to occur, or those that have no potential to occur, the Project Area clearly does not contain suitable habitat. In addition, the entire Project Area is located within proposed Critical Habitat Unit 15 for California Red-legged Frog (*Rana draytonii*).

Special status wildlife species that are most likely (moderate potential) to occur in the Project Area are discussed below.

American Badger (*Taxidea taxus*), CDFG Species of Special Concern. Badgers occur in drier open stages of most scrub, forest, and herbaceous habitats where friable soils and prey populations are present. This species has been observed 1.4 miles to the northwest of the Project Area (CDFG 2009). There is potential for this species to occur in the Project Area because suitable grassland habitat is present, prey is abundant, and badgers have been documented to occur in the region.

San Joaquin Kit Fox (*Vulpes macrotis mutica*), Federal Endangered Species; State Threatened Species. In the northern portion of its range, San Joaquin Kit Fox typically occurs in grassland habitats supporting California Ground Squirrel (*Spermophilus beecheyi*) populations. Ground squirrels are important as both a prey item and a source of den habitat. The Project Area is within the known range of the kit fox and provides suitable foraging, denning, and dispersal habitat. This species has been documented 1.3 miles east of the Project Area (CDFG 2009).

Western Burrowing Owl (*Athene cunicularia hypugea*), CDFG Species of Special Concern. Western Burrowing Owl typically favor flat, open grassland or gentle slopes and sparse shrub land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. In California, Western Burrowing Owl is found in close association with California Ground Squirrel. Western Burrowing Owl exhibits high site fidelity and usually use the abandoned burrows of ground squirrels for shelter and nesting. This species has been documented one mile east of the Project Area (CDFG 2009). There is potential for occurrence for this species in the Project Area due to the abundance of burrow habitat in the adjacent areas and nearby occurrences.

San Joaquin Whipsnake (=Coachwhip) (*Masticophis flagellum ruddocki*), CDFG Species of Special Concern. San Joaquin Coachwhip occur in open, dry, vegetative associations with little

or no tree cover. It probably requires one or more mammal associates because it uses burrows for refuge and probably for oviposition sites, and may sometimes be dependent on mammals for food (CDFG 1994). Suitable foraging and refuge habitat is located within and adjacent to the Project Area. The nearest occurrence is 3.7 miles to the southwest of the property boundary (CDFG 2009).

All of the wildlife species observed in the Project Area during the site assessment were common species or abundant in the region. Two special status wildlife species were observed within the adjacent property: California Red-legged Frog and Loggerhead Shrike (*Lanius ludovicianus*).

5.0 SUMMARY AND RECOMMENDATIONS

No sensitive communities were identified within the Project Area. No special status plant species and four special status wildlife species have a moderate potential to occur within the Project Area. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats.

5.1 Special Status Plant Species

No special status plant species have a high or moderate potential to occur within the Project Area. Proposed project activities will have no effect on federally endangered plant species.

5.2 Special Status Wildlife Species

Of the 52 special status wildlife species known to occur within the vicinity of the Project Area, four have a moderate potential to occur within the Project Area. Most of the remaining species found in the review of background literature occur in habitats not found within or in the vicinity of the Project Area.

American Badger and San Joaquin Kit Fox

A number of California Ground Squirrel burrows were observed in and near the Project Area. Both the badger and kit fox are often associated with grassland habitat that contain ground squirrel colonies. The ground squirrel offers these species a prey base as well as potential den habitat. No potentially occupied burrows were observed within the Project Area, however, suitable habitat is available and these highly vagile species have potential to den in or near the Project Area. It is recommended that a pre-construction den survey be performed in and near the Project Area prior to ground disturbance to ensure that neither of these species have an occupied den site in the vicinity. If kit fox or kit fox sign are found within 200 feet of the Project Area, consultation with the Service will be required to determine appropriate avoidance and minimization measures. Observation of badger or badger sign will require consultation with CDFG.

Breeding Birds

A number of common ground nesting avian species may use the Project Area for breeding and foraging. Most non special status songbirds and raptors are protected under the Migratory Bird Treaty Act (MBTA). Additionally, the MBTA prevents the destruction or disturbance of the nest of most songbirds and raptors. Impacts to these nests are also considered significant under the California Environmental Quality Act (CEQA). Special status avian species are often afforded more protection under state and federal law than common species are under the MBTA. To avoid significant impacts to special status avian species or MBTA species, WRA recommends the following procedures:

Vegetation removal, ground disturbance, and other potential disturbances to potentially occupied nesting habitats should be conducted during the non-breeding season from September 1 to January 31. Pre-construction breeding bird surveys would not be required during this period. During the breeding season from February 1 to August 31, pre-construction breeding bird surveys should be conducted by a qualified biologist no more than 14 days prior to vegetation removal, ground disturbance, and/or other disturbances to potentially occupied nesting habitats. Surveys should be conducted in all suitable nesting habitat within 250 feet of potentially impacted areas. All active non-status passerine nests identified at that time should be protected by a 50-foot radius minimum exclusion zone, but the buffer size may be dependent upon the species. Each exclusion zone would remain in place until the fledging of all young. Survey results are valid for 14 days from the survey date. Should ground disturbance continue, or start beyond 14 days from the survey date, surveys should be repeated.

Western Burrowing Owl

Ground disturbance associated with grading could result in disturbance to nesting or roosting Western Burrowing Owl. To reduce this impact, it is recommended that pre-construction surveys be conducted within 14 days of grading within 500 feet of the Project Area. If active burrows are observed, a mitigation and monitoring plan, which would recommend passive owl relocation during the non-breeding season, should be prepared and approved by CDFG. Owls cannot be relocated during the breeding season, which typically extends from February into mid-July. These surveys may be conducted concurrently with badger and kit fox surveys.

Herpetofauna

San Joaquin Coachwhip has nearby occurrences and suitable burrow habitat is available within the Project Area. This species may use burrow habitat as winter refugia and as an egg laying site. If proposed construction activities will impact burrow habitat within the Project Area, it is recommended that a biological monitor be present during the initial ground disturbance in order to investigate burrow excavation and salvage snakes that may be unearthed. Once all burrow habitat is removed or ground disturbance activities have ceased, a monitor would not be required.

California Tiger Salamander has been documented on the property (CDFG 2009), and California Red-legged Frog (CRLF) was observed in the stock pond during the site visit. The Project Area is approximately 1,300 feet from the stock pond on the property. Adult California Tiger Salamanders have been observed up to 2,092 m (1.3 mi) from breeding ponds (S. Sweet, University of California, Santa Barbara, in litt. 1998). The Project Area is within the dispersal capabilities of this species, however, CTS variation in distances between breeding and refuge sites is poorly studied (Jennings and Hayes 1994). Loredo et al. (1996) found that tiger salamanders may use burrows that are first encountered during movements from breeding to upland sites. In their study area, where the

density of California Ground Squirrel burrows was high, the average migration distances between breeding and refuge sites for adults and juveniles was 118 feet (35.9 m) and 85 feet (26.0 m), respectively. Therefore, although salamanders may migrate up to one mile, migration distances are likely to be less in areas supporting refugia closer to breeding sites (Jones and Stokes, 2006). The density of burrows is much higher in the immediate vicinity of the stock pond than within the Project Area. There are hundreds of burrows surrounding the stock pond and only a few in and near the Project Area. Therefore, no significant impacts are expected to CTS refuge habitat within the Project Area. Additionally, the monitor that is recommended above to avoid potential impacts to San Joaquin Coachwhip may also be utilized to salvage CTS in the unlikely event that they become unearthed during construction activities.

Though CTS and CRLF are unlikely to occur in the Project Area, potential exists for the injuring, killing or harassment of CRLF and CTS by ground disturbance, vehicular traffic and/or other activities during frog and salamander dispersal periods. To avoid these potential impacts, ground disturbance should occur during the day and during the dry season (roughly from June 1 to October 31), when CTS and CRLF dispersal is less likely. If ground disturbance is to occur during the rainy season (roughly from November 1 to May 31), construction activities should be halted following major rain events until a qualified biologist further assesses the condition of the area with regard to the presence of and suitability for CRLF and CTS. This inspection may result in the recommendation of additional pre-construction checks following subsequent rain events. The Project Area is also located within proposed Critical Habitat Unit 15 for CRLF. If the above recommendations are followed, it is unlikely that the proposed project will impact these species or CRLF Critical Habitat.

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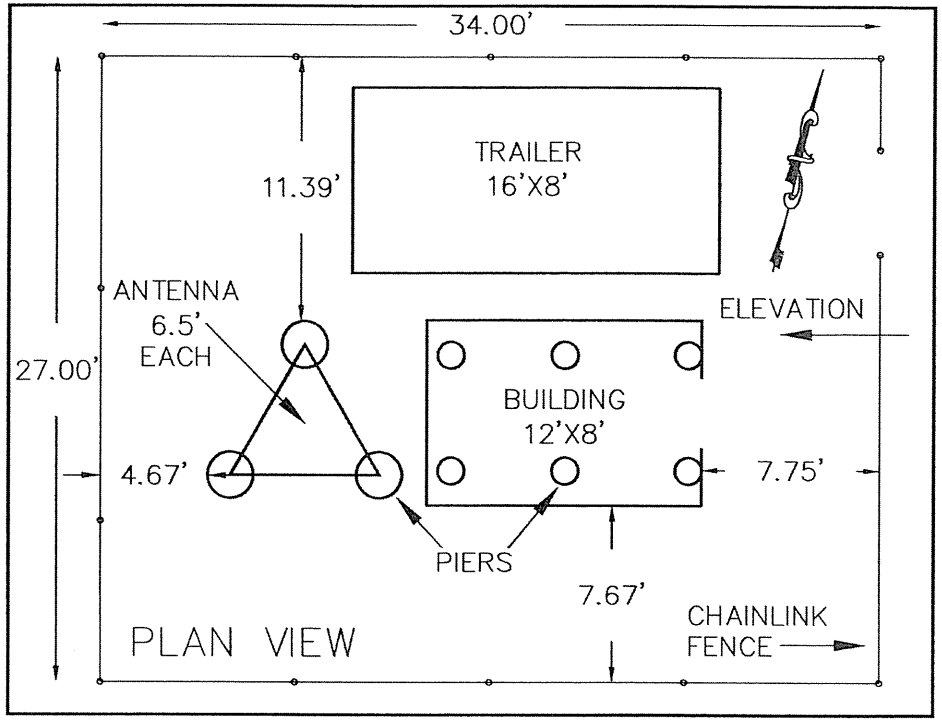
APPENDIX A

DRAFT PROJECT PLAN



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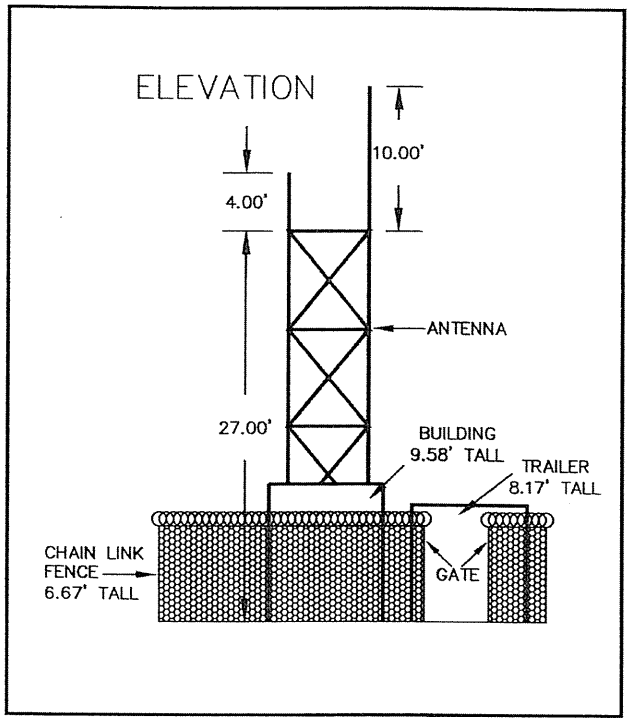

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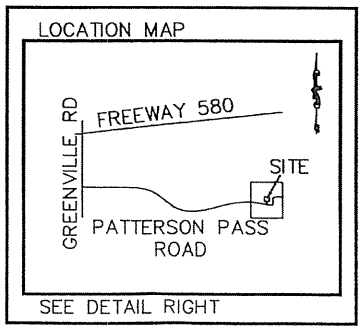

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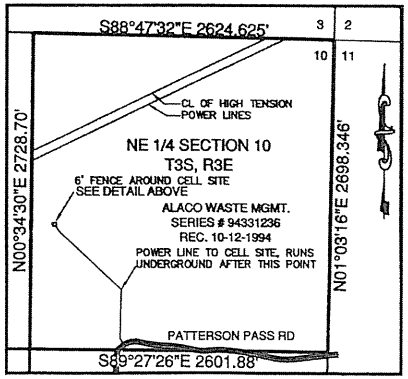


SCALE: 1" = 1000'

SURVEYOR'S STATEMENT

THIS PLAT CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND I HAVE CONFORMED WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT, SECTION 8700 ET SEQ., BUSINESS AND PROFESSIONS CODE.

LICENSED LAND SURVEYOR
JON M. LAMB
No. LS5678
Exp.09/30/2009
STATE OF CALIFORNIA

JON M. LAMB P.L.S. 5678
EXPIRES: 9-30-2009

DRAWING FOR ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

MURRAY TOWNSHIP ALAMEDA COUNTY CALIFORNIA
A PORTION OF SEC 10, T3S, R3E, M.D.M

A SITE PLAN SHOWING EXISTING IMPROVEMENTS OF A TOWER SITE FOR A CONDITIONAL USE PERMIT APPLICATION

LAMB SURVEYING INC. PLEASANTON, CA
JUNE 2009 SHEET 1 OF 1

APPENDIX B

LIST OF OBSERVED PLANT AND ANIMAL SPECIES

Appendix B. Species Observed During Site Visit.		
Wildlife Species		
Common Name	Scientific Name	Location
California Ground Squirrel	*Spermophilus beecheyi*	on property
Coyote	*Canis latrans*	adjacent lands
Loggerhead Shrike	*Lanius ludovicianus*	on property
American Kestrel	*Falco sparverius*	over Project Area
Western Meadowlark	*Sturnella neglecta*	on property
Killdeer	*Charadrius vociferus*	on property
Cliff Swallow	*Petrochelidon pyrrhonota*	over Project Area
Red-winged Blackbird	*Agelaius phoeniceus*	on property
Common Raven	*Corvus corax*	on property
Western Fence Lizard	*Sceloporus occidentalis*	grassland near Project Area
California Red-legged Frog	*Rana draytonii*	stock pond on property
Plant Species		
turkey mullein	*Croton setigerus*	on property
wild oat	*Avena sp.*	in Project Area
gumplant	*Grindelia camporum*	on property
fennel	*Foeniculum vulgare*	on property
soap plant	*Chlorogalum pomeridianum*	in Project Area
cottonwood	*Populus sp.*	on property
star thistle	*Centaurea solstitialis*	in Project Area
willow sp.	*Salix sp.*	on property
bird's-foot trefoil	*Lotus corniculatus*	on property
annual rabbitsfoot grass	*Polypogon monspeliensis*	in Project Area
tall annual willowherb	*Epilobium brachycarpum*	on property
Naked-stem buckwheat	*Eriogonum nudum*	on property
shortpod mustard	*Hirschfeldia incana*	on property
coyote bush	*Baccharis pilularis*	on property

APPENDIX C

POTENTIAL FOR SPECIAL STATUS PLANT AND WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Appendix A. Special status plant and animal species that may occur, or are known to occur in habitats similar to those found on the Project Area. List compiled from the CNDDB Altamont, Midway, Byron Hot Springs, Clifton Court Forebay, Mendenhall Springs and Cedar Mountain 7.5 minute USGS quadrangles(August, 2009), USFWS Official Species Lists (Alameda County), California Native Plant Society Electronic Inventory and other CDFG lists and publications (Jennings and Hayes 1994; Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Mammals			
Townsend's Big-eared Bat *Corynorhinus townsendii*	SSC	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Very sensitive to human disturbance.	**Not Present.** Suitable roost habitat is not present.
Western Small-footed Myotis *Myotis ciliolabrum*	WBWG: Medium Priority	Commonly found in arid uplands of California. Feeds on a variety of small flying insects. Seeks cover in caves, buildings, mines, crevices, and occasionally under bridges.	**Not Present.** Suitable roost habitat is not present.
Fringed Myotis *Myotis thysanodes*	WBWG: High Priority	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	**Not Present.** Suitable roost habitat is not present.
Long-legged Myotis *Myotis volans*	WBWG: High Priority	Generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	**Not Present.** Suitable roost habitat is not present.
Western Mastiff Bat *Eumops perotis californicus*	SSC	Found in a wide variety of habitat. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	**Not Present.** Suitable roost habitat is not present.
Pallid Bat *Antrozous pallidus*	SSC	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Not Present.** Suitable roost habitat is not present.; may occasionally forage over Project Area.
San Francisco Dusky-footed Woodrat *Neotoma fuscipes annectens*	SSC	Occurs in forest habitats of moderate canopy and moderate to dense understory. Also found in chaparral habitats. Feeds mainly on woody plants: live oak, maple, coffeeberry, alder, and elderberry	**Not Present.** Typical scrub and oak habitat is not present in the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
American Badger *Taxidea taxus*	SSC	Found in many habitat types where burrowing mammals occur; most common in grassland communities.	**Moderate Potential.** The nearest occurrence is 1.3 miles to the northwest of the property boundary(CDFG 2009).
San Joaquin Kit Fox *Vulpes macrotis mutica*	FE, ST	Found in annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing and suitable prey base.	**Moderate Potential.** The nearest occurrence is 1.3 miles to the east of property boundary (CDFG 2009).
Birds			
White-tailed Kite *Elanus leucurus*	CFP	Year-long resident of coastal and valley lowlands; rarely found away from agricultural areas. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**Unlikely.** Suitable foraging habitat exists in the Project Area but nesting habitat is unavailable.
Bald Eagle *Haliaeetus leucocephalus*	SE, CFP	Requires large bodies of water, or free-flowing rivers with abundant fish adjacent snags or other perches. Nests in large, old-growth, or dominant live tree with open branchwork.	**Not Present.** Suitable prey and roost habitat is not found in the Project Area.
Northern Harrier *Circus cyaneus*	SSC	Found in open grasslands, prairies, and marshes. Tend to nest near water.	**Unlikely.** Suitable foraging habitat exists in the Project Area but nesting habitat is poor.
Ferruginous Hawk *Buteo regalis*	SSC	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats.	**Unlikely.** May forage in the Project Area in winter.
Swainson's Hawk *Buteo swainsoni*	ST	Breeds in stands with few trees in juniper-sage flats, riparian areas and oak savannah. Requires adjacent suitable foraging areas such as grasslands or grain fields supporting rodent populations.	**Unlikely.** May occur during migration.
Golden Eagle *Aquila chrysaetos*	SSC, CFP	Found in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons	**Unlikely.** May forage in the Project Area; nesting habitat not available.
American Peregrine falcon *Falco peregrinus anatum*	SE, CFP	Winters throughout Central Valley. Requires protected cliffs and ledges for cover. Feeds on a variety of birds, and some mammals, insects, and fish.	**Unlikely.** May occur during migration; no suitable nesting habitat.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Prairie Falcon *Falco mexicanus*	SSC	Found in arid and semi-arid plains, this is a falcon of open country which nests on rock cliffs in river gorges and occasionally in timbered mountains. Nests are often scraped on ledges although old stick nests of ravens or others raptors will be used.	**Unlikely.** May forage in the Project Area, but suitable nesting habitat is not present.
California Black Rail *Laterallus jamaicensis coturniculus*	ST, CFP	Rarely seen resident of saline, brackish, and fresh emergent wetlands in the San Francisco Bay area. Nest in dense stands of pickleweed	**Not Present.** No suitable habitat is present.
Western Snowy Plover *Charadrius alexandrinus nivosus*	FT, SSC	Found on sandy beaches, salt pond levees and shores of large alkali lakes. Need sandy gravelly or friable soils for nesting.	**Not Present.** No suitable habitat is present.
Mountain Plover *Charadruis montanus*	SSC	Winter resident in short grasslands and plowed fields below 1000m.	**Unlikely.** May rarely forage in the Project Area in winter.
Long-billed Curlew *Numenius americanus*	BCC	Winters in large coastal estuaries, upland herbaceous areas, and croplands. Breeds in northeastern California in wet meadow habitat.	**Unlikely.** May forage in the Project Area in winter.
Western Burrowing Owl *Athene cunicularia hypugea*	SSC	Frequents open grasslands and shrublands with perches and burrows. Preys upon insects, small mammals, reptiles, birds, and carrion. Nests and roosts in old burrows of small mammals.	**Moderate Potential.** Suitable foraging and nesting habitat is present.
Long-eared Owl *Asio otus*	SSC	Inhabit open woodlands, forest edges, riparian strips along rivers, hedgerows, juniper thickets, woodlots, and wooded ravines and gullies. Breeding habitat must include thickly wooded areas for nesting and roosting with nearby open spaces for hunting.	**Not Present.** Woodland habitat is not present.
Short-eared Owl *Asio flammeus*	SSC	Found in open, treeless areas with elevated sites for perches and dense vegetation for roosting and nesting. Tule patches/tall grass needed for nesting and daytime seclusion.	**Unlikely.** May occur in winter. Typical tall grass roost habitat not present due to grazing.
Vaux's Swift *Chaetura vauxi*	SSC	Forages high in the air over most terrain and habitats but prefers rivers/lakes. Requires large hollow trees for nesting.	**Not Present**. Suitable nesting habitat not present. May occasionally forage over Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Rufous Hummingbird *Selasphorus rufus*	BCC	Found in a wide variety of habitats that provide nectar-producing flowers. A common migrant and uncommon summer resident of California.	**Unlikely.** May migrate through Project Area in spring; nectar sources poor.
Lewis's Woodpecker *Melanerpes lewis*	BCC	Uncommon winter resident occurring on open oak savannahs, broken deciduous and coniferous habitats.	**Not Present.** Typical woodland habitat not present.
Olive-sided Flycatcher *Contopus cooperi*	SSC	Most often found in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain	**Not Present.** Woodland and forest habitat not present.
Little Willow Flycatcher *Empidonax traillii brewsteri*	SE	Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters. Winter migrant.	**Not Present.** Willow habitat is not present in the Project Area; does not nest in San Francisco Bay region.
Purple Martin *Progne subis*	SSC	Aerial insectivores that nest in open and semiopen areas, including savannas, cultivated lands, fields, parks, pastures, near lakes and marshes and in towns and suburbs.	**Unlikely.** Typical woodland habitat not present.
Bank Swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Nests in riparian areas with vertical cliffs and bands with fine-textured or sandy soils in which to nest.	**Not Present.** Suitable nesting substrate not present.
Loggerhead Shrike *Lanius ludovicianus*	SSC	Prefers open habitats with scattered shrubs, trees, pots, utility lines from which to forage for large insects. Nest well concealed above ground in densely-foliaged shrub or tree.	**Unlikely.** Suitable foraging habitat is present in the Project Area but nesting habitat is unavailable.
Yellow Warbler *Dendroica petechia brewsteri*	SSC	Nests in riparian stands of willows, cottonwoods, aspens, sycamores, and alders. Also nests in montane shrubbery in open conifer forests.	**Unlikely.** May occur as a rare fall migrant.
Saltmarsh Common Yellowthroat *Geothlypis trichas sinuosa*	SSC	Frequents low, dense vegetation near water including fresh to saline emergent wetlands. Brushy habitats used in migration. Forages among wetland herbs and shrubs for insects primarily.	**Not Present.** Emergent wetland and riparian habitats are not present in the Project Area.
Bell's Sage Sparrow *Amphispiza belli*	SSC	Prefers dense chaparral and scrub habitats in breeding season. Found in more open habitats in winter.	**Not Present**. Chaparral habitat not present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Tricolored Blackbird *Agelaius tricolor*	SSC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs.	**Unlikely.** No emergent wetland habitat is present; may forage on site in winter.
Lawrence's Goldfinch *Carduelis lawrencei*	BCC	Inhabits oak woodlands, chaparral, riparian woodlands, pinyon-juniper associations, and weedy areas near water during the breeding season.; highly erratic and localized in occurrence	**Unlikely.** Minimal nesting and foraging habitat available.
Reptiles and Amphibians			
Western Pond Turtle *Clemmys marmorata*	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter.	**Unlikely.** No suitable aquatic habitat in Project Area.
California Horned Lizard *Phrynosoma coronatum frontale*	SSC	Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress juniper and annual grass habitats. Prefers sand areas, washes, flood plains and wind-blown deposits.	**Unlikely.** Typical habitat does not exist in Project Area.
Silvery Legless Lizard *Anniella pulchra pulchra*	SSC	Found in sandy or loose loamy soils under sparse vegetation. Soil moisture is essential.	**Unlikely.** Typical habitat does not exist in Project Area.
San Joaquin Whipsnake *Masticophis flagellum ruddocki*	SSC	Found in open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and egg-laying.	**Moderate Potential.** Nearest occurrence is 3.6 miles west of the property boundary (CDFG 2009). Suitable foraging and refuge habitat is available in the Project Area.
Alameda Whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Prefers a chaparral habitat with rock outcroppings and small mammal burrows for basking and refuge. Can occur n adjacent communities, including grassland and oak savanna. Found in the east bay hills.	**Unlikely.** Typical habitat not present in the Project Area.
Giant Garter Snake *Thamnophis gigas*	FT, ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage channels and irrigation ditches.	**Not Present**. Project Area is west of known range.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
California Tiger Salamander *Ambystoma californiense*	ST, SSC	Inhabits annual grass habitat and mammal burrows. Seasonal ponds and vernal pools crucial to breeding	**Unlikely.** Larval stage of this species has been observed in the aquatic habitat on the property (CDFG 2009) but upland habitat is disturbed and 1,300 feet from pond.
Western Spadefoot *Scaphiopus hammondii*	SSC	Occurs primarily in grasslands but occasionally populates valley-foothill hardwood woodlands. Feed on insects, worms, and other invertebrates.	**Unlikely.** Disturbed nature of site likely precludes presence.
California Red-legged Frog *Rana draytonii*	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	**Unlikely.** No suitable aquatic habitat in Project Area. This species was observed in the stock pond on the property during the site visit but work windows would avoid potential impacts.
Foothill Yellow-legged Frog *Rana boylii*	SSC	Found in or near rocky streams in a variety of habitats. Feed on both aquatic and terrestrial invertebrates.	**Not Present.** Suitable stream habitat not present.
Invertebrates			
Conservancy fairy shrimp *Branchinecta conservatio*	FE	Inhabit highly turbid water in vernal pools. Known from six populations.	**Not Present.** Natural vernal pool habitat not apparent.
longhorn fairy shrimp *Branchinecta longiantenna*	FE	Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay-grass-bottomed pools in shallow swales.	**Not Present**. Natural vernal pool habitat not apparent
vernal pool fairy shrimp *Branchinecta lynchi*	FT	Inhabit small, clear-water sandstone-depression pools, grassy swales, slumps, or basalt-flow depression pools.	**Not Present.** Natural vernal pool habitat not apparent
vernal pool tadpole shrimp *Lepidurus packardi*	FE	Pools commonly found in grass bottomed swales of unplowed grasslands. Som pools are mud-bottomed and highly turbid.	**Not Present**. Natural vernal pool habitat not apparent
Bay checkerpsot butterfly *Euphydryas editha bayensis*	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. Plantago erecta is the primary host plant.	**Not Present.** Serpentine soils and food plants are not present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Plants			
large-flowered fiddleneck *Amsinckia grandiflora*	FE, SE List 1B	April-May. Cismontane woodland, valley and foothill grassland. Annual Grassland in various soils. Known from only three natural occurrences. 275-550 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
bent-flowered fiddleneck *Amsinckia lunaris*	FE, SE, List 1B, FSC	March-June. Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3-500 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
Mt. Diablo manzanita *Arctostaphylos auriculata*	List 1B	January-March. Chaparral in sandstone soils.135-650 m.	**Not Present**. Manzanita shrubs are not present in the Project Area.
Contra Costa manzanita *Arctostaphylos manzanita* ssp. *laevigata*	List 1B	January-February. Chaparral in rocky soils. 500-1100 m.	**Not Present**. Manzanita shrubs are not present in the Project Area
alkali milk-vetch *Astragalus tener* var. *tener*	List 1B	March-June. Alkali playa, valley and foothill grasslands, vernal pools and wetlands. 1-60 m.	**Unlikely.** Project Area is above upper limit of elevation range.
heartscale *Atriplex cordulata*	FSC, List 1B	April-October. Valley and foothills grasslands, chenopod scrub, meadow and seep; typical in sandy soils, alkali flats and scalds. 1-375 m.	**Unlikely.** Project Area is above upper limit of elevation range.
brittlescale *Atriplex depressa*	FSC, List 1B	May-October. Vernal pools, wetlands, playas, grasslands, meadow and seep, and chenopod scrub; typical in alkali scalds or alkali clay. 1-320 m.	**Unlikely.** Project Area is above upper limit of elevation range.
San Joaquin spearscale *Atriplex joaquiniana*	FSC, List 1B	April-October. Typical in seasonal alkali wetlands; also wet meadows, chenopod scrub, valley and foothill grasslands. 1-320 m.	**Unlikely.** Project Area is above upper limit of elevation range.
big-scale balsamroot *Balsamorhiza macrolepis var. macrolepis*	FSC, List 1B	March-June. Valley and foothill grasslands, cismontane woodland, sometimes on serpentine soils. 90-1400 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
big tarplant *Blepharizonia plumosa* ssp. *plumosa*	FSC, List 1B	July-October. Valley and foothill grassland. Dry hills and plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 15-455 m.	**Unlikely.** Disturbed nature of site likely precludes presence.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Mt. Diablo fairy-lantern *Calochortus pulchellus*	FSC, List 1B	April-June. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 30-840 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
chaparral harebell *Campanula exigua*	FSC, List 1B	May-June. Chaparral in rocky (sometimes serpentinite) soils. 275-1250 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	FSC, List 1B	June-November. Valley and foothill grasslands; alkaline soils. 1-230 m.	**Unlikely.** Project Area is above upper limit of elevation range.
Hispid bird's-beak *Cordylanthus mollis* ssp. *hispidus*	FSC, List 1B	June-September. Meadows, playas, valley and foothill grasslands, meadow and seep, and wetlands; damp alkaline soils. 1-155 m.	**Unlikely.** Project Area is above upper limit of elevation range.
palmate-bracted bird's-beak *Cordylanthus palmatus*	FE, SE, List 1B	May-October. Chenopod scrub, valley and foothill grassland, meadow and seep, and wetlands. Usually on Pescadero silty-clay. 5-155 m	**Unlikely.** Project Area is above upper limit of elevation range.
Livermore tarplant *Deinandra bacigalupii*	FSC, List 1B	June-October. Alkaline meadows and seeps. 150-185 m.	**Unlikely.** Project Area is above upper limit of elevation range.
recurved larkspur *Delphinium recurvatum*	FSC, List 1B	March-May. Chenopod scrub, cismontane woodland, valley and foothill grassland, alkaline soils. 3-750 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
western leatherwood *Dirca occidentalis*	FSC, List 1B	January-April. Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, and mesic riparian woodland. 50-395 m.	**Not Present**. Suitable habitat not present in Project Area.
Ben Lomond buckwheat *Eriogonum nudum* var. *decurrens*	FSC, List 1B	June-October. Chaparral, cismontane woodland, lower montane coniferous forest in sandy soils. 50-800 m.	**Not Present**. Suitable habitat not present in Project Area.
Mt. Diablo buckwheat *Eriogonum truncatum*	FSC, List 1B	April-November. Chaparral, coastal scrub, and valley and foothill grassland on dry, exposed clay or sandy substrates. 105-600 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
round-leaved filaree *Erodium macrophyllum*	List 2	March-May. Cismontane woodland, valley and foothill grassland / clay. 15-1200 m.	**Unlikely.** Disturbed nature of site likely precludes presence.

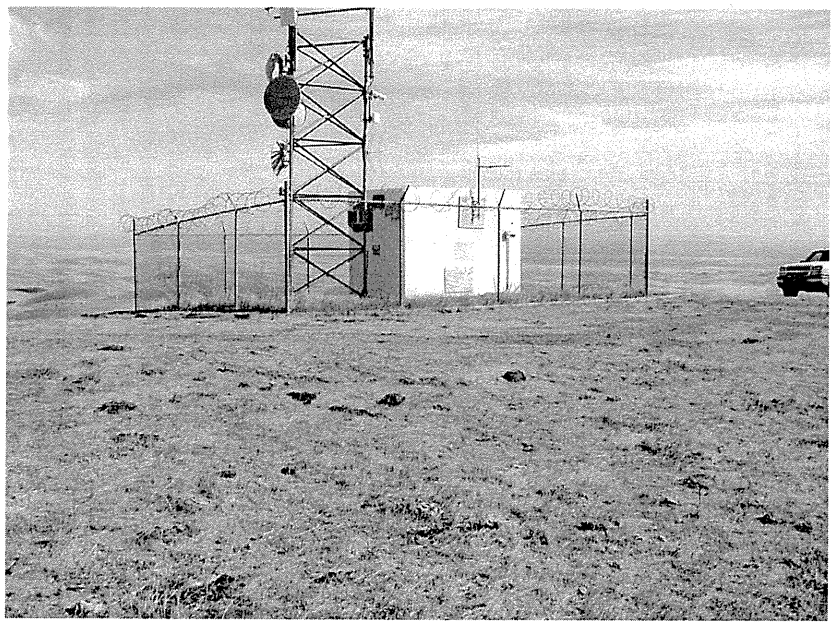
SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
diamond-petaled California poppy *Eschscholzia rhombipetala*	List 1B	March-April. Valley and foothill grasslands; on alkaline, clay slopes and flats. 0-975 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
Diablo helianthella *Helianthella castanea*	FSC, List 1B	April-June. Broadleaved upland forest, chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 60-1300 m.	**Unlikely**. Shrub and woodland communities are not present in the Project Area.
Brewer's western flax *Hesperolinon breweri*	FSC, List 1B	May-July. Chaparral, cismontane woodland, valley and foothill grassland. Usually found on serpentine soils. 30-900 m.	**Unlikely**. Serpentine soils are not present in Project Area.
Contra Costa goldfields *Lasthenia conjugens*	FE, List 1B	March-June. Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools / mesic. 0-470 m.	**Unlikely**. Typical undisturbed seasonal wetland habitat does not appear to be present in Project Area.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	FSC, List 1B	May-September. Freshwater and brackish marshes and swamps. 0-4 m.	**Not Present**. Typical habitat is not present in Project Area.
Hall's bush mallow *Malacothamnus hallii*	FSC, List 1B	May-September. Chaparral, coastal scrub. 10-760 m.	**Not Present**. Typical habitat is not present in Project Area.
San Antonio Hills monardella *Monardella antonina* ssp. *antonina*	List 3	June-August. Chaparral, cismontane woodland. 500-1000 m.	**Not Present**. Typical habitat is not present in Project Area.
robust monardella *Monardella villosa* ssp. *globosa*	FSC, List 1B	June-July. Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 100-915 m.	**Unlikely.** Disturbed nature of site likely precludes presence.
Mt. Diablo phacelia *Phacelia phacelioides*	FSC, List 1B	April-May. Chaparral, cismontane woodland in rocky soils. 500-1370 m.	**Not Present**. Typical habitat is not present in Project Area.
hairless popcorn-flower *Plagiobothrys glaber*	FSC, List 1A	March-May. Alkaline meadows and seeps, marshes and swamps, vernal pools and coastal salt marshes. 15-180 m.	**Unlikely.** Project Area is above upper limit of elevation range.
rock sanicle *Sanicula saxatilis*	FSC, List 1B	April-May. Broadleaved upland forest, chaparral, valley and foothill grassland in rocky soils. 620-1175 m.	**Not Present**. Typical habitat is not present in Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	FSC, List 1B	April-June. Chaparral, cismontane woodland, valley and foothill grassland in serpentine soils. 120-1000 m.	**Unlikely**. Serpentine soils are not present in Project Area.
Mt. Diablo jewel-flower *Streptanthus hispidus*	FSC, List 1B	March-June. Chaparral, valley and foothill grassland in rocky soils. 365-1200 m.	**Not Present**. Typical habitat is not present in Project Area.
saline clover *Trifolium depauperatum* var. *hydrophilum*	FSC, List 1B	April-June. Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. 0-300 m.	**Unlikely.** Project Area is above upper limit of elevation range.
caper-fruited tropidocarpum *Tropidocarpum capparideum*	List 1B	March-April. Valley and foothill grassland. Alkaline hills. 1-455 m.	**Unlikely.** Project Area is at upper limit of elevation range.
oval-leaved viburnum *Viburnum ellipticum*	List 2	May-June. Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400 m.	**Not Present**. Typical habitat is not present in Project Area.

*Key to status codes:
Status codes used above are:
BCC - USFWS Bird of Conservation Concern
FE - Federal Endangered
FT - Federal Threatened
FPT - Federal Proposed Listing as Threatened
FC - Federal Candidate
FPD - Federal Proposed Delisted
FSC - United States Fish and Wildlife Service Federal Species of Concern
SE - State Endangered
ST - State Threatened
CFP - CDFG Fully Protected Animal
SSC - CDFG Species of Special Concern
WBWG - Western Bat Working Group Priority Species
None - No status given but rookery sites are monitored by CDFG
List 1A - CNPS 1A List, Presumed extinct in California
List 1B - CNPS 1B List, Endangered, Threatened, or Rare in California

APPENDIX D

REPRESENTATIVE PROJECT AREA PHOTOGRAPHS



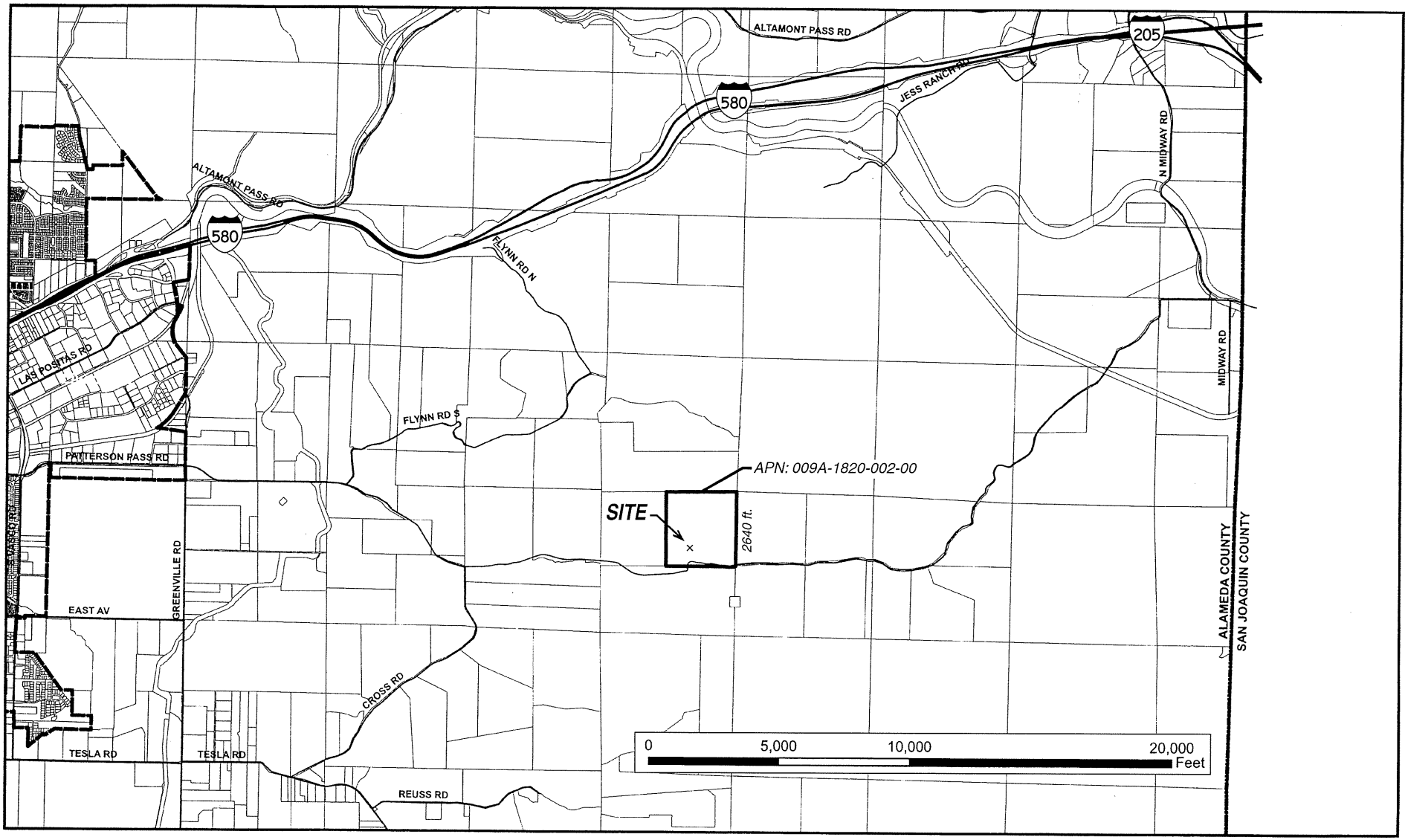
Top: The proposed location of the tower site is in the foreground of this photo, adjacent to an existing facility.

Bottom: Stock pond on the property where California Tiger Salamander and California Red-legged Frog have been observed.

Photographs taken: August 28, 2009

wra
ENVIRONMENTAL CONSULTANTS

H. EXHIBITS



SOURCE: Alameda County Planning Department.

COUNTY OF ALAMEDA
PATTERSON PASS REPEATER FACILITY
INITIAL STUDY

Exhibit 1
SITE LOCATION

KPA ENGINEERS ARCHITECTS
THE KPA GROUP
ONE KAISER PLAZA SUITE 445
OAKLAND CALIFORNIA 94612
TEL 510.271.6701 FAX 510.271.6707

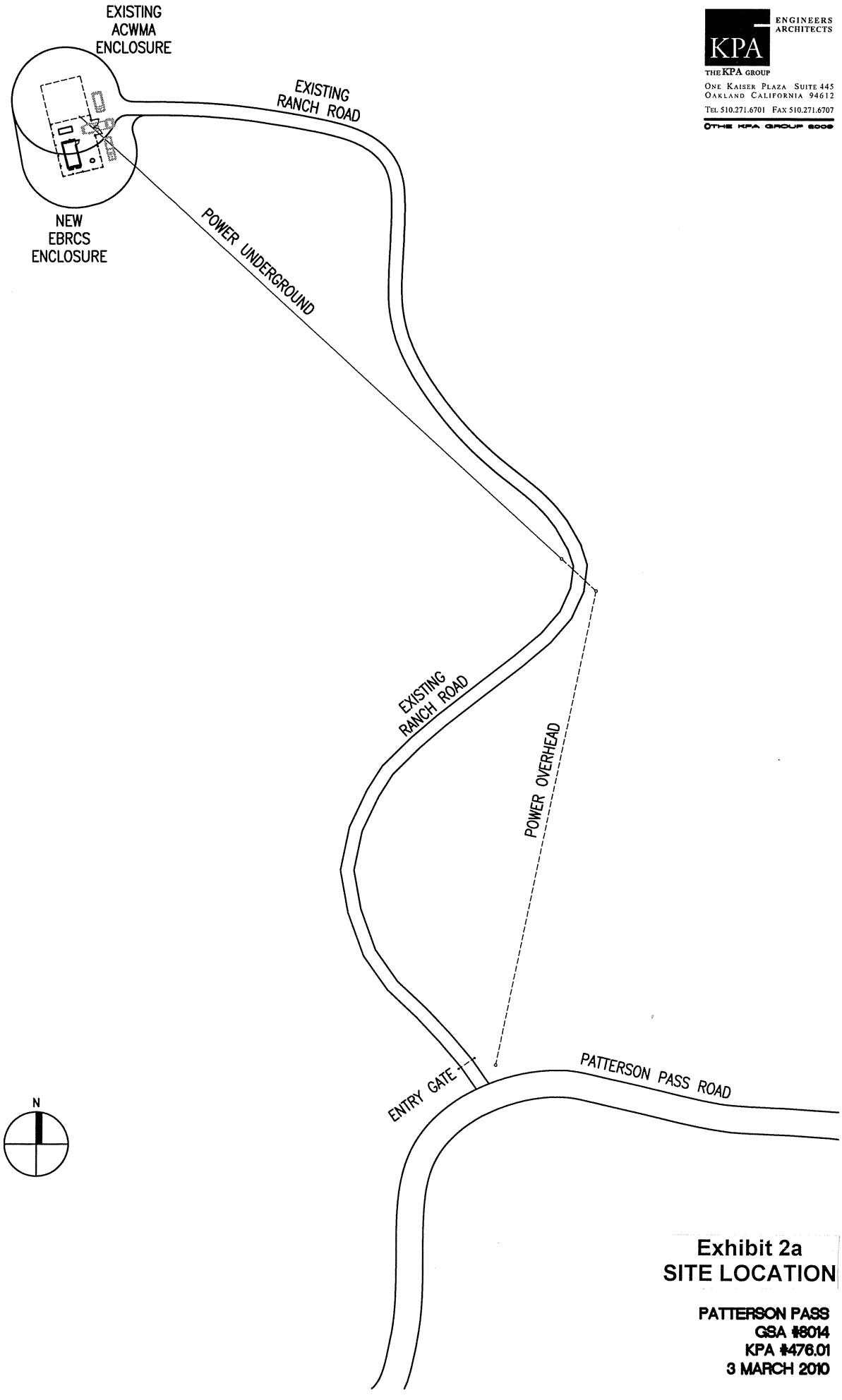
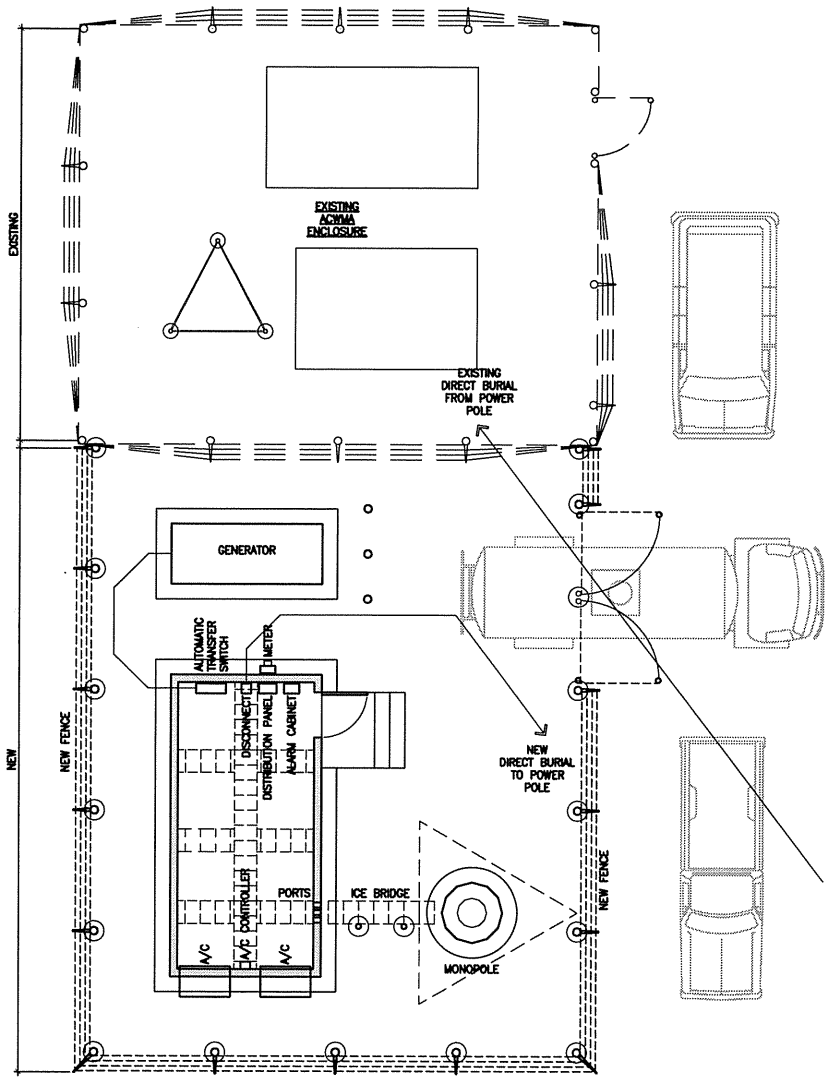


Exhibit 2a
SITE LOCATION

PATTERSON PASS
GSA #8014
KPA #476.01
3 MARCH 2010

KPA ENGINEERS ARCHITECTS
THE KPA GROUP
ONE KAISER PLAZA SUITE 445
OAKLAND CALIFORNIA 94612
TEL. 510.271.6701 FAX 510.271.6707



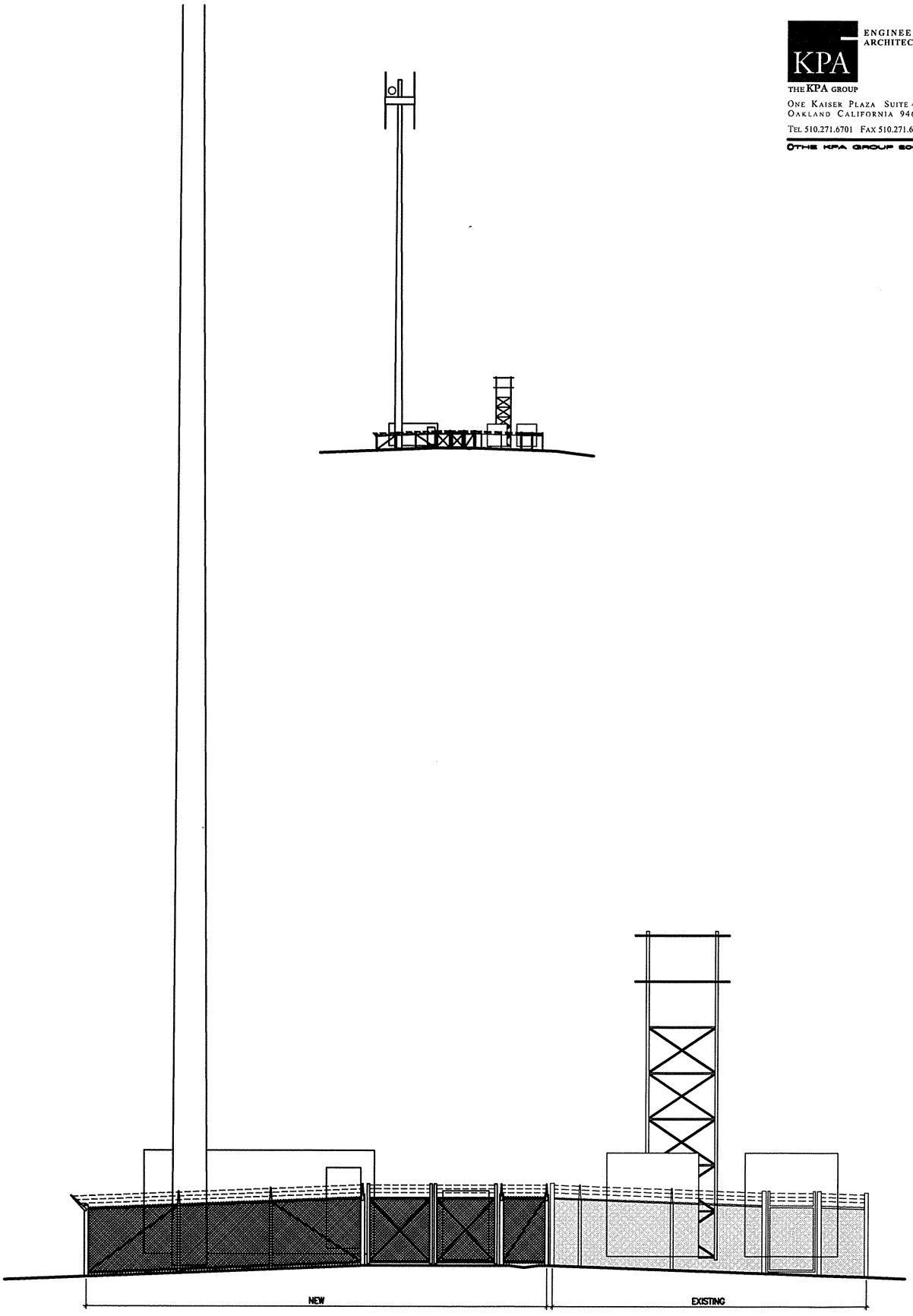
PRELIMINARY PLAN

1/8" = 1'-0"

Exhibit 2b
SITE PLAN

PATTERSON PASS
GSA #8014
KPA #476.01
3 MARCH 2010

KPA ENGINEERS ARCHITECTS
THE KPA GROUP
ONE KAISER PLAZA SUITE 445
OAKLAND CALIFORNIA 94612
TEL 510.271.6701 FAX 510.271.6707

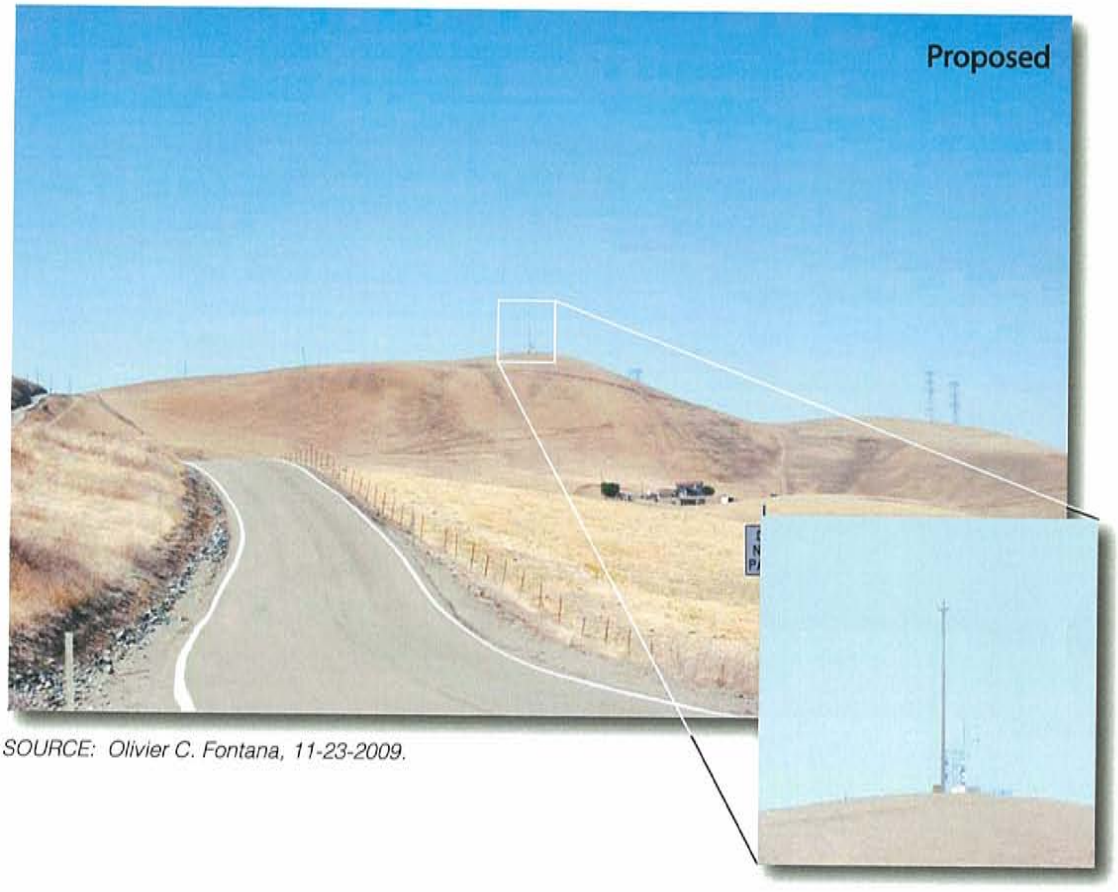


EAST ELEVATION

1/8" = 1'-0"

Exhibit 2c
ELEVATION

PATTERSON PASS
GSA #8014
KPA #476.01
3 MARCH 2010

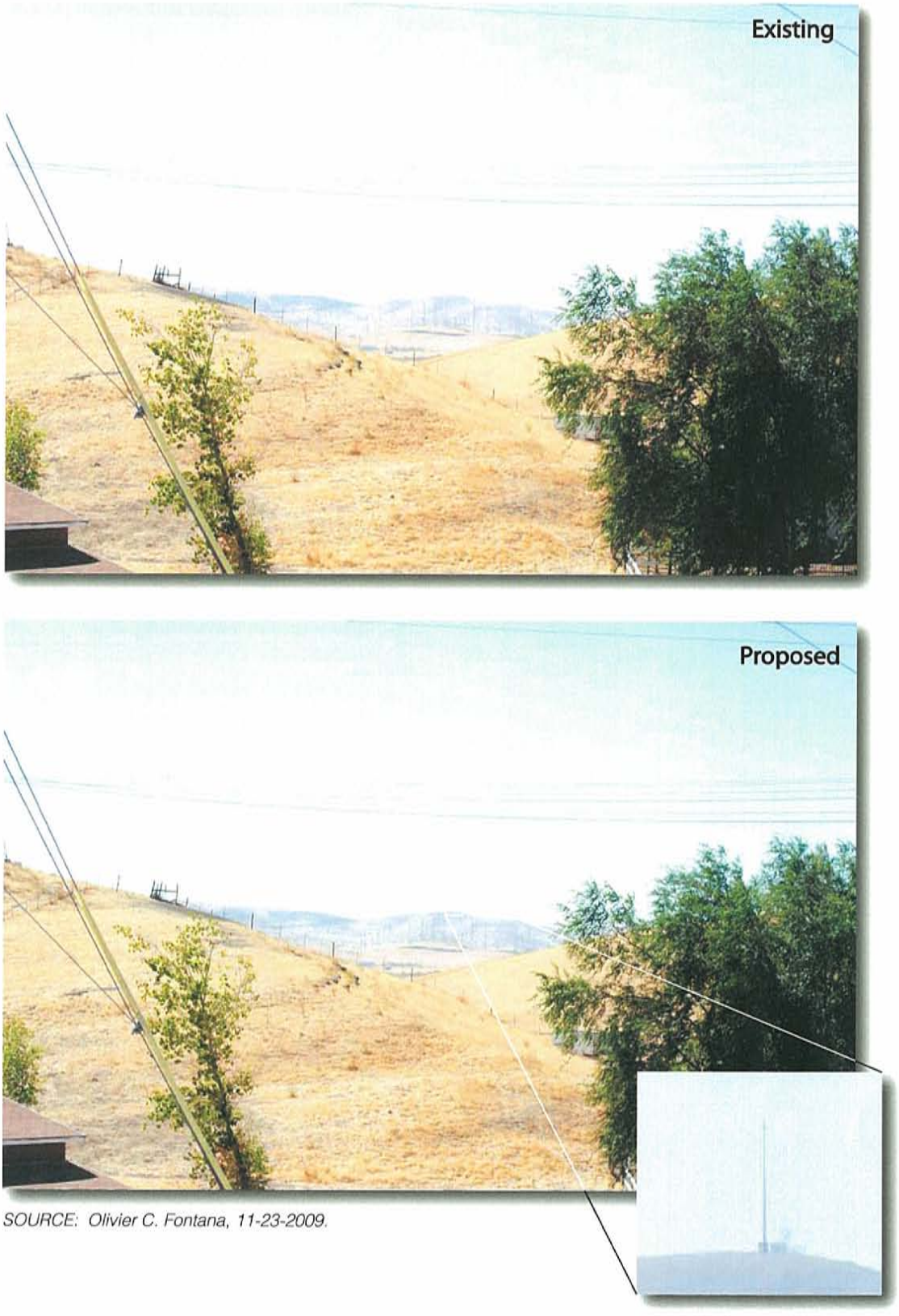


SOURCE: Olivier C. Fontana, 11-23-2009.

Exhibit 3

PROPOSED 150-ft MONOPOLE: VIEW FROM PATTERSON PASS ROAD
(distance to site ~1.12 miles)

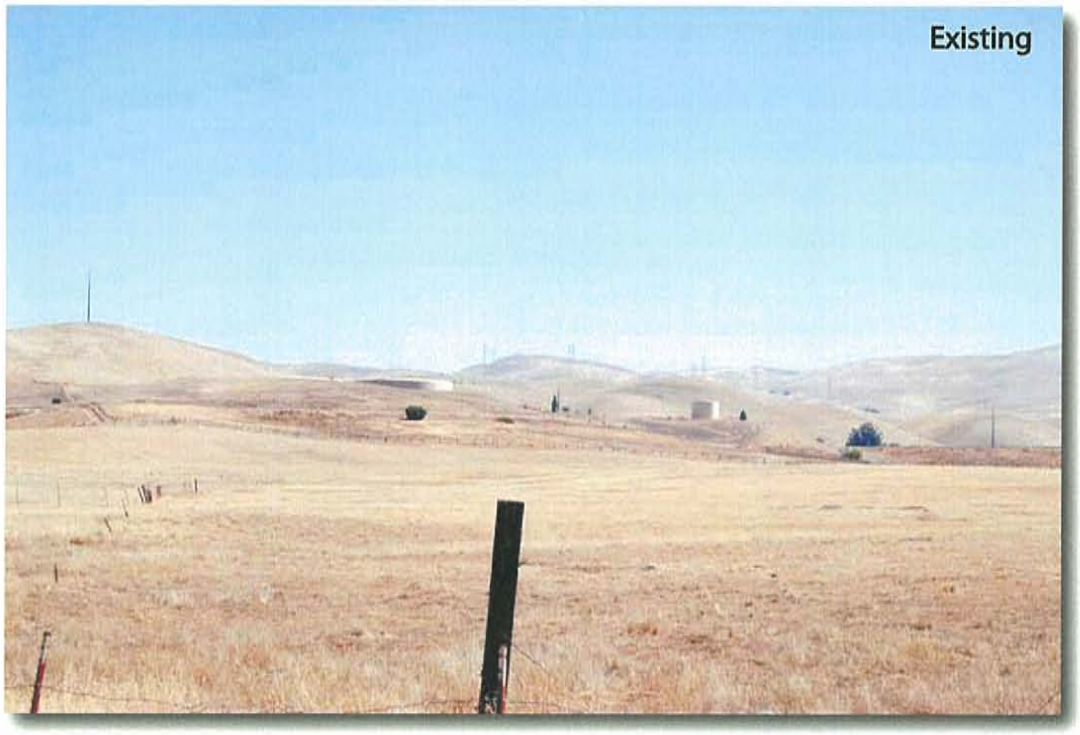
COUNTY OF ALAMEDA
PATTERSON PASS REPEATER FACILITY
INITIAL STUDY

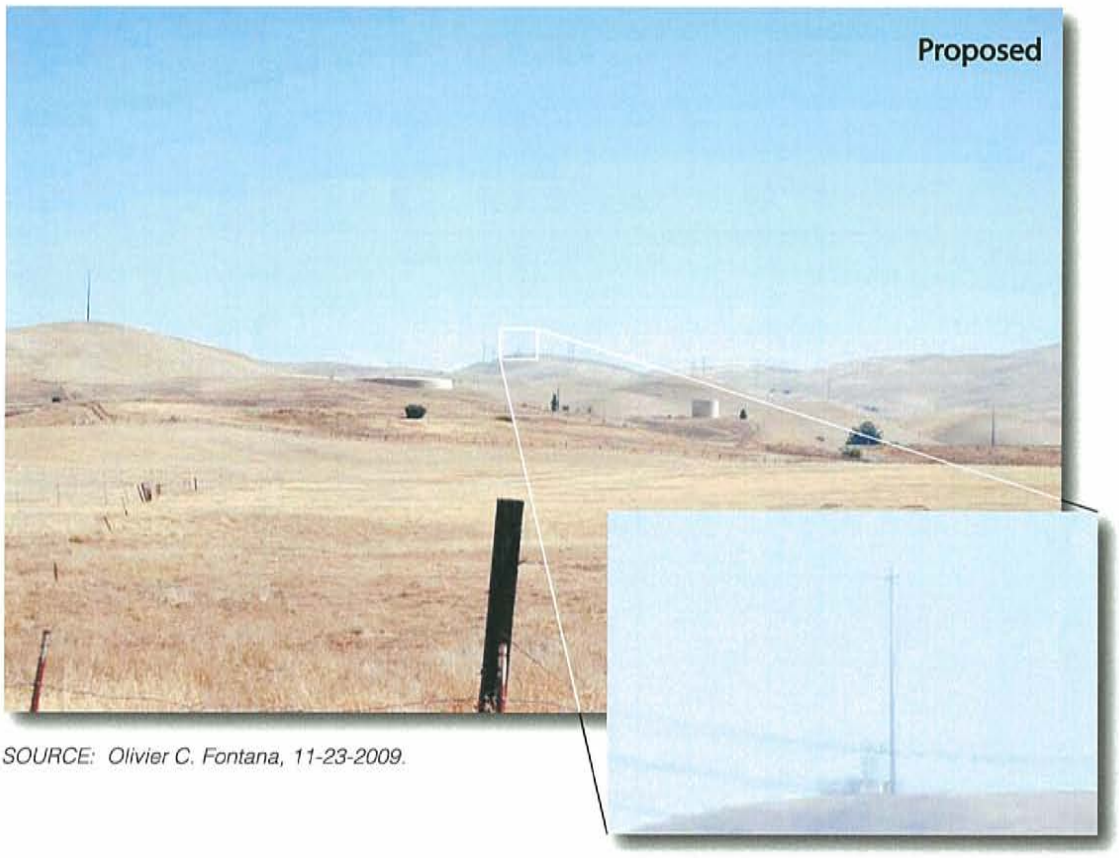


SOURCE: Olivier C. Fontana, 11-23-2009.

Exhibit 4

PROPOSED 150-ft MONOPOLE: VIEW FROM NO. MIDWAY ROAD
(distance to site ~4.78 miles)





SOURCE: Olivier C. Fontana, 11-23-2009.

Exhibit 5

PROPOSED 150-ft MONOPOLE: VIEW FROM GREENVILLE ROAD
(distance to site ~3.65 miles)