County of Yolo

PLANNING AND PUBLIC WORKS DEPARTMENT

John Bencomo
DIRECTOR

292 West Beamer Street
Woodland, CA 95695-2598
(530) 666-8775 FAX (530) 666-8728
www.yolocounty.org

PLANNING COMMISSION STAFF REPORT **MAY 13, 2010**

FILE #2009-001: Request for a Use Permit to construct and operate a 365-foot tall radio broadcast tower in the Agricultural General (A-1) zone. The tower will have a width of 24 inches and be held in place with 15 guy wires located at varying heights on the tower in three directions, spaced 120 degrees apart (**Attachment A**). The radio tower will be utilized by KMJE, Woodland, and KDVS, Davis.

APPLICANT/OWNER:	Results Radio, LLC (Applicant) 1355 N. Dutton Ave., Suite 225 Santa Rosa, CA 95401	Yolo County (Property Owner) 625 Court Street Woodland, CA 95695

LOCATION: Yolo County Central Landfill, 44090 County Road 28H, Woodland, CA 95776, approximately 2.5 miles northeast of the City of Davis (APN: 042-140-06) (**Attachment B**)

GENERAL PLAN: Public and Quasi-Public

ZONING: Agricultural General (A-1)

FIRE SEVERITY ZONE: None

SUPERVISORIAL DISTRICT: 4 (Supervisor Provenza)

FLOOD ZONE: B (area within the 500-year floodplain, but outside the 100-year floodplain). Property is designated as Flood Zone A (area within the 100-year floodplain) in the new FEMA maps, which will be adopted June 18, 2010.

SOILS: Clear Lake clay (Class I), Capay silty clay (Class II), Willows clay (Class III), Riz loam (Class IV)

ENVIRONMENTAL DETERMINATION: Mitigated Negative Declaration

REPORT PREPARED BY:
Jeff Anderson, Assistant Planner

REVIEWED BY:
David Morrison, Assistant Director

RECOMMENDED ACTIONS

That the Planning Commission:

1. **HOLD** a public hearing and receive comments;
2. **ADOPT** the Initial Study/Negative Declaration prepared for the project in accordance with the California Environmental Quality Act (CEQA) and Guidelines (**Attachment C**);
3. **ADOPT** the Mitigation Monitoring and Reporting Program which implements and monitors all mitigation measures in accordance with CEQA and the CEQA Guidelines (**Attachment D**);
4. **ADOPT** the proposed Findings (**Attachment E**); and
5. **APPROVE** the Use Permit subject to the Conditions of Approval (**Attachment F**).

REASONS FOR RECOMMENDED ACTIONS

The proposed radio tower would provide a benefit and service to Yolo County and the surrounding area by transmitting radio programming to the general public. The proposed project would directly benefit the University of California, Davis radio station (KDVS) and the university in general, by increasing coverage to include greater parts of the Sacramento region. KDVS is an entirely student-run station that broadcasts educational and music programming to the Davis community. County residents and others in the Sacramento region would also benefit from the programming options and emergency alert broadcasts put out by the KMJE station. The KMJE station would be a full participant in the Emergency Alert System (EAS), including Amber Alert broadcasts to the local community. The radio station would also provide advertising opportunities to local businesses and will broadcast public service announcements at no charge to Yolo County non-profit organizations. In addition, the radio tower would also provide collocation opportunities for wireless broadband and cellular operators. Space will also be reserved on the tower for the Yolo County Integrated Waste Management Division.

The project is in compliance with the Yolo County 2030 Countywide General Plan and the Yolo County Code, and all environmental issues are adequately addressed in the Mitigated Negative Declaration (**Attachment C**). The revised site has received support from several residents in El Macero and is unopposed by the City of Davis.

BACKGROUND

The applicant has amended their Use Permit application and now proposes to locate the proposed radio tower at the Yolo County Central Landfill. The applicant initially proposed to construct a 335-foot tall radio tower on an Agricultural General (A-1) zoned parcel approximately 0.75 miles south of the City of Davis, just off Mace Boulevard (APN: 069-010-08). The Planning Commission granted a continuance on December 12, 2009, so the applicant could address concerns and reevaluate their proposal. The applicant was also granted a continuance at the March 11, 2010, Planning Commission hearing to allow the applicant time to amend their application for locating the proposed tower at the landfill.

As part of the Pass-Through Agreement between Yolo County and the City of Davis, all projects that fall within the City's 1987 Planning Area and outside the city limits are referred to the City of Davis Redevelopment Agency for review and comment. At their March 16, 2010 meeting, the City of Davis Redevelopment Agency determined that the project was consistent with the City's general plan and did not object to the current proposal. The City's recommendations are included as an appendix in the Mitigated Negative Declaration (**Attachment C, Appendix A**).

The proposed tower will be of lattice design and have a height of 365 feet and width of two feet. The color of the tower will consist only of gray (galvanized steel). The tower will be held in place with 15 guy wires located at varying heights on the tower (five guy wires per side on the triangular shaped tower). The sets of guy wires will be anchored at a distance of 235 feet from the base of the tower. Each guy wire anchor area will be enclosed by an eight foot tall cyclone security fence. The base of the tower, 300 square foot concrete aggregate structure, and associated equipment will be enclosed in a 1200 square foot lease area by an eight foot tall cyclone security fence. The tower will also include several bay antenna elements that will add approximately 24 inches to the width of the tower at their specific locations. In the future, additional communication equipment may be installed within the lease area and on the proposed tower to accommodate collocation opportunities, including those of the Integrated Waste Management Division.

For aviation safety, the Federal Aviation Administration (FAA) requires lighting on all towers that exceed 199 feet in height. In accordance with FAA guidelines, medium intensity white obstruction lighting will be installed at the 200-foot level and at the highest point of the tower, and will be

operated 24-hours a day. The lighting is required to shine at 20,000 candelas (cd) during the daytime and twilight and at 2,000 cd during the night.

The applicant has proposed to install bird flight diverters on the guy wires to minimize the impact of bird strikes with the guy wires. Bird flight diverters are small coils made from a high-impact, standard PVC that increase the visibility of guy wires to passing birds. These devices are a common mitigation practice for overhead power lines and are becoming increasingly common for use on guy wires for communication towers.

The project site is located on the northeast corner of parcel APN: 042-140-06, which is part of the Yolo County Central Landfill. The portion of the project site where the tower is proposed is currently leased and used by WM Recycle America, LLC (WMRA). This area is primarily used for storage and loading and unloading of materials. The placement of the radio tower will not impact WMRA's current operations or any other operation at the landfill. Access to the facility would be by way of a paved road that connects to County Road 28H and traverses the landfill property.

The surrounding properties to the north, south, and west are agriculturally zoned (A-P & A-1), and are in agricultural production. Two rural homesites are located approximately 0.47 and 0.66 miles south of the proposed tower location. The City of Davis Wastewater Treatment Plant is located to the east of the landfill site. The nearest cluster of residential homes is located approximately 2.5 miles southwest in the City of Davis.

STAFF ANALYSIS

The project site is designated Public and Quasi-Public (PQ) in the Yolo County 2030 Countywide General Plan and is zoned Agricultural General (A-1).

The definition of "radio tower" is not provided in the Yolo County Code; however, staff and County Counsel have concluded that the definition of "communication towers" includes the type of tower that is the subject of this application. Yolo County Code Section 8-2.2417 authorizes "wireless communication facilities" as a conditional use in any zone, including agricultural zones. In addition, under Section 8-2.3215 of the Yolo County Code, a use that is "substantially similar" to a listed conditional use may be treated as such by the Zoning Administrator (i.e, the Planning Director) in interpreting the Yolo County Code.

The Wireless Communication Facility Ordinance (Yolo County Code Section 8-2.2414), adopted in 2003, established Conditional Use Permit criteria for wireless communication facilities in all zones in the unincorporated area of Yolo County. Because of the height restrictions in other zones, communication towers are typically sited in agricultural zones. In general, radio towers are often found to be undesirable because of the sheer height and mass of the tower and attached guy wires, which is a major reason such facilities are allowed only with approval of a Use Permit. Since communication facilities are discretionary in nature, each project is reviewed on a case by case basis. As indicated in the Findings (**Attachment E**), the proposed project is consistent with the criteria established by the Wireless Communications Facilities Ordinance.

In addition, the project is in compliance with the 2030 General Plan goal of supporting a flexible network of utility services to sustain state-of-the-art community livability and economic growth. The proposed project will support Public Facilities and Services Policy PF-11.2 that states: *Encourage expanded coverage and enhanced quality for communication technology, such as mobile connectivity, high-speed wireless internet access, and emergency communication systems.* The KMJE radio station will by a full participant in the Emergency Alert System (EAS), including Amber Alert broadcasts to the local community. In addition, space on the tower will be reserved for future wireless carriers and for the landfill operation to expand their networking capabilities.

Aesthetics

The proposed 335-foot tall lattice tower will be approximately two feet in diameter. The proposed tower and attached guy wires will be located in a relatively flat area surrounded by agricultural lands with no significant topographical features. The landfill waste cells are approximately 60 feet above ground level and the landfill has approval to increase the height to 120 feet. These waste cells provide some degree of screening of the tower from views from the north and west; however, the tower could still be seen from various rural residential, agricultural, open space, and urban vantage locations. As discussed in the Background section above, the tower is proposed to have 24-hour medium intensity white strobe lighting.

Staff recognizes that aesthetic perceptions are subjective and the aesthetic impacts associated with the project may be perceived differently by various individuals. The tower would be visible from segments of Interstate-80 and from various County roads and streets within the City of Davis and possibly the City of Woodland. In addition, the tower would be visible from other vantage points in the nearby vicinity of the project site, including several rural residences. Based on visual simulations (**Attachment C, Appendix F**), photographs, and staff site visits to similar towers, the tower will undoubtedly be visible from different vantage points, but the lattice design provides some degree of transparency and lessens the visibility of the tower. The construction of a radio tower, as with all types of development, will place a structure where there was not one previously. The overall aesthetic impact is greater for those who view it on a regular basis, such as nearby residents; however, its appearance has been minimized to the greatest extent possible. As recently noted by the Commission regarding the cell tower approved in El Macero, infrastructure such as the radio tower will soon become part of the visual background and the perception of it will diminish further.

Alternative Analysis

Prior to submission of the Use Permit application, the applicant conducted an investigation to determine potential alternative locations that met the following criteria mandated by the Federal Communications Commission (FCC): 1) the FCC requires that the station is fully spaced from nearby stations so as not to cause interference to them or receive interference within all protected coverage contours; 2) the location must allow for a full-facility station on the assigned channel; and 3) must provide City Grade signal coverage to the incorporated city area of Woodland, the FCC assigned City of License. The small area where all of the abovementioned criteria could be met consisted mainly of land within the City of Davis and the area just south of the City, including the agricultural parcel off Mace Boulevard where the applicant initially proposed to locate the tower (**Attachment C, Appendix D**). However, after much discussion with the FCC, the applicant opened up their search criteria to include a larger area where the tower could be located if the FCC accepts the applicant's argument that there will be "no new areas of interference" to station KHYL, which is licensed to the City of Auburn. The FCC has indicated to the applicant that the location of the proposed tower will not likely interfere with station KHYL; however, the FCC has not issued an official ruling on the landfill site location. Therefore, the final approval for the siting of the tower at the proposed location rests with the FCC.

The applicant also examined the possibility of collocating their equipment on the two nearby towers. The 538-foot tower (**Attachment C, Appendix H**) located off County Roads 102 and 29 was studied as a potential collocation opportunity; however, the applicant learned from an engineer employed by the tower owner that the tower was already loaded to the maximum safe limit with existing antennas and that the KMJE and KDVS antennas could not be accommodated. The 500-foot tower (**Attachment C, Appendix H**) east of Woodland (APN: 042-010-68) was also studied by the applicant as a collocation facility, but was ultimately rejected because the KMJE antenna could not be located at the elevation required to meet their functional needs. Since collocation opportunities were not feasible alternatives for the applicant, the landfill location was finally chosen because it would not require diminution of the signal, nor would it compromise the applicant's population

coverage. In addition, the landfill site was also favored by the applicant because the property has sufficient access, the placement of the tower would not require the removal of agricultural land, and the remote location will minimize the potential for visual impact to neighboring properties.

Electromagnetic Fields

Electromagnetic radiation exposure limits, both public and occupational, are a matter of long-settled federal law, and are entirely under the jurisdiction and regulation of the federal government. The FCC Rules and Regulations require that any applicant for a broadcast construction permit demonstrate strict compliance with environmental standards established by the United States Congress. The limits established by the FCC are designed to protect the public health with a very large margin of safety. In August 1996, the FCC adopted new guidelines and methods for evaluating the environmental effects of radiofrequency (RF) radiation from FCC regulated transmitters. The FCC adopted Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz (the proposed radio tower will operate at 101.5 MHz (KMJE) and 90.3 MHz (KDVS)). The guidelines effectively set a national radio frequency (RF) exposure standard based on elements of the 1992 revision of the American National Standards Institute (ANSI) standard and the exposure criteria recommended by the National Council on Radiation Protection and Measurements (NCRP). The FCC concluded, after years of study and analysis, that the adopted guidelines and MPE limits would effectively protect the public and workers from exposure to potentially harmful RF fields. Measurements made by the FCC, EPA and others have shown that ambient RF radiation levels in inhabited areas near broadcasting facilities are typically well below the exposure levels recommended by current standards and guidelines. Prior to FCC approval, the proposed radio tower will be required to demonstrate compliance with FCC safety guidelines.

Biological Resources

The United States Fish and Wildlife Service (USFWS) has produced a list of suggested guidelines to minimize bird strikes with communication towers (**Attachment C, Appendix B**). The applicant has incorporated the guidelines, where feasible, in an effort to reduce potential bird strikes. The project is located in close proximity to the Davis Wastewater Treatment Plant and Willow Slough Bypass which attract a high concentration of avian wildlife throughout the year. The landfill property also provides foraging habitat for birds of prey and other migrating birds and may provide nesting habitat for ground nesting species. Several mitigation measures have been included in the Mitigated Negative Declaration (**Attachment C**) to mitigate for special status species, including Swainson's hawk.

AGENCY COMMENTS

The applicant applied for a Use Permit amendment for this project on March 23, 2010. A Request for Comments was prepared and circulated for the proposed project from March 24, 2010 to April 7, 2010, and a courtesy notice was sent to property owners within 1,000 feet of the project site. Staff has received several letters in support of the project from Yolo County residents and one letter in opposition (see comments below). The project was also reviewed by the City of Davis Redevelopment Agency for consistency with the Pass-Through Agreement (**Attachment C, Appendix A**). An Initial Study/Mitigated Negative Declaration was prepared and circulated for a 30-day public review period from April 12, 2010, to May 11, 2010. No comments in response to the Mitigated Negative Declaration were received during the 30-day review period.

The project was reviewed at the Development Review Committee meeting on April 28, 2010. The project site does not fall within the boundary of an Advisory Committee. Agency and public comments are summarized in the table below. Some comments have been carried over from the

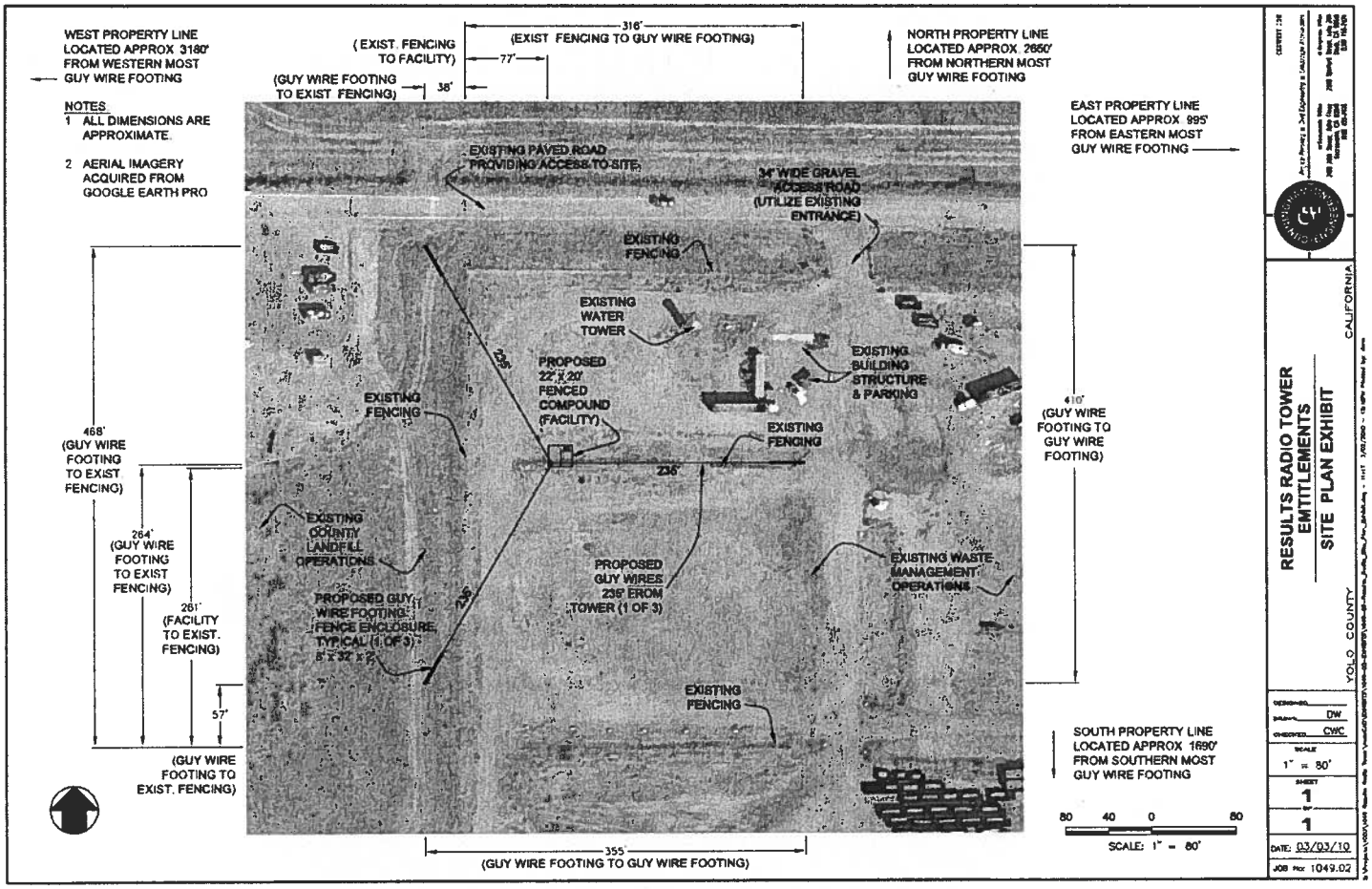
original Use Permit application if agencies did not send a response for the amended Use Permit application.

Date	Agency	Comment	Response
January 21, 2009	Health Department, Environmental Health Division	A Hazardous Materials Inventory and Business Plan shall be submitted to Yolo County Environmental Health by the time hazardous materials and/or waste is present at the facility in reportable quantities.	Included in Conditions of Approval.
February 2, 2009	Yolo County Farm Bureau	No comment.	
July 15, 2009	Yolo County Building Division	Applicant must submit plans, permit application, and obtain building permits from the Building Division.	Included in Conditions of Approval.
July 22, 2009	Yolo-Solano Air Quality Management District (YSAQMD)	Operation of the natural gas generator at the site will require an Authority to Construct and Permit to Operate issued by the District in accordance with Rule 3.1, General Permit Requirements. Contact YSAQMD for all other applicable regulations.	Included in Conditions of Approval.
September 28, 2009	California Department of Fish and Game	Adhere to USFWS guidelines regarding tower siting.	Comment noted.
November 9, 2009	Federal Aviation Administration, San Francisco Airports District Office	As required by FAR Part 77, Subpart B, 77.13, proposed antenna will require FAA review through FAA's airspace analysis process. To initiate review, the proponent is required to file FAA Form 7460-1 with the FAA.	Included in Conditions of Approval.
March 24, 2010	California Department of Transportation (Caltrans) Division of Aeronautics	A Notice of Proposed Construction or Alteration (Form 7460-1) must be filed with the FAA in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace."	Comment noted (same as FAA comments).
April 1, 2010	Yolo County General Services	No comment.	

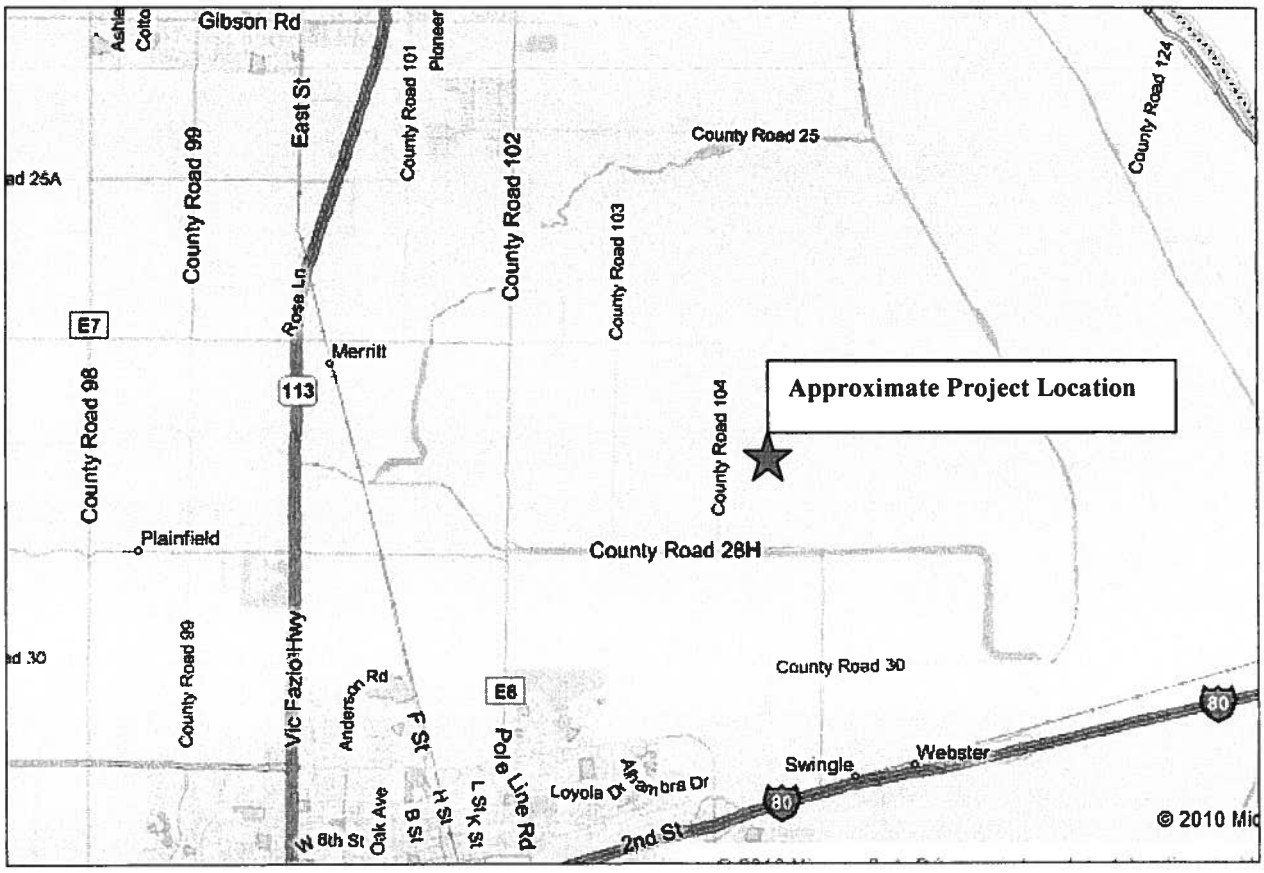
April 6, 2010	Maria Wong, Habitat JPA Manager	The applicant shall have an avian specialist assess the site to see if it is currently Swainson's hawk habitat.	Included in Conditions of Approval as a mitigation measure.
April 12, 2010	Yolo County Public Works Division	No comment.	
April 14, 2010	Sacramento County Airport System	All conditions stated in the 7460 determination from FAA should be followed. Note these conditions include a signal interference check prior to going live.	Comment noted (same as FAA comments).
April 19, 2010	Emails from the following El Macero residents: -Kenneth and Lynne Wegner -Ruth and Dr. Joseph Silva -Franklin C. Wagner, Jr., M.D. -Jim and Mimi McMahon -Bruce and Diane Warne	In support of the proposed radio tower at the landfill location.	Comments noted.
April 30, 2010	CalRecycle	No comments in addition to the restrictions 1 through 5 in Appendix D of the MND provided by Linda Sinderson.	Comment noted.
May 5, 2010	Laurie Gates, Woodland resident	Opposed to the project. The 20,000 cd lighting during the day would impact agricultural and open space views. Raises question as to why the project cannot be collocated on an existing facility.	Comment noted.

ATTACHMENTS

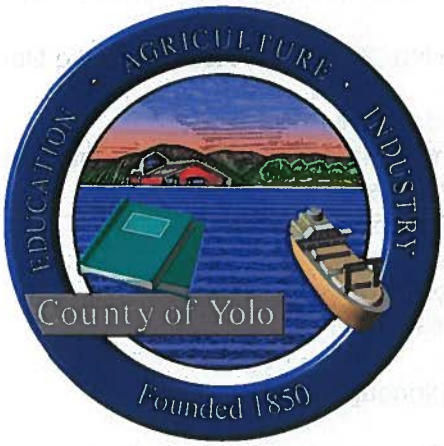
A: Site plan
B: Location map
C: Mitigated Negative Declaration
D: Mitigation Monitoring and Reporting Program
E: Findings
F: Conditions of Approval



ATTACHMENT A



ATTACHMENT B



YOLO COUNTY
PLANNING AND PUBLIC WORKS DEPARTMENT

INITIAL STUDY/

MITIGATED NEGATIVE DECLARATION

ZONE FILE # 2009-001 (AMENDED APPLICATION)

RESULTS RADIO, LLC. RADIO BROADCAST TOWER USE PERMIT

APRIL, 2010

ATTACHMENT C

Initial Environmental Study

1. **Project Title:** Zone File No. 2009-001, Results Radio Use Permit

2. **Lead Agency Name and Address:**
   Yolo County Planning and Public Works Department
   292 West Beamer Street
   Woodland, CA 95695

3. **Contact Person, Phone Number, E-Mail:**
   Jeff Anderson, Assistant Planner
   (530) 666-8036
   jeff.anderson@yolocounty.org

4. **Project Location:** 44090 County Road 28H (Yolo County Central Landfill), northeast of the City of Davis (APNs: 042-140-01, -02, -06, and -07), see Figure 1 (Vicinity Map) and Figure 2 (Aerial Map).

5. **Project Sponsor's Name and Address:**
   Results Radio, LLC (Ron Castro)
   1355 N. Dutton Ave., Ste. 225
   Santa Rosa, CA 95401

6. **Land Owner's Name and Address:**
   Yolo County General Services
   625 Court Street, Room #203
   Woodland, CA 95695

7. **General Plan Designation(s):** Designated as "Public and Quasi-Public (PQ)" in the 2030 Yolo Countywide General Plan

8. **Zoning:** Currently zoned Agricultural General (A-1)

9. **Description of the Project:** See attached "Project Description" on the following pages for details

10. **Surrounding Land Uses and Setting:**

Relation to Project	Land Use	Zoning	General Plan Designation
Project Site	Yolo County Central Landfill	Agricultural General (A-1)	Public and Quasi-Public
North	Agricultural	Agricultural Preserve (A-P)	Agriculture
South	Agricultural , rural residences	Agricultural Preserve (A-P)	Agriculture
East	City of Davis Wastewater Treatment Plant	Agricultural General (A-1)	Agriculture
West	Agricultural	Agricultural General (A-1)	Agriculture

11. **Other public agencies whose approval is required:** Yolo County Building Division; Yolo County Health Department, Environmental Health Division (Hazardous Materials Business Plan); Federal Aviation Administration (FAA) Air Hazard Clearance; and Federal Communication Commission (FCC) FM Broadcast Construction Permit.

12. **Other Project Assumptions:** The Initial Study assumes compliance with all applicable State, Federal, and local codes and regulations including, but not limited to, County of Yolo Improvement Standards, the California Building Code, the State Health and Safety Code, and the State Public Resources Code.

Project Description

Project Under CEQA

This Environmental Initial Study is prepared in accordance with the California Environmental Quality Act (CEQA). The term "project" is defined by CEQA as the whole of an action that has the potential, directly or ultimately, to result in a physical change to the environment (CEQA Guidelines Section 15378). This includes all phases of a project that are reasonably foreseeable, and all related projects that are directly linked to the project. The "project" which is the subject of this Environmental Initial Study involves a Use Permit to construct a radio broadcast tower and accessory building and equipment.

Use Permit Amendment

The applicant (Results Radio, LLC) has amended their Use Permit application to construct a radio tower in unincorporated Yolo County. The applicant initially proposed to construct a 335-foot tall radio tower on an Agricultural General (A-1) zoned parcel approximately 0.75 miles south of the City of Davis, just off Mace Boulevard (APN: 069-010-08). The applicant was granted a continuance at the December 10, 2009, Planning Commission hearing in order to address concerns and reevaluate their proposal. The applicant now proposes to locate the proposed radio tower at the Yolo County Central Landfill, northeast of Davis. Due to the site characteristics at the landfill, the proposed tower height will increase 30 feet from the initial application, to 365 feet.

Pass-Through Agreement

As part of the Pass-Through Agreement between Yolo County and the City of Davis, all projects that fall within the City's 1987 Planning Area and outside the city limits are referred to the City of Davis Redevelopment Agency for review and comment. The subject site is located within the City of Davis Planning Area, so the project was referred to the city earlier this year. At their March 16, 2010 meeting, the City of Davis Redevelopment Agency determined that the project was consistent with the City's general plan and did not object to the current proposal. The City of Davis staff report and recommendations are included in Appendix A.

Project Site and Surrounding Location

The proposed project is a Use Permit to construct a 365-foot tall radio broadcast tower and accessory equipment building. The proposed tower would be a cooperative, collocated facility to include the UC Davis student-operated station KDVS (Davis), and Results Radio's KMJE station (Woodland). The proposed project will allow KDVS, a full-service, non-commercial station operated by the student union of UC Davis, to increase its existing signal to cover new areas in the region. The addition of KMJE will provide locally-programmed entertainment and emergency alert broadcasts to Yolo County and the greater area. The radio tower would also provide collocation opportunities for wireless broadband and cellular operators. The Yolo County Integrated Waste Management Division, whose offices are located at the Yolo County Central Landfill, have indicated their desire to utilize the proposed tower for two purposes, including: 1) install cameras in order monitor the landfill activities and to provide a surveillance function; and 2) install equipment to increase the wireless network coverage at the landfill.

The project site (Figures 1 and 2) is located on the northeast corner of parcel APN: 042-140-06, which is part of the Yolo County Central Landfill. The portion of the project site where the tower is proposed is currently leased and used by Waste Management. This area is primarily used for storage and loading and unloading of materials. The placement of the radio tower will not impact Waste Management's current operations. In addition, the proposed tower location will not impact any other landfill operation. The proposed tower will be accessed off an internal paved road that traverses the landfill property.

The surrounding properties to the north, south, and west are agriculturally zoned (A-P & A-1), and are in agricultural production. Two rural homesites are located approximately 0.47 and 0.66 miles south of the proposed tower location. The western boundary of the City of Davis Wastewater Treatment Plant is located approximately 0.26 mile east of the proposed tower location and the related offices are approximately 0.8 mile east of the proposed tower location. The nearest cluster of residential homes is located approximately 2.5 miles southwest in the Wildhorse residential subdivision in the City of Davis.

Tower Specifications

The base of the tower, 300 square foot concrete aggregate structure, and associated equipment (propane tank and generator) will be enclosed in a 30' x 40' area by an 8-foot cyclone security fence (Figure 3). The proposed tower will be of lattice design and have a height of 365 feet and width of two feet (Figure 4). The tower will be held in place with 15 guy wires located at varying heights on the tower (five guy wires per side on the triangular shaped tower). The sets of guy wires will be anchored at a distance of 235 feet from the base of the tower. Each guy wire anchor area (each 32' x 2') will be enclosed by an 8-foot cyclone security fence (Figure 5). The tower will also include 10 to 12 FM bay antenna elements that will be positioned at 10-foot intervals down from the top of the tower. These appurtenances will add approximately 24 inches to the width of the tower at their specific locations. In the future, additional communication equipment may be installed within the lease area and on the proposed tower to accommodate collocation opportunities.

For aviation safety, tower lighting is required for towers exceeding 199 feet in height. In accordance with Federal Aviation Administration (FAA) guidelines, medium intensity white obstruction lighting will be installed at the 200-foot level and at the highest point of the tower. The lighting will be operated 24-hours a day. The lighting is required to shine at 20,000

candelas (cd) during the daytime and twilight and at 2,000 cd during the night. All lighting used will be state of the art LED lights that have been designed to minimize light pollution to the greatest extent possible (Appendix E). The color of the tower will consist only of gray (galvanized steel).

The applicant has proposed to install bird flight diverters on the guy wires to minimize the impact of bird strikes with the guy wires. Bird flight diverters are a common mitigation practice for overhead power lines and are becoming increasingly common for use on guy wires for communication towers. The bird flight diverters are small coils made from a high-impact, standard PVC and are UV stabilized (Appendix G).

The facility will be unmanned, but visited an average of twice per month for routine maintenance purposes. No water or sewer service is required for the facility. No advertising or signage is proposed, except signs required by the Federal Communications Commission (FCC) and emergency contact information provided at the site. Noise output will be minimal and will not exceed existing ambient noise levels at the landfill.

Alternative Site Locations

Prior to submission of the Use Permit application, the applicant conducted an investigation to determine potential alternative locations that met the following criteria mandated by the FCC: 1) the FCC requires that the station is fully spaced from nearby stations so as not to cause interference to them or receive interference from them within all protected coverage contours; 2) the location must allow for a full-facility station on the assigned channel; and 3) must provide City Grade signal coverage to the incorporated city area of Woodland, the FCC assigned City of License. The area where all of those criteria were met is depicted in Appendix D. As described above, the applicant initially proposed to locate the tower on an agricultural parcel off of Mace Boulevard. That location was initially chosen since it fit well within the limits shown on the map, including the KHYL Primary Separation Limit.

At the request of the Planning Commission at their December 10, 2009, meeting, the applicant explored alternative locations to site the tower. The FCC has a published policy that no station may locate beyond a limit, such as the one shown for KHYL, unless it can be demonstrated that there will be no prohibited contour overlap. Subsequent to the December 10, 2009, Planning Commission meeting, a representative of the applicant contacted the FCC to determine whether the tower could be located between the primary and secondary separation limits if it could be demonstrated that there would be no new areas of interference within the prohibited contour overlap of KHYL. The FCC indicated that this is a legitimate possibility, however, the FCC has not issued an official ruling on the landfill site location. Therefore, the final approval for the siting of the proposed tower at the proposed location rests with the FCC.

The applicant completed the requisite studies and determined that the FCC's conditions could be met, which opened up a larger possible area to locate the tower. The new study area included the 538-foot tower (Alternative 2) located off County Roads 102 and 29 as shown in Appendix D. Although it is within the KXFX Contour Limit Area, use of a reduced facility could be approved by the FCC by reducing the signal; however, the population coverage would be significantly reduced. The applicant also learned from an engineer employed by the tower owner that the tower was already loaded to the maximum safe limit with existing antennas and that the KMJE antenna could not be accommodated.

The new study area also included the 500-foot tower east of Woodland (Alternative 3 in Appendix D) that is shown on the map as KXSE. The applicant indicated that this tower was rejected as a collocation facility because encroachment on the KXFX Contour Limit Area would require a significant reduction of population coverage. Additionally, the tower owner has an existing antenna located at the elevation that would be needed for the KMJE antenna.

Since collocation opportunities were not feasible alternatives for the applicant, the landfill location was finally chosen because it would not require diminution of the signal, nor would it compromise the applicant's population coverage. In addition, the landfill site was also favored by the applicant because the property has sufficient access and the placement of the tower would not require the removal of agricultural land.

Biological Resources

The United States Fish and Wildlife Service (USFWS) has produced a list of suggested guidelines to minimize bird strikes with communication towers (Appendix B). The applicant has incorporated the guidelines, where feasible, in an effort to reduce potential bird strikes. The applicant's response to the USFWS guidelines is included as Appendix C. The project is located in close proximity to the Davis Wastwater Treatment Plant and Willow Slough Bypass which attract a high concentration of avian wildlife throughout the year. The landfill property also provides foraging habitat for birds of prey and other migrating birds and may provide nesting habitat for ground nesting species. Several mitigation measures have been included in the Biological Resources section of this document to mitigate for special status species, including Swainson's hawk.

Electromagnetic Fields

Electromagnetic radiation exposure limits, both public and occupational, are a matter of long-settled federal law, and are entirely under the jurisdiction and regulation of the federal government. The FCC Rules and Regulations require that any applicant for a broadcast construction permit demonstrate strict compliance with environmental standards established by the United States Congress (FCC, 1997). The limits established by the FCC are designed to protect the public health with a very large margin of safety. In August 1996, the FCC adopted new guidelines and methods for evaluating the environmental effects of radiofrequency (RF) radiation from FCC regulated transmitters. The FCC adopted Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz (the proposed radio tower will operate at 101.5 MHz (KMJE) and 90.3 MHz (KDVS)). The guidelines effectively set a national radio frequency (RF) exposure standard based on elements of the 1992 revision of the American National Standards Institute (ANSI) standard and the exposure criteria recommended by the National Council on Radiation Protection and Measurements (NCRP). The FCC concluded, after years of study and analysis, that the adopted guidelines and MPE limits would effectively protect the public and workers from exposure to potentially harmful RF fields. Measurements made by the FCC, EPA and others have shown that ambient RF radiation levels in inhabited areas near broadcasting facilities are typically well below the exposure levels recommended by current standards and guidelines. Prior to FCC approval, the proposed radio tower will be required to demonstrate compliance with FCC safety guidelines.

Flood Zone

The project site is located in Flood Zone B, as designated by the Federal Emergency Management Agency (FEMA). Flood Zone B is an area within the 500-year floodplain, but outside the 100-year floodplain. FEMA is in the process of updating the Flood Insurance Rate Maps for the Yolo County area. The preliminary updated map that has been released for review by FEMA indicates that a large portion north of the City of Davis, including the project site, will be included within the newly designated 100-year floodplain when the preliminary maps are made final, now scheduled for June 18, 2010. Thus, any new construction containing electrical equipment and requiring building permits would have to be elevated at least one-foot above the base flood elevation if construction were to begin after the updated FEMA maps became finalized.

FIGURE 1

VICINITY MAP

FIGURE 2

AERIAL MAP OF PROJECT SITE

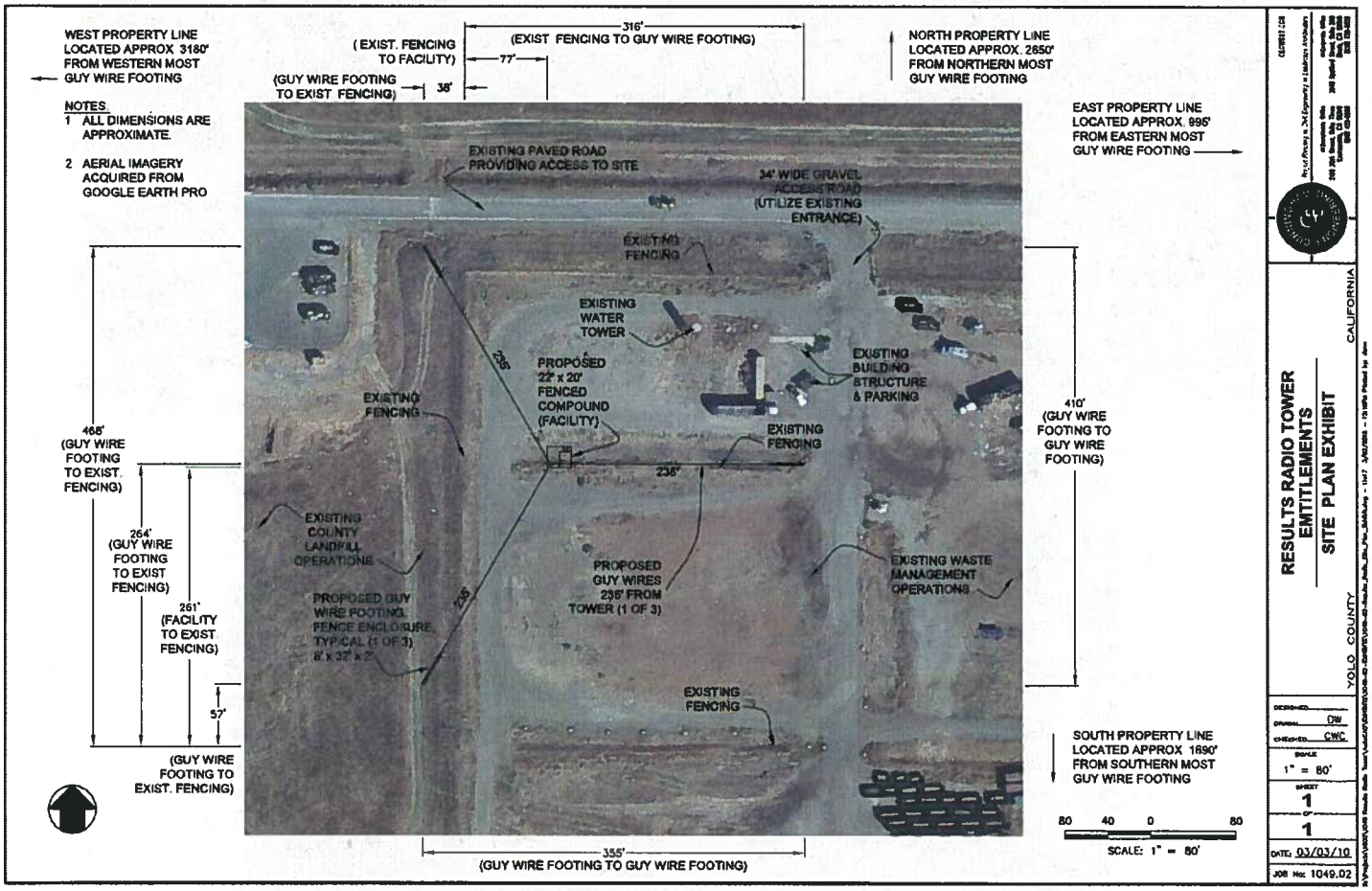
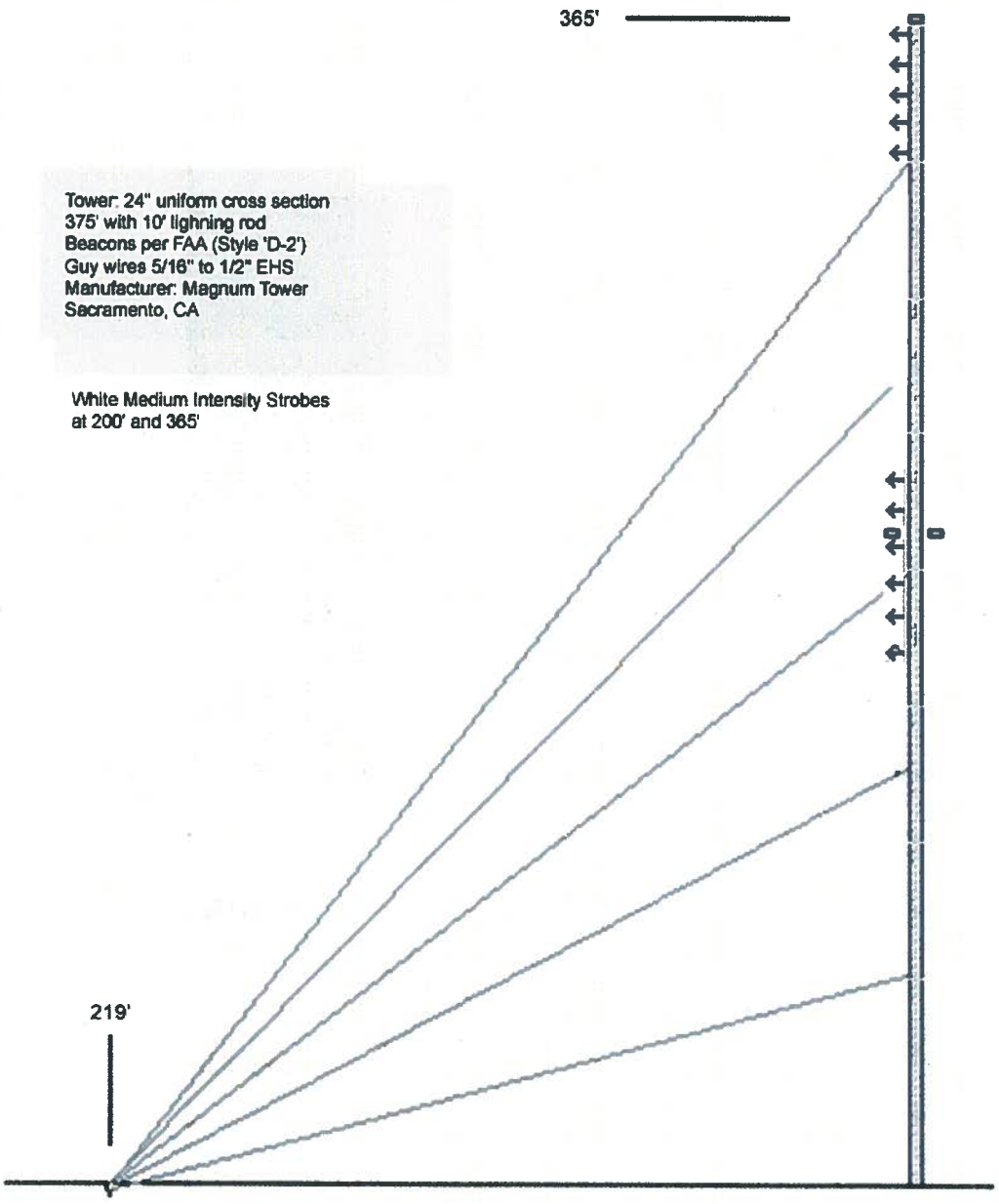


FIGURE 3

SITE PLAN



Vertical Sketch of Tower

FIGURE 4

VERTICAL SKETCH OF TOWER

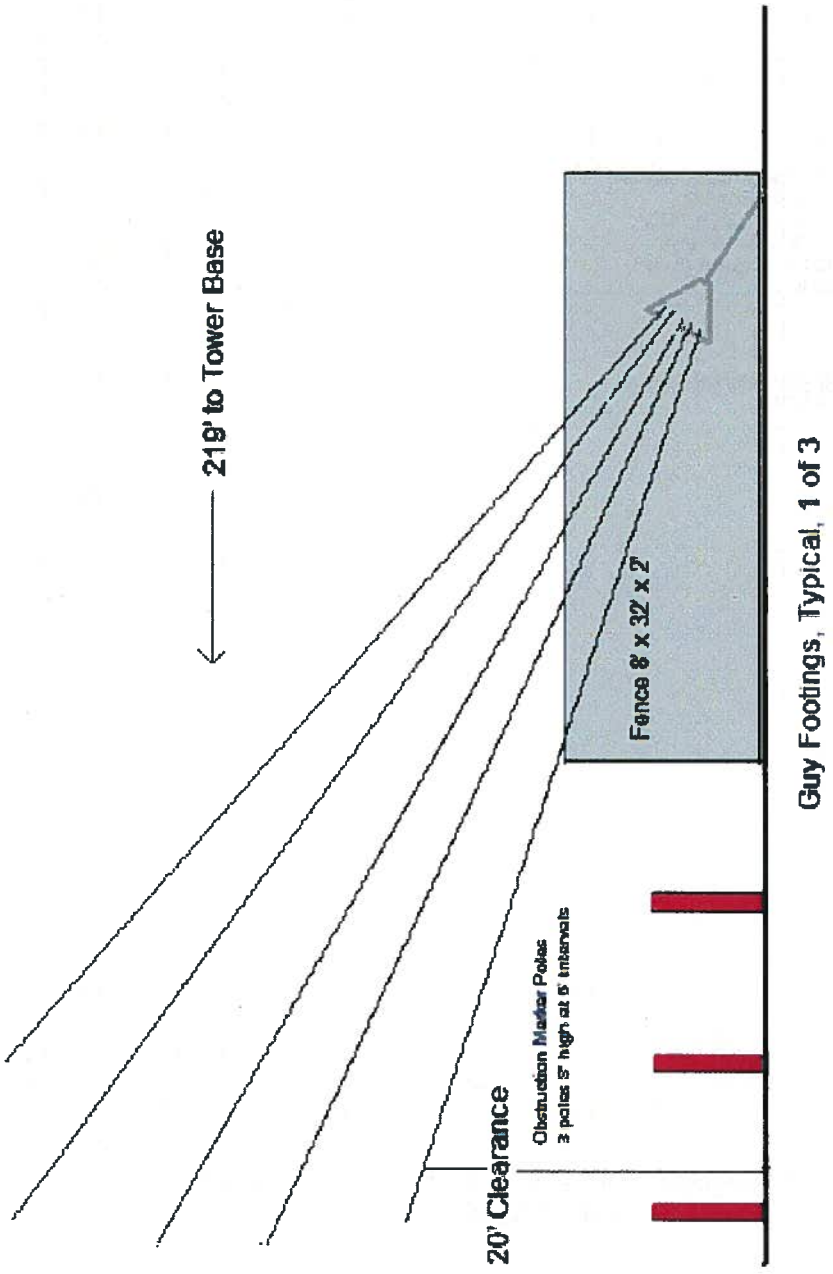


FIGURE 5

GUY WIRE FOOTINGS/ENCLOSURE

Environmental Factors Potentially Affected

The environmental factors checked below could potentially be affected by this project, involving at least one impact that is still a "Potentially Significant Impact" (before any proposed mitigation measures have been adopted or before any measures have been made or agreed to by the project proponent) as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural and Forest Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ 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

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 to 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 the project is consistent with an adopted general plan and all potentially significant effects have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT, the project is exempt from further review under the California Environmental Quality Act under the requirements of Public Resources Code section 21083.3(b) and CEQA Guidelines Section 15183.


4/8/2010 Jeff Anderson

Planner's Signature | Date | Planner's Printed name

Mitigation Measure Compliance Review Agreement

I, being the applicant for the described project, agree to the full implementation of the mitigation measure(s) outlined in this environmental document as Conditions of Approval of the project.

I understand that by agreeing to the mitigation measures included in this document, all foreseeable significant impacts on the environment should be reduced to a less-than-significant level as required by the California Environmental Quality Act and Guidelines (CEQA), thereby permitting the Yolo County Planning and Public Works Department to publicly notice and circulate the appropriate environmental document for my project.

Ron Castro, Applicant (Results Radio, LLC)

4/8/2010
Date

Purpose of this Initial Study

This Initial Study has been prepared consistent with CEQA Guideline Section 15063, to determine if the project as described herein may have a significant effect upon the environment.

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. A "Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less than significant Impact". The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from Section XVIII, "Earlier Analyses", may be cross-referenced.)
5. A determination that a "Less Than Significant Impact" would occur is appropriate when the project could create some identifiable impact, but the impact would be less than the threshold set by a performance standard or adopted policy. The initial study should describe the impact and state why it is found to be "less than significant."
6. 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 California Government Code. Earlier analyses are discussed in Section XVIII at the end of the checklist.
7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

I.	AESTHETICS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
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 along a 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 that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Discussion of Impacts

a) *Less Than Significant Impact.* The proposed radio broadcast tower facility will not have a substantial adverse effect on a scenic vista. The 365-foot tower is only 24-inches in diameter and its lattice-work construction provides some degree of transparency. The proposed 365-foot tall lattice tower with attached guy wires will be located in a relatively flat area surrounded by agricultural lands with no significant topographical features. As discussed in greater detail in (c) below, the landfill waste cells provide some screening potential of the tower from views from the north and west; however, the lattice tower could still be seen from various rural residential, agricultural, open space, and urban vantage locations.

b) *Less Than Significant Impact.* The proposal would not damage any scenic resources. The proposed project is located within the Yolo County Central Landfill and is not located near a scenic highway. There are presently no highways within Yolo County that have been officially designated within the California Scenic Highway System. The nearest eligible state scenic highway is a 25.3-mile section of State Route 16 that extends from the State Route 20 intersection to the town of Capay (Yolo County, 2005). The 2030 Countywide General Plan designates several routes in Yolo County as local scenic roadways. The nearest section of a local scenic roadway, Old River Road (County Road 107 to West Sacramento), is approximately 6 miles east of the proposed radio tower location. In the unlikely event there are any clear views of the tower on Old River Road, the view would be negligible from 6 miles away.

c) *Less Than Significant Impact.* Aesthetic perceptions are subjective and the aesthetic impacts associated with this project may be perceived differently by various individuals. The tower is 24-inches in diameter and its lattice-work construction provides some transparency as opposed to a solid monopole. However, the proposed 365-foot tower will still be visible from several vantage points in the surrounding area. The surrounding area to the south, east, and west of the proposed tower location are relatively flat and do not

contain many features that could potentially screen the tower. However, views from the surrounding area to the north and west of the proposed tower location would be partially screened by the engineered contours of the waste cells. The waste cells are approximately 60 feet above ground level and the landfill has approval to increase the height to 120 feet. The waste cells that are approved for the height increase are primarily located to the north of the proposed tower. Therefore, the height of the landfill waste cells will help to minimize the aesthetic impacts of the proposed tower from northern vantage points looking south towards the landfill. The landfill waste cells also serve as an additional terrain feature when viewing the tower from the south looking north so that the towers are not viewed entirely against the sky, but instead against the terrain of the landfill.

There are two existing 500+ foot radio towers (Appendix H) within five miles of the proposed tower location. Both towers are located off of County Road 102, which is a heavily trafficked road. The proposed tower is significantly shorter than these two towers and is located over 2.5-miles east of County Road 102; thus, the view of the proposed tower from this road will be significantly less by comparison.

As discussed in the Biological Resources section, the applicant has proposed to install bird flight diverters (BFDs) as a way to mitigate against potential bird strikes with the tower and guy wires. BFDs are small coil shaped devices that are secured to the guy wires to increase the visibility of the wires to diurnally active birds, including raptors and migrating birds. The BFDs proposed for use by the applicant are yellow coil shaped devices approximately nine inches in length (Appendix G). A Condition of Approval will be included to ensure the markers are installed to meet the industry recommended spacing requirements, which range from 15 to 30 feet between each marker. A picture is included in Appendix G of BFDs on a tower in Sacramento County. The picture, taken from a distance of approximately 200 feet (although the resolution and zoom are unknown), shows the barely visible BFDs. It can be assumed that the BFDs would not be visible from the nearest homesite located approximately 0.5 miles away, nor would it be visible from any greater distance.

As discussed in (d) below, the proposed tower will have a 24-hour medium intensity white lighting system. Lighting is required by the FAA for all towers that exceed 199 feet in height to increase the visibility of the structure to pilots. The flashing white lights will be visible from several miles where there are clear views of the tower; however, the lights proposed for use focus light selectively in the areas required and avoids spilling excess light towards the ground (Appendix E). Therefore, surrounding area and certain vantage points inside the City of Davis and City of Woodland may be able to see flashing lights on the tower at two levels, but the impact will be minimal. The intensity of the light diminishes significantly with increased distance.

Given that the proposed tower is of lattice construction and is 24-inches wide, and the landfill waste cells will partially screen the tower from views from the north and west and will provide additional terrain feature behind the tower when viewing from the south, the aesthetic impacts are considered less than significant. In addition, the visual simulations provided in Appendix F show the proposed tower from various vantage points. Though only a simulation, these pictures show the minimal effect the proposed tower will have on the surrounding area.

d) *Less Than Significant Impact.* The proposed radio tower structure and supporting guy wires will not be visible from any significant distance during nighttime; however, the FAA requires tower lighting for towers exceeding 199 feet in height. The lights from the tower will be visible to surrounding rural homesites and other vantage points in the nearby area, including county roads, portions of Interstate-80, and certain areas within the City of Davis and City of Woodland where there are unobstructed views of the tower. The applicant has proposed to use state-of-the-art LED lights that have been designed to minimize light pollution to the greatest extent possible (Appendix E). The proposed lighting is a 24-hour system.

Daytime and nighttime lighting will consist of a medium intensity flashing white light at the highest point of the tower and two medium intensity flashing white lights at the 200-foot level. This lighting scheme utilizes 20,000 candelas (cd) for day/twilight protection and a reduced brightness white strobe of 2,000 cd at night. These lights flash at a rate of 20 to 40 flashes per minute (fpm). According to the light manufacturer, light pollution emitted from this type of lighting is significantly less than incandescent lighting used on older towers (Appendix E). The optical design of the white strobe focuses light selectively in the areas required and avoids spilling excess light towards the ground.

The proposed lighting for daytime and nighttime use will be visible from various vantage points in the area, but will not create a new source of significant light or glare, nor would it adversely affect nighttime views in the area. There are two 500+ foot towers in the vicinity (2.5 and 4.5 miles) of the proposed tower which utilize flashing red and steady burning incandescent lighting at multiple levels on the tower. Though noticeable from various vantage points, these lights do not create significant amounts of light or glare that affect daytime or nighttime views.

As discussed above, the lighting proposed as part of this project is far more advanced than the lighting used at these nearby towers. In addition to lighting on the tower, any security lighting for the equipment buildings shall be low-intensity, shielded and/or directed away from adjacent properties and the night sky. This is a standard Condition of Approval that applies to any outdoor lighting for discretionary projects within the county.

II. AGRICULTURAL AND FOREST RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
In determining whether impacts on 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 Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				

II.	AGRICULTURAL AND FOREST RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	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?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion of Impacts

a) *No Impact.* The proposed project would not result in the conversion of any significant agricultural land. The proposed location of the radio tower is currently used for general landfill operations. The Yolo County Central Landfill site is designated as "Urban and Built-Up Land" and is not designated as agriculture.

b) *No Impact.* The Yolo County 2030 General Plan designates land use on the landfill site as "Public and Quasi-Public." The land is zoned Agricultural General (A-1). Communication facilities, including radio broadcast towers, are allowed on agriculturally zoned properties with a Use Permit. The project is consistent with the General Plan and zoning. A Williamson Act contract does not encumber the property.

c) *and* d) *No Impact.* The project does not conflict with existing zoning for, or cause rezoning of, forest land and would not result in the loss of forest land or conversion of forest land to non-forest use.

e) *No Impact.* The project is consistent with the General Plan and zoning designations and does not involve any other changes that could result in the conversion of farmland to non-agricultural uses. The proposed project is located on a previously disturbed portion of the Yolo County Central Landfill.

III.	AIR QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Where applicable, 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:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Environmental Setting

The project site is within the Yolo-Solano Air Quality Management District (YSAQMD), and the Sacramento Valley Air Basin regulates air quality conditions within Yolo County. Yolo County is classified as a non-attainment area for several air pollutants, including ozone (O_3) and particulate matter 10 microns or less in diameter (PM_{10}) for both federal and state standards, and is classified as a moderate maintenance area for carbon monoxide (CO) by the state.

Development projects are most likely to violate an air quality plan or standard, or contribute substantially to an existing or project air quality violation, through generation of vehicle trips.

The YSAQMD sets threshold levels for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources in the Handbook for Assessing and Mitigating Air Quality Impacts (YSAQMD, 2007). The handbook identifies quantitative and qualitative long-term significance thresholds for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources. These thresholds include:

- Reactive Organic Gases (ROG): 10 tons per year (approx. 55 pounds per day)
- Oxides of Nitrogen (NOx): 10 tons per year (approx. 55 pounds per day)
- Particulate Matter (PM_{10}): 80 pounds per day
- Carbon Monoxide (CO): Violation of State ambient air quality standard

Discussion of Impacts

a) *No Impact.* The project would not substantially conflict with or obstruct implementation of the Yolo Solano Air Quality Management District Air Quality Attainment Plan (1992), the Sacramento Area Regional Ozone Attainment Plan (1994), or the goals and objectives of the County's General Plan.

b) *Less Than Significant Impact.* The Yolo-Solano Region is a non-attainment area for state particulate matter (PM_{10}) and ozone standards, and the Federal ozone standard. The project would not contribute significantly to air quality impacts, including PM_{10}, since site preparation would be limited to foundation placement for installation of a radio broadcast tower, guy wires, and accessory equipment shelter. Ground disturbance from construction activity will be minimal. Construction activities, including vehicular traffic, would generate a temporary or short-term increase in PM_{10}. This impact is considered less than significant because any potentially sensitive receptors would be exposed to minor amounts of construction dust and equipment emissions for short periods of time with no long-term exposure to potentially affective groups. The project applicant would be required to comply with all standards as applied by the YSAQMD to minimize dust and other construction related pollutants. In addition, prior to any building permit issuance the applicant is required to obtain any permits as required by the YSAQMD to ensure the project complies with District regulations. Thresholds for project-related air pollutant emissions would not exceed significant levels as set forth in the 2007 YSAQMD Handbook.

c) *Less Than Significant Impact.* Effects on air quality can be divided into short-term construction-related effects and those associated with long-term aspects of the project. Short-term construction impacts are addressed in (b), above. Long-term mobile source emissions from a radio broadcast tower facility would be negligible and would not exceed thresholds established by the Yolo-Solano Air Quality Management District Handbook for Assessing and Mitigating Air Quality Impacts (2007), and would not be cumulatively considerable for any non-attainment pollutant from the project. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

d) *and* e) *No Impact.* The landfill is located in a rural agricultural area and there are no sensitive receptors in the vicinity. ("Sensitive receptors" refer to those segments of the population most susceptible to poor air quality, i.e. children, elderly and the sick, and to certain at-risk sensitive land uses such as schools, hospitals, parks, or residential communities.) There are several rural residences located in the vicinity of the project; however, individual rural homes are not considered sensitive receptors. The proposed project will not expose sensitive receptors to pollutant concentrations in excess of standards. The proposed project and associated uses would not create objectionable odors.

IV.	Biological Resources.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
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?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian 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 U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

The 2005 Subsequent EIR for the Yolo County Central Landfill (Yolo County, 2005) analyzed the biological resources and natural communities occurring within the entire landfill property, including the area where the radio tower is proposed. The evaluation of biological resources in the 2005 Subsequent EIR included a review of potentially occurring special-status species, wildlife habitats, vegetation communities, and jurisdictional water of the U.S. The results of that assessment were based upon field reconnaissance, literature searches and database queries. The discussion of biological resources for the proposed radio tower project, below, is primarily derived from the 2005 Subsequent EIR and more recent database queries on the *California Department of Fish and Game* (CDFG, 2010) and *United States Fish and Wildlife Service* (USFWS, 2010) websites.

Non-native annual grasses and herbaceous weed species dominate the vegetation on the landfill property. Native plants are uncommon in the project area and on the landfill property due to a history of cultivation, flood-irrigation and other disturbance (Yolo County, 2005). The proposed radio tower base, fenced compound area, and guy wire anchor locations will be located on previously disturbed ground or on or near non-native annual grasses and weeds.

The landfill property and nearby agricultural lands have the potential to provide foraging, nesting, and soil burrowing areas for raptors and various other bird species. In addition, the groundwater storage ponds on the landfill property and the nearby Davis Wastewater Treatment Facility provide resting and foraging habitat for migrating and resident water-dependent birds.

Because of their height and attached guy wires, radio towers have the potential to interfere with bird flight patterns and in many cases, may collide with the tower or wires. According to the USFWS, the construction of new communication towers, "creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds" (USFWS, 2000). The USFWS also estimates that communication towers kill four to five million birds per year in the United States, which violates the spirit and intent of the Migratory Bird Treaty Act (MBTA). The majority of bird strikes, however, has been conducted primarily in the eastern, midwestern, and southern United States. In addition, most of the documented research on bird strikes has been conducted on towers of much greater heights (1,000 to 2,000 feet) than the proposed 365-foot tower (Anderson, 2009). There have not been sufficient studies conducted in California, or the western United States in general, thus, the USFWS guidelines are a generalized approach to minimizing bird strikes with communication towers. However, with the limited information available on this issue, the CDFG recommends that new communication towers comply with the USFWS guidelines to the greatest extent possible, in order to minimize the potential for bird strikes.

The lack of rigorous study of bird strikes in the western United States makes it difficult to quantify mortality from bird strikes. The USFWS recommends that researchers and agency personnel be allowed access to sites to evaluate bird use, conduct dead bird searches, and for other purposes related to researching bird strike issues (USFWS, 2000). The subject property is owned by the County of Yolo and would be leased to Results Radio, LLC. Since the County is the property owner, the project is well suited for allowing access and facilitating the research needed to better address bird strikes. The applicant indicated in the application materials that they welcome the opportunity to allow researchers to monitor and study the bird strike issue at the proposed tower location. A Condition of Approval will be added to this effect.

As part of its regulatory mandate, the Federal Communications Commission (FCC) is required to manage the expansion of the communications infrastructure in a way that best preserves environmental resources. In 2003, the Federal Communications Commission (FCC) initiated a Notice of Inquiry (NOI) into the *Effects of Communication Towers on Migratory Birds,* FCC 03-205. The FCC issued this NOI to gather comments and information on the impact that telecommunications towers may have on migratory birds. As a result of this inquiry, the FCC received approximately 265 comments and responses of varied technical breadth from a variety of commenting agencies,

telecommunication and infrastructure support companies, environmental groups, trade associations and concerned citizens. The analysis from the FCC study includes a comprehensive review of all available information on the subject of bird strikes. Although most of the causes and possible solutions for increased avian mortalities associated with communication structures remain speculative, a few conclusions have been advanced with some degree of confidence within the scientific community studying this problem. Among them include (Avatar, 2004):

• The largest bird kills tend to occur on nights with low visibility conditions, especially fog, low cloud ceiling, or other overcast conditions.

• All other things being equal, taller towers with lights tend to represent more of a hazard to birds than shorter, unlit towers.

• Towers with guy wires are at higher risk than self-supporting towers.

• Two collision mechanisms appear to be a factor in bird collision: 1) blind collision and 2) illuminated sphere of influence.

• Certain avian families or species tend to be more affected than others, among them vireos, warblers, and thrushes.

• The seasonal pattern exhibits a pronounced collision spike during fall migration and another smaller spike during spring migration. However, bird collisions with towers can occur any time of the year under any weather condition.

• There are no studies to date that demonstrate an unambiguous relationship between avian collisions with communication towers and population decline of migratory bird species.

• Although biologically significant tower kills have not been demonstrated in the literature, the potential does exist, especially for threatened and endangered species.

• More research is warranted in order to identify specific causes and possible solutions to this problem.

The study ultimately concluded that based on insufficient research and numerous potential contributing factors, the impact of communication towers on migratory birds needs to be studied further. It did however, offer analysis of the available research on bird strikes as well as discussion on bird flight diverters and tower lighting (discussed in (d), below) which are applicable to the proposed project.

Discussion of Impacts

a) *Less Than Significant Impact with Mitigation Incorporated.* The giant garter snake is a federal and state listed threatened species that may be found in the project vicinity. However, it is unlikely the construction of the proposed radio tower will impact their habitat. Giant garter snakes are usually found within a few feet of water, often between the water level and the top of adjacent banks (Yolo County, 2005). Potential

habitat within the project area is located within the open irrigation canal, surface run-off ditches, and adjacent uplands (Yolo County, 2005). The location of the proposed tower is not within or near aquatic habitat where the snake is primarily found.

The 2005 Subsequent EIR for the landfill expansion listed several special-status birds that had a medium to high potential to exist in the project area in 2005. These include[1]: Swainson's hawk (FSC/CT), western snowy plover (FT/CSC), short-eared owl (CSC), western burrowing owl (FSC/CSC), ferruginous hawk (FSC/CSC), northern harrier (CSC), white-tailed kite (FSC/CP), and California horned lark (CSC). A database inquiry on April 2, 2010, on the CDFG and USFWS websites concluded that of the previous special-status species potentially occurring in the project area in 2005, only the white-tailed kite, Swainson's hawk, western snowy plover, and burrowing owl are currently listed as potentially occurring in the project area. The designations for these four species are as follows: western snowy plover (FT/CSC); Swainson's hawk (CT); western burrowing owl (CSC); and white-tailed kite (CP). Although these four species are listed as potentially occurring in the nearby vicinity, the Mitigation Measure BIO-4 will mitigate for all birds of prey and migrating birds during the construction period.

There are no trees located within the proposed project location, thus it is unlikely there will be an impact to Swainson's hawk nesting habitat. However; high quality nesting habitat occurs in the vicinity of the project area along the Sacramento River. The 2005 Subsequent EIR for the landfill project indicated that more than 30 Swainson's hawk nests were recorded by CDFG within a 5-mile radius of the project area and an occupied nest active in 2002 and previous years occurs less than 0.5 mile from the landfill site (Yolo County, 2005). The project area has been previously disturbed and is currently used for storage and other daily landfill operations. Though there are no trees in the project area which could provide nesting habitat, a survey of Swainson's hawk habitat has not been conducted for this specific project.

Because the project area is comprised of non-native annual grasses and herbaceous weed species, there is a potential that foraging habitat could be affected by the construction of the proposed radio tower. Mitigation Measure BIO-1 requires a pre-construction survey to determine if Swainson's hawk habitat exists in the project area, and if so, it requires the applicant to mitigate for the loss of habitat through participation in the Draft Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

There is also the potential for the disturbance of sensitive ground nesting species, such as the Northern harrier and Western burrowing owl. The temporary disturbance of nesting habitat as well as noise and other construction-related disturbances may affect these nesting raptors in the vicinity of the project area during breeding season (February 1-August 31). Implementation of the following mitigation measures would ensure that the impact on the above species would be less than significant.

[1] FSC= Federal Species of Concern; FT= Federally listed as Threatened; CP= Fully Protected by State of California; CSC= California species of special concern; CT= California listed as Threatened

Mitigation Measure BIO-1

Swainson's hawk Biological Survey

Prior to any land disturbance activities and/or issuance of a building or grading permit, a biological survey of the project site shall be conducted by a qualified biologist. The qualified biologist shall determine if foraging habitat exists within the project site. If foraging habitat is not determined to exist within the project area, no further mitigation is required.

If Swainson's hawk foraging habitat is determined to exist in the project site, the applicant shall, prior to issuance of a grading or building permit, mitigate for the loss of Swainson's hawk habitat through participation in the Draft Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The qualified biologist, in consultation with the California Department of Fish and Game and/or Yolo HCP/NCCP Joint Powers Agency, shall determine the area of the foraging habitat disturbed by development. The applicant shall either: 1) pay a Swainson's hawk mitigation fee for the area disturbed by development, which is estimated not to exceed 1.7 acres, or 2) implement another project specific mitigation plan which is deemed appropriate to the California Department of Fish and Game. The fee is currently set at $8,660 per acre and is subject to change. In the event that the final HCP/NCCP is adopted before development occurs, the applicant shall participate in the Final HCP/NCCP to mitigate for the loss of Swainson's hawk habitat.

Mitigation Measure BIO-2

Swainson's hawk Pre-Construction Nest Survey

If any construction work (including clearing and grubbing) is scheduled to occur any time during the raptor nesting season (March 1 through September 15), a survey for raptor nests shall be conducted by a qualified biologist within 14 days prior to the start of construction. A copy of the survey and any agreement with the California Department of Fish and Game or Yolo HCP/NCCP Joint Powers Agency, if applicable, must be submitted to the Planning and Public Works Department no later than 48 hours prior to the start of construction. If no active nests are found during the focused survey, no further mitigation will be required.

If active nests used by a Swainson's hawk are found within 0.25 mile from the construction activities, a qualified biologist shall notify the Department of Fish and Game and a 0.5 mile construction-free buffer zone shall be established around the nest. Intensive new disturbances (e.g., heavy equipment activities associated with construction) that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 15, unless it is determined by a qualified biologist in coordination with the California Department of Fish and Game that the young have fledged and are feeding on their own, or the nest is no longer in active use.

Mitigation Measure BIO-3

Burrowing owl

Prior to land disturbance activities, pre-construction surveys of all potential burrowing owl habitat shall be conducted by a qualified biologist within the project area. Presence or sign of burrowing owl and all potentially occupied burrows shall be recorded and monitored according to the California Department of Fish and Game and California Burrowing Owl Consortium guidelines. If burrowing owls are not detected by sign or direct observation, construction may proceed and no further mitigation is required.

If potentially nesting burrowing owls are present during pre-construction surveys conducted between February 1 and August 31, grading shall not be allowed within 250 feet of any nest burrow during the breeding season (February 1—August 31), unless approved by the California Department of Fish and Game.

If burrowing owls are detected during pre-construction surveys outside the breeding season (September 1—January 31), passive relocation and monitoring shall be undertaken by a qualified biologist following the California Department of Fish and Game and California Burrowing Owl Consortium guidelines, which involve the placement of one-way exclusion doors on occupied and potentially occupied burrowing owl burrows. Owls shall be excluded from all suitable burrows within the project area and within a 250-foot buffer zone to acclimate to alternate burrows. These mitigation actions shall be carried out prior to the burrowing owl breeding season (February 1—August 31) and the site shall be monitored weekly by a qualified biologist until construction begins to ensure that burrowing owls do not re-inhabit the site.

Mitigation Measure BIO-4

Other Birds of Prey and Migratory Birds

o A preconstruction survey for active nests of migratory birds and birds of prey shall be conducted no more than two weeks prior to construction. If no active nests are found, then no additional avoidance and mitigation measures are necessary.

o If an active nest is located within 250 ft of a construction area, a qualified biologist shall record the location(s) on a site map.

o The biologist shall establish a minimum 250 ft buffer around the nest tree or nest location.

o The biologist shall delimit the buffer zone with yellow caution tape, surveyor's flagging, pin flags, stakes, etc. The buffer zone shall be maintained until the end of the breeding season. No construction activities shall occur within 250 ft of a nest tree or nest location while young are in the nest.

o The biologist shall monitor the nest weekly during construction to evaluate potential disturbance caused by construction activities.

- If establishment of a buffer is not practical, DFG shall be contacted for further avoidance and minimization guidelines.

b) *and* c) *No Impact.* The project would have no substantial adverse effect on any wetlands, riparian habitat or any other sensitive natural community identified in local or regional plans, policies, or regulations. The construction and proposed placement of the tower will be located in an already disturbed portion of the Yolo County Central Landfill.

d) *Less Than Significant Impact.* There are various factors that need to be considered when determining the impact the proposed project will have on wildlife species. These factors include tower height, number of guy wires, species present in the vicinity of the tower, tower lighting, geographic location, and surrounding land use. The proposed 365-foot tower is significantly smaller compared to other nearby radio towers located within 5 miles of the project site. The tower located off County Road 29, just east of County Road 102 is 538 feet (Appendix H). The radio tower located off County Road 102, just south of the Mountain Valley Golf Center is 500 feet tall (Appendix H). Though significantly shorter than nearby radio towers, the proposed tower nonetheless presents a potential obstruction in the flight path of birds.

Most night migrating birds fly at heights well above 335 feet and will not likely be affected by the tower. Additionally, the western United States does not have the same species and number of birds that night migrate as in the eastern United States (Avatar, 2004). However, the proposed location site is located within close proximity of three water bodies that attract high concentrations of avian wildlife throughout the year. These include the landfill drainage ponds (located 162 meters south/southwest of the proposed tower), the Willow Slough Bypass (located approx 0.43 mile to the south), and the Davis Wastewater Treatment Plant oxidation ponds (located approximately 0.26 mile to the east/southeast). The proposed location of the radio tower sits in the middle of the daily migration path of thousands of gulls. During the day, gulls seek food on the active face of the landfill. The landfill drainage ponds and the City of Davis Wastewater Treatment Plant oxidation ponds are used by the gulls for loafing and nighttime roosting. The gulls make frequent trips during the day to and from the landfill and ponds.

The tower is proposed to be held in place with fifteen guy wires located at varying heights on the tower (five guy wires per side on the triangular shaped tower). The guy wires will be anchored at a distance of 235 feet from the base of the tower. This triangular shaped area created by the guy wires has the potential to impede the daily movement routes of birds, especially in known raptor concentration areas. The project location provides foraging habitat for raptors and other birds of prey. When locating a tower in an area of known raptor concentration, the USFWS recommends that daytime visual markers (bird flight diverters) should be installed on guy wires to prevent collisions by diurnally active species. The applicant has proposed to install bird flight diverters on the guy wires to minimize the impact of bird strikes with the guy wires.

The Bird Flight Diverter (BFD) was developed in Europe during the 1970's. The BFD is made from a high-impact, standard PVC and is UV stabilized (Appendix G). The BFD has been effective when tested on transmission overhead static wires in Europe, where typical spacing ranges from 16 to 33 feet (Avatar, 2004). In North America, the BFD also has shown to be effective in reducing waterfowl collisions with overhead static wires

(Avatar, 2004). The BFD is believed to be effective because its profile increases line visibility. BFDs have not been tested on communication tower guy wires; however, it is assumed that they would increase the profile and, therefore, the visibility of the guy wires during daytime conditions (Avatar, 2004).

Nocturnal migrating birds are thought to be attracted to artificial light sources on communication towers. The mechanisms for this attraction are not well understood. In addition, no firm conclusions can be drawn, based on the existing literature, regarding the importance of different lighting colors, durations, intensities, and types (e.g., incandescent, strobe, neon, or laser) on bird attraction in conjunction with other factors (e.g., certain weather conditions that increase or decrease the risk of bird collisions with lighted communication towers) (Avatar, 2004). The FAA has strict regulations regarding tower lighting that the applicant must follow. The FAA requirements are intended to increase conspicuity and make the tower visible to pilots during the night. The USFWS recommends that towers use white or red strobe lights at night, unless otherwise required by the FAA. Based on available research, the USFWS concludes that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights (USFWS, 2000). Though there is a lack of research on this issue, as a best management practice, the applicant has proposed to follow the USFWS guidelines and install flashing white strobe lights instead of red steady burning lights and red beacon lights.

e) *No Impact.* The proposed project does not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) *No Impact.* The proposed amendment would not conflict with any local policies or ordinances protecting biological resources. The Yolo County Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan (NCCP) is in preparation by the Natural Heritage Program, with an anticipated adoption sometime in 2010. Thus, the project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

V.	CULTURAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion of Impacts

a) *through* d) *No Impact.* The construction of a radio tower would not affect any historic, cultural, or paleontological resources known or suspected to occur on the project site. No human remains are known or predicted to exist in the project area. However, the potential exists during construction to uncover previously unidentified resources. Any development that uncovers cultural resources is required to follow procedures and recommendations as set forth in the CEQA Guidelines, Section 15064.5, and Section 7050.5 of the California Health and Safety Code.

VI.	GEOLOGY AND SOILS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
	1. 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.				
	2. Strong seismic groundshaking?				
	3. Seismic-related ground failure, including liquefaction?				
	4. Landslides?				
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion of Impacts

a) Less Than Significant Impact:

1. The project site can be expected to experience moderate to strong ground shaking during future seismic events along active faults throughout Northern California or on smaller active faults located in the project vicinity. However, the project will comply with all applicable Uniform Building Code requirements.

2. Any major earthquake damage on the project site is likely to occur from ground shaking, and seismically related ground and structural failures. Local soil conditions, such as soil strength, thickness, density, water content, and firmness of underlying bedrock affect seismic response. Seismically induced shaking and some damage should be expected to occur during a major event but damage should be no more severe in the project area than elsewhere in the region. The tower structure and other framed construction on proper foundations constructed in accordance with Uniform Building Code requirements are generally flexible enough to sustain only minor structural damage from ground shaking. Therefore, people and structures would not be exposed to potential substantial adverse effects involving strong seismic ground shaking.

3. The proposed radio broadcast tower facility is located in a relatively level area. The erosion hazard is none to slight. Effects of liquefaction or cyclic strength degradation beneath the project vicinity during seismic events are unlikely.

4. The project site is relatively level and approval of the project would not expose people or structures to potential landslides.

b) *No Impact.* Only a small area of ground disturbance is proposed for the foundation placement of the radio broadcast tower, guy wires, and related equipment. Substantial soil erosion or loss of topsoil is unlikely to occur.

c) *No Impact.* The project is not located on unstable geologic materials and will not have any affect on the stability of the underlying materials or on the underlying materials to potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The project site is relatively level ground. Onsite or off-site potential landslides, liquefaction or other cyclic strength degradation during seismic events are unlikely.

d) *No Impact.* The project will not be located on expansive soils. The existence of substantial areas of expansive, and corrosive soils has not been documented in the project area.

e) *No Impact.* The proposed radio broadcast tower facility will not be served by a septic system.

VII. GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒
c. Be affected by climate change impacts, e.g., sea level rise, increased wildfire dangers, diminishing snow pack and water supplies, etc.?	☐	☐	☐	☒

Environmental Setting

The issue of combating climate change and reducing greenhouse gas emissions (GHG) has been the subject of recent state legislation (AB 32 and SB 375). The Governor's Office of Planning and Research has recommended changes to the California Environmental Quality Act (CEQA) Guidelines, and the environmental checklist which is used for Initial Studies such as this one. The recommended changes to the checklist, which have not yet been approved by the state, are incorporated above in the two questions related to a project's GHG impacts. A third question has been added by Yolo County to consider potential impacts related to climate change's effect on individual projects, such as sea level rise and increased wildfire dangers. To date, specific thresholds of significance to evaluate impacts pertaining to GHG emissions have not been established by local decision-making agencies, the Yolo Solano Air Quality Management District, the state, or the federal government. However, this absence of thresholds does not negate CEQA's mandate to evaluate all potentially significant impacts associated with the proposed project.

Discussion of Impacts

a) *Less Than Significant Impact.* The proposed project is an unmanned radio broadcast tower. Aside from truck trips during the construction of the proposed tower, the only vehicular traffic generated by the project would be two vehicle trips per month for routine maintenance purposes. A 30kW natural gas generator will exercise once per week for fifteen minutes, and will turn on if power to the site ever fails. Thus, the project will not generate greenhouse gas emissions that will have a significant impact on the environment.

b) *No Impact.* The proposed project would not conflict with any applicable plan, policy or regulation adopted to reduce GHG emissions, including the numerous policies of the newly adopted Yolo County 2030 Countywide General Plan.

c) *No Impact.* The project is not at significant risk of wildfire dangers or diminishing snow pack or water supplies.

VII.	HAZARDS AND HAZARDOUS MATERIALS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
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 involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d.	Be located on a site that 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.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f.	Be located within the vicinity of a private airstrip and 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?	☐	☐	☐	☒

Discussion of Impacts

a) *Less Than Significant Impact.* Construction of the proposed project would require the transport, storage, use, handling and disposal of different types of hazardous substances including fuel, oil, lubricants, and solvents. However, operation of the project itself would not result in any new hazardous emissions or materials. Storage of significant quantities of fuel, oil, or other potentially hazardous materials at the construction site would not occur. The transport, use, and disposal of any construction related hazardous materials will be

stored and handled in accordance with all applicable federal, state, and local requirements, including Yolo County Environmental Health Division regulations. Additionally, the applicant would required to provide a Hazardous Materials Business Plan and inventory to the satisfaction of the Yolo County Environmental Health Division by the time hazardous materials and/or hazardous wastes are present in reportable quantities on-site, at the facility. Therefore, hazardous impacts to the public or environment are unlikely and would be considered less than significant.

b) *Less Than Significant Impact.* See (a), above. The FCC Rules and Regulations require that any applicant for a broadcast construction permit demonstrate strict compliance with environmental standards established by the United States Congress (FCC, 1997). The limits established by the FCC are designed to protect the public health with a very large margin of safety. In August 1996, the FCC adopted new guidelines and methods for evaluating the environmental effects of radiofrequency (RF) radiation from FCC regulated transmitters. The FCC adopted Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz (the proposed radio tower will operate at 101.5 MHz (KMJE) and 90.3 MHz (KDVS)). The guidelines effectively set a national radio frequency (RF) exposure standard based on elements of the 1992 revision of the American National Standards Institute (ANSI) standard and the exposure criteria recommended by the National Council on Radiation Protection and Measurements (NCRP). The FCC concluded, after years of study and analysis, that the adopted guidelines and MPE limits would effectively protect the public and workers from exposure to potentially harmful RF fields (FCC, 1997). Measurements made by the FCC, EPA and others have shown that ambient RF radiation levels in inhabited areas near broadcasting facilities are typically well below the exposure levels recommended by current standards and guidelines. According to the FCC, there have been a few situations around the country where RF levels in publicly accessible areas have been found to be higher than those recommended in applicable safety standards (FCC, 1997). Prior to FCC approval, the proposed radio tower will be required to demonstrate compliance with FCC safety guidelines.

c) *No Impact.* See (a) and (b), above. Additionally, the project site is not located within one-quarter mile of an existing or proposed school.

d) *No Impact.* The project site is not located on a site that is included on a list of hazardous materials sites compiled by the Yolo County Environmental Health Division-Hazardous Waste Site Files pursuant to Government Code 65962.5.

e) *No Impact.* The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. In relation to the proposed tower location, the nearest airports are as follows: University of California, Davis Airport (approx. 7 miles SW); Sacramento International Airport (approx. 7 miles NE); Yolo County Airport (approx. 9.5 miles W); and Watts-Woodland Airport (approx. 11.5 miles NW). The radio broadcast tower requires the approval of the FAA. The tower will be built according to the requirements of the FAA to ensure safety for general aircraft and the general public at ground level.

f) *No Impact.* See (e), above. Additionally, the project site is not located within the vicinity of a private airstrip.

g) *No Impact.* The project would not interfere with any adopted emergency response or evacuation plans.

h) *No Impact.* The project site is not located in a wildland area and, therefore, would not be at risk from wildland fires.

VIII.	HYDROLOGY AND WATER QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
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 that would result in substantial erosion or siltation onsite or off-site?	☐	☐	☐	☒
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 in a manner that would result in flooding onsite or off-site?	☐	☐	☐	☒
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f.	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g.	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?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
i.	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?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion of Impacts

a) *No Impact.* The proposed project would not discharge any pollutants into the water system, or result in any violations of existing requirements.

b) *No Impact.* The proposed radio broadcast tower facility would not affect any onsite well and would not deplete groundwater supplies or interfere with groundwater recharge.

c) *through* f) *No Impact.* The proposed project will not modify any drainage patterns or change absorption rates, or the rate and amount of surface runoff. No additional impacts to water quality are anticipated.

g) *No Impact.* The project does not include any housing and would not place housing in an existing floodplain.

h) *No Impact.* The construction of a radio tower, associated equipment, and guy wires would not impede or redirect flood flows. The project site is located in Flood Zone B, as designated by the Federal Emergency Management Agency (FEMA). Flood Zone B is area within the 500-year flood plain, but outside the 100-year flood plain; however, FEMA is in the process of updating the Flood Insurance Rate Maps for the Yolo County area. The preliminary maps indicate that a large portion north of the City of Davis, including the project site, will be included within the newly designated 100-year floodplain when the preliminary maps are made final, now scheduled for June 18, 2010. Thus, if new construction (containing electrical equipment) requiring building permits were to begin after the new updated FEMA maps became finalized, it would have to be elevated at least one-foot above the base flood elevation.

i) *No Impact.* The project site is not located immediately down stream of a dam or adjacent to a levee that would expose individuals to risk from flooding.

j) *No Impact.* The project area is not located near any large bodies of water that would pose a seiche or tsunami hazard. In addition, the project site is relatively flat and is not located near any physical or geologic features that would produce a mudflow hazard.

IX.	LAND USE AND PLANNING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

IX.	LAND USE AND PLANNING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion of Impacts

a) *through* c) *No Impact.* The project site is located in a rural agricultural area, well outside any established community; therefore, there are no impacts to established communities. The proposed project would not conflict with any Yolo County General Plans policies. Policy PF 11.2 in the 2030 Countywide General Plan encourages the expanded coverage and enhanced quality for communication technology, such as mobile connectivity, high-speed wireless internet access, and emergency communication systems. The proposed project will provide for collocation opportunities for these types of necessary services. The proposed project will not conflict with any applicable habitat conservation plan or natural community conservation plan.

X.	MINERAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion of Impacts

a) *and* b) *No impact.* The project area has not been identified as an area of significant aggregate deposits, as classified by the State Department of Mines and Geology.

XI.	NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☐	☒
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

XI.	NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion of Impacts

a) *through* f) *No Impact.* Yolo County has not adopted a noise ordinance which sets specific noise levels for different zoning districts or for different land uses in the unincorporated area. The construction and operation of a radio broadcast tower is not expected to generate noise levels at the boundaries of the property that will significantly impact the nearest neighbors, since the residences are located far away from the noisiest construction activities. Noise levels diminish or attenuate as distance from the noise source increases, based on an inverse square rule. A 30kW natural gas generator will exercise 15 minutes once per week and run when power fails. Sound output from the generator would reach approximately 71dBA at 23 feet. The noise generation from the project will not exceed noise levels currently generated at the project site, which are primarily composed of landfill dumping and maintenance activities. The proposed project is located in a rural agricultural area and there are no sensitive receptors in the vicinity. There are several rural residences located in the vicinity of the project; however, individual rural homes are not considered sensitive receptors. The proposed project is located more than two miles from the nearest public airport and is located more than two miles from the nearest private airstrip.

XII.	POPULATION AND HOUSING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒

XII.	POPULATION AND HOUSING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion of Impacts

a) *through* c) *No Impact.* The proposed project is a radio broadcast tower facility and would not induce any population growth or displace any existing housing units or people.

XIII.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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:					
a.	Fire protection?	☐	☐	☐	☒
b.	Police protection?	☐	☐	☐	☒
c.	Schools?	☐	☐	☐	☒
d.	Parks?	☐	☐	☐	☒
e.	Other public facilities?	☐	☐	☐	☒

Discussion of Impacts

a) *through* e) *No Impact.* The proposed project would not be expected to increase the demand for any public services, such as police and fire protection, or schools, parks or other public facilities and services.

XIV.	RECREATION.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
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?	☐	☐	☐	☒
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Impacts

a) *and* b) *No Impact.* The project would not affect any existing or future recreational facilities.

XV.	TRANSPORTATION/TRAFFIC.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e.	Result in inadequate emergency access?	☐	☐	☐	☒
f.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion of Impacts

a) *and* b) *No Impact.* Construction of the proposed radio broadcast tower facility would generate a limited number of truck trips for the construction phases for the project. This traffic increase is only temporary during construction activity. The facility will be unmanned, but visited an average of twice per month for routine maintenance purposes. The project will not exceed a level of service standard for any road.

c) *Less Than Significant Impact.* The project does not involve or affect air traffic movement. The FAA requires nighttime lighting on the radio broadcast tower to make the tower visible to pilots. Nighttime lighting will consist of medium intensity white strobe lighting (2,000 cd) at the 200-foot level and at the top of the 365-foot tower.

d) *No Impact.* The proposed project does not incorporate design features that would substantially increase hazards or introduce incompatible uses.

e) *No Impact.* The proposed project would not result in inadequate emergency access. The existing access routes to the Central Landfill would not be affected.

f) *No Impact.* The proposed project would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

XVI.	UTILITIES AND SERVICE SYSTEMS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e.	Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒

XVI.	UTILITIES AND SERVICE SYSTEMS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion of Impacts

a) *through* g) *No Impact.* The proposed project is an unmanned radio tower facility and would not create any new demand for public utilities or public service systems and would not require the construction of any new facilities.

XVII.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	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, substantially 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?	☐	☐	☒	☐
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.)	☐	☐	☐	☒
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Impacts

a) *Less Than Significant Impact.* As discussed in the Biological Resources section of this Initial Study, the proposed radio tower could result in a potentially significant impact in terms of reducing the foraging habitat of the Swainson's hawk and nesting habitat of ground nesting raptors, such as the burrowing owl. Mitigation measures described in the Biological Resources section would reduce these impacts to less than significant levels. In addition, the proposed tower and guy wires have the potential to interfere with the daily movement of diurnal birds. The applicant has

proposed to follow the USFWS guidelines (Appendix B) and will install bird flight diverters to minimize potential bird strikes. The applicant also proposed to install white obstruction lighting as recommended by the USFWS, instead of red steady burning and beacon lights. As proposed and described in this Initial Study, the project will not 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.

b) *No Impact.* Based on the analysis provided in this Initial Study, potential cumulative impacts of the proposed project would be less than significant.

c) *Less Than Significant Impact.* Based on the analysis provided in this Initial Study, the proposed project would not result in environmental effects that could cause adverse effects on human beings, either directly or indirectly. The construction of the tower will comply with all applicable Uniform Building requirements. The FCC Rules and Regulations require that any applicant for a broadcast construction permit demonstrate strict compliance with environmental standards established by the United States Congress (FCC, 1997). The limits established by the FCC are designed to protect the public health with a very large margin of safety. Measurements made by the FCC, EPA and others have shown that ambient RF radiation levels in inhabited areas near broadcasting facilities are typically well below the exposure levels recommended by current standards and guidelines. Prior to FCC approval, the proposed radio tower will be required to demonstrate compliance with FCC safety guidelines.

APPENDICES

A: City of Davis Redevelopment Agency action letter/comments (March 16, 2010)
B: USFWS Guidelines
C: Applicant response to USFWS Guidelines
D: Alternative location map and criteria
E: Manufacturer lighting information
F: Visual Simulations
G: Bird Flight Diverters (BFD) photographs
H: Photographs of existing nearby radio towers

REFERENCES CONSULTED AND CITED

Anderson, Dick (private consultant and wind-energy/wildlife interaction expert, Davis, CA), phone conversation, October 8, 2009.

Avatar Environmental, LLC, EDM International, Inc., and Pandion Systems, Inc. *Notice of Inquiry Comment Review, Avian / Communication Tower Collisions,* prepared for Federal Communications Commission (September 30, 2004).

California Department of Fish and Game (CDGF). 2010. *California Natural Diversity Database: Data request for the Davis USGS 7.5 minute quadrangle.* Wildlife & Habitat Data Analysis Branch, Department of Fish and Game. April 2, 2010.

City of Davis, 2010. Redevelopment Agency action letter/comments (March 16, 2010).

Federal Aviation Administration Advisory Circular 70/74601K: *Obstruction Marking and Lighting.* (February 1, 2007).

Federal Communications Commission (FCC) Office of Engineering and Technology: OET Builletin 65 Edition 97-01, "*Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*" (August, 1997).

Project description and application materials provided by applicant

Yolo County, 2005. Yolo County Central Landfill Permit Revisions subsequent environmental impact report (SCH#1991073040).

Yolo County, 2009. *2030 Yolo Countywide General Plan,* November, 2009.

Yolo-Solano Air Quality Management District (YSAQMD), 2007. *Handbook for Assessing and Mitigating Air Quality Impacts.*

United States Fish and Wildlife Service (USFWS), 2000. Letter from Director Jamie Rappaport Clark to Regional Directors, "*Service Guidance on the Siting, Construction, Operation and Decommissioning of Communication Towers*" (September 14, 2000).

United States Fish and Wildlife Service (USFWS), 2010, Sacramento Office. Official List of Federal Endangered and Threatened Species that Occur in or my be affected by Projects in the Davis USGS 7.5 minute quadrangle. Document Number: 100402121629. Available online at: http://www.fws.gov/sacramento/es/spp_lists/auto_list.cfm Requested April 2, 2010.

COMMUNITY DEVELOPMENT DEPARTMENT

23 Russell Boulevard, Suite 2 – Davis, California 95616
530/757-5610 – FAX: 530/757-5660 – TDD: 530/757-5666

Davis
California

March 17, 2010

Ronald Castro
Results Radio LLC
1355 N. Dutton Avenue, #225
Santa Rosa, CA 95401

SUBJECT: Yolo County Referral – KMJE/KDVS Radio Broadcast Tower at 44090 County Road 28H (Yolo County Landfill)

FILE NO.: Planning Application #46-09 – Yolo Referral #01-09

Dear Mr. Castro:

This is to notify you that on March 16, 2010 the City of Davis Redevelopment Agency Board considered the Yolo County Referral request (PA#46-09) for Yolo County application (ZF#2009-001) for the proposed KMJE/KDVS radio broadcast tower located at 44090 County Road 28H at the Yolo County Landfill site.

The Redevelopment Agency determined that the proposed project is considered urban development under the Pass-Through Agreement because communication facilities are not explicitly included in the list of permitted uses. However, the Redevelopment Agency further concluded that the project would not interfere with the intent of the agreement and therefore had no objections to the proposal.

The City Council also reviewed the project and approved the attached comments to Yolo County that include recommendations to reduce potential wildlife impacts for its consideration in reviewing the County use permit

This action for comments to Yolo County cannot be appealed since the City does not have final approval for projects located outside the City's jurisdiction. If you have any questions or concerns, please contact me at: (530) 757-5610 or by email at: elee@cityofdavis.org.

Sincerely,

Eric Lee
Assistant Planner

Attachments: City Council Comments

cc: Jeff Anderson (Yolo County)

CITY OF DAVIS

APPENDIX A

City of Davis City Council Comments on Proposed
KMJE/KDVS Radio Tower – 44090 County Road 28H
Planning Application #46-09 – YOLO #01-09

1. Communication towers, and associated guy wires, are well documented to present a bird strike hazard. A nation-wide annual estimate of 4-50 million birds are mortally injured via collision with communication towers.

2. The proposed site is located within close proximity of three water bodies that attract high concentrations of avian wildlife throughout the year. These include the landfill drainage ponds (located 162 meters south/ southwest of proposed tower), the Willow Slough Bypass (located approx 0.62 km to the south), and the Davis Wastewater Treatment Plant (WWTP) oxidation ponds (located approx 0.43 km to the east/southeast).

3. The proposed location of the communication tower sits in the middle of the daily migration path of thousands of gulls. During the day gulls seek food on the active face of the landfill. The landfill drainage ponds and WWTP oxidation ponds are used by the gulls for loafing and nighttime roosting. The gulls make frequent trips during the day to and from the landfill and ponds, thus increasing their potential for collision with the tower and/ or guy wires.

4. The installation of "daytime visibility markers" to the guy wires may help to reduce collisions on clear days. However, the area is subject to frequent and persistent fog conditions. Fog will reduce, if not eliminate, the mitigating effect of the visibility markers.

5. An alternative tower design that does not employ the use of guy wires would significantly reduce the risk of fatal collisions by birds. The applicant's "Bird-strike Mitigation" plan (Recommendation #3) suggests that a non-guyed tower design was "not feasible due to concerns over visible impact." However, the applicants "Alternatives Analysis" (Alternative 4) suggests that the there is "..no esthetic value attached to an active landfill and that currently permitted uses of the landfill have esthetic impacts that are 'significant and unavoidable'." Re-evaluation of a non-guyed tower design as an acceptable bird strike mitigation measure at this site is recommended.

6. Disturbance associated with construction may directly or indirectly impact sensitive ground nesting species. Biological impact information submitted with this referral is incomplete. It is unclear if the applicant intends adopt the mitigation measures for biological resources identified in the Yolo County Central Landfill Permit Revisions DSEIR, 2004. It is recommended that the applicant fully identify and mitigate for any potential impact to sensitive ground nesting species. Site specific surveys and resulting impact mitigation should be conducted for, at a minimum, burrowing owl and northern harrier.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240

In Reply Refer To:
FWS/FHC/DHC/BFA

Memorandum

To: Regional Directors, Regions 1-7

From: Director ***/s/*** **Jamie Rappaport Clark** SEP 14

Subject: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers

Construction of communications towers (including radio, television, cellular, and microwave) in the United States has been growing at an exponential rate, increasing at an estimated 6 percent to 8 percent annually. According to the Federal Communication Commission's *2000 Antenna Structure Registry,* the number of lighted towers greater than 199 feet above ground level currently number over 45,000 and the total number of towers over 74,000. By 2003, all television stations must be digital, adding potentially 1,000 new towers exceeding 1,000 feet AGL.

The construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. Communications towers are estimated to kill 4-5 million birds per year, which violates the spirit and the intent of the Migratory Bird Treaty Act and the Code of Federal Regulations at Part 50 designed to implement the MBTA. Some of the species affected are also protected under the Endangered Species Act and Bald and Golden Eagle Act.

Service personnel may become involved in the review of proposed tower sitings and/or in the evaluation of tower impacts on migratory birds through National Environmental Policy Act review; specifically, sections 1501.6, opportunity to be a cooperating agency, and 1503.4, duty to comment on federally-licensed activities for agencies with jurisdiction by law, in this case the MBTA, or because of special expertise. Also, the National Wildlife Refuge System Improvement Act requires that any activity on Refuge lands be determined as compatible with the Refuge system mission and the Refuge purpose(s). In addition, the Service is required by the ESA to assist other Federal agencies in ensuring that any action they authorize, implement, or fund will not jeopardize the continued existence of any federally endangered or threatened species.

APPENDIX B

A Communication Tower Working Group composed of government agencies, industry, academic researchers and NGO's has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research study is completed, or until research efforts uncover significant new mitigation measures, all Service personnel involved in the review of proposed tower sitings and/or the evaluation of the impacts of towers on migratory birds should use the attached interim guidelines when making recommendations to all companies, license applicants, or licensees proposing new tower sitings. These guidelines were developed by Service personnel from research conducted in several eastern, midwestern, and southern States, and have been refined through Regional review. They are based on the best information available at this time, and are the most prudent and effective measures for avoiding bird strikes at towers. We believe that they will provide significant protection for migratory birds pending completion of the Working Group's recommendations. As new information becomes available, the guidelines will be updated accordingly.

Implementation of these guidelines by the communications industry is voluntary, and our recommendations must be balanced with Federal Aviation Administration requirements and local community concerns where necessary. Field offices have discretion in the use of these guidelines on a case by case basis, and may also have additional recommendations to add which are specific to their geographic area.

Also attached is a Tower Site Evaluation Form which may prove useful in evaluating proposed towers and in streamlining the evaluation process. Copies may be provided to consultants or tower companies who regularly submit requests for consultation, as well as to those who submit individual requests that do not contain sufficient information to allow adequate evaluation. This form is for discretionary use, and may be modified as necessary.

The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing an unauthorized take, it must be recognized that some birds may be killed at structures such as communications towers even if all reasonable measures to avoid it are implemented. The Service's Division of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.

Please ensure that all field personnel involved in review of FCC licensed communications tower proposals receive copies of this memorandum. Questions regarding this issue should be directed to Dr. Benjamin N. Tuggle, Chief, Division of Habitat Conservation, at (703)358-2161, or

Jon Andrew, Chief, Division ofMigratory Bird Management, at (703)358-1714. These guidelines will be incorporated in a Director's Order and placed in the Fish and Wildlife Service Manual at a future date.

Attachment

cc: 3012-MIB-FWS/Directorate Reading File
3012-MIB-FWS/CCU Files
3245-MIB-FWS/AFHC Reading Files
840-ARLSQ-FWS/AF Files
400-ARLSQ-FWS/DHC Files
400-ARLSQ-FWS/DHC/BFA Files
400-ARLSQ-FWS/DHC/BFA Staff
520-ARLSQ-FWS/LE Files
634-ARLSQ-FWS/MBMO Files (Jon Andrew)

FWS/DHCIBFAJRWillis:bg:08/09/00:(703)358-2183
S:\DHC\BFA\WILLIS\COMTOW-2.POL

Attachment

Service Interim Guidelines For Recommendations On Communications Tower Siting, Construction, Operation, and Decommissioning

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.

2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level, using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.

3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.

4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., State or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.

5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.

6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see *Avian Power Line Interaction Committee (APLIC).* 1994. *Mitigating Bird Collisions with Power Lines: The State of the Art in* 1994. *Edison Electric Institute, Washington, D.C.,* 78 *pp,* and *Avian Power Line Interaction Committee (APLIC).* 1996. *Suggested Practices/or Raptor Protection on Power Lines. Edison Electric InstituteiRaptor Research Foundation, Washington, D. C;* 128 *pp.* Copies can be obtained via the Internet at http://www.eei.org/resources/pubcat/enviro/. or by calling 1-800/334-5453).

7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint." However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.

8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.

9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.

10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

In order to obtain information on the extent to which these guidelines are being implemented, and to identify any recurring problems with their implementation which may necessitate modifications, letters provided in response to requests for evaluation of proposed towers should contain the following request:

> "In order to obtain information on the usefulness of these guidelines in preventing bird strikes, and to identify any recurring problems with their implementation which may necessitate modifications, please advise us of the final location and specifications of the proposed tower, and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures can not be implemented, please explain why they were not feasible."

Yolo County Habitat Conservation Plan/Natural Community Conservation Plan JPA and Bird Strike Mitigation

At the request of the County, applicant has been in contact with Maria Wong, Executive Director of the Yolo County Habitat Conservation Plan/Natural Community Conservation Plan JPA and has discussed our participation. Applicant is committed to making the project as environmentally friendly as is practical in accordance with FCC and FAA requirements and in keeping with commitments to mitigate esthetic/visual impact on surrounding communities and will use "best practices" that are feasible in the construction of the project.

Applicant has reviewed materials provided by the US Fish and Wildlife Service, Division of Migratory Bird Management[11], Maria Wong and John McNerney, Wildlife Resource Specialist, City of Davis[12], and has integrated the following recommendations that are relevant to the landfill site:

1. Neither KMJE nor KDVS can collocate on any existing towers, however they can be collocated together on the proposed tower and with other telecommunications users to reduce the overall number of towers required now and in the future.
2. The tower height is the lowest that can be specified under FCC regulations that will meet the criteria delineated in the Alternatives Analysis above. While the FCC will allow a much taller tower, 365 feet is the lowest feasible height that meets the objectives of 47 CFR § 73.315[13].
3. A non-guyed tower is considered not feasible due to the concerns of visual impact caused by a much wider form requiring the lower sections of the tower to be as much as 30 feet wide as opposed to the 2 foot width proposed. To mitigate bird collisions with guy wires, daytime visual markers will be placed on them.
4. In accordance with FAA-required marking and lighting[14] applicant has chosen to use medium intensity white strobe lighting. This complies with recommendation numbers 5 and 10 made by John McNerney.
5. Lighting is required under FAA Rules, however applicant has committed to using only state-of-the-art 'Accubeam' LED lighting[15] that emits 'light pollution' that is dramatically reduced compared to older incandescent and Xenon flash tube lighting and which meets the U.S. Fish and Wildlife Services recommendations for proposed rules meeting the FCC standards regarding the protection of migratory birds[16].

[11] Manville, A. M. II. 2000. The ABCs of avoiding bird collisions at communication towers: the next steps. Proceedings of the Avian Interactions Workshop, December 2, 1999, Charleston, SC. Electric Power Research Institute (in press).
[12] City Council Staff Report, Subject: Yolo County referral – 28150 Mace Boulevard May 5, 2009, Attachment 10
[13] Also *See* 47 CFR §73.207, § 73.210 and § 73.211.
[14] FAA Advisory Circular AC 70/7460-1K.
[15] FAA Type L-864 red medium intensity beacon at 365' and 200' levels, manufactured by Dialight Corporation, 1501 Route 34, Farmingdale, NJ 07727. Specifications at www.dialight.com.
[16] WT Docket No. 03-187, FCC 06- 164

APPENDIX C

6. No significant amount of bird habitat will be lost since the area selected for the site has historically, and is still currently used as an active landfill. There are no trees within 0.4 miles of the proposed tower. Road access and fencing are minimized to prevent habitat fragmentation and disturbance to birds in flight.
7. Security lighting will be down-shielded to keep light within the boundaries of the site.
8. Applicant will allow service personnel or researchers from the Communications Tower Working Group access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the tower but above the ground and to place radar, Global Positioning System, infrared, thermal imagery and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations and lighting systems.
9. If the tower is abandoned, it will be removed within 12 months.

Additional biological impacts have been carefully studied by the County of Yolo and presented in the Yolo County Central Landfill Permit Revisions DSEIR (Draft Subsequent Environmental Impact Report) SCH No. 1991073040, dated September, 2004. The relevant section regarding biological resources has been

Alternatives Analysis

Prior to submission of this application, the applicant conducted a thorough investigation of potential locations for KMJE that met with following criteria which are federally mandated by the FCC:

1. Station is fully spaced from nearby stations so as not to cause interference to them or receive interference from them within all protected coverage contours.
2. Allow for a full-facility station on the assigned channel.
3. Provide City Grade signal coverage to the incorporated city area of Woodland, the FCC assigned City of License.

The area where all those criteria are met is depicted in Figure 2 below. The location labeled "KMJE Mace" (Alternative 1) was initially chosen since it fit well within the limits shown on the map, including the KHYL Primary Separation Limit. The FCC's published policy is that no station may locate beyond a limit such as the one shown for KHYL unless it can be demonstrated that there will be no prohibited contour overlap. In the situation, there would be such an overlap and to this date, the FCC has allowed only two prohibited overlaps to occur inside such a primary separation limit, and both of those situations involved signal overlaps from pre-existing tower locations which would not be the case here.

Subsequent to the submission of this latest use permit application, a representative of the applicant contacted an FCC staff member who agreed that the tower could be located between the primary and secondary separation limits if it could be demonstrated that there would be no new areas of interference within prohibited contour overlap of KHYL, and that it would not be necessary to have an pre-existing tower. Applicant has done the requisite studies and has determined that the conditions can be met, which opened up a larger possible area to locate.

The new area included the Pole Line Road tower (Alternative 2) as shown on the map. Although it is within the KXFX Contour Limit Area, use of a reduced facility could be approved by the FCC by reducing the signal, however the population coverage significantly reduced. It was also learned from an engineer employed by the tower owner that the tower was already loaded to the maximum safe limit with existing antennas and that the KMJE antenna could not be accommodated.

The new area also includes a 500 foot tower south east of Woodland (Alternative 3) that is shown on the map as KXSE. This existing tower was rejected because, as in the case of Alternative 4, encroachment on the KXFX Contour Limit Area would require a significant reduction of population coverage. Additionally, the tower owner has an existing antenna located at the elevation of the tower that would be needed to the KMJE antenna and the two antennas could not coexist.

APPENDIX D

At the urging of residents in the Mace Rd. area[7] as well as members of the Yolo County Planning Commission[8], the Yolo County landfill on County Road 28H (Alternative 4) was investigated and in light of the new information learned from the FCC, all but the north east corner of the property was found to be within the FCC limits. In conferring with Linda Sinderson, Deputy Director of the Planning and Public Works Department, Division of Integrated Waste Management, it was learned that there were several areas of the landfill that could not be used. Those areas included:

1. Areas that were actively being filled with waste.
2. Areas that were closed to additional waste where landfill 'mounds' were likely to have settlement problems.
3. Areas where fill is planned within the next 50 years.
4. Areas currently used for ground water ponds or where such ponds are planned.
5. Areas currently leased to other users or currently in use for other purposes.

Consultation with Deputy Director Sinderson revealed a location that was not in conflict with any of the above criteria and had existing electric power as well as a paved road. No diminution of the signal would be required and coverage would be maximized. This site would also work extremely well for KDVS.

There are only two homes within a one-mile radius of the proposed location and the nearest residential subdivision is 2.37 miles distant. As a result, visual impact would be minimal, especially since it has been established that there is no esthetic value attached to an active landfill and that currently permitted uses of the landfill have esthetic impacts that are "significant and unavoidable"[9].

[7] Meeting of Willowbank County Service Area Advisory Committee held May 28, 2009, comments made by various residents at Planning Commission meeting of November 12th, 2009, letters and e-mails submitted pursuant to the original Use Permit application and a presentation given to a group of El Macero residents at a meeting held January 19th, 2010.

[8] Comments made by Planning Commissioners at the meeting of November 12th, 2009 where applicant presented original use permit application for Mace Rd. facility.

[9] *See* Yolo County Central Landfill Permit Revisions DSEIR, SCH No. 1991073040, September, 2004, pp 3.1-1 through 3.1-19.

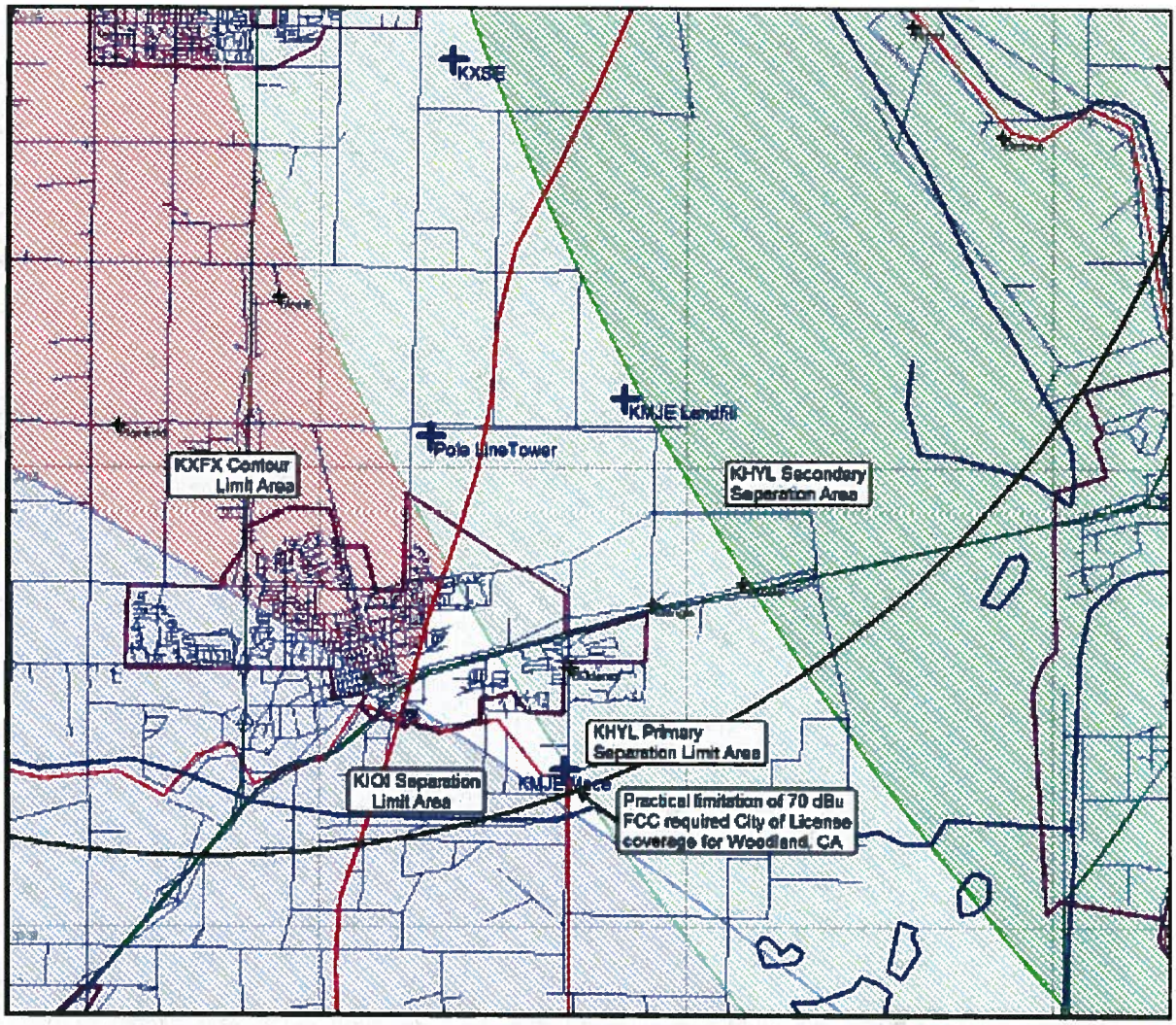


Figure 2

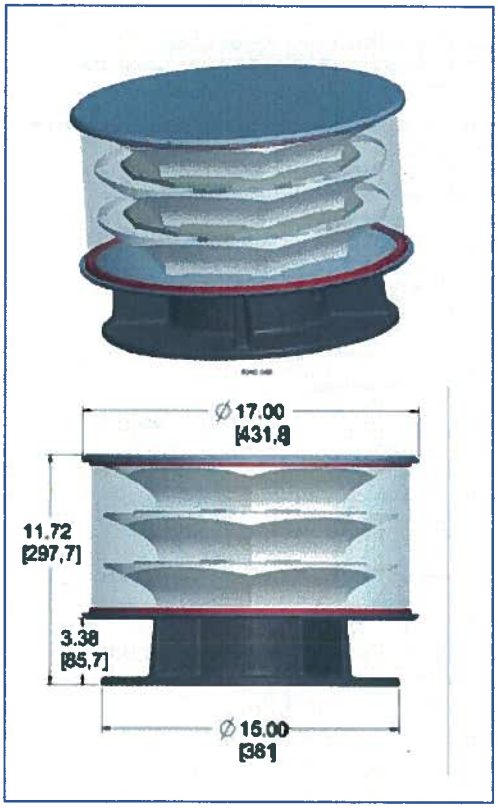
Unshaded area shows placement allowed by the Federal Communications Commission For the location of a full-facility Class A FM station on 101.5 MHz licensed to Woodland, CA under established FCC Rules and Regulations. The light green shaded area shows where the tower can be located based on argument of "no new areas of interference" to station KHYL under provisions of §73.215[10].

[10] *See* 47 CFR §73.207, §73.210, §73.211 and §73.215.

Figure 3

Shows locations of alternative locations considered.

LED Based L-864/L-865 Flashing Dual (White/Red) Strobe



Dimensions in inches [mm]

Application:

The all LED Dialight Medium Intensity White Strobe and Red Beacon is designed for the lighting of radio towers, wind generators and other obstructions to aerial navigation, as specified by the FAA and FCC. The Dual L864 / L865 uses LED technology for light output from both the Red Beacon and White Strobe. Unlike conventional Xenon flash-tube technology, little or no maintenance is required during its lifetime. Working voltages of less than 200VDC are significantly less than those of Xenon flashtube designs; therefore, this system represents an advance in safety. The Dialight Dual L864 / L865 LED beacon operates from a 110/230VAC 50/60 Hz supply. The power supply / control box can be located up to 550 ft away from the light engine, such as at the base of the tower.

Order code:

D1RW-C13-037	120/230 VAC
D1RW-C13-006-EU	120/230 VAC, European Ver
D1RW-G13-006-EU	120/230 VAC, European Ver, 170cd red

Container Dimensions:

Container Weight: 62 lbs (21.1 kg)

Operating Voltage: Universal 110/230 VAC 50/60Hz power factor corrected supply

Candela:

White Day	20,000 cd
White Night	2,000 cd
Red Night	2,000 cd

Wattage:

White Day	100W
White Night	35W
Red Night	10W

Power Factor: > .9

Operating Temp: -40°F to +131°F (-40°C to +55°C)

Flash Rate: 20 - 40 fpm (controller dependent)

Synchronization: Multiple unit sync from single controller (Operates with other manufacturers of GPS sync devices)

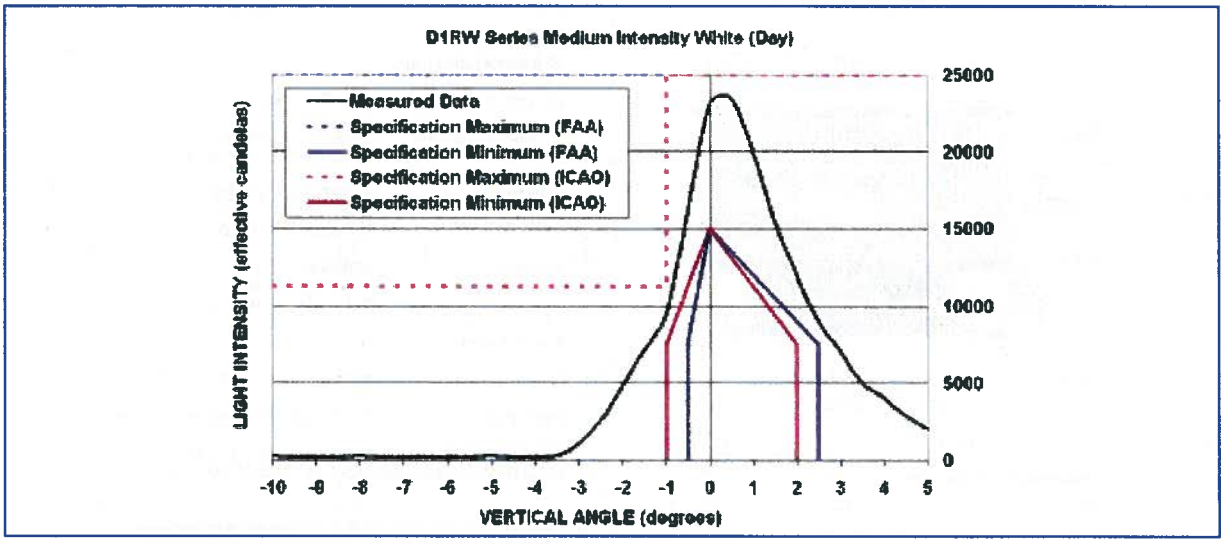
Meets the U.S. Fish and Wildlife Services recommendation for proposed rule meeting the FCC standards (WT Docket No. 03-187, FCC 06-164) regarding the protection of migratory birds

APPENDIX E

LED Based L-864/L-865 Flashing Dual (White/Red) Strobe

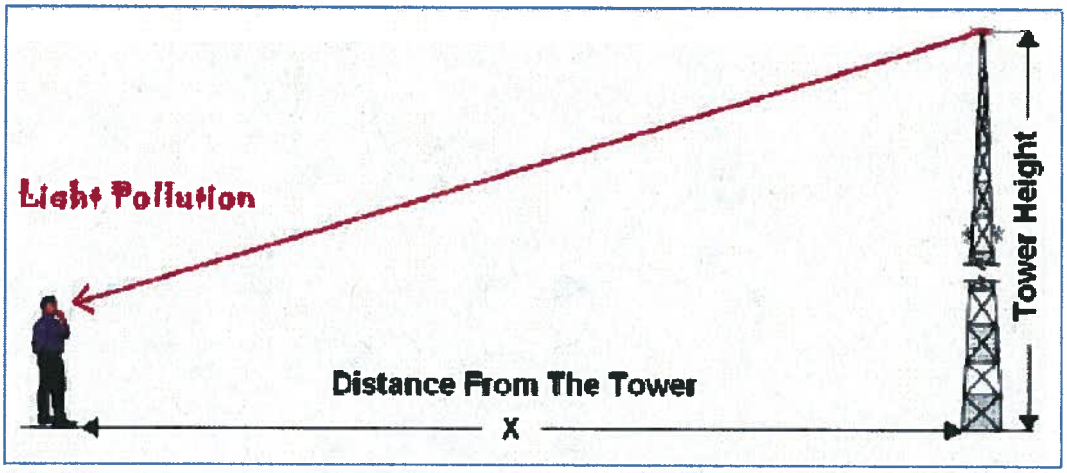
FEATURES	BENEFITS
Industry's Longest Warranty	- Complete performance 5 year warranty (Xenon technology only 2 years)
All LED Flash Head = 10+ Years Life Expectancy	- Significant reduction in expensive tower climbs and maintenance costs / unplanned site visits
No More Dangerous High Voltage Power Supply Required	- Enables the use of low voltage flexible cable - Eliminates the need to send high voltage up a tower - Provides considerable safety advantages - Uses standard low voltage supply - Eliminates corrosion due to ozone effects
Smallest Flash Head in the Industry, 11.72" high x 17" ø	- Significantly less wind loading than Xenon dual strobes
Very Precise Optics (Patent Pending)	- Minimum ground scatter light - Community friendly lighting system
Designed to Withstand IEC61000-4-5, 6kV/3000A, 1.2/50 s, 8/20 s, 2 ohm Output Impedance, Combination Wave, Line-Line and Line-Ground	- Provides excellent protection against lightning and surges
Uses State-of-the-Art High Flux LED Technology	- Replaces high maintenance Xenon tubes - Resistant to shock and vibration (no fragile Xenon tubes)
No Power Supply Components in Flash Head	- Eliminates RF interference with cell networks associated with Xenon technology
IP66 / NEMA 4x Rated	- Completely sealed from the outside environment

Photometric Reliability of Dialight's Dual Strobe

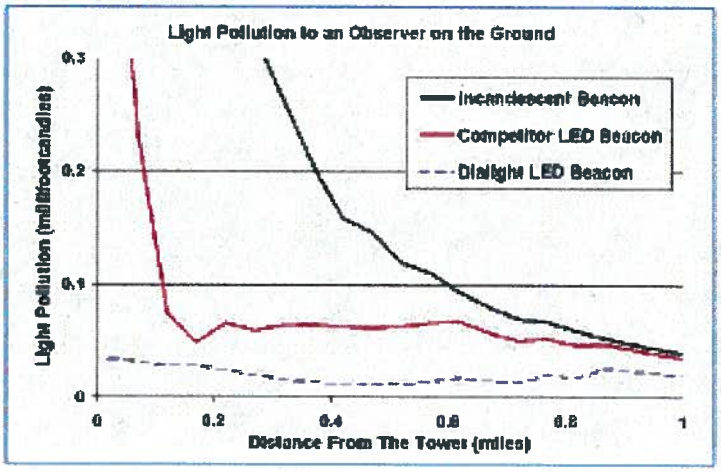


Minimized Ground Scatter

Sharp Beam Cutoff To Prevent Light Pollution



In lighting, it has always been a challenge to direct light where it is needed and cutoff light where it is not wanted. Over the years, flashing beacon lights that direct light downward into residential areas have caused numerous complaints and legal battles. This light pollution is caused primarily by limitations of the optical designs. Dialight has overcome this problem with its patented Accubeam LED optic technology . Dialight's Accubeam creates the sharpest beam cutoff in the industry by directing almost no light downward. The controlled beam pattern results in essentially zero light pollution. The chart below shows the light pollution (amount of light seen) at various distances for several 2,000 candela red beacons mounted on a 150-foot tower. The Dialight beacon maintains extremely low light levels to the ground while ensuring that aircraft see the required 2,000 candelas.



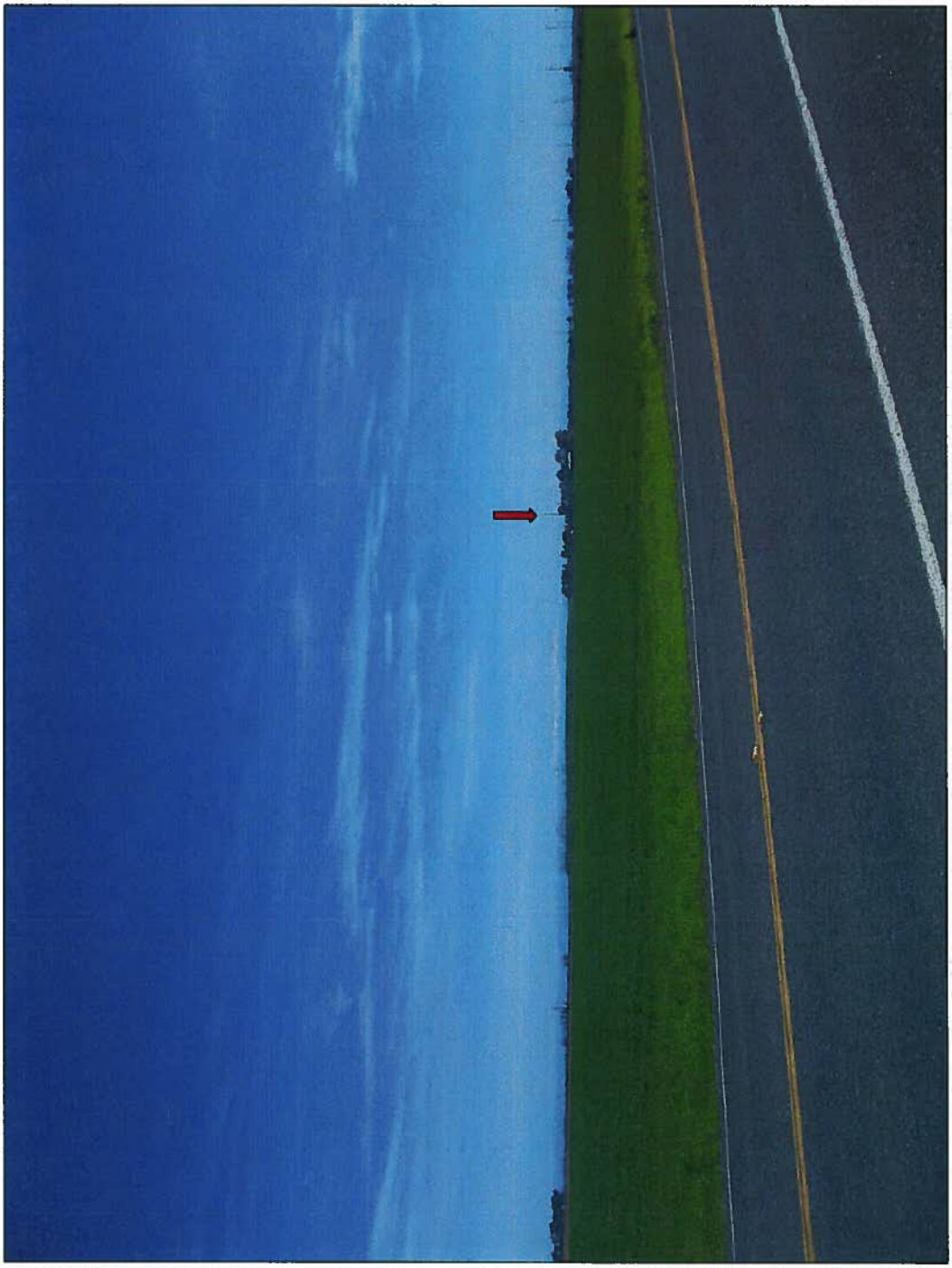

SIMULATION VIEWPOINT LOCATIONS
Results Radio Tower
Yolo County Landfill,
California
NOTE:
AERIAL IMAGERY ACQUIRED FROM GOOGLE EARTH PRO
SCALE: 1" = 2600'
2600 1300 0 2600
PROJECT SITE
Co Rd 105
Co Rd 30
Co Rd 103
Simulation Viewpoint Location and Direction of View
RESULTS RADIO TOWER
VISUAL SIMULATION
VIEWPOINT LOCATIONS EXHIBIT
YOLO COUNTY
CALIFORNIA
1" = 2600'
DATE: 03/03/10
JOB No: 1049.02

APPENDIX F

VIEWPOINT SIMULATION 1:
LOOKING SOUTHEAST ALONG COUNTY ROAD 103

DESIGNED DRAWN DW CHECKED CWC	**RESULTS RADIO TOWER** **VISUAL SIMULATION** **VIEWPOINT 1**	CECWEST.COM *Project Planning ■ Civil Engineering ■ Landscape Architecture*
SCALE N/A		■ Sacramento Office 2120 20th Street, Suite Three Sacramento, CA 95818 (916) 455-2026
DATE: 03/03/10	SHEET 1 of 8	■ Corporate Office 2940 Spafford Street, Suite 200 Davis, CA 95618 (530) 758-2026
JOB No:1049.02	YOLO COUNTY, CALIFORNIA	

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_1 3/01/2010 - 3:28PM Plotted by: dane



VIEWPOINT SIMULATION 2:
INTERSECTION OF COUNTY ROADS 102 & 28H, LOOKING EAST

DESIGNED DRAWN DW CHECKED CWC	**RESULTS RADIO TOWER** **VISUAL SIMULATION** **VIEWPOINT 2**	CECWEST.COM *Project Planning ■ Civil Engineering ■ Landscape Architecture*
SCALE N/A		■ Sacramento Office 2120 20th Street, Suite Three Sacramento, CA 95818 (916) 455-2026
DATE: 03/03/10	SHEET 2 of 8	■ Corporate Office 2940 Spafford Street, Suite 200 Davis, CA 95618 (530) 758-2026
JOB No:1049.02	YOLO COUNTY, CALIFORNIA	

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_2 3/01/2010 - 3:30PM Plotted by: dane

VIEWPOINT SIMULATION 3
NORTHEAST EDGE OF WILDHORSE GOLF COURSE (DAVIS), LOOKING NORTHEAST

DESIGNED DRAWN DW CHECKED CWC	**RESULTS RADIO TOWER VISUAL SIMULATION VIEWPOINT 3**	CUNNINGHAM ENGINEERING CECWEST.COM *Project Planning ■ Civil Engineering ■ Landscape Architecture* ■ Sacramento Office: 2120 20th Street, Suite Three, Sacramento, CA 95818, (916) 455-2026 ■ Corporate Office: 2940 Spafford Street, Suite 200, Davis, CA 95618, (530) 758-2026
SCALE N/A		
DATE: 03/03/10	SHEET 3 of 8	
JOB No:1049.02	YOLO COUNTY, CALIFORNIA	

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_3 3/01/2010 - 3:28PM Plotted by: dsmw

VIEWPOINT SIMULATION 4
HARPER JUNIOR HIGH SCHOOL (DAVIS), LOOKING NORTHEAST

DESIGNED	
DRAWN	DW
CHECKED	CWC
SCALE	N/A
DATE:	03/03/10
JOB No:	1049.02

RESULTS RADIO TOWER
VISUAL SIMULATION
VIEWPOINT 4

SHEET 4 of 8

YOLO COUNTY, CALIFORNIA

CUNNINGHAM ENGINEERING

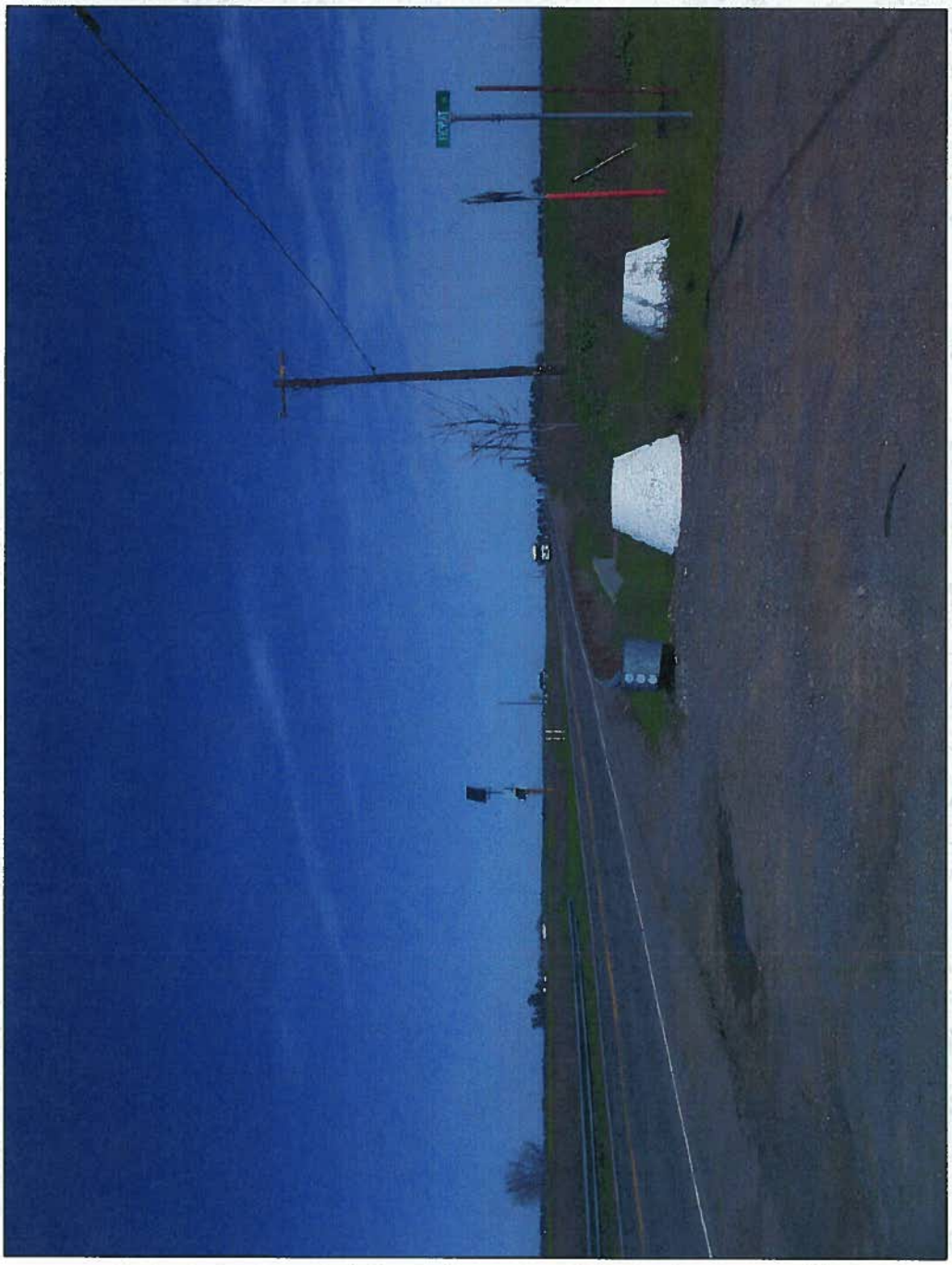
CECWEST.COM

Project: Planning ■ Civil Engineering ■ Landscape Architecture

■ Sacramento Office
2120 20th Street, Suite Three
Sacramento, CA 95818
(916) 455-2026

■ Corporate Office
2940 Spafford Street, Suite 200
Davis, CA 95618
(530) 758-2026

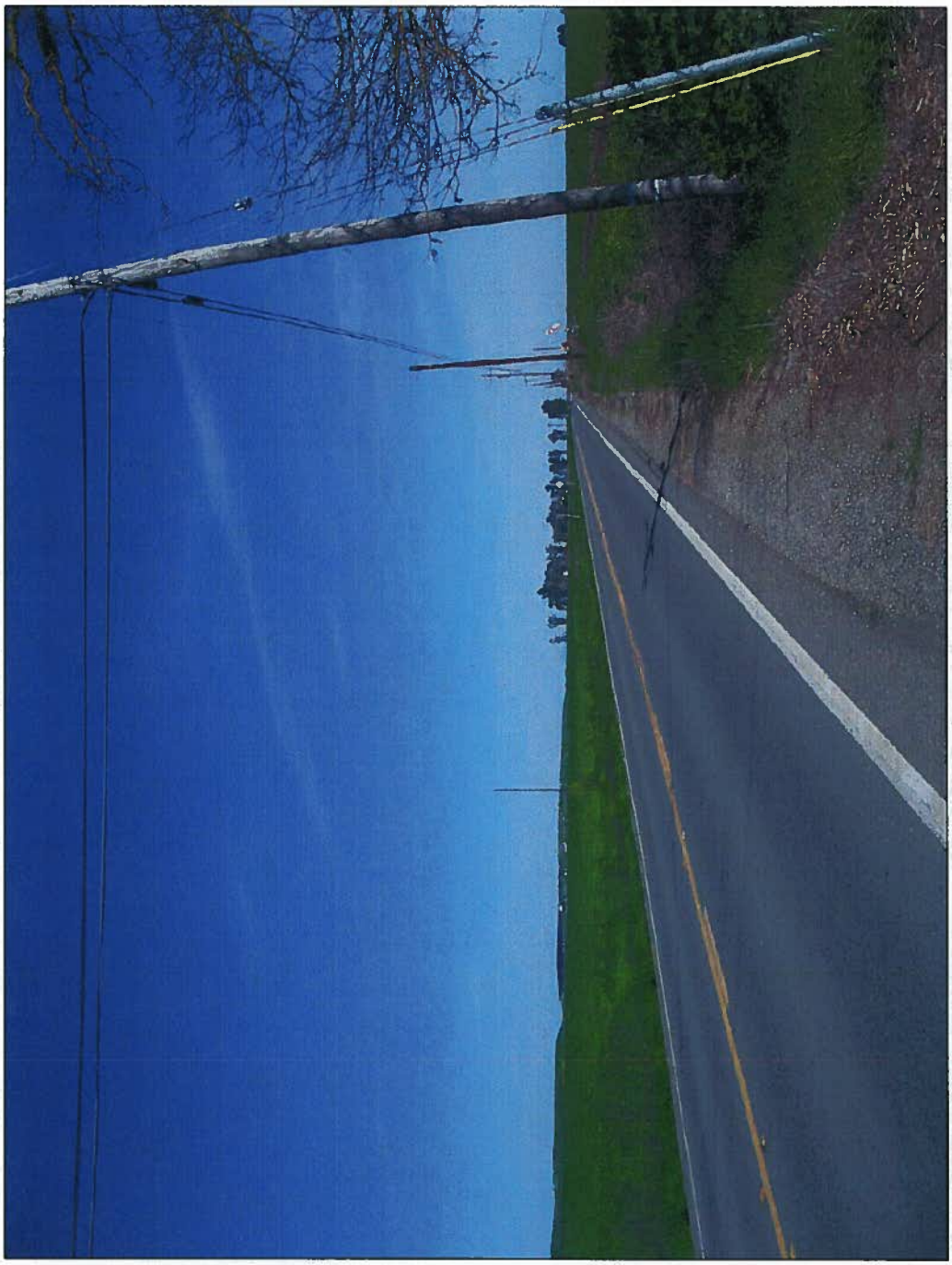
S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_4 3/01/2010 - 3:29Pm Plotted by: dmw



VIEWPOINT SIMULATION 5
INTERSECTION OF HOWAT & COUNTY ROAD 105, LOOKING NORTH

DESIGNED DRAWN DW CHECKED CWC	**RESULTS RADIO TOWER VISUAL SIMULATION VIEWPOINT 5**	CUNNINGHAM ENGINEERING CECWEST.COM *Project Planning ■ Civil Engineering ■ Landscape Architecture*
SCALE N/A		■ Sacramento Office 2120 20th Street, Suite Three Sacramento, CA 95818 (916) 455-2026
DATE: 03/03/10	SHEET 5 of 8	■ Corporate Office 2940 Spafford Street, Suite 200 Davis, CA 95618 (530) 758-2026
JOB No: 1049.02	YOLO COUNTY, CALIFORNIA	

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_5 3/01/2010 - 3:06Pm Plotted by: dane



VIEWPOINT SIMULATION 6
INTERSECTION OF COUNTY ROADS 105 & 30, LOOKING NORTH

DESIGNED	
DRAWN DW	
CHECKED CWC	
SCALE N/A	
DATE: 03/03/10	
JOB No:1049.02	

RESULTS RADIO TOWER
VISUAL SIMULATION
VIEWPOINT 6

SHEET 6 of 8

YOLO COUNTY, CALIFORNIA

CECWEST.COM

Project Planning ■ Civil Engineering ■ Landscape Architecture

■ Sacramento Office
2120 20th Street, Suite Three
Sacramento, CA 95818
(916) 455-2026

■ Corporate Office
2940 Spafford Street, Suite 200
Davis, CA 95618
(530) 758-2026

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_6 3/01/2010 - 3:07PM Plotted by: dane

VIEWPOINT SIMULATION 7
INTERSECTION OF COUNTY ROADS 105 & 29, LOOKING NORTHWEST

DESIGNED DRAWN DW CHECKED CWC	**RESULTS RADIO TOWER** **VISUAL SIMULATION** **VIEWPOINT 7**	CUNNINGHAM ENGINEERING CECWEST.COM *Project Planning ■ Civil Engineering ■ Landscape Architecture* ■ Sacramento Office: 2120 20th Street, Suite Three, Sacramento, CA 95818, (916) 455-2026 ■ Corporate Office: 2940 Spafford Street, Suite 200, Davis, CA 95618, (530) 758-2026
SCALE N/A		
DATE: 03/03/10	SHEET 7 of 8	
JOB No: 1049.02	YOLO COUNTY, CALIFORNIA	

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg -- View_7 3/01/2010 -- 3:08PM Plotted by: dane

VIEWPOINT SIMULATION 8
COUNTY ROAD 32A (OFF OF BLECHER FREEMAN MEM. CAUSEWAY/I-80), LOOKING NORTHWEST

DESIGNED	
DRAWN	DW
CHECKED	CWC
SCALE	N/A
DATE:	03/03/10
JOB No:	1049.02

RESULTS RADIO TOWER
VISUAL SIMULATION
VIEWPOINT 8

SHEET 8 of 8

YOLO COUNTY, CALIFORNIA

CUNNINGHAM ENGINEERING

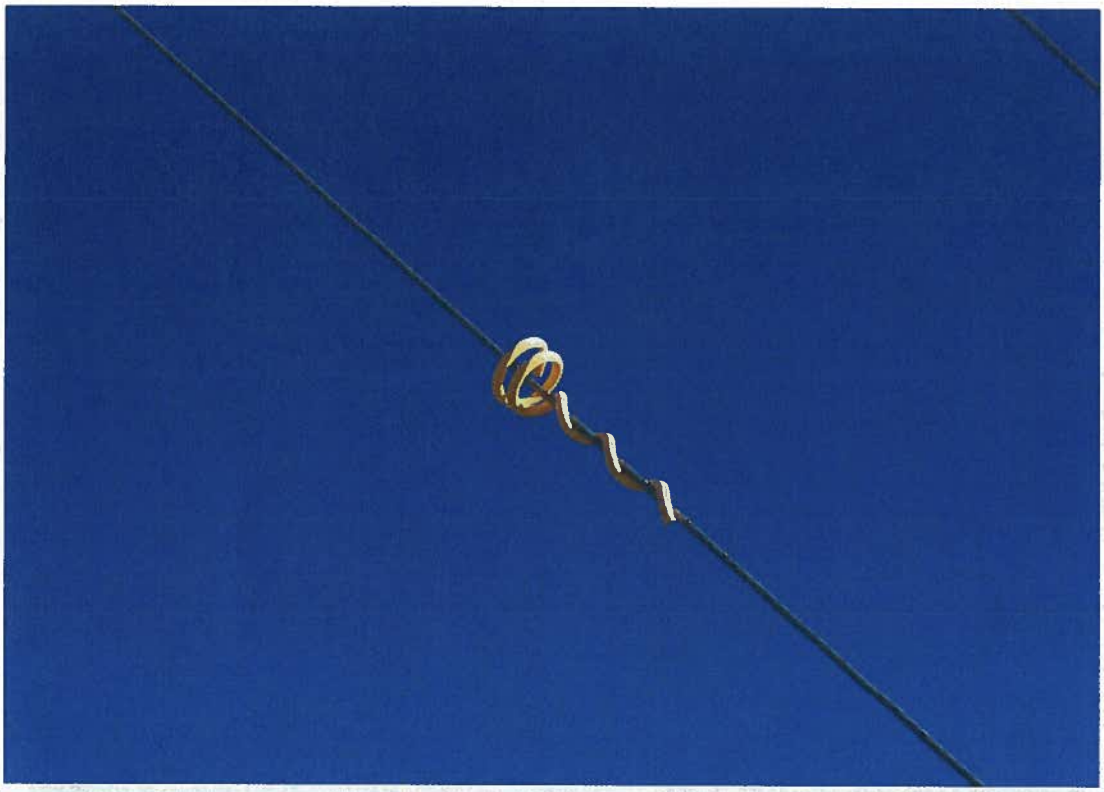
CECWEST.COM

Project Planning ■ Civil Engineering ■ Landscape Architecture

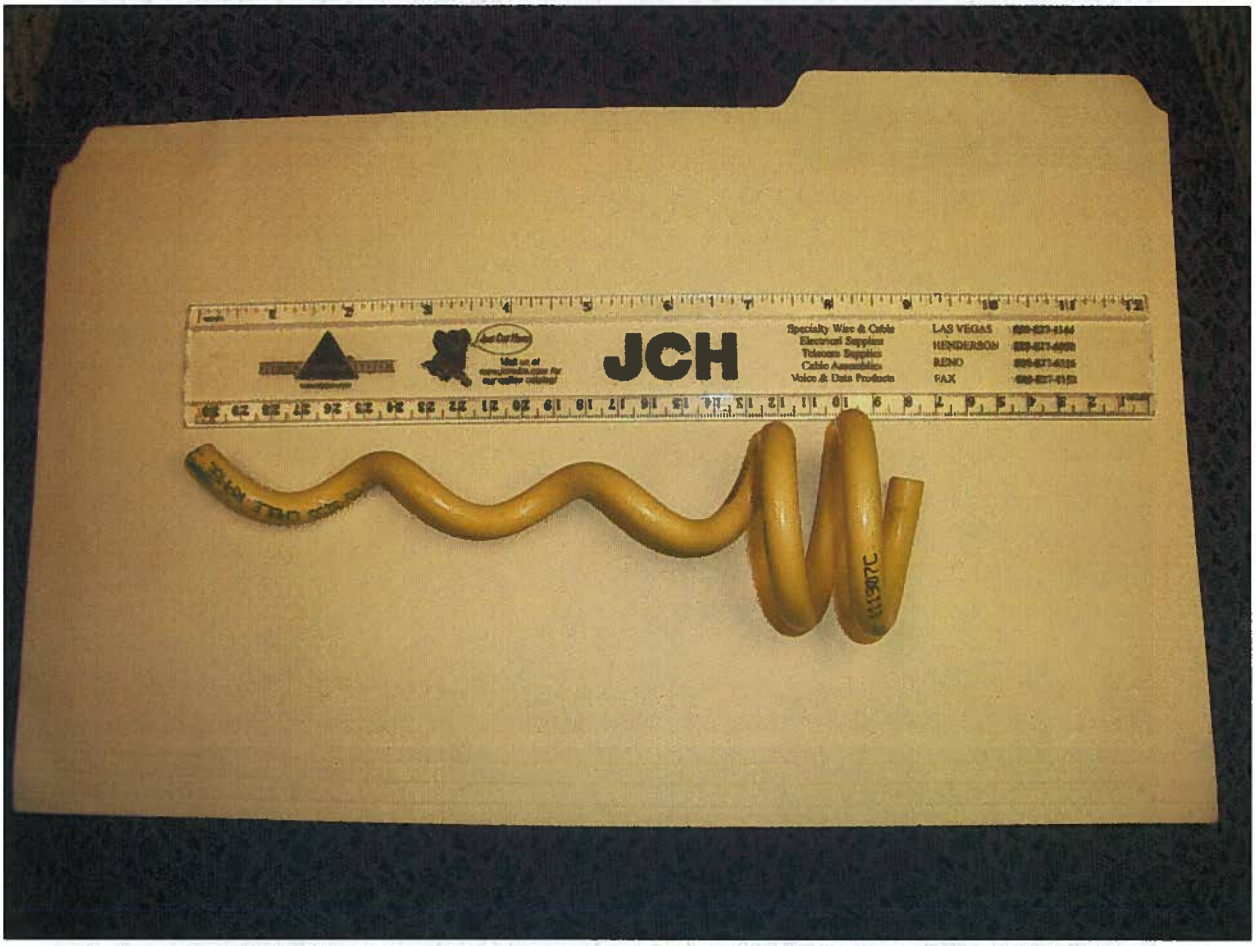
■ Sacramento Office
2120 20th Street, Suite Three
Sacramento, CA 95818
(916) 455-2026

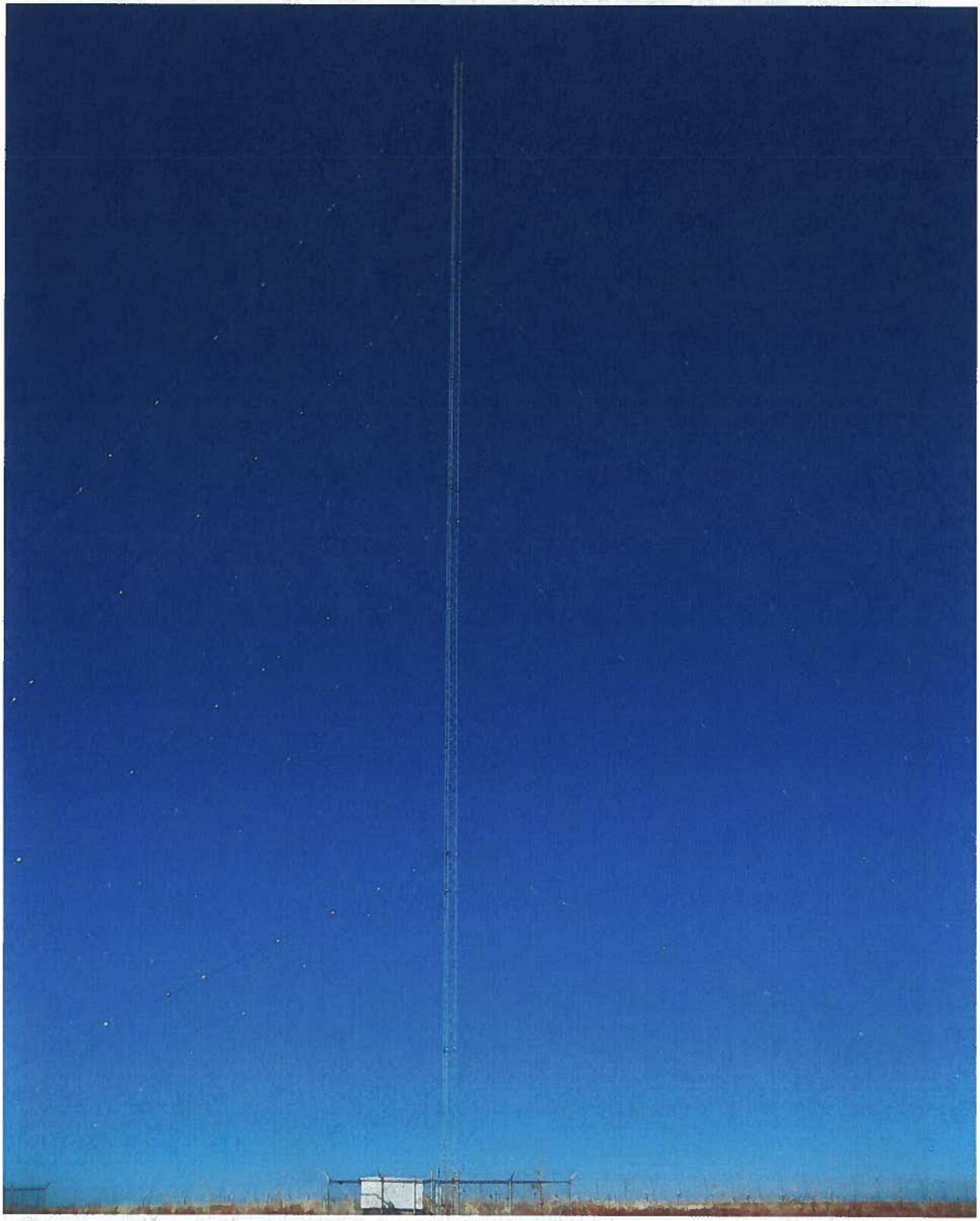
■ Corporate Office
2940 Spafford Street, Suite 200
Davis, CA 95618
(530) 758-2026

S:\Projects\1000\1049 Results Radio Tower\AutoCAD\EXHIBITS\1049-02-EXHIBITS\1049-02-Results_Radio_Viewpoints_Exhibit.dwg - View_8 3/01/2010 - 3:20PM Plotted by: dsmw

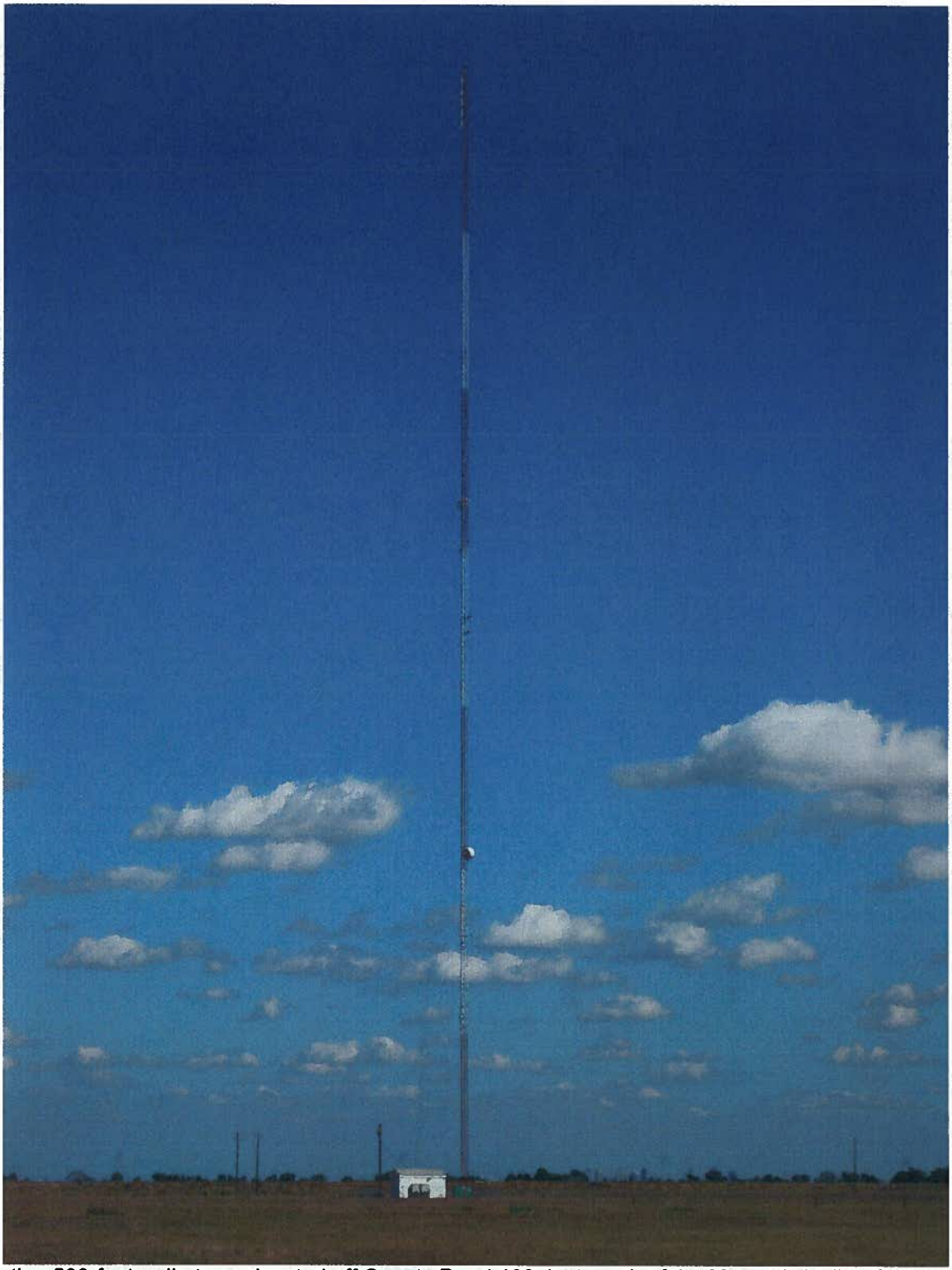


APPENDIX G


JCH
Specialty Wire & Cable
Electrical Supplies
Telecom Supplies
Cable Assemblies
Voice & Data Products
LAS VEGAS
HENDERSON
RENO
FAX



Example of guy wire markers on a tower in Sacramento County. Photo taken at a distance of approximately 200-feet.
(Photo provided by applicant)



Existing 500-foot radio tower located off County Road 102, just south of the Mountain Valley Golf Center (APN: 042-010-68, approved in 1992)

APPENDIX H

Existing 538-foot radio tower located off County Road 102 and County Road 29
(APN: 042-120-03, approved in 1992)

MITIGATION MONITORING AND REPORTING PROGRAM
RESULTS RADIO, LLC.
USE PERMIT ZF# 2009-001

Mitigation Number	Mitigation Measure	Enforcement and Monitoring Responsibility	Timing/ Implementation	Verification (Date and Initials)
Biological Resources				
1	*Swainson's hawk Biological Survey. Prior to any land disturbance activities and/or issuance of a building or grading permit, a biological survey of the project site shall be conducted by a qualified biologist. The qualified biologist shall determine if foraging habitat exists within the project site. If foraging habitat is not determined to exist within the project area, no further mitigation is required.* *If Swainson's hawk foraging habitat is determined to exist in the project site, the applicant shall, prior to issuance of a grading or building permit, mitigate for the loss of Swainson's hawk habitat through participation in the Draft Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The qualified biologist, in consultation with the California Department of Fish and Game and/or Yolo HCP/NCCP Joint Powers Agency, shall determine the area of the foraging habitat disturbed by development. The applicant shall either: 1) pay a Swainson's hawk mitigation fee for the area disturbed by development, which is estimated not to exceed 1.7 acres, or 2) implement another project specific mitigation plan which is deemed appropriate to the California Department of Fish and Game. The fee is currently set at $8,660 per acre and is subject to change. In the event that the final HCP/NCCP is adopted before development occurs, the applicant shall participate in the Final HCP/NCCP to mitigate for the loss of Swainson's hawk habitat.*	*Yolo County Planning and Public Works Department*	*Measure included as a Condition of Approval.*	
2	*Swainson's hawk Pre-Construction Nest Survey. If any construction work (including clearing and grubbing) is scheduled to occur any time during the raptor nesting season (March 1 through September 15), a survey for raptor nests shall be conducted by a qualified biologist within 14 days prior to the start of construction. A copy of the survey and any agreement with the California Department of Fish and Game or Yolo HCP/NCCP Joint Powers Agency, if applicable, must be submitted to the Planning and Public Works Department no later than 48 hours prior to the start of construction. If no active nests are found during the focused survey, no further mitigation will be required.* *If active nests used by a Swainson's hawk are found within 0.25 mile from the construction activities, a qualified biologist shall notify the*	*Yolo County Planning and Public Works Department*	*Measure included as a Condition of Approval.*	

ATTACHMENT D

Mitigation Number	Mitigation Measure	Enforcement and Monitoring Responsibility	Timing/ Implementation	Verification (Date and Initials)
	Department of Fish and Game and a 0.5 mile construction-free buffer zone shall be established around the nest. Intensive new disturbances (e.g., heavy equipment activities associated with construction) that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 15, unless it is determined by a qualified biologist in coordination with the California Department of Fish and Game that the young have fledged and are feeding on their own, or the nest is no longer in active use.			
3	Burrowing Owl. *Prior to land disturbance activities, pre-construction surveys of all potential burrowing owl habitat shall be conducted by a qualified biologist within the project area. Presence or sign of burrowing owl and all potentially occupied burrows shall be recorded and monitored according to the California Department of Fish and Game and California Burrowing Owl Consortium guidelines. If burrowing owls are not detected by sign or direct observation, construction may proceed and no further mitigation is required.* *If potentially nesting burrowing owls are present during pre-construction surveys conducted between February 1 and August 31, grading shall not be allowed within 250 feet of any nest burrow during the breeding season (February 1—August 31), unless approved by the California Department of Fish and Game.* *If burrowing owls are detected during pre-construction surveys outside the breeding season (September 1—January 31), passive relocation and monitoring shall be undertaken by a qualified biologist following the California Department of Fish and Game and California Burrowing Owl Consortium guidelines, which involve the placement of one-way exclusion doors on occupied and potentially occupied burrowing owl burrows. Owls shall be excluded from all suitable burrows within the project area and within a 250-foot buffer zone to acclimate to alternate burrows. These mitigation actions shall be carried out prior to the burrowing owl breeding season (February 1—August 31) and the site shall be monitored weekly by a qualified biologist until construction begins to ensure that burrowing owls do not re-inhabit the site.*	*Yolo County Planning and Public Works Department*	*Measure included as a Condition of Approval.*	

MITIGATION MONITORING AND REPORTING PROGRAM
RESULTS RADIO, LLC.
USE PERMIT ZF# 2009-001

Mitigation Number	Mitigation Measure	Enforcement and Monitoring Responsibility	Timing/ Implementation	Verification (Date and Initials)
4	Other Birds of Prey and Migratory Birds. -A preconstruction survey for active nests of migratory birds and birds of prey shall be conducted no more than two weeks prior to construction. If no active nests are found, then no additional avoidance and mitigation measures are necessary. -If an active nest is located within 250 ft of a construction area, a qualified biologist shall record the location(s) on a site map. -The biologist shall establish a minimum 250 ft buffer around the nest tree or nest location. -The biologist shall delimit the buffer zone with yellow caution tape, surveyor's flagging, pin flags, stakes, etc. The buffer zone shall be maintained until the end of the breeding season. No construction activities shall occur within 250 ft of a nest tree or nest location while young are in the nest. -The biologist shall monitor the nest weekly during construction to evaluate potential disturbance caused by construction activities.	*Yolo County Planning and Public Works Department*	*Measure included as a Condition of Approval.*	

FINDINGS
RESULTS RADIO, LLC., RADIO TOWER USE PERMIT
ZONE FILE #2009-001

Upon due consideration of the facts presented in the staff report and at the public hearing for Zone File #2009-001, the Yolo County Planning Commission finds the following *(A summary of the evidence to support each FINDING is shown in italics):*

California Environmental Quality Act

1. That the proposed Negative Declaration was prepared in accordance with the California Environmental Quality Act (CEQA) and Guidelines and is the appropriate level of environmental review for this project.

   The environmental document for the project, prepared pursuant to Section 15000 et. seq. of the CEQA Guidelines, provides the necessary proportionate level of analysis for the proposed project, and sufficient information to reasonably ascertain the project's potential environmental effects. The environmental review process has concluded that there will not be a significant effect on the environment as a result of the proposed project.

Yolo County General Plan

That the proposal is consistent with the Yolo County 2030 Countywide General Plan as follows:

2. The Yolo County General Plan designates the subject property as Public & Quasi-Public (PQ).

3. The project is consistent with the following General Plan Policies:

   Community Character Policy CC-1.18: *Electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines shall be avoided along scenic roadways and routes, to the maximum feasible extent.*

   Public Facilities and Services Policy PF-11.2: *Encourage expanded coverage and enhanced quality for communication technology, such as mobile connectivity, high-speed wireless internet access, and emergency communication systems.*

Zoning Code

In accordance with Section 8-2.2804 of Chapter 2, Title 8, the Zoning Administrator finds the following:

4. The requested land use is listed as a conditional use in the zoning regulations.

   Pursuant to Section 8-2.804(b), the proposed wireless communication facility is allowed within the A-1 zone through the Use Permit review and approval process. The definition of "radio tower" is not provided in the Yolo County Code; however, staff and County Counsel have concluded that the definition of "communication

towers" includes the type of tower that is the subject of this application. Yolo County Code Section 8-2.2417 authorizes "wireless communication facilities" as a conditional use in any zone, including agricultural zones.

5. The requested use is essential or desirable to the public comfort and convenience.

   Communication facilities, such as radio towers, provide a benefit to the general public through educational and entertainment programming, as well as emergency alert broadcasts. In addition, the proposed tower will reserve space for future communication services to expand cellular or broadband coverage to county residents.

6. The requested land use will not impair the integrity or character of a neighborhood or be detrimental to public health, safety, or general welfare.

   The proposed project is located on the Yolo County Central Landfill property. The nearest cluster of residential homes is located approximately 2.5 miles southwest of the project site in the City of Davis. As evidenced in the Initial Study/Mitigated Negative Declaration, the proposed project will not create a significant effect on the character or any neighborhood or be detrimental to the public health, safety, or general welfare. The project is conditioned to require compliance with all Federal Aviation Administration (FAA) and Federal Communication Commission (FCC) requirements to ensure the public's safety.

7. Adequate utilities, access roads, drainage, sanitation, and/or other necessary facilities will be provided.

   All necessary infrastructure and utilities are already provided on site, or will be provided by the applicant.

That the proposal is consistent with the Wireless Communication Facilities Ordinance (Section 8-2.2417 of the Yolo County Code) as follows:

8. The Site is adequate for the development of the proposed wireless communication facility.

   The subject property is part of the Yolo County Central Landfill operations. The proposed location is not in an area that is proposed to be filled with waste within the next 50 years and does not conflict with any landfill operations. The proposed project location is approximately 2.5 miles from the nearest residential neighborhood, thus the aesthetic impact will be less than if the tower were located adjacent to or within an urban area.

9. Opportunities to collocate the subject facility on an existing facility have either been exhausted or are not available in the area.

   The applicant examined the possibility of collocating their equipment on the two nearby radio towers. The 538-foot tower located off County Roads 102 and 29 was studied as a potential collocation opportunity; however, the applicant learned from an engineer employed by the tower owner that the tower was already

loaded to the maximum safe limit with existing antennas and that the KMJE and KDVS antennas could not be accommodated. The 500-foot tower east of Woodland (APN: 042-010-68) was also studied by the applicant as a collocation facility, but was ultimately rejected because the KMJE antenna could not be located at the elevation required to meet their functional needs. Since collocation opportunities were not feasible alternatives for the applicant, the landfill location was finally chosen because it would not require diminution of the signal, nor would it compromise the applicant's population coverage. In addition, the landfill site was also favored by the applicant because the property has sufficient access and the placement of the tower would not require the removal of agricultural land.

10. The facility as proposed is necessary for the provision of an efficient wireless communication system.

    The facility will transmit educational, entertainment, and emergency communication programming to the general public. As a condition of approval, the applicant will also be required to provide space for the Integrated Waste Management Division so that they may be able to increase the wireless network at the landfill. As discussed in #14 below, the applicant is also required, as a condition of approval, to provide collocation opportunities to other wireless carriers.

11. The development of the proposed wireless communication facility will not significantly affect the existing onsite topography and vegetation, or any designated public viewing area, scenic corridor or any identified environmentally sensitive area or resource.

    Since the subject property is relatively flat and has been previously disturbed, the proposed project would not require significant grading and thus would not impact the existing topography. The project site consists mainly of dirt, gravel, and non-native annual grasses and herbaceous weed species. The project is not located near a scenic corridor or a public viewing area. The Davis Wetlands, which offer public guided tours, is located over two miles away. The tower may be visible from select locations on the Davis Wetlands site; however the visual impact of the tower will not substantially diminish any views on the site. There are not expected to be any environmentally sensitive areas or resources on the project site; however, there are several mitigation measures in place that will ensure any special or protected avian habitat is not disturbed.

12. The proposed wireless communication facility will not create a hazard for aircraft in flight and will not hinder aerial spraying operations.

    The proposed tower will not create a hazard for aircraft in flight and will not hinder aerial spraying operations. The applicant must receive approval from the FAA for numerous issues before they are permitted to construct the tower. The tower will include 24-hour medium intensity white strobe lighting to increase the conspicuity of the tower to passing aircraft. The FAA, Caltrans Aeronautical, and Sacramento County Airport system all provided comment that the applicant must file a Notice of Proposed Construction or Alteration (Form 7460-1) with the FAA. Agricultural spraying operations do not occur on the 725± acre landfill site. Any

passing aircraft, including aerial applicators, will be able to visually recognize the 365-foot tower at a significant distance.

13. The applicant agrees to accept proposals from future applicants to collocate at the approved site.

    As a condition of approval, the applicant is required to cooperate with the County and other providers in collocating on the subject radio tower. Space will be reserved for the Integrated Waste Management Division as well as for other wireless providers.

CONDITIONS OF APPROVAL
RADIO BROADCAST TOWER USE PERMIT
ZONE FILE #2009-001

ON-GOING OR OPERATIONAL CONDITIONS OF APPROVAL:

PLANNING DIVISION—PPW (530) 666-8808

1. The project shall be developed in compliance with all adopted Conditions of Approval and the Mitigation Monitoring Program for Zone File #2009-001. The applicant shall be responsible for all costs associated with implementing the Conditions of Approval and Mitigation Monitoring Program as contained herein.

2. Development of the site, including construction and/or placement of structures, shall be as described in this staff report for this Use Permit (ZF #2009-001). Any minor modification or expansion of the proposed use shall be in keeping with the purpose and intent of this Use Permit, and shall be administered through Site Plan Review approved by the Director of the Planning and Public Works Department. The facility shall be operated in a manner consistent with the project's approval.

3. Any proposed modification determined to be significant shall require an amendment to this Use Permit with approval from the Planning Commission.

4. Assessment of fees under Public Resources Code Section 21089, and as defined by Fish and Game Code Section 711.4 will be required. The fees ($2,010.25 plus $50 Recorder fee) are payable by the project applicant upon filing of the Notice of Determination by the lead agency, within five working days of approval of this project by the Planning Commission.

5. This Use Permit shall commence within one (1) year from the date of the Planning Commission's approval or said permit shall be null and void. The Director of Planning and Public Works may grant an extension of time; however such an extension shall not exceed a maximum of one year.

6. The applicant shall cooperate with the County in addressing shared usage of the facilities and/or site for future collocation on the radio broadcast tower and shall not be unreasonably opposed to sharing the site and facilities with other service providers.

7. The applicant shall reserve space at a functional height on the tower for wireless network equipment and web-based cameras for the Integrated Waste Management Division.

8. With advance notice of at least 24-hours, service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

9. The applicant shall keep the designated leasehold area (site) free from flammable brush, grass, and weeds. Any structures on the leasehold area shall be adequately maintained and free from graffiti.

10. Outdoor light fixtures shall be low-intensity, shielded and/or directed away from adjacent properties, public right-of-way, and the night sky. Lighting fixtures shall use low-glare lamps or other similar lighting fixtures.

11. During construction, all disturbed soils and unpaved roads shall be adequately watered to keep soil moist to provide dust control.

12. The project shall be operated in compliance with all applicable federal and state laws and Yolo County Code regulations.

13. During construction or maintenance activity, any open trenches shall be covered overnight to prevent animals from becoming trapped. Any open trenches shall be inspected prior to commencement or continuation of construction activity and any trapped animals shall be allowed to exit on their own ability.

14. Upon termination of the radio broadcast tower use, the tower shall be removed and the project site restored back to its original condition with 12 months of cessation of use.

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT—(530) 757-3650

15. Operation of the natural gas generator at the site will require an Authority to Construct and Permit to Operate issued by the District in accordance with Rule 3.1, General Permit Requirements.

16. Visible emissions from stationary diesel-powered equipment are not allowed to exceed 40 percent opacity for more than three minutes in any one-hour, as regulated under District Rule 2.3, Ringelmann Chart.

17. Portable diesel fueled equipment greater than 50 horsepower, such as generators or pumps, must be registered with either the Air Resources Board's (ARB's) Portable Equipment Registration Program (PERP) (http://www.arb.ca.gov/perp/perp.htm) or with the District.

18. Architectural coatings and solvents used at the project shall be compliant with District Rule 2.14, Architectural Coatings.

19. All stationary equipment, other than internal combustion engines less than 50 horsepower, emitting air pollutants controlled under District rules and regulations require an Authority to Construct (ATC) and Permit to Operate (PTO) from the District.

ENVIRONMENTAL HEALTH DIVISION (530) 666-8646

20. The applicant shall submit a hazardous materials business plan and inventory for review and approval by Yolo County Environmental Health by the time hazardous materials and/or hazardous wastes are present in reportable quantities on-site.

COUNTY COUNSEL—(530) 666-8172

21. In accordance with Yolo County Code Section 8-2.2415, the applicant shall agree to indemnify, defend, and hold harmless the county or its agents, officers and employees from any claim, action, or proceeding (including damage, attorney fees, and court cost awards) against the County or its agents, officers, or employees to attach, set aside, void, or annul an approval of the county, advisory agency, appeal board, or legislative body concerning the permit or entitlement when such action is brought within the applicable statute of limitations.

    The county shall promptly notify the applicant of any claim, action or proceeding and that the county cooperates fully in the defense. If the county fails to promptly notify the applicant of any claim, action, or proceeding, or if the county fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold the county harmless as to that action.

    The county may require that the applicant post a bond in an amount determined to be sufficient to satisfy the above indemnification and defense obligation.

22. Failure to comply with the Conditions of Approval as approved by the Yolo County Planning Commission may result in the following actions:
    - non-issuance of future building permits;
    - legal action.

PRIOR TO ISSUANCE OF BUILDING PERMITS:

PLANNING DIVISION—PPW (530) 666-8808

23. The applicant shall provide the Director of Planning and Public Works with documentation from the Federal Communications Commission (FCC) approving the tower at the proposed location described in this staff report for this Use Permit (ZF #2009-001).

24. The applicant shall provide the Director of Planning and Public Works with documentation demonstrating compliance with FCC requirements regarding electromagnetic radiation levels. The radio tower shall be maintained and operated in accordance with all applicable FCC rules and regulations with respect to environmental effects of electromagnetic emissions.

25. The applicant shall provide the Director of Planning and Public Works with documentation that Federal Aviation Administration (FAA) Form 7460-1 has been properly filed with the FAA as required by FAR Part 77, Subpart B, 77.13.

26. The bird flight diverters to be installed on the guy wires by the applicant shall be spaced at an industry accepted distance (15-35 feet apart) to prevent collisions by diurnally active bird species.

27. Construction details shall be included in construction drawings, submitted concurrent with the building permit application, and are subject to review and approval by the Director of the Planning and Public Works Department.

28. The applicant shall provide the Director of Planning and Public Works with a copy of the signed "Option and Telecommunications Site License Agreement" between the County of Yolo and Results Radio, LLC, to be approved by the Yolo County Board of Supervisors.

PUBLIC WORKS DIVISION—PPW (530) 666-8811

29. Construction disturbance greater than one acre shall require a Storm Water Pollution Prevention Plan (SWPPP).

BUILDING DIVISION—PPW (530) 666-8775

30. All building plans shall be submitted to the Planning and Public Works Department for review and approval in accordance with County Building Standards prior to the commencement of any construction.

31. If applicable, the applicant shall obtain the necessary building permits prior to installation of equipment. New installation shall meet State of California minimum code requirements for fire, life, and safety standards. All proposed panel antennas and appurtenances shall be installed in accordance with the California Building, California Plumbing, California Mechanical and California Electrical Codes.

32. The applicant shall pay all appropriate fees prior to the issuance of Building Permits, including but not limited to the Woodland Joint Unified School District, East Davis Fire District, and County facility fees.

MITIGATION MEASURES

PRIOR TO ISSUANCE OF GRADING PERMIT:

PLANNING DIVISION—PPW (530) 666-8808

33. BIO-1. Swainson's hawk Biological Survey. Prior to any land disturbance activities and/or issuance of a building or grading permit, a biological survey of the project site shall be conducted by a qualified biologist. The qualified biologist shall determine if foraging habitat exists within the project site. If foraging habitat is not determined to exist within the project area, no further mitigation is required.

    If Swainson's hawk foraging habitat is determined to exist in the project site, the applicant shall, prior to issuance of a grading or building permit, mitigate for the loss of Swainson's hawk habitat through participation in the Draft Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The qualified biologist, in consultation with the California Department of Fish and Game and/or Yolo HCP/NCCP Joint Powers Agency, shall determine the area of the foraging habitat disturbed by development. The applicant shall either: 1) pay a Swainson's hawk mitigation fee for the area disturbed by development, which is estimated not to exceed 1.7 acres, or 2) implement another project specific mitigation plan which is deemed appropriate to the California Department of Fish and Game. The fee is currently set at $8,660 per acre and is subject to change. In the event that the final HCP/NCCP is adopted before development occurs, the applicant shall participate in the Final HCP/NCCP to mitigate for the loss of Swainson's hawk habitat.

34. BIO-2. Swainson's hawk Pre-Construction Nest Survey. If any construction work (including clearing and grubbing) is scheduled to occur any time during the raptor nesting season (March 1 through September 15), a survey for raptor nests shall be conducted by a qualified biologist within 14 days prior to the start of construction. A copy of the survey and any agreement with the California Department of Fish and Game or Yolo HCP/NCCP Joint Powers Agency, if applicable, must be submitted to the Planning and Public Works Department no later than 48 hours prior to the start of construction. If no active nests are found during the focused survey, no further mitigation will be required.

    If active nests used by a Swainson's hawk are found within 0.25 mile from the construction activities, a qualified biologist shall notify the Department of Fish and Game and a 0.5 mile construction-free buffer zone shall be established around the nest. Intensive new disturbances (e.g., heavy equipment activities associated with construction) that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 15, unless it is determined by a qualified biologist in coordination with the California Department of Fish and Game that the young have fledged and are feeding on their own, or the nest is no longer in active use.

35. BIO-3. Burrowing Owl. Prior to land disturbance activities, pre-construction surveys of all potential burrowing owl habitat shall be conducted by a qualified biologist within the project area. Presence or sign of burrowing owl and all potentially occupied burrows shall be recorded and monitored according to the California Department of Fish and Game and California Burrowing Owl Consortium guidelines. If burrowing owls are not detected by sign or direct observation, construction may proceed and no further mitigation is required.

    If potentially nesting burrowing owls are present during pre-construction surveys conducted between February 1 and August 31, grading shall not be allowed within 250 feet of any nest burrow during the breeding season (February 1—August 31), unless approved by the California Department of Fish and Game.

    If burrowing owls are detected during pre-construction surveys outside the breeding season (September 1—January 31), passive relocation and monitoring shall be undertaken by a qualified biologist following the California Department of Fish and Game and California Burrowing Owl Consortium guidelines, which involve the placement of one-way exclusion doors on occupied and potentially occupied burrowing owl burrows. Owls shall be excluded from all suitable burrows within the project area and within a 250-foot buffer zone to acclimate to alternate burrows. These mitigation actions shall be carried out prior to the burrowing owl breeding season (February 1—August 31) and the site shall be monitored weekly by a qualified biologist until construction begins to ensure that burrowing owls do not re-inhabit the site.

36. BIO-4. Other Birds of Prey and Migratory Birds

    o A preconstruction survey for active nests of migratory birds and birds of prey shall be conducted no more than two weeks prior to construction. If no active nests are found, then no additional avoidance and mitigation measures are necessary.

    o If an active nest is located within 250 ft of a construction area, a qualified biologist shall record the location(s) on a site map.

    o The biologist shall establish a minimum 250 ft buffer around the nest tree or nest location.

- The biologist shall delimit the buffer zone with yellow caution tape, surveyor's flagging, pin flags, stakes, etc. The buffer zone shall be maintained until the end of the breeding season. No construction activities shall occur within 250 ft of a nest tree or nest location while young are in the nest.

- The biologist shall monitor the nest weekly during construction to evaluate potential disturbance caused by construction activities.