

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION OF THE
RUSSELL CITY ENERGY CENTER

DOCKET No. 01-AFC-7

APPLICATION COMPLETE
(DATA ADEQUATE)
OCTOBER 17, 2001

COMMITTEE ORDER DENYING
PETITION FOR RECONSIDERATION
- and -
NOTICE OF HEARING FOR FULL COMMISSION REVIEW

I. NOTICE OF COMMISSION HEARING

NOTICE IS HEREBY GIVEN that the California Energy Commission will conduct a public hearing at a Business Meeting scheduled as follows:

WEDNESDAY, AUGUST 14, 2002
Beginning at 10 a.m.
California Energy Commission
First Floor Hearing Room A
1516 Ninth Street
Sacramento, California
(Wheelchair Accessible)

Any party in the case, which intends to address the Commission, must submit their written arguments in advance to the Commission's Docket Unit and serve copies on all other parties listed on the proof of service list. Written arguments must be received at the Commission **no later than close of business on Wednesday, August 7, 2002**. Time for oral argument will be reserved at the Commission hearing for each party filing written argument.

II. BACKGROUND

A. Summary

On June 20, 2002, at the beginning of the evidentiary hearing, Ms. Barbara George, speaking on behalf of Woman's Energy Matters (WEM), P.O. Box 637, Rio Linda, CA. 95673, petitioned to intervene in the Russell City Energy Center

Proof of Service List (Revised on 1/24/02)
filed with Original Document. Mailed from
Sacrament on 7/23/02 0249 00001

Application for Certification (AFC) proceeding. Ms. George argued that since January, 2002 she had made "several phone calls", visits to the Commission, and examinations of the Commission Website. Nevertheless, she alleges that she was unable to learn how to intervene in the Russell City case. She requested a two-month extension for Women's Energy Matters to prepare its testimony and present such testimony at an evidentiary hearing. (RT 10-12.)

B. Committee Order

Petitions to intervene in power plant siting cases before this Commission are described in Commission regulations (Cal. Code of Regs. §§ 1207, 1712.) The regulations require that petitions to intervene be filed "at least" 30 days prior to the first evidentiary hearing. The Presiding Committee member may grant a petition to intervene filed after the deadline, but only upon a showing of good cause by the petitioner.

After hearing Ms. George's argument on behalf of the intervention of Women's Energy Matters, the Committee ruled that by failing to petition until the day of evidentiary hearings, Ms. George's petition was not timely. The Presiding Member further determined that she failed to make a showing of good cause for the untimely filing. Accordingly, the Committee denied her petition. (RT 16.)

B. Women's Energy Matters Appeal

On July 10, 2002, WEM filed a timely appeal to the full Commission for reconsideration of the Committee's June 20, 2002 Order denying WEM's Petition to Intervene (Appeal). Included with her appeal were a *Memorandum of Points and Authorities* (Memorandum), and a *Declaration of Barbara George* (Declaration). The Memorandum argues *inter alia*, WEM's direct interest in the Russell City proceeding; WEM's frustrations in trying to gain information about the case; WEM's opinion that Presiding Member Keese should be disqualified from the case on the grounds of a conflict of interest; that because there are no female members of the Commission, it is unfit to rule on anything, including the Russell City project; and that the public's exclusion from the process can only be fully remedied by starting the case over from the beginning as a 12-month process.

The Committee refers the matter to the full Commission for review.

III. PUBLIC PARTICIPATION

Members of the public may attend this hearing and offer public comment on the matters discussed at the hearing. Written comment may also be submitted. The Commission's Public Adviser, Roberta Mendonca, is available to provide information and to assist the public in participating at the hearing. The Public

Adviser can be reached at (916) 654-4489 or toll free at (800) 822-6228 or email at: pao@energy.state.ca.us.

IV. FURTHER INFORMATION

News media inquiries should be directed to Assistant Director, Claudia Chandler at (916) 654-4989 or e-mail: energia@energy.state.ca.gov

If you have a disability and need assistance to participate in the hearing(s), please contact Lourdes Quiroz at (916) 654-5146 at least five days prior to the hearing(s) you wish to attend. Technical questions concerning the project may be addressed to Jack Caswell, the Commission Staff's Project Manager at (916) 653-0062 or email at: jcaswell@state.ca.us

Questions of a legal or procedural nature should be directed to the Hearing Officer, Gary Fay at (916) 654-3893.

Dated July 23, 2002, at Sacramento, California.



WILLIAM J. KEESE
Chairman and Presiding Member
Russell City AFC Committee



ROBERT PERNELL
Commissioner and Associate Member
Russell City AFC Committee

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512

DOCKET 01-AFC-7
DATE: FEB 05 2002
RECD: FEB 07 2002

GRAY DAVIS, Governor

February 5, 2002

**REQUEST FOR REVIEW OF THE ENERGY COMMISSION STAFF'S DRAFT KFA
RADIO TOWER RELOCATION ANALYSIS FOR THE RUSSELL CITY ENERGY
CENTER (RCEC) PROJECT (01-AFC-07)**

Enclosed is a copy of the Energy Commission staff's draft KFA Radio Tower Relocation Analysis for the Russell City Energy Center project. The final version will be included as an appendix to the staff's final Staff Assessment (SA Addendum) which is expected to be issued during March, 2002.

We request that you review the enclosed draft analysis and provide any written comments to Kae C. Lewis, the Energy Commission's Project Manager, by February 22, 2002 so that staff can use your comments in their preparation of the SA Addendum.

Background and Purpose of Analysis

The Russell City Energy Center (RCEC) project description as submitted in the Application for Certification (AFC) did not include the relocation of four radio transmission towers for the station KFA, which currently occupy the western portion of the project site. The City of Hayward approved a Mitigated Negative Declaration and on May 24, 2001, granted a Conditional Use Permit for the relocation of the KFA towers from the RCEC project site to a site owned by the City. The City, in its review, identified multiple conditions (19) to address potential issues of concern. The tower relocation also requires approvals from the Regional Water Quality Control Board (RWQCB), Federal Aviation Administration (FAA), and the Federal Communication Commission (FCC). A determination of No Hazard to Air Navigation was issued to the Golden Gate Broadcasting Company by the FAA on January 17, 2002. FAA approval of the proposed tower height is required by the FCC for the evaluation of health, safety, environmental, and communications systems impact protections.

The Energy Commission has no approval authority related to the relocation of the radio towers. However, because the relocation of the tower is being undertaken to make way for the power plant project, the radio tower relocation is part of the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change" (CEQA Guidelines Section 15378). The attached draft report describes the project and assesses the potential environmental issues associated with the tower relocation.

Summary of Conclusions

Energy Commission staff have evaluated the environmental effects of relocating four radio transmission towers from the proposed RCEC site to a new location atop the Old West Winton landfill. Staff believe that relocation of the towers should not have a

February 5, 2002

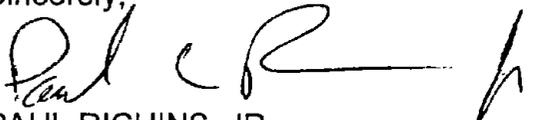
Page 2

significant impact on biological resources, but recommends that preconstruction surveys be conducted for nesting burrowing owls in light of RWQCB's recommendations that diking of the site be discontinued. In addition, staff recommend that facility lighting be directed away from open spaces. The radio towers are not expected to pose a public health, safety or nuisance risk. Similarly, no adverse impacts to geological, paleontological, or water resources are expected. While the new site is not considered ideal based on the general intent of the Hayward Area Shoreline Planning Program, no specific land use conflicts were identified. No traffic or aviation safety impacts are expected. However, due to the project's potential to create glare and its visual contrast and dominance from near foreground viewpoints from within the Hayward Regional Shoreline, the relocated towers could cause significant and unmitigable visual impacts.

Further Information

If you want information on how to participate in the Energy Commission's review of the project, please contact Ms. Roberta Mendonca, the Energy Commission's Public Adviser, at (916) 654-4489 (toll free in California at (800) 822-6228), or by email at pao@energy.state.ca.us. Technical or project schedule questions should be directed to Kae C. Lewis, Siting Project Manager, in the Systems Assessment and Facility Siting Division, at (916) 654-4167, or by email at klewis@energy.state.ca.us. A copy of the report, the status of the project, copies of notices and other relevant documents are also available on the Energy Commission's Internet web page at www.energy.ca.gov/sitingcases/russellcity. News media inquiries should be directed to Assistant Executive Director, Claudia Chandler, at (916) 654-4989.

Sincerely,



PAUL RICHINS, JR.
Energy Facilities Licensing Manager

Enclosure

KFAX RADIO TOWER RELOCATION ENVIRONMENTAL ANALYSIS

INTRODUCTION

The Russell City Energy Center (RCEC) project description as submitted in the Application for Certification (AFC) did not include the relocation of four radio transmission towers for the station KFAX, which currently occupy the western portion of the project site. On May 24, 2001, the City of Hayward granted a Conditional Use Permit (CUP) for the relocation of the KFAX towers from the RCEC project site to a site owned by the City and approved a Mitigated Negative Declaration. The tower relocation also requires approvals from the Federal Aviation Administration (FAA) and the Federal Communication Commission (FCC). Applications were filed by the station owner, Golden Gate Broadcasting Company, to the FAA on July 6, 2001 and to the FCC on August 16, 2001. A determination of No Hazard to Air Navigation was issued by the FAA on January 17, 2002. FAA approval of the proposed tower height is required by the FCC for the evaluation of health, safety, environmental, and communications systems impact protections.

The Energy Commission has no approval authority related to the relocation of the radio towers. However, because the relocation of the towers is being undertaken to make way for the power plant project, the radio tower relocation is part of the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change" (CEQA Guidelines Section 15378). It is therefore assessed here for its environmental impacts.

The following sections describe the project and potential environmental issues associated with the tower relocation. The staff has reviewed the City of Hayward's Initial Study and Mitigated Negative Declaration, correspondence from the East Bay Regional Parks District, and project information supplied by the RCEC Applicant (Calpine/Bechtel) and Golden Gate Broadcasting Company to focus the analysis on potential issues of concern.

The City, in its review, identified multiple conditions (19) to address potential issues of concern. In addition, the radio tower project will be subject to the requirements of a number of agencies (Regional Water Quality Control Board, FAA, and FCC, at a minimum) and has been reviewed by a number of additional agencies.

PROJECT DESCRIPTION

The KFAX-AM radio station transmitter currently located at 3636 Enterprise Avenue will be taken down and removed to enable construction of the RCEC project on the site. The existing transmitter will be replaced by a new 50,000-watt transmitter, constructed on the eastern panhandle of the City of Hayward's Old West Winton landfill approximately 1.25 miles northwest of the RCEC project site (**Project Description Figure 1**). Four 228-foot-high (above ground) self-supporting AM radio transmitter towers and associated transmitter facilities will occupy approximately 14 acres at the

new site (see **Project Description Figure 2**). While the existing towers are supported by "guy" wires, the proposed new towers will be self-supporting monopoles. The radio tower relocation site is located adjacent to the parking lot and trailhead for trails to the bay shore and Hayward Regional Park. East Bay Regional Parks District (EBRPD) Headquarters are a short distance away. The towers are approximately 1.3 miles from the nearest runway at the Hayward Municipal Airport.

BIOLOGICAL RESOURCES

Before construction of the proposed RCEC can begin, four radio transmission towers owned by radio station KFAQ must be removed and replacement towers constructed. Four small support buildings, to be located at the base of each tower, have also been proposed. Acting as the lead agency for the project, the City of Hayward conducted an Initial Study to assess the environmental impacts associated with tower removal and relocation. Based on the results of their Initial Study, the City of Hayward found bird collisions with the radio transmission towers to be a potentially significant impact and a Mitigated Negative Declaration was prepared.

SETTING

The proposed location for the KFAQ radio towers is located at the end of West Winton Avenue. The proposed site is approximately 1.2 miles from the present location off Enterprise Avenue. The parcel is owned by the City of Hayward and is the location of the old West Winton Landfill. To the south of the proposed site are sewage treatment settling ponds once used by the City of Hayward for wastewater treatment. These ponds are now used for loafing and foraging by a variety of waterfowl and shorebirds such as the Canada goose (*Branta canadensis*), northern shoveler (*Anas clypeata*), mallard (*Anas platyrhynchos*), ruddy duck (*Oxyura jamaicensis*), black-necked stilt (*Himantopus mexicanus*), and greater yellowlegs (*Tringa melanoleuca*). Bordering the northern and eastern edges of the site is a brackish slough, which drains into Hayward Landing. Beyond the slough, to the north, lie facilities occupied and maintained by the East Bay Regional Park District (EBRPD). These facilities include park offices, an EBRPD residence, visitor parking area, and trailhead. Further north, in close proximity to the proposed site, are the transmission facilities (including five radio transmission towers) of radio station KTCT. To the west lies the majority of the old West Winton Landfill. To the east are areas of commercial/industrial development.

Although the area is zoned industrial, open space areas dominate the landscape to the north, south, and west of the proposed site, and there are several wetland restoration projects in the area. The area is within the Pacific Flyway and is used by migratory birds. Sensitive vertebrate species utilizing habitats in the project area include the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*), the state and federally endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), California clapper rail (*Rallus obsoletus*) and California least tern (*Sterna antillarum browni*).

The proposed site will occupy 14 acres of the 40-acre former West Winton Avenue landfill. After closure, the landfill was covered with a clay cap to prevent water seepage into the landfill. To preserve the integrity of this cap, it was overlain with topsoil. The

site is flat on top, with an elevation of approximately 25 feet and sloping sides. Survey results submitted by Foster Wheeler (Foster Wheeler, 2001) and LSA Associates (LSA Associates, 2001) indicated no sensitive species were observed on the proposed project site. Energy Commission staff visited the site on November 7, 2001, and noted it had been recently disked. Vegetation was restricted to the sloping sides of the site and consisted mainly of coyote brush (*Baccharis pilularis*). No wildlife was observed. Fill material is added to the site periodically, and the site is disked and seeded on an annual basis for several reasons: (1) erosion control; (2) aesthetics; and (3) prevention of plants and animals from penetrating the cap. Prior to disking, surveys indicated on-site vegetation consisted of mainly non-native species such as Italian rye grass (*Lolium perenne*) and Mediterranean barley (*Hordeum marinum* ssp. *Gussoneanum*). Coyote brush was the only native species observed. Red-winged black birds (*Agelatus phoeniceus*), barn swallows (*Hirundo rusitca*), and Canada geese (*Branta canadensis*) were observed at the proposed site. Sensitive bird species observed near the site included: the California Department of Fish and Game (DFG) fully protected peregrine falcon (*Falco peregrinus*); federal and state species of concern Alameda song sparrow (*Melospiza melodia pusillula*); DFG fully protected California black rail (*Laterallus jamaicensis coturniculus*); state species of concern saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*); and the federal and state species of concern western burrowing owl (*Athene cunicularia*).

POTENTIAL IMPACTS

The U.S. Fish and Wildlife Service, California Department of Fish and Game, the Energy Commission, and EBRPD are concerned that permitting new projects in the proposed project area will provide new perch sites for avian predators of the salt marsh harvest mouse, California clapper rail, western snowy plover, and the California least tern. Bird collisions are also a concern. The conclusion reached in the City of Hayward Mitigated Negative Declaration was that relocation of the KFX transmission facilities to the West Winton location would not result in significant impacts to sensitive species because:

- The distance between the towers and good salt marsh (harvest mouse, clapper rail) or mud flat (least tern) habitat is too great for the towers to serve as effective "perching points."
- The diagonal latticework of the towers would discourage raptor perching, partially because there are horizontal perches nearby.
- Mitigation measures would be incorporated to reduce the risk of bird collisions with radio towers.

Perch Sites

The present location of the KFX radio transmission towers off Enterprise Avenue is within approximately one-quarter mile of salt marsh harvest mouse habitat and within approximately one-mile of other sensitive species habitat including the western snowy plover, California least tern, and the clapper rail. Within approximately one-quarter mile are black-crowned night heron (*Nycticorax nycticorax*) and snowy egret (*Egretta thula*) rookeries (considered sensitive by state of California). The distance from the proposed West Winton Avenue location to these same sensitive species habitats is over one-mile;

however, the proposed towers would be within approximately one-quarter mile of California black rail habitat.

Avian predators such as raptors and corvids have excellent vision, and relatively long distances would not necessarily preclude their use of the current or proposed towers as hunting perches; however, these distances would likely increase energetic costs associated with traversing long distances between perch sites and foraging areas. Habitats near the existing towers support a greater diversity of sensitive species than habitats near the proposed tower location. Although avian predators could use towers at the proposed location as perch sites from which to locate and hunt sensitive species, it is staff's opinion that there are greater opportunities for avian predators to locate and take sensitive species at the current site. Staff concludes that construction of new towers at the proposed site would probably not result in a significant increase in predation of sensitive species by raptors using the proposed towers as perch sites.

For birds, perching on diagonal latticework towers possibly is more difficult and a less desirable alternative than perching on horizontal structures. However, on a November 7, 2001 site visit to the proposed West Winton Avenue location, staff observed an American crow (*Corvus brachyrhynchos*) perched in a diagonal latticework transmission tower (Itoga, pers. obs.) belonging to radio station KTCT (transmission facilities of station KTCT are adjacent to the proposed site). It seems likely that other birds (including raptors) could also use the KTCT towers as perch sites. Furthermore, the KFAZ towers (in their present location) could serve as perch sites for birds and could continue to do so at the proposed relocation site. The use of diagonal lattice towers could deter some birds from using them for perching; however, it is staff's opinion that replacing diagonal latticework towers at the existing site, with new diagonal latticework towers at the proposed location, would not significantly increase the number of perch sites in the project area.

In Conditions of Approval, Use Permit Application 01-160-11 (City of Hayward, 2001), Condition #5 states: "horizontal elements which may extend out from the radio transmission towers, such as to support light fixtures or the fixtures themselves, shall be designed to deter raptors from perching on them." Staff is in agreement with the need for this condition, but would modify Condition #10 (City of Hayward, 2001), which states: "Fencing shall consist of decorative metal fencing (such as wrought iron or tubular metal) which shall be installed and maintained in a damage free condition around each radio tower." Such fencing could provide new perching opportunities for raptors and therefore should be designed to deter raptors from perching.

Bird Collisions

The City of Hayward has indicated that the proposed towers will extend to an elevation of approximately 260 feet (228 feet plus 30 feet base elevation). Further, as stated in Use Permit Application 01-160-11, Conditions of Approval (City of Hayward, 2001): "guy wires will not be used; security lighting at the transmission facilities will be directed downward; structures will be non-reflective; and no red, aircraft warning lights will be used." It is staff's opinion that these measures would have helped reduce the potential for bird collisions with the proposed towers. However, the FAA, in a recent communication to Golden Gate Broadcasting (FAA 2002), indicated that they would require red, aircraft warning lights and the towers be painted with alternating orange and

white bands. Further, it appears that the paint required by the FAA is high gloss (Knight 2002).

Some literature indicates (Cochran and Grabber, 1958; Herbert, 1970; Heye, 1963; Kemper, 1964; Olsen and Olsen, 1980) that bird collisions are usually associated with:

- towers taller than 1,000 feet (usually taller than 2,000 feet)
- periods of inclement weather (heavy rain/fog) or darkness
- guy wires supporting the towers, not the towers themselves
- towers equipped with red, steady or pulsating warning lights
- brightly lit or highly reflective structures

Staff believes the projected elevation for the towers seems somewhat low to be a significant collision hazard as most communication towers associated with bird collisions are considerably taller. In addition, guy wires, which support the existing towers, and are considered to be the greatest collision risk for birds, will not be used with the new towers. Furthermore, existing towers with supporting guy wires will be removed.

The proposed site would place towers closer to wetlands and the Hayward Shoreline and could place towers in the flight paths of birds traversing wetlands and shorelines in the project area. Painting the proposed towers with alternating orange and white bands might increase tower visibility during daylight hours (Maehr et. al. 1983). However, most collisions occur at night, or during adverse weather conditions, and use of high gloss paints and steady or pulsating, red warning lights on the proposed towers could attract night-migrating birds. Birds attracted to the lights, or light reflected from high gloss paints, could become disoriented and collide with the towers (Hebert and Reese 1995).

Staff concludes that guy wires supporting existing towers are the greatest collision hazard to birds in the area. Guy wires can be difficult for birds to detect, and replacement of guy wire supported towers with self-supporting towers should significantly decrease the potential for bird collisions in the area. However, it is possible that use of red, steady or pulsating warning lights, and high gloss paints, could increase the potential for night-migrating bird collisions with the proposed towers.

Burrowing Owl and Sensitive Plants

EBRPD has described the burrowing owl as a casual species (seen more than four times since 1983), but less often than rare (seen at least every two years), known to occur in the proposed project area (Taylor, 2001). Suitable burrowing owl habitat exists in the project area and on the proposed site. However, the proposed towers will occupy a relatively small portion of the 14-acre site. It is staff's opinion that use of the site for radio transmission towers, and associated facilities, would not significantly affect the site's potential to provide habitat for burrowing owls.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is concerned that disking of the site increases the amount of particulate matter in the site's stormwater runoff. To address this concern, the RWQCB is preparing a Notice of Violation prohibiting the City of Hayward from further disking of the site (Ganguli, 2001).

This notice would also require the City of Hayward to use an alternative to disking. Mowing of on-site vegetation would be the likely alternative. Surveys conducted by LSA Associates (2001) indicated two California ground squirrel (*Spermophilus beecheyi*) burrows were observed during June 2001 surveys, and numerous ground squirrels were observed by Energy Commission staff in areas adjacent to the proposed site (Itoga pers. obs.). Burrowing owls often use ground squirrel burrows for roosting and nesting (California Department of Fish and Game, 1990), and a greater abundance of ground squirrel burrows on the proposed site could provide microhabitat for burrowing owls. Staff concludes that termination of on-site disking could increase the potential of the site to support burrowing owls.

EBRPD has expressed concern over possible impacts to sensitive plants that may occur in the project area. Sensitive plant species with potential to occur in the proposed project area include: Alkali milk-vetch (*Astragalus tener* var. *tener*), hispid bird's beak (*Cordylanthus mollis* ssp. *Hispidus*), Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Mason's lilaeopsis (*Lilaeopsis masonii*), hairless popcorn flower (*Plagiobotrys glaber*), and California seablite (*Suaeda californica*). Species-specific sensitive plant surveys were conducted by Foster Wheeler on February 27, March 25, and April 24, 2001 and by LSA Associates on June 5, 2001. No sensitive plant species were reported. It is staff's opinion that suitable sensitive plant habitat (suitable soil type) does not exist on the proposed project site and that sensitive plant surveys were conducted over a sufficient period of time to allow the identification of sensitive plants with the potential to occur in the area.

CONCLUSION

It is staff's opinion that replacing existing, guy wire supported, latticework towers with new, self-supporting diagonal latticework towers at the proposed West Winton site is not likely to significantly impact sensitive biological resources in the proposed project area. Although use of the site for radio tower relocation probably will not have a significant impact on sensitive biological resources, staff recognizes that facility and aircraft obstruction lighting, as well as light reflected from the towers, may attract some night-migrating birds. Birds attracted by the aforementioned lighting could collide with the towers. To minimize potential for bird collisions, staff recommends directing facility lighting down and away from open-space areas. Staff also recommends the use of white or red strobe lights for aviation obstruction lighting.

It is possible that termination of on-site disking may increase the site's potential to provide burrowing owl microhabitat, but use of the site for radio tower relocation probably will not have a significant impact on the site's potential to provide burrowing owl habitat. However, if burrowing owls are present, activities associated with construction of the new towers (e.g. pile driving, grading) could adversely impact (disturbance or harassment within 50 meters of occupied burrows, destruction of burrows and burrow entrances, degradation of foraging habitat adjacent to burrows) nesting/fledging burrowing owls. Pre-construction surveys for nesting burrowing owls should be conducted, by a qualified biologist, no more than 30 days prior to on-site ground disturbance activities. If surveys indicate burrowing owls are active on-site, staff

recommends consulting the California Department of Fish and Game before beginning any ground disturbing activities.

PUBLIC HEALTH, SAFETY AND NUISANCE

Staff has reviewed the City of Hayward's Initial Study and Mitigated Negative Declaration (July 10, 2001), a general environmental analysis prepared by Calpine (undated), and a more detailed assessment of health and safety impacts prepared by Foster Wheeler Environmental Corporation (June 21, 2001). Staff has found these documents to be scientifically accurate in their description of the state of knowledge about the biological effects of electromagnetic fields (EMF) and more specifically, radio frequency (RF) radiation.

Staff also conducted an independent search and review of published abstracts and articles in the scientific literature, focusing on the most recent articles from 1994 to the present. Most scientific research suggests that RF towers pose little to no risk to humans unless one actually climbs a tower and is within several feet of the transmitter. As part of relocation process, the owner must obtain a permit from the Federal Communications Commission (FCC) and as such, must comply with the FCC's rules regarding human exposure to RF radiation. These rules are designed to ensure that FCC-regulated transmitters do not expose the public or workers to levels of RF radiation that are considered by expert organizations to be potentially harmful (FCC OET Bulletin 56).

Below is a discussion of the basis for staff's finding.

ELECTROMAGNETIC SPECTRUM

Electromagnetic radiation can be described as a series of waves of energy composed of oscillating electric and magnetic fields that travel through space at the speed of light. The electromagnetic spectrum is a continuum of different electromagnetic radiation energies that are listed from longest to shortest wavelength (lowest to highest energy and frequency). Power lines (standard electrical power distribution) operate at a frequency of 60 Hz and a wavelength greater than 10^6 meters. RF radiation is in the range of 300 Hz - 300 MHz and includes frequencies of CB, cordless, cellular and PCS phones. AM radio has a frequency of around 1 MHz, FM radio has a frequency of around 100 MHz, microwave ovens have a frequency of 2450 MHz, and X-rays have frequencies above one million MHz. Cellular (mobile) phones operate at a variety of frequencies between about 800-2200 MHz.

Power line and radio frequencies occur in the non-ionizing radiation part of the electromagnetic spectrum where the energy of the particles is much too low to break chemical bonds. UV and X-rays occur in the ionizing part, where broken bonds and DNA damage can occur as a result of exposure to these energy forms.

HEALTH EFFECTS OF RADIO-FREQUENCY RADIATION

Mobile phones and their base stations produce radio-frequency radiation. The consensus of the scientific community is that the power from mobile phone base station antennas is too low to produce health hazards as long as people are kept away from

direct access to the antennas (Moulder, 2001a). It is unlikely that RF radiation has a strong causal influence on cancer based on the lack of association shown between exposure to RF radiation and total cancer and the lack of consistent associations shown between exposure to RF radiation and any specific type of cancer (Moulder, 2001a).

Seven of 35 literature abstracts on radio frequency radiation chosen for further review from an extensive literature search are summarized in Table 1. Four of these studies presented reviews of the scientific literature and concluded that there was no conclusive evidence that radio frequency radiation can be linked with cancers or reproductive effects. One report identified an excess risk for breast cancer in female Norwegian radio and telegraph operators. Health effects have been observed in animals exposed to RF radiation when the exposure has caused an increase in the organism's temperature; however, RF radiation from this project are unlikely to cause temperature increases.

Table 1
Results of Review of RF Abstracts

#	Year	Type of Study		Type of EMF	Conclusions	Association (+/-)
1	1999	Review of Sci Literature	Repro	RF	Gross developmental anomalies were associated with significant increases above normal in embryonic or fetal temp; there is no convincing independently verified evidence that exposures to RFR from current mobile telecommunications technology presents a serious health risk to human prenatal development	-
2	1996	Human Epi Study	Cancer	RF 405kHz-25MHz	Excess risk seen for breast cancer in Norwegian radio and telegraph operators	+
21	1998	Review of Sci Literature	Cancer	RF	RF fields, mobile telephone frequencies in particular, are not genotoxic, do not seem to be teratogenic or to induce cancer	-
23	1998	Review of Sci Literature	Cancer	RF 10 MHz-300GHz	No known health hazards were associated with exposure to RF sources emitting fields too low to cause a significant temperature rise in tissue	-
26	1999	Rat Study	CV	RF 94 GHz	Extreme peripheral heating occurred without similar levels of core heating	-
34	2000	Rat Study	CNS	RF 900 MHz	In-utero exposure did not induce any measurable cognitive deficits	-
36	1999	Review of Sci Literature	Cancer	RF	The epidemiologic evidence falls short of the strength and consistency of evidence that is required to come to a reasonable conclusion that RF emissions are a likely cause of one or more types of human cancer	-

HEALTH EFFECTS OF POWER LINES

Although the proposed relocation of the towers does not involve power lines (which emit at a very different frequency than radio towers), health information is provided on power lines since there is often confusion among the general public regarding these types of emissions. Power lines produce no significant non-ionizing radiation; they produce electric and magnetic fields. In contrast to non-ionizing radiation, these fields do not radiate energy into space, and they cease to exist when power is turned off. It is not clear how, or even if, power line fields produce biological effects; but if they do, it is not in the same way that higher power RF radiation produces biological effects. There

appears to be no similarity between the biological effects of power line "EMF" and the biological effects of RF radiation (Moulder, 2001b).

According to Moulder, some studies appear to show a weak association between exposure to power-frequency magnetic fields and the incidence of cancer. However, epidemiological studies done in recent years show little evidence that power lines are associated with an increase in cancer, laboratory studies have shown little evidence of a link between power-frequency fields and cancer, and a connection between power line fields and cancer remains biophysically implausible (Moulder, 2001b).

Reviews conducted by the U.S. National Academy of Science, the U.S. National Institutes of Health, and the U.K. National Radiation Protection Board have concluded that conclusive evidence does not exist linking power-frequency EMF or extremely low frequency EMF to cancer or other health effects (Moulder, 2001b).

Following six years of Congressionally mandated research, the NIEHS published a report in 1999, which stated that the scientific evidence suggesting that power-frequency EMF exposures pose any health risk is "weak" (NIEHS, 1999). The report applies to extremely low frequency electric and magnetic fields surrounding both the big power lines that distribute power, as well as the smaller but closer electric lines in homes and appliances. The strongest evidence for health effects comes from associations observed in human populations with two forms of cancer: childhood leukemia and chronic lymphocytic leukemia in occupationally exposed adults. Epidemiological studies demonstrate (for some methods of measuring exposure) a fairly consistent pattern of a small increased risk with increasing exposure that is somewhat weaker for chronic lymphocytic leukemia than for childhood leukemia. NIEHS also found inadequate evidence of any link to such non-cancer diseases as Alzheimer's, depression, and birth defects. The NIEHS report also recommends that the fields continue to be recognized as a "possible" cancer hazard, but emphasizes the weakness of the data and the low risk that may be involved.

Overall, most scientists consider the evidence that power line fields cause or contribute to cancer to be weak. Laboratory evidence does not suggest a link between power-frequency magnetic fields and cancer.

NUISANCE EFFECTS OF RADIO-FREQUENCY RADIATION

RF radiation may potentially interfere with telecommunications and other equipment in the near vicinity (typically within a few hundred yards) of the proposed relocation site. Potential effects would most likely be within the one volt per meter contour (**Public Health, Safety and Nuisance Figure 1**). Potential interference may not be identifiable until the towers are in a test or operational mode. The owner of the towers is required by the FCC to mitigate all interference within the one volt per meter contour. In addition, the tower owner has indicated that they have a "good neighbor" policy at all their radio tower locations and will rectify any problems that arise.

The East Bay Regional Parks District and local businesses at the end of West Winton Avenue have expressed concern about the potential for interference with selected equipment. The City of Hayward has imposed Conditions of Approval on the tower

relocation which include the requirement for the owner to respond to and address all complaints regarding RF interference as required by FCC regulations and to maintain records of all such notices or correspondence. In order to preempt any potential issues or concerns, Calpine and Golden Gate Broadcasting Company have met with local businesses and the Parks District to identify what, if any, potential interferences could arise. No major compliance problems were identified.

CONCLUSION

Based on a review of the scientific data, staff concludes that radio frequency emissions from the KFOX towers pose little or no risk to humans. The towers will be fenced to preclude exposure and will be subject to FCC rules designed to avoid human exposure to RF radiation. The potential for nuisance impacts to equipment will be reduced by: ongoing meetings between Golden Gate Broadcasting and nearby entities; by requirements of the FCC; and by the "good neighbor" commitment of Golden Gate Broadcasting.

GEOLOGY AND PALEONTOLOGY

INTRODUCTION

The new KFOX Radio transmitter facilities will be located on the northern panhandle of the Old West Winton Landfill. The entire site is mantled by more than 20 feet of fill, including cover material and landfill debris. The foundations for the new radio transmitter facilities would be constructed by driving piles through the landfill and into the underlying bay deposits.

Younger bay mud deposits underlie the landfill. The younger bay mud typically consists of plastic, organic-rich clay and silty clay, with interbedded thin beds of sorted silt, sand, and fine gravel. The Applicant speculates that the young Bay mud may be between 20 and 60 feet thick beneath the landfill, and that it is underlain by more consolidated older Bay mud deposits. Young Bay mud deposits beneath the City of Hayward's Wastewater Treatment Plant, immediately east of the landfill, are generally less than 15 feet thick (Cooper Clark and Associates, 1959 and 1972).

GEOLOGIC HAZARDS

Faulting and Seismicity

No active or potentially active faults are known to cross the proposed radio transmitter facilities site. The closest known active fault is the Hayward fault, which is located five kilometers east of the project site. Therefore, the potential for fault rupture beneath the facilities is considered to be very low.

The ground shaking impacts at the proposed site are similar to the impacts at the RCEC site. The California Division of Mines and Geology (CDMG) Map Sheet 48 (Petersen et al., 1996) predicts a peak ground acceleration with a 10 percent probability of exceedance in 50 years of between 0.5 and 0.7g for the project area. However, since the site will overlie younger Bay mud (CBC Soil Profile Type S₁), the site will likely

experience amplification of seismic shaking and potential liquefaction during an earthquake.

Liquefaction, Hydrocompaction, and Expansive Soils

The combination of saturated soils of varying density and a potential for a moderately high peak horizontal ground acceleration points to a moderate potential for liquefaction at the site. Potentially liquefiable soils are expected to occur in the bay deposits beneath the landfill. Localized subsidence due to seismically induced densification of loose granular zones of fill is considered the most likely expression of liquefaction at the project site. However, liquefaction beneath the landfill may also lead to lateral spreading. This conclusion is supported by the findings of a geotechnical investigation at the City of Hayward's Wastewater Treatment Plant (Judd Hill and Associates, 1979). Liquefaction will be accounted for during the final design of the project's foundation by the Applicant's proposed use of pile foundations driven through any potentially liquefiable zones and into the older Bay mud.

Landslides

Landsliding potential at the radio transmitter site is considered to be low, since the project is located on a fill pad with relatively gentle slopes.

GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

The Old West Winton landfill does not contain any geological or paleontological resources since, as a landfill, it received only waste materials.

CONCLUSION

The Applicant will likely be able to comply with applicable laws, ordinances, regulations and standards (LORS). The project should have no adverse impact with respect to geologic and paleontologic resources if it complies with these LORS.

Design and construction of the project to conform to applicable California Building Code (1998) requirements outlined and the standards adopted by the City of Hayward Public Works Department will reduce the impacts of strong seismic ground shaking, liquefaction, and lateral spreading to less than significant.

SOILS, HYDROLOGY AND WATER QUALITY

SETTING

The relocation of the KFOX Radio towers will occur on a 14-acre site consisting of the Old Winton Landfill, located in the bayshore floodplain in the southern part of the City of Hayward in Alameda County. The landfill, which operated from 1939 – 1974, raised the elevation of this parcel of land by 25 to 30 feet above neighboring properties of bayshore floodplain, and was closed after 1974. Closure activities included placement of a clay cap and protective soil layer over the surface of the landfill, to prevent precipitation from infiltrating into the landfill. Construction of the four monopole type towers will consist of driving piles through the soil and clay surface layer, through the landfill zone, and into the bay mud consisting of Reyes Clay. A concrete foundation near the ground surface will tie-into the deep driven piles and provide the base support

for the free-standing lattice towers, which develops a system that avoids the need to require guy wires for tower support. The four towers will be approximately 228 feet high. A ground wire system will also be installed as part of the electrical system protection. The type of grounding system and its design is unspecified. Associated transmitter facilities will be constructed on the site. A previously conducted Environmental Site Assessment (ESA) revealed two materially recognized conditions of concern:

- Potential for on-site soil and groundwater contamination due to landfill use at the site;
- Volatile Organic Compounds (VOC's) were detected above the reporting limit in leachate return samples;

STORM WATER

In planning for construction, a General NPDES Permit for Discharge of Storm Water Associated with Construction Activity would not normally be considered necessary if the extent of land disturbance is less than 5 acres. However, because the land disturbance is being conducted on a closed landfill, the potential for water quality impairment from storm water runoff is greater, and the RWQCB should be consulted as to whether an NPDES Permit for construction activity is necessary in this particular case. Excavation for the tower foundations will disturb the existing soil cover and clay cap on the surface of the landfill, exposing the landfill to surface water infiltration or creating potential for contaminated runoff from direct contact of storm water with landfill material or leachate. In addition, placement of the piles through the landfill zone and into the bay mud will penetrate any seal developed between the two, and potentially develop a conduit for transfer of leachate into the bay mud and groundwater, or else a means for groundwater to surcharge the landfill under flood or high tidal conditions. Best Management Practices (BMPs) specified under a Storm Water Pollution Prevention Plan (SWPPP) would avoid such exposure and potential effects to water quality. The ESA has identified the potential for soil and groundwater contamination from the landfill, and in particular, the leachate within the landfill has been tested to confirm VOCs higher than the reporting limit. The potential for contamination to soil, groundwater or surface water exists, and would be avoided by including proper BMPs during the course of construction.

In planning and performing modifications to the closed landfill, staff recommends that the Integrated Waste Management Board be consulted regarding planned disturbance to the soil and clay cap over the surface of the landfill, and the San Francisco Bay RWQCB be consulted regarding planned disturbance to the landfill/bay mud interface. Consultations should address potential impacts from all phases of planned construction disturbing the surface protection and/or landfill zone, and should include effects from the tower foundations, ground wire system, and the associated transmitter facilities. In addition, the SWPPP associated with storm water management should include an Erosion Control and Sedimentation Plan with specific BMPs listed and shown on a site plan. A Drainage Plan is required to be submitted to the City of Hayward.

For activities during construction and during operations of the radio transmitter, the San Francisco Bay RWQCB should be consulted as to whether storm water should be

managed under an NPDES Permit. Although the RWQCB terminated coverage for the site under the General Permit for Industrial Activity approximately five years ago, new disturbance to the site for construction of the radio towers may initiate interest for ongoing management and monitoring oversight of storm water by the RWQCB considering the potential for water quality degradation from the landfill.

CONCLUSION

The proposed relocation of the KFAQ radio towers should have no significant adverse impact to soils and water resources subject to implementation of BMP's and conditions specified by the San Francisco Bay RWQCB, Integrated Waste Management Board, and City of Hayward.

LAND USE

In evaluating whether a project has the potential to result in significant impacts related to land use and planning, Energy Commission staff uses the criteria presented in Appendix G of the CEQA Guidelines, which are the same criteria utilized by the City of Hayward in evaluating the potential impacts of the relocation of the KFAQ radio towers. Each of these criteria is discussed below.

The first significance criteria for land use considers whether a project would "physically divide an established community." Typically, a project considered capable of dividing a community would consist of a substantial linear physical barrier, such as a freeway or a large flood control channel. The radio towers do not represent such a potential barrier. Also, location is an important consideration in the potential to divide an established community. Projects located at the periphery of a community, such as the proposed radio tower site, have little potential to physically divide the community. As a result, staff agrees with the City's determination that the relocation of the radio towers would not physically divide the community.

The second significance criteria for land use considers whether a project would conflict with applicable land use plans, policies, or regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect. The City of Hayward is the agency with land use jurisdiction over the radio tower relocation. Therefore, it is the City's General Plan and zoning regulations that must be evaluated. The proposed relocation site is located in an area designated for Industrial and Open Space uses by the Hayward General Plan. The City determined that the radio towers are an appropriate use for an Industrial area. The City also determined that the radio towers would be appropriate in an area designated Open Space because such uses are not specifically precluded in such an area by the General Plan and due to the precedent of allowing similar uses in Open Space areas. The proposed relocation site is located across two zoning districts: the Industrial District and the Flood Plain District. The City determined that their zoning regulations would allow radio broadcast facilities in these zones with the approval of a CUP. The Hayward City Council approved a CUP in July 2001 allowing the KFAQ radio towers and associated broadcast facilities to be located on the proposed site. The CUP imposes 19 conditions of approval on the project. Staff finds the City's determination reasonable and finds no reason to dispute the City's

conclusions regarding the project's consistency with the its land use policies and regulations.

The third significance criteria for land use considers whether a project would conflict with any applicable habitat conservation plan or natural community conservation plan. There are no such plans in effect at the proposed site for the relocation of the KFAX radio towers. However, the planning area for the Hayward Area Shoreline Planning Program prepared by the Hayward Area Shoreline Planning Agency (HASPA) includes the radio tower relocation site. HASPA's purpose is long-range planning of the shoreline area and the enhancement and environmental restoration of wetlands in public ownership near the shoreline. HASPA is an advisory body in land use matters and does not have land use authority over the project or the project site. The radio tower relocation site is located in an area that is targeted for possible upland habitat restoration in the Hayward Area Shoreline Planning Program. In reviewing the Hayward Area Shoreline Planning Program, staff did not identify any specific policies or statements that represented a direct conflict between the radio tower relocation project and the Planning Program. However, staff acknowledges that the installation of the radio towers would not be ideal considering the general intent of the Hayward Area Shoreline Planning Program to enhance the habitat and recreational values of the area. Please see the discussions of **Biological Resources** and **Visual Resources**.

In preparing the Mitigated Negative Declaration for CUP for the KFAX radio tower relocation, the City of Hayward determined that the San Francisco Bay Conservation and Development Commission (BCDC) did not have jurisdiction over the project due the fact that the project site was located outside the BCDC's jurisdictional shoreline band that extends 100 feet inland from the line of highest tidal action along the Bay, and that the site is not influenced by tidal action due to its elevation.

CONCLUSION

The construction of new radio transmission towers at the approved City-owned site would not create a physical barrier capable of dividing the community and would not violate applicable land use plans, policies, or regulations. The installation of the radio towers at the approved location would not be ideal considering the general intent of the Hayward Area Shoreline Planning Program; however, staff did not identify any specific conflicts between the radio tower relocation project and the Planning Program.

TRAFFIC AND TRANSPORTATION

Construction of the new KFAX radio towers will take approximately 12 to 16 weeks to complete. The peak traffic generation from radio transmitter construction will occur between weeks 5 and 14, with approximately 18 vehicle trips per day and 3 vehicle trips during both morning and evening peak hour conditions. After completion of the new radio tower, there will not be regular daily traffic, with only occasional site visits by maintenance personnel (on average, a few trips per week during non-peak hour conditions). Therefore, project generated traffic will not cause any significant changes in either local or regional traffic conditions and would result in a less than significant impact.

The movement of equipment necessary to erect the new KFOX radio tower may cause short-term inconveniences to users of the Hayward Shoreline Regional Park and its trailhead parking lot. However, the Applicant will implement standard construction practices to minimize such effects, thereby resulting in a less than significant impact.

The construction of the new radio towers will require a Federal Aviation Administration (FAA) permit since the project site is located 4,900 feet from the nearest runway to the Hayward Executive Airport and could affect air traffic approaching Oakland International Airport. The FAA will conduct an airspace analysis and impose conditions to ensure that the new towers will not result in significant impacts to aviation safety.

CONCLUSION

The new KFOX radio towers are not expected to create significant traffic or aviation safety impacts.

VISUAL RESOURCES

INTRODUCTION

Visual resources are the natural and cultural features of the environment that can be viewed. This analysis focuses on whether the relocation of the four KFOX radio towers (project) currently occupying the proposed Russell City Energy Center (RCEC) site would cause visual impacts. The determination of the potential for visual impacts resulting from the proposed project is required by the California Environmental Quality Act (CEQA).

PROJECT DESCRIPTION

The following section describes the aspects of the proposed project that may have the potential to cause adverse impacts to visual resources.

Radio Transmitters

The four radio towers would be self-supporting, 228-foot-tall lattice steel structures. The towers would be 6.5-foot square at the base and taper up to a point at the top.

Ancillary Equipment

A transmitter equipment enclosure and small electronics enclosure would be located at the base of each radio tower.

Lighting

Aircraft warning lights would be required to alert aircraft of the location of the radio towers. Exterior lighting for operational safety and security would be required at the transmitter buildings.

SETTING

Regional Setting

The proposed radio towers would be located in the City of Hayward along the east shore of San Francisco Bay within an area referred to as the "baylands." The regional setting of the project includes the East Bay Hills to the north and east and San Francisco Bay to the west. The surrounding baylands constitute a vast open space area that includes saltwater, brackish, and fresh water marshlands and mudflats supporting stands of tall cord grass. Much of the area in the baylands is managed for wildlife protection and public access (Hayward Regional Shoreline) by the East Bay Regional Park District (EBRPD) and the Hayward Area Recreation and Park District (HARD). Visitor facilities include the Hayward Shoreline Interpretive Center (managed by HARD), located on Breakwater Avenue immediately north of State Route 92, and a system of trails through the area, including a portion of the San Francisco Bay Trail. The Hayward Shoreline Interpretive Center and the trail system provide highly scenic vista views of San Francisco Bay, the Coast Range, the baylands, and the East Bay Hills.

Project Area Setting

The radio towers now located on the proposed RCEC site would be relocated to a 14-acre piece of land located over 1 mile to the northwest at the western end of West Winton Avenue. The proposed site is located immediately south of the parking area and entrance to the Hayward Regional Shoreline trail system. **Visual Resources Figure 1** shows the location of the project relative to the entrance to the Hayward Regional Shoreline. The project site is a small portion of the former West Winton Avenue Landfill, which was operated until 1974. The landfill is now capped and revegetated, and appears as a large 25- to 30-foot tall mound with a flat top (Calpine/Bechtel, 2001). There are small trees growing along portions of the base of the mound and on its sides. The earth on top of the landfill is disked yearly to prevent plants from compromising the integrity of the clay cap, and then seeded yearly with grasses to prevent erosion. The site is in close proximity to several segments of the shoreline trail (see **Visual Resources Figure 1**). Although the landfill is not part of the trail system, it is currently accessible to the public and provides a viewing point for the surrounding area (City of Hayward, 2001a). Except for the fenced areas around the base of the proposed towers, the area would continue to be accessible to the public. From atop the elevated landfill, San Francisco Bay, oxidation lagoons for the Hayward Water Pollution Control Facility, and the Hayward Industrial Corridor are visible. Visible to the north approximately 0.3 mile north of the site are the five, KTCT radio towers that are located on the closed All Cities Landfill.

VIEW AREAS AND KEY OBSERVATION POINTS

Calpine/Bechtel selected three key observation points (KOPs) to characterize the existing visual setting within which the proposed project would be evaluated. **Visual Resources Figure 1** shows the location and view direction of the three KOPs. The following discussion provides an assessment of the overall visual sensitivity at each KOP. Overall visual sensitivity takes into account existing landscape visual quality,

viewer concern, and overall viewer exposure, which considers visibility, distance zone, number of viewers, and duration of view.

KOP 1: West Winton Avenue

KOP 1 was established at a viewpoint along West Winton Avenue approximately 1,000 feet northeast of the proposed radio tower site. This view was selected to represent views of the site available to the public as they drive along West Winton Avenue toward the entrance to the Hayward Regional Shoreline. On an average day, 200 to 250 people visit the shoreline area for hiking, biking, jogging, dog walking, bird watching, and fishing (Calpine/Bechtel, 2001). **Visual Resources Figure 2** depicts the existing view of the project site from KOP 1. Visible in the view toward the site from KOP 1 are an open, grassy field, trees along West Winton Avenue, utility poles, cell tower, and electric transmission towers (not visible in the photograph). The shed-like structures in the center of the photograph are located in an EBRPD service yard. To the right of the large EBRPD shed is the trailhead to the San Francisco Bay Trail. The trailhead is located about 350 feet north of the nearest proposed radio tower. **Visual Resources Figure 3** shows other views toward the site in the area of KOP 1, including views from the park entrance and parking/staging area.

Visual Quality, Viewer Concern, and Viewer Exposure

Due to the presence of the utility poles and sheds, visual quality of views toward the site from KOP 1 is rated low to moderate. However, from the parking area the utility poles and sheds are screened by trees and shrubs, so visual quality of views from the parking area toward the site is rated moderate. Viewer concern is rated high because recreational users entering the Hayward Regional Shoreline primarily use the area. Viewer exposure would be moderate to high in spite of the low to moderate duration of view since the site is located in the near foreground distance zone, visibility of the towers would be high, and the number of potential viewers would be high.

Overall Visual Sensitivity

Although visual quality ranges from low to moderate to moderate, the overall visual sensitivity of the setting viewed from the area of KOP 1 is moderate to high primarily as a result of the high viewer concern and moderate to high viewer exposure.

KOP 2: Shoreline Trail at Cogswell Marsh Footbridge

KOP 2 was established at a viewpoint located on the Cogswell Marsh footbridge, located approximately 0.5 mile south of the relocated radio tower site. The existing KFOX radio towers are visible from this viewpoint in their present location about 1 mile to the east. KOP 2 was selected to represent views toward the relocated tower site available to the public using the trail system along the western edge of the Hayward Regional Shoreline. The trails in this portion of the shoreline are used by about 200 people daily (Calpine/Bechtel, 2001). **Visual Resources Figure 4** depicts the existing view toward the proposed site from KOP 2. Visible in the near foreground are the footbridge and Cogswell Marsh. In the middleground are mudflats, the capped landfill, and warehouses in the industrial area along Cabot Boulevard. Faintly detectable in the left middleground are the existing KTCT radio towers. The East Bay Hills and Mt. Diablo are visible in the background.

Visual Quality, Viewer Concern, and Viewer Exposure

Although visual quality is reduced somewhat by the industrial structures in the middleground, the area provides views of the marsh, East Bay Hills, and Mt. Diablo. Visual quality is rated moderate to high. Because the area is used for recreation, viewer concern is high. The City of Hayward Use Permit Conditions of Approval require the relocated radio towers to be finished in a non-reflective, anodized metal color, unless otherwise directed by the FAA (Hayward 2001b). According to the Determination of No Hazard to Air Navigation recently issued by the FAA, the relocated towers, similar to the existing KFAQ towers, would need to be painted in alternating orange and white bands. Although the towers would have a slim profile, the white color bands as seen against the backdrop of the East Bay Hills and sky would increase their visibility. Therefore, the visibility of the towers would be moderate at middleground distances such as at the Cogswell Marsh footbridge (KOP 2). Because the visibility of the towers would be moderate, the number of viewers would be high, and the duration of view would be moderate, overall viewer exposure would be moderate.

Overall Visual Sensitivity

The overall visual sensitivity of the setting viewed from the area of KOP 2 is moderate to high as a result of the moderate to high visual quality, high viewer concern, and moderate viewer exposure.

KOP 3: Shoreline Trail at Sulphur Creek

KOP 3 was established on the hiking and biking trail along the west side of the Hayward Regional Shoreline just north of the trail's crossing of Sulphur Creek, a viewpoint located about 1 mile to the northwest of the proposed radio tower site. The approximately 200 to 250 people who use this portion of the shoreline area for hiking, biking, jogging, bird watching, and fishing see this view of the site. **Visual Resources Figure 5** depicts the existing view toward the project site from KOP 3. Natural elements visible in the view include water in the foreground and the East Bay Hills in the background. Visible in the middleground are debris piles at the Landfill Management concrete recycling facility located on West Winton Avenue, the closed All Cities Landfill in the process of being capped, and the five KTCT radio towers.

Visual Quality, Viewer Concern, and Viewer Exposure

Although visual quality is reduced somewhat by the disturbed character of the middleground, visual quality is rated moderate to high. Because the KOP 3 area is used for recreation, viewer concern is high. Although the number of viewers would be high, overall viewer exposure would be moderate primarily because the moderate view duration and the low to moderate visibility of the towers given their slim profile and middleground distance from KOP 3 (about 0.85 mile).

Overall Visual Sensitivity

The overall visual sensitivity of the setting viewed from the area of KOP 3 is moderate to high as a result of the moderate to high visual quality, high viewer concern, and moderate viewer exposure.

IMPACTS ANALYSIS

Scenic Vistas

The Hayward Shoreline Interpretive Center and the Hayward Regional Shoreline trails provide highly scenic vista views of San Francisco Bay, the Coast Range, the baylands, the East Bay Hills, and Mt. Diablo. Views of the baylands and the East Bay Hills are available to eastbound motorists on SR 92 and the Hayward-San Mateo Bridge, which is formally recognized as a "gateway" in the General Plan. The four existing 228-foot tall KFOX radio towers are visible from SR 92, the Interpretive Center, and the shoreline in their current location. The Mitigated Negative Declaration prepared by the City of Hayward concluded that "...replacing [the existing KFOX radio towers] with new towers at another location that is similarly visible from the shoreline will not have a significant negative visual impact as viewed from strategic viewpoints." The relocated towers would be sited farther from the Interpretive Center and SR 92 than their present location, a beneficial impact. However, in the proposed location, the towers would be adjacent to the entrance to the Hayward Regional Shoreline, and, from near foreground views from the parking area and trail, would cause a high level of contrast and dominance, resulting in a potentially significant impact on a scenic vista. This potential impact is discussed in more detail below under Visual Character or Quality.

Scenic Resources

There are no state-designated scenic highways within the project viewshed. Furthermore, the project would be located on a capped, former landfill that is disked and seeded yearly and contains no scenic resources such as trees, rock outcroppings, and historic buildings. Thus, the project would not have a significant adverse effect under this criterion.

Visual Character or Quality

KOP 1: West Winton Avenue

Visual Resources Figure 6 is a simulation of the radio towers, as they would be seen from KOP 1, at a distance of about 1,000 feet. The proposed radio towers would be very noticeable at this foreground viewing distance. While the vertical form of the towers would cause high contrast with the horizontal form of the landforms and the irregular form of the vegetation, the towers would appear similar to the form and line of the utility poles and cell tower in the view from KOP 1. Because there are existing vertical elements in the view from KOP 1, the additional visual contrast due to the project would be moderate. The towers are depicted in a gray color in the simulation. However, according to the Determination of No Hazard to Air Navigation issued by the FAA, the relocated towers, similar to the existing KFOX towers, would need to be painted in alternating orange and white bands. The alternating bands of orange and white would increase the visibility of the towers against the backdrop of the sky, causing high color contrast. As viewed from the viewpoint depicted in **Visual Resources Figure 6**, the towers would appear much taller than the shed structures and vegetation in the middleground but similar in apparent height to the utility poles, so scale contrast would be moderate. However, as viewed from the park entrance and parking area, the towers would appear much taller than the existing structures and vegetation, causing high scale contrast. As viewed from the park entrance and parking area, the radio

towers would occupy a large part of the field of view, which is somewhat confined by the shrubs and few large trees located in the area. Therefore, at near foreground distances scale dominance would be co-dominant. The towers would be prominent because they would be silhouetted against a backdrop of sky. As viewers enter the parking area and trailhead, due to their height and elevated position atop the landfill, the towers would loom over viewers and would be highly prominent. Therefore, at near foreground distances spatial dominance would be dominant. The towers would block a small part of the sky, so the severity of view blockage would be low.

For near foreground views from the area of KOP 1, the project would cause high overall visual change due to the high levels of color and scale contrast and dominance. Considering the moderate to high overall visual sensitivity of the setting viewed from the area of KOP 1, the resulting visual impact would be significant.

KOP 2: Cogswell Marsh Footbridge

Visual Resources Figure 7 is a simulation of the radio towers, as they would be seen from KOP 2. While the vertical form of the towers would cause high contrast with the horizontal form of the landforms, their vertical form and straight line would appear similar to the form and line of the KTCT radio towers and electrical transmission towers. Because there are existing vertical elements visible in the view from KOP 2, the additional form and line contrast due to the project would be moderate. The white color bands on the towers would be noticeable against the backdrop of the East Bay Hills and sky, so color contrast would be high. The towers would appear much taller than the warehouses in the middleground and the East Bay Hills in the background, but similar in height to the KTCT towers, so scale contrast would be moderate. Although the towers would be tall, they would occupy a very small part of the overall landscape setting (which is panoramic), so scale dominance would be negligible. Due to substantial skylining, spatial dominance would be co-dominant. The towers would block a very minor portion of the sky, so the severity of view blockage would be low.

The overall visual change as viewed from the area of KOP 2 would be moderate. Combined with the moderate to high overall visual sensitivity of the setting viewed from the KOP 2 area, the resulting visual impact would be adverse but less than significant.

KOP 3: Shoreline Trail at Sulphur Creek

Visual Resources Figure 8 is a simulation of the radio towers, as they would be seen from KOP 3. While the vertical form of the towers would cause high contrast with the horizontal form of the landforms, their vertical form and straight line would appear similar to the form and line of the existing, five KTCT radio towers. Because there are existing vertical elements in the view from KOP 3, the additional visual contrast due to the project would be low. The proposed towers would appear taller than the East Bay Hills but shorter than the existing KTCT towers, so scale contrast would be moderate. The white color bands on the towers would contrast moderately with the sky at this distance. The towers would occupy a very small part of the overall landscape setting (which is panoramic), so scale dominance would be negligible. Due to substantial skylining, spatial dominance would be co-dominant. The towers would block a very minor portion of the sky, so the severity of view blockage would be low.

The proposed RCEC would also be visible from KOP 3. At this distance, the arched form and curved lines of the RCEC relate fairly well with the form and line of the East Bay Hills. The RCEC would be a small object and would occupy a very small part of the setting, so scale dominance would be negligible. Due to skylining, spatial dominance would be co-dominant. The RCEC would block a very minor portion of the sky, so the severity of view blockage would be low.

The relocated radio towers and RCEC would cause moderate overall visual change as viewed from the area of KOP 3. Combined with the moderate to high overall visual sensitivity of the setting viewed from KOP 3, the resulting visual impact would be adverse but less than significant.

Light or Glare

According to the City of Hayward Use Permit Conditions of Approval (City of Hayward, 2001b), aircraft warning lights on the radio towers would be white strobe lights, unless otherwise directed by the FAA, and would be as few in number as allowed by FAA rules. According to the Determination of No Hazard to Air Navigation recently issued by the FAA, warning lights on the relocated towers would need to be red. The red warning lights on the existing KFAV radio towers are visible at night from State Route (SR) 92, so relocating the towers to the proposed location would not create a new source of substantial light that could adversely affect nighttime views from SR 92. Since the Hayward Regional Shoreline Park is closed after sunset, locating towers equipped with aircraft warning lights near the park entrance would not cause a significant visual impact.

Exterior lighting on the ancillary structures if needed for operational safety and security would be shielded from public view, and non-glare fixtures and the use of switches, sensors, and timers would be used to minimize the time that lights not needed for safety and security are on. Prior to issuance of a building permit, a lighting plan would be reviewed and approved by the City of Hayward. In addition to the measures specified, Energy Commission staff would recommend that exterior light fixtures are hooded and lighting is directed downward or toward the area to be illuminated to minimize backscatter to the night sky and uplighting of the towers. With proper implementation of the lighting controls specified by the City, and the additional measures recommended by Energy Commission staff, lighting for operational safety and security would not create a new source of substantial light that could adversely affect nighttime views.

The City of Hayward use permit conditions require the relocated radio towers to be finished in a non-reflective, anodized metal color. However, according to the FAA Determination of No Hazard to Air Navigation, the relocated towers would need to be painted in alternating orange and white bands. FAA Advisory Circular (AC) 70/7460-1K, Obstruction Marking and Lighting, specifies the paint standards for the orange and white paint. Based on a telephone conversation with an individual in the industrial paint industry, Energy Commission staff understands that the paints identified in the FAA circular are high gloss paints. The high gloss, white bands of paint on the four radio towers so close to park users would cause substantial glare impacts, increasing the prominence of the towers. Thus, the radio towers would create a new source of substantial glare that would adversely affect daytime views.

The transmitter equipment enclosures at the base of the towers would be constructed of concrete masonry units using a decorative finish such as slumpstone, would use non-glare roof materials, and would be finished with earth tone paint. The small electronics cabinets would be constructed of metal and also would be finished in earth tone paint. Fencing surrounding the towers would be decorative metal fencing (such as wrought iron or tubular metal). The final design and color of the ancillary structures and design and height of the fencing would be reviewed and approved by the City prior to issuance of a building permit. Energy Commission staff recommends that fencing material and the paint used on the transmitter equipment enclosures should be non-reflective to reduce daytime glare impacts. With proper implementation of the measures specified by the City, and the additional measures recommended by Energy Commission staff, the ancillary equipment and fencing would not create a new source of substantial glare that would adversely affect daytime views.

CUMULATIVE IMPACTS

No reasonably foreseeable planned projects that would contribute to cumulative visual impacts were identified.

CONCLUSIONS

Due to the project's high level of visual contrast and both scale and spatial dominance from near foreground viewpoints from within the Hayward Regional Shoreline (park entrance, parking/staging area, and trailheads), the relocated radio towers would cause significant adverse visual impacts. Additional trees planted along the base of the landfill would reduce the scale dominance of the towers from the area of KOP 1; however, visual contrast and project dominance would not be substantially reduced. Similar to landscaping on the RCEC site, staff assumes that any trees proposed in this area would need to be approved by the U.S. Fish and Wildlife Service as unattractive to perching by raptors. The approved tree species would not screen the towers sufficiently to reduce within a reasonable timeframe (5 years), the visual impacts to a less than significant level. Staff understands that the landfill must be protected from root intrusion by any trees proposed along the berm of the landfill (Ameri 2002). If it is feasible to plant trees along the base of the landfill without compromising the integrity of the landfill, staff recommends condition of certification VIS-9 requiring Calpine/Becthel (or current project owner) to install trees to screen views of the towers from the area of KOP 1 to the greatest extent possible. (Other conditions of certification (VIS-1 to VIS-8) are listed in the Staff Assessment issued on October 30, 2001.)

VIS-9 Prior to the first turbine roll, the project owner shall prepare and implement a landscape plan to partially screen views of the KFOX radio towers from the entrance (West Winton Avenue) to the Hayward Regional Shoreline Park and parking area to the greatest extent possible. Fast growing, evergreen species shall be used, and of sufficient height and density, to achieve maximum effective screening of the radio towers as soon as possible. Suitable irrigation shall be installed to ensure survival of the plantings.

Protocol: The project owner shall submit the landscape plan to the City of Hayward and the U.S. Fish and Wildlife Service for review and comment, and to

the Compliance Project Manager (CPM) for review and approval. The plan shall include:

- a) A detailed landscape and irrigation plan, at a reasonable scale, which includes a list of proposed tree species, installation sizes, and growth rates, and a discussion of the suitability of the plants for the site conditions. A list of potential tree species that would be viable in this location shall be prepared by a qualified professional arborist familiar with local growing conditions (in consultation with the U.S. Fish and Wildlife Service), with the objective of providing the widest possible range of species from which to choose.
- b) 11" x 17" color simulations of the proposed landscaping at 5 years as viewed from the entrance to the Hayward Regional Shoreline and the parking area;
- c) Maintenance procedures, including any needed irrigation and a plan for routine annual or semi-annual debris removal for the life of the project; and
- d) A procedure for monitoring for and replacement of unsuccessful plantings for the life of the project.

The project owner shall not implement the plan until the project owner receives approval of the plan from the CPM.

Verification: Prior to the first turbine roll and at least sixty (60) days prior to installing the landscaping, the project owner shall submit the plan to the CPM for review and approval.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within thirty (30) days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven (7) days after completing installation of the landscaping that the plantings and irrigation system are ready for inspection.

The project owner shall report landscape maintenance activities, including replacement of dead vegetation, in the Annual Compliance Report.

SUMMARY

Energy Commission staff have evaluated the environmental effects of relocating four radio transmission towers from the proposed RCEC site to a new location atop the Old West Winton landfill. The towers have been granted a Conditional Use Permit by the City of Hayward. Staff believe that relocation of the towers should not have a significant impact on biological resources, but recommend that preconstruction surveys be conducted for nesting burrowing owls in light of RWQCB's recommendations that diking of the site be discontinued. Staff also recommend that facility lighting be directed down and away from open-space areas. The radio towers are not expected to

pose a public health, safety or nuisance risk. Similarly, no adverse impacts to geological, paleontological, or water resources are expected.

While the new site is not considered ideal based on the general intent of the Hayward Area Shoreline Planning Program, no specific land use conflicts were identified. No traffic or aviation safety impacts are expected. However, due to the project's potential to create glare and its visual contrast and dominance from near foreground viewpoints from within the Hayward Regional Shoreline, the relocated towers could cause significant and unmitigable visual impacts.

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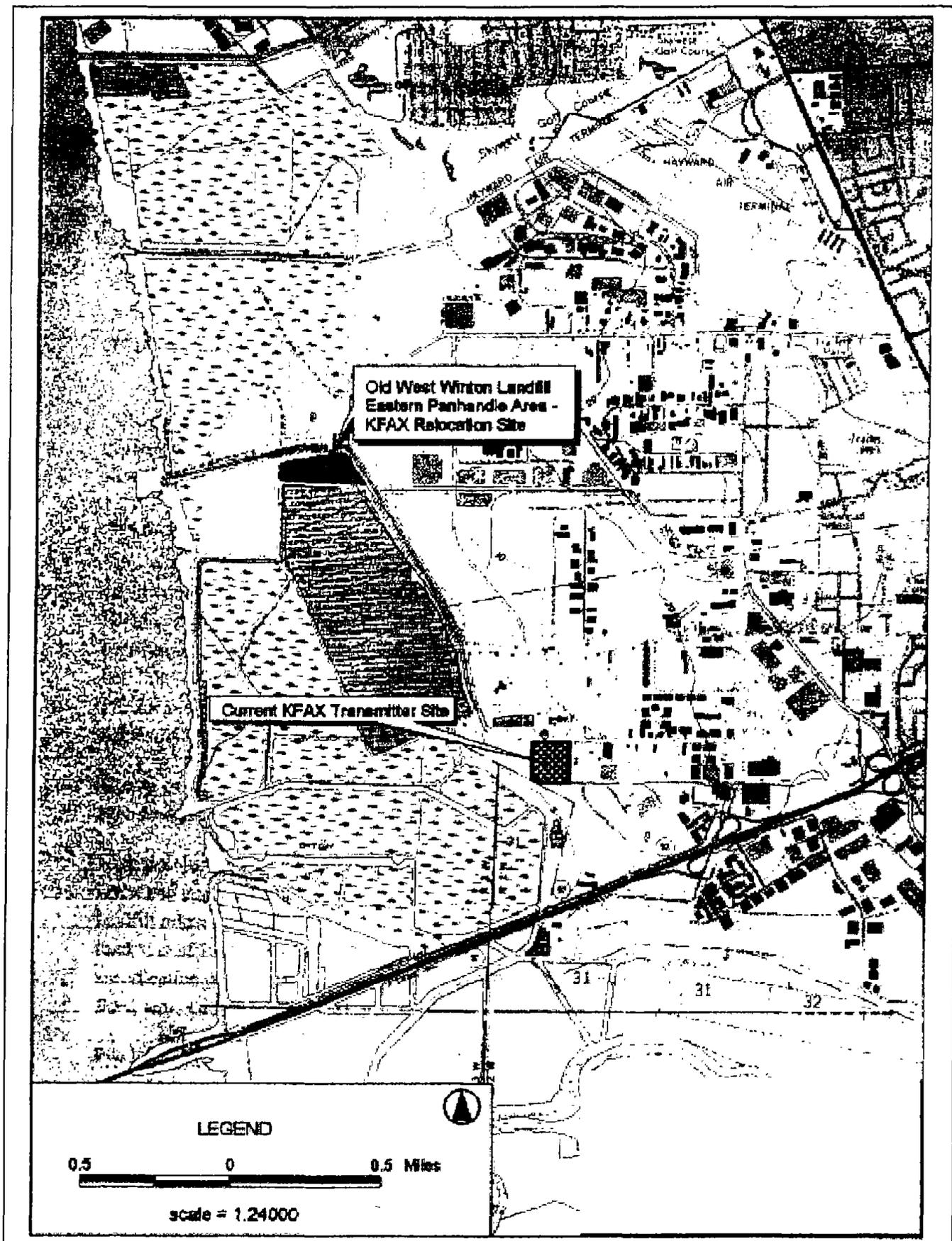
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PROJECT DESCRIPTION - Figure 1
Russell City Power Project - Project Site Location Map

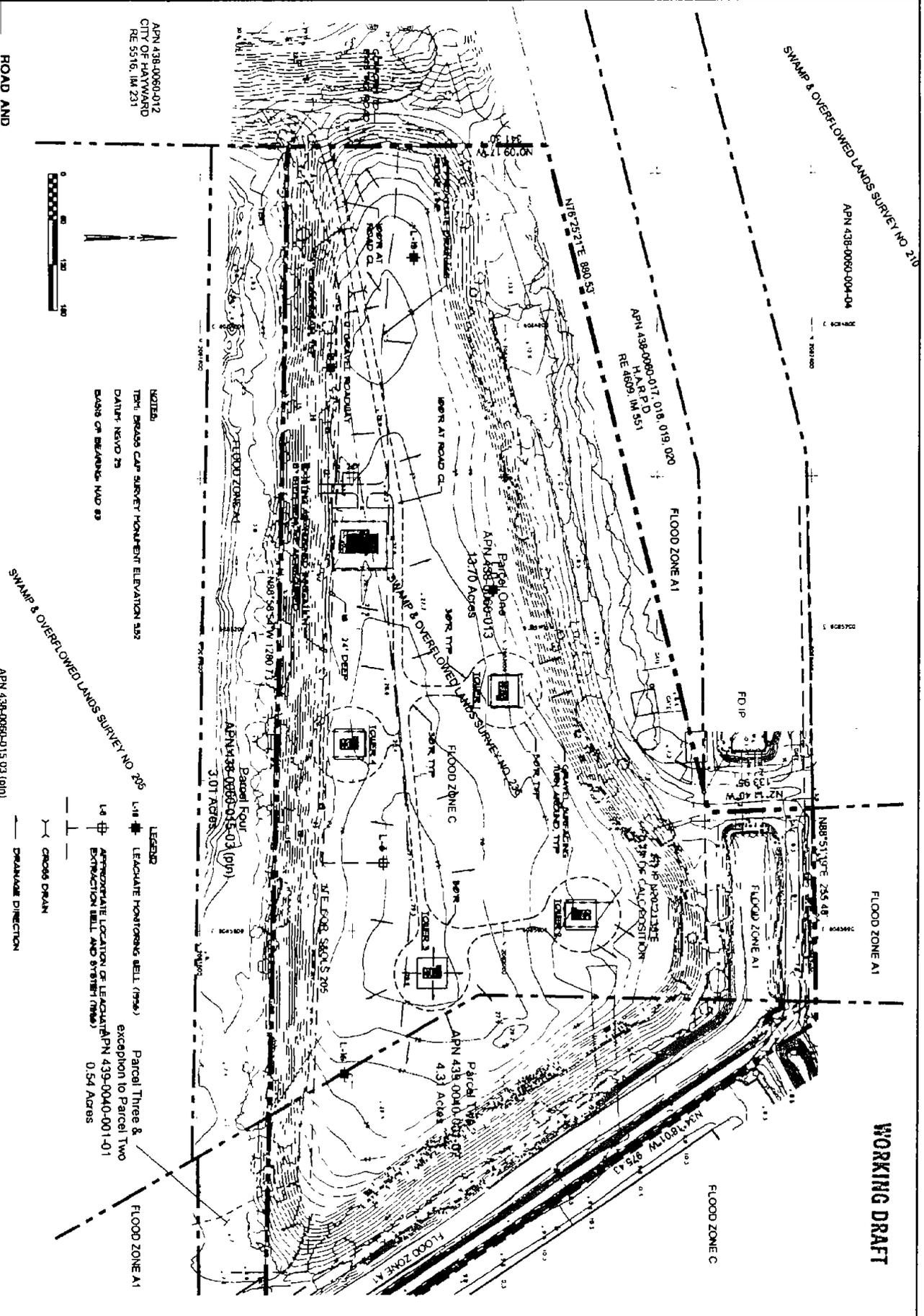


CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel

PROJECT DESCRIPTION - FIGURE 2
 Russell City Energy Center - Location of Radio Towers on Project Site

JANUARY 2002

PROJECT DESCRIPTION



WORKING DRAFT

- NOTES:**
- 1. TYPICAL DRAINAGE SURVEY MONITORING ELEVATION 5352
 - 2. DATUM: NAVD 83
 - 3. BASIS OF BELEVANT: NAD 83



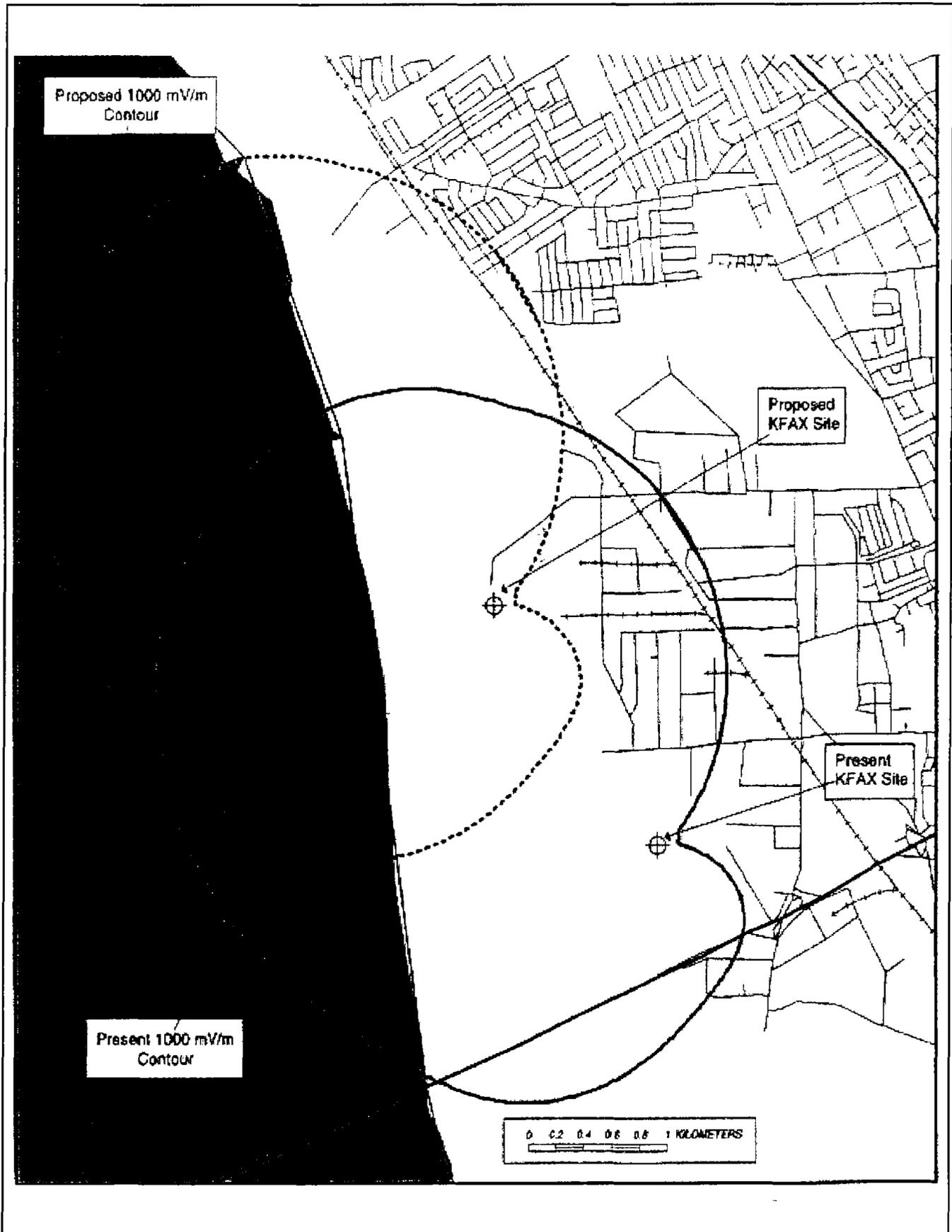
APN 438-0080-015 03 (PIN)

- LEGEND**
- LEACHATE MONITORING BELL (7934)
 - APPROXIMATE LOCATION OF LEACHATE EXHAUSTION BELL AND SYSTEM (7934)
 - CROSS DRAIN
 - DRAINAGE DIRECTION
 - Parcel Three & Exception to Parcel Two 0.54 Acres

CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002

SOURCE: Calpine/Bechtel

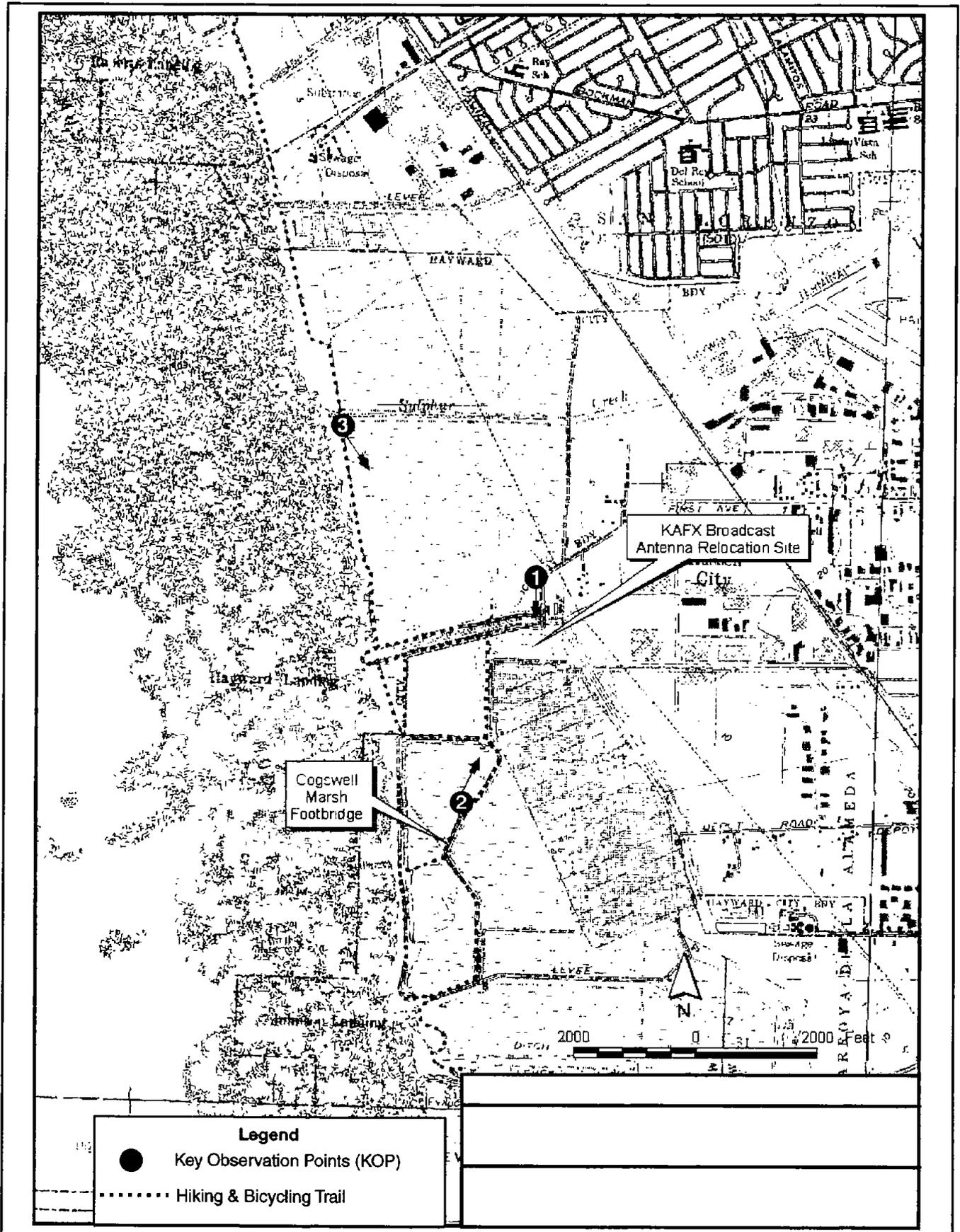
PUBLIC HEALTH, SAFETY and NUISANCE - Figure 1
Russell City Power Project - One Volt Per Meter Contour



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Carl T. Jones Corporation

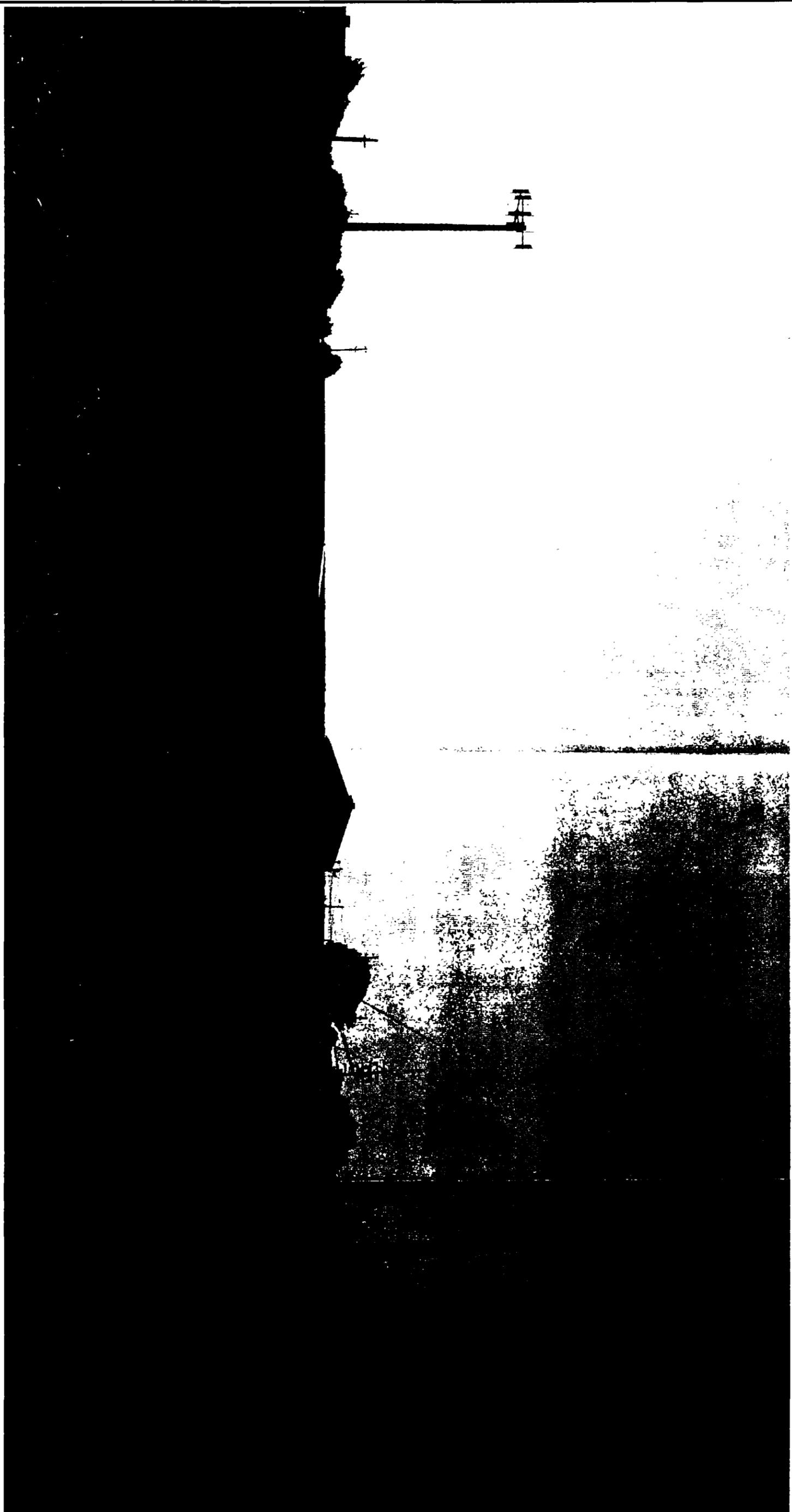
VISUAL RESOURCES - Figure 1

• Russell City Power Project - Project Setting and Key Observation Points



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Base Image Calpine/Bechtel 2001, modified by CEC Cartography Unit

VISUAL RESOURCES - FIGURE 2
Russell City Power Project - West Winton Avenue (KOP 1)



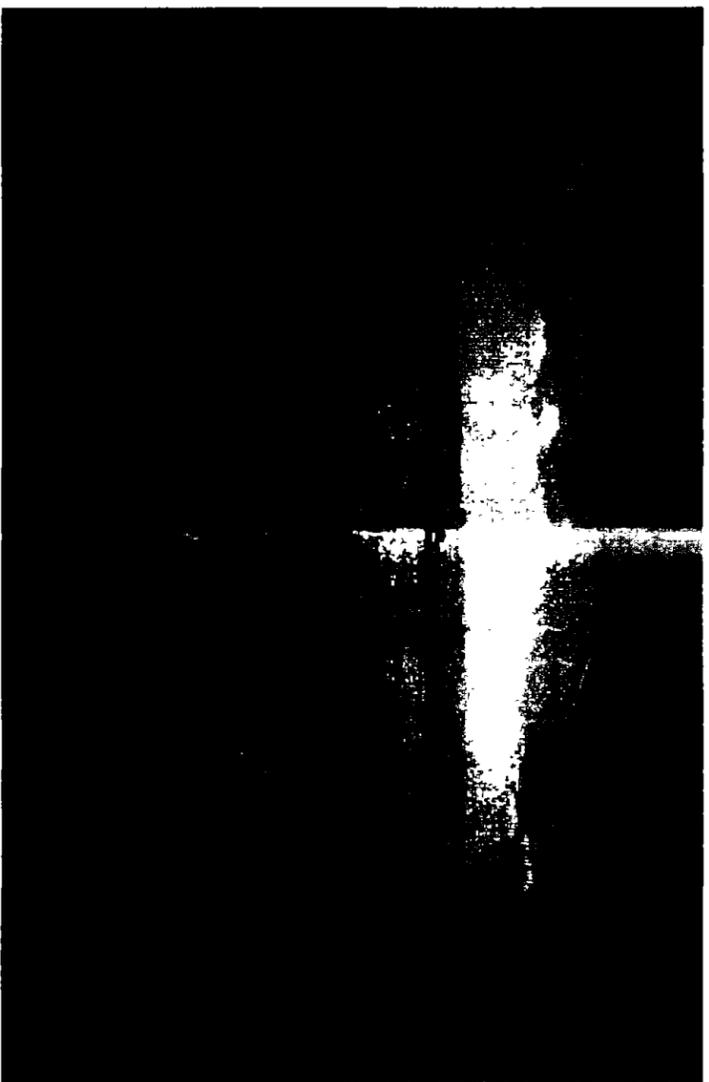
CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001



1. Park Entrance - Radio towers would be visible atop elevated landfill.

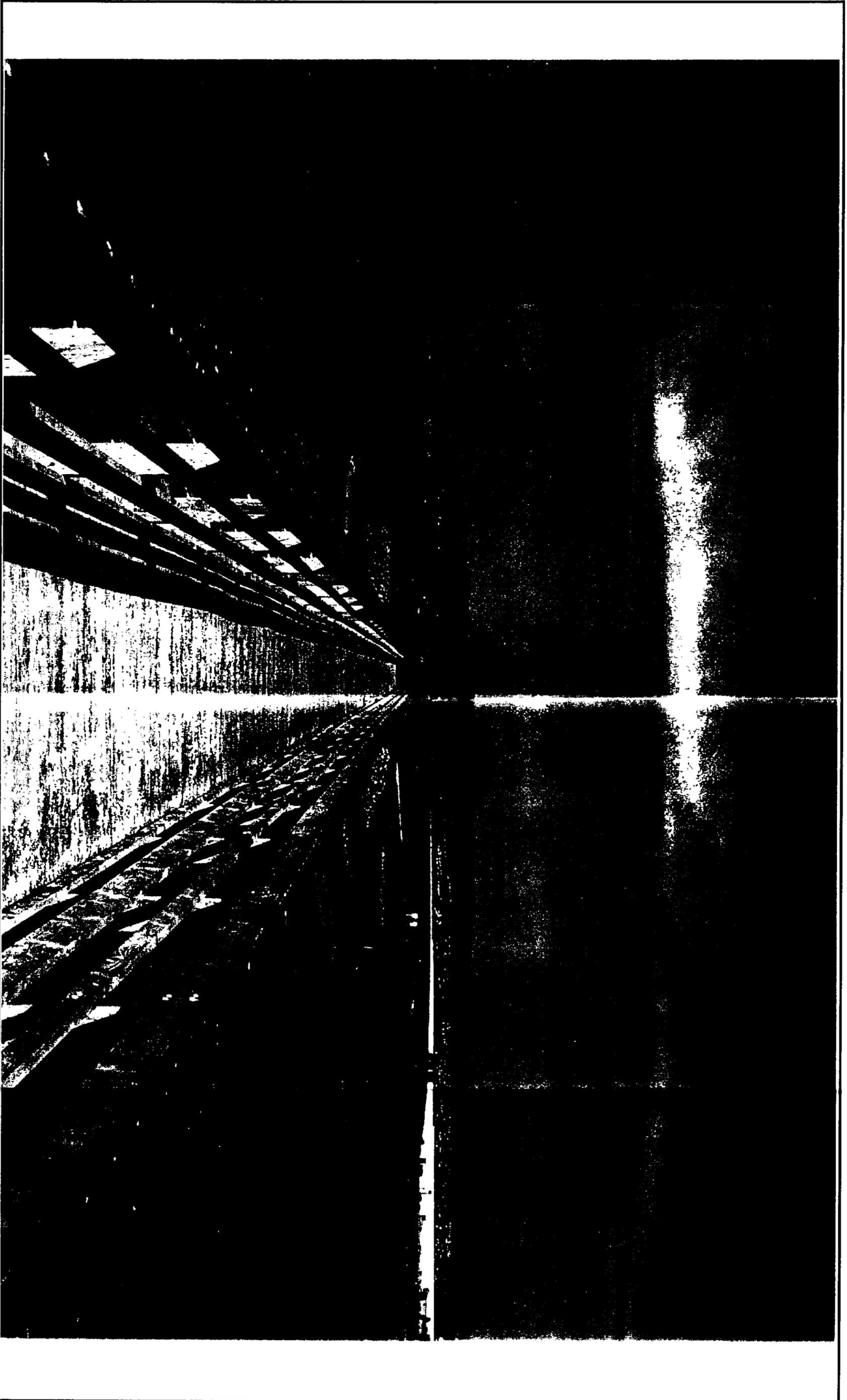


2. Parking Area - Looking southeast toward radio tower site. Towers visible above small shrubs.



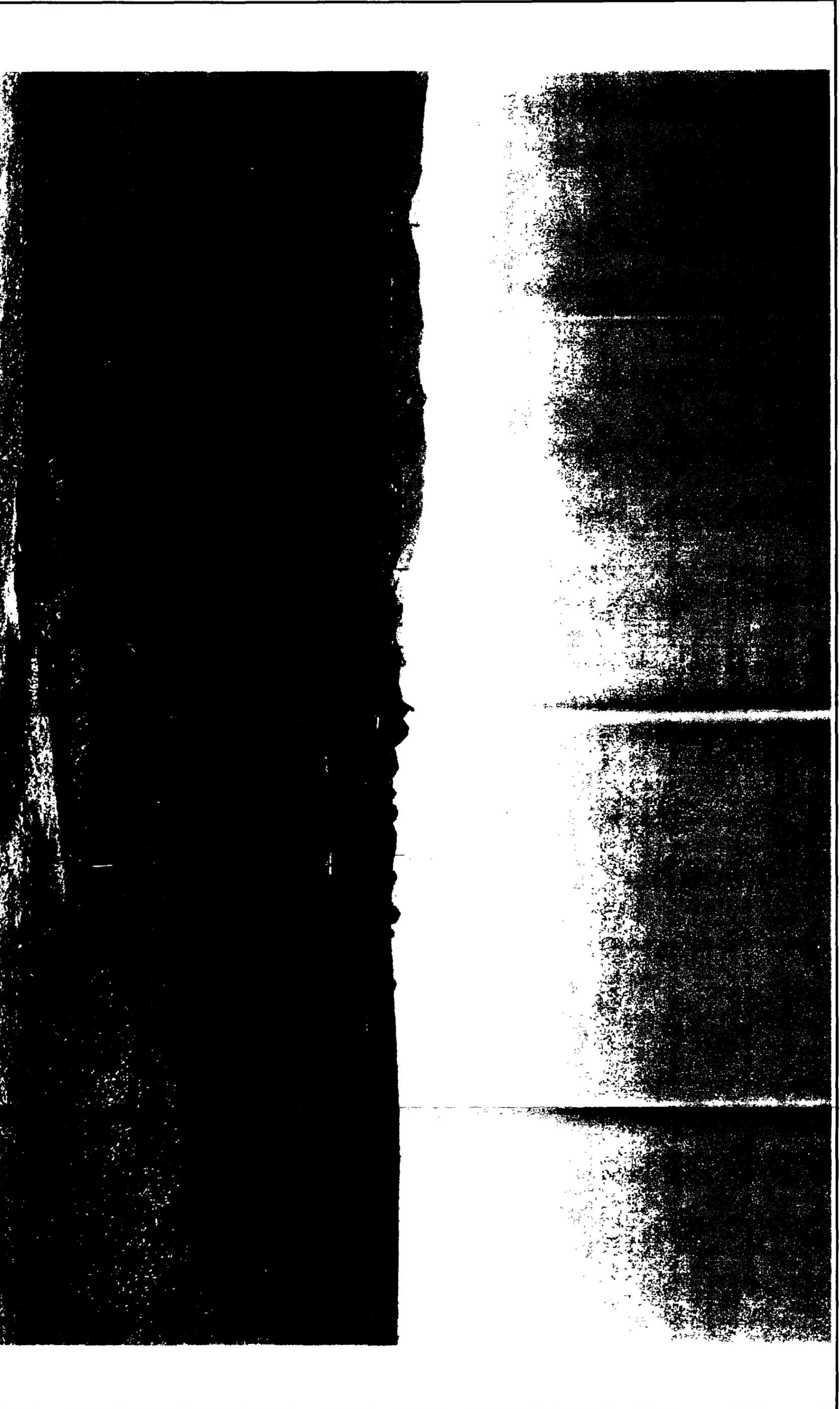
3. Looking east toward radio tower site (area covered with dry weeds). West end of parking area on left side of photo.

VISUAL RESOURCES - FIGURE 4
Russell City Power Project - Shoreline Trail at Cogswell Marsh Footbridge (KOP 2)



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calburn/Bechtel 2001

VISUAL RESOURCES - FIGURE 5
Russell City Power Project - Shoreline Trail at Sulphur Creek (KOP 3)



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

VISUAL RESOURCES - FIGURE 6
Russell City Power Project - West Winton Avenue (KOP 1) - Visual Simulation



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

ENVIRONMENTAL

Russell City Power Project - Shoreline Trail at Cogswell Marsh Footbridge (KOP 2) - Visual Simulation



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE - Calpine/Bechtel 2001

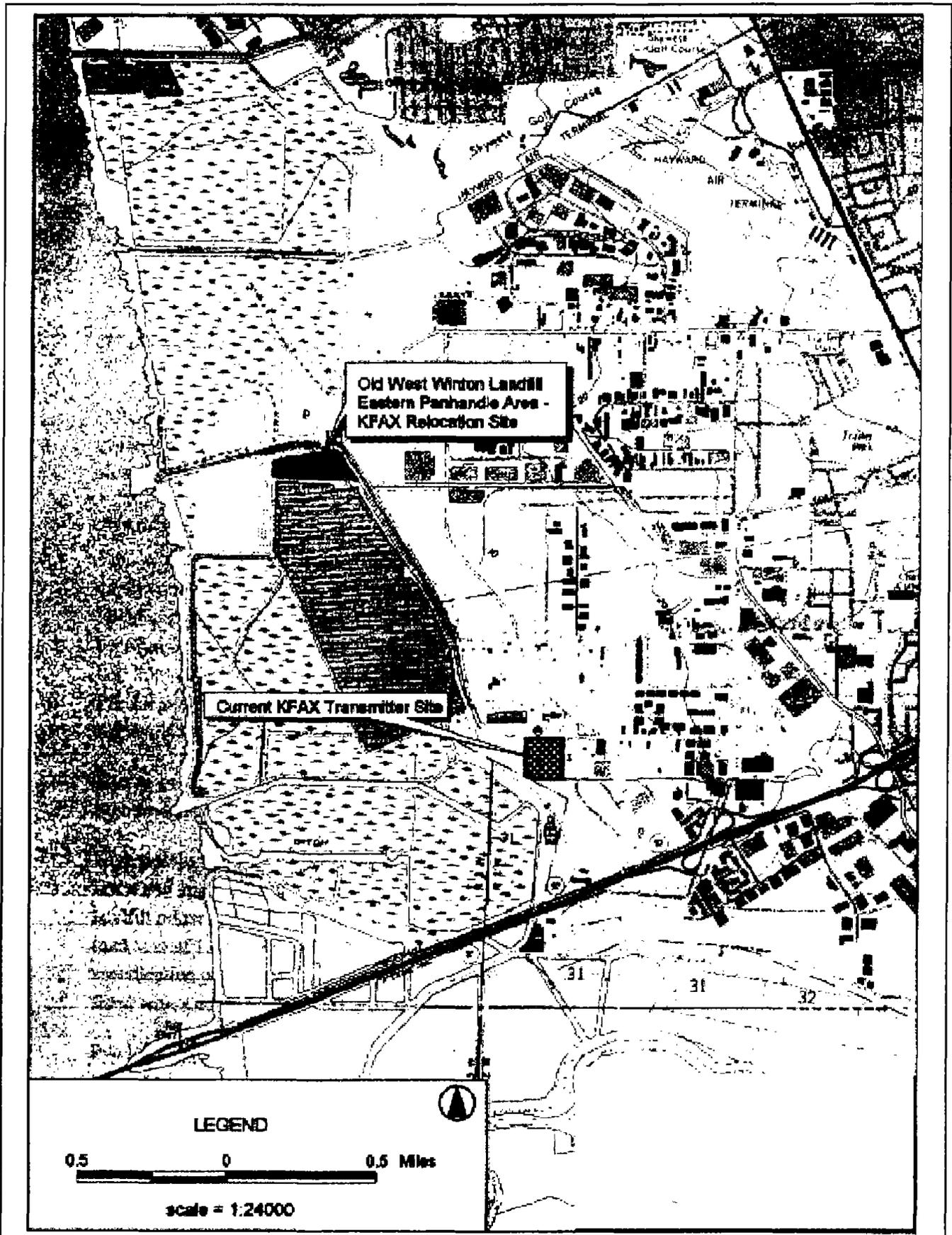
ENVIRONMENTAL

VISUAL RESOURCES - FIGURE 8
Russell City Power Project - Shoreline Trail at Sulpher Creek (KOP 3) - Visual Simulation



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

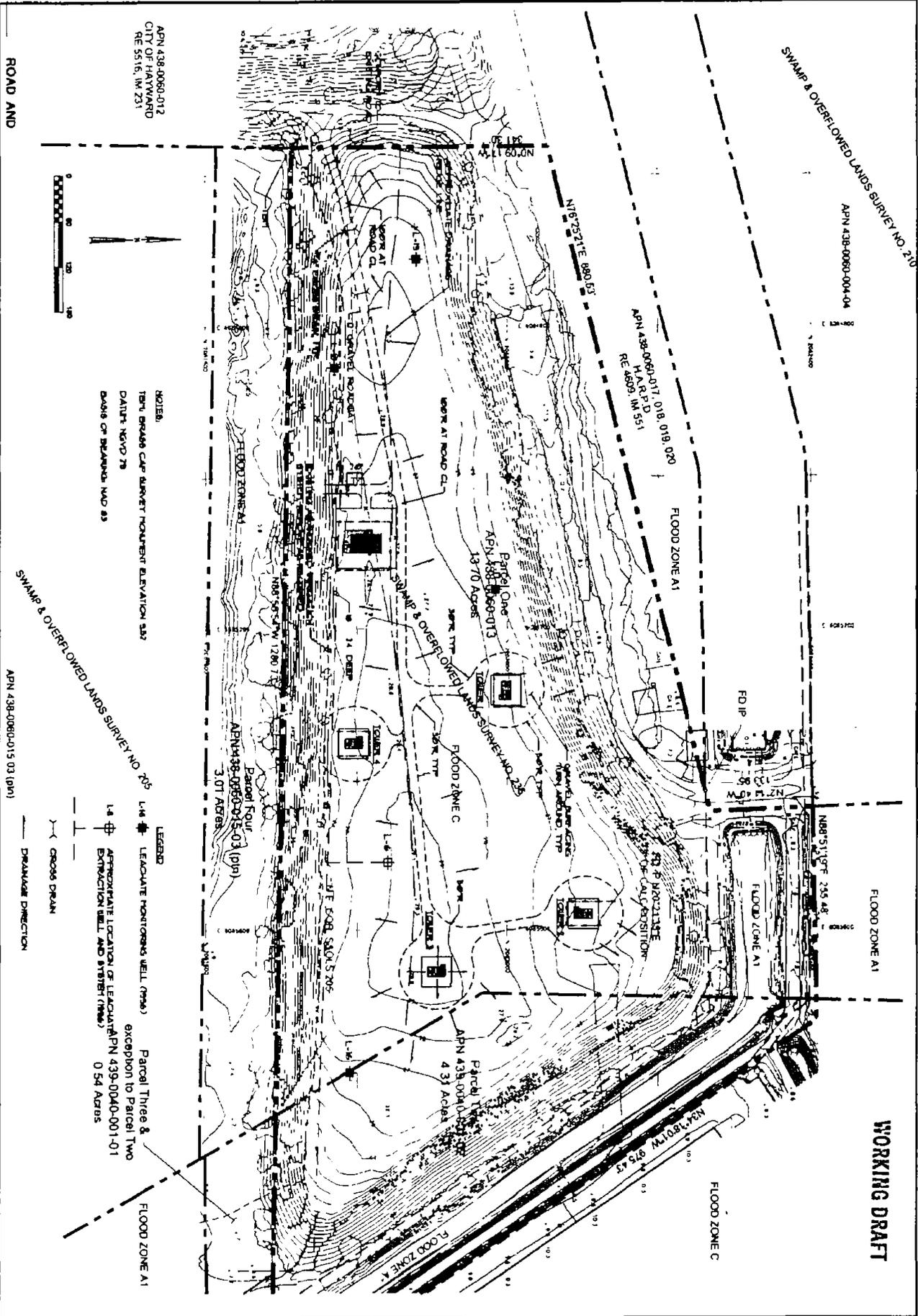
PROJECT DESCRIPTION - Figure 1
Russell City Power Project - Project Site Location Map



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel

PROJECT DESCRIPTION - FIGURE 2
 Russell City Energy Center - Location of Radio Towers on Project Site

WORKING DRAFT



NOTES
 1. TEMP. DRAINAGE CAP SURVEY MONUMENT ELEVATION 53.2
 2. DATE: NOV 07 78
 3. BASIS ON SURVEY: M.D. 83

APN 438-0060-015 03 (101)
 SWAMP & OVERFLOWED LANDS SURVEY NO. 205

LEGEND
 L-14 LEACUATE MONUMENTS WELL (799A)
 L-14 APPROXIMATE LOCATION OF LEACUATE APN 438-0040-001-01
 EXCEPTON TO PARCEL TWO
 O 54 ACRES
 --- DRAINAGE DIRECTION

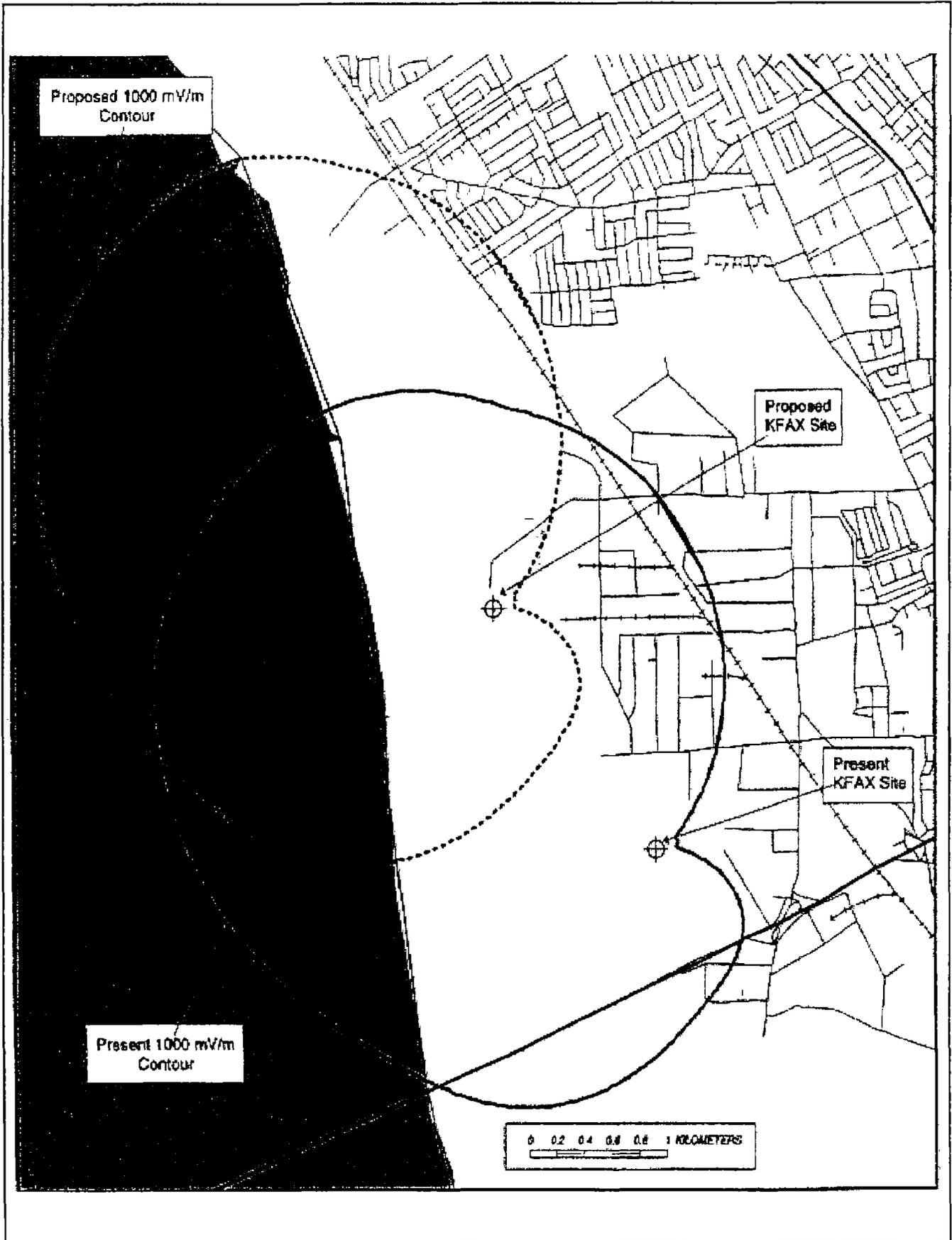
ROAD AND

APN 438-0060-012
 CITY OF HAYWARD
 RE 5516, IM 231



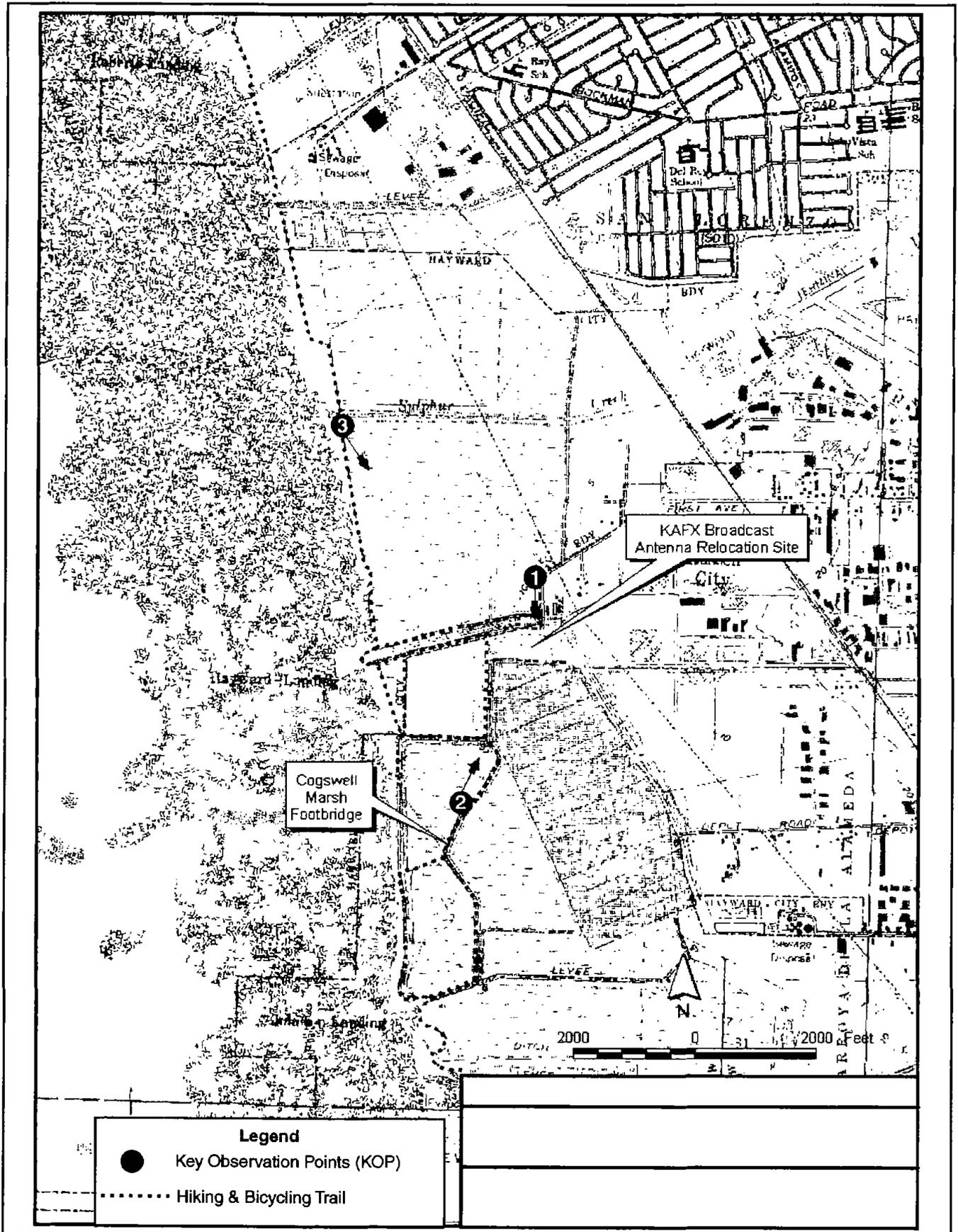
CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
 SOURCE: Calpine/Bechtel

PUBLIC HEALTH, SAFETY and NUISANCE - Figure 1
Russell City Power Project - One Volt Per Meter Contour



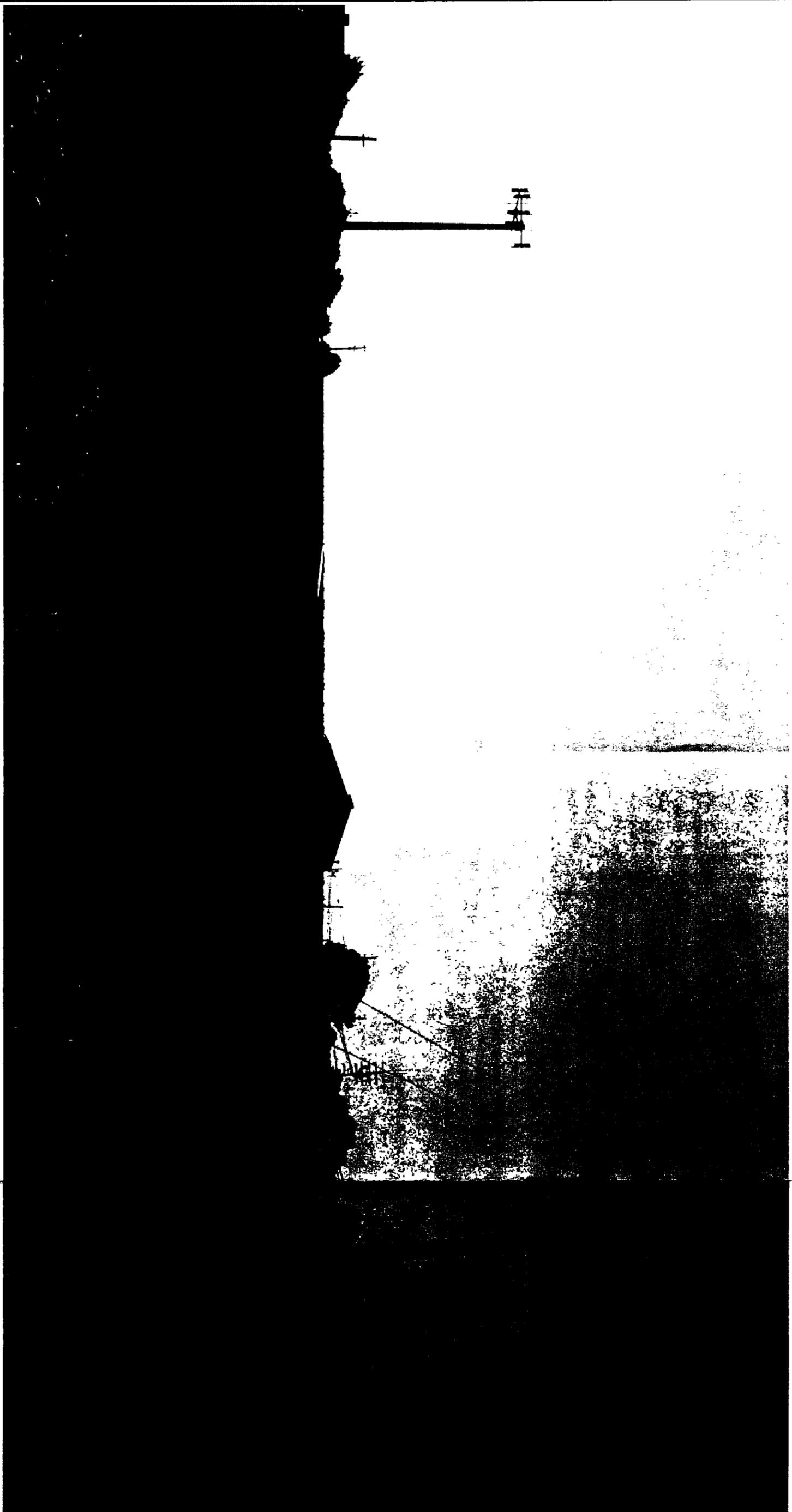
CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Carl T. Jones Corporation

VISUAL RESOURCES - Figure 1
Russell City Power Project - Project Setting and Key Observation Points



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
 SOURCE: Base Image Calpine/Bechtel 2001, modified by CEC Cartography Unit

VISUAL RESOURCES - FIGURE 2
Russell City Power Project - West Winton Avenue (KOP 1)



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

VISUAL RESOURCES - FIGURE 3



1. Park Entrance - Radio towers would be visible atop elevated landfill.



2. Parking Area - Looking southeast toward radio tower site. Towers visible above small shrubs.

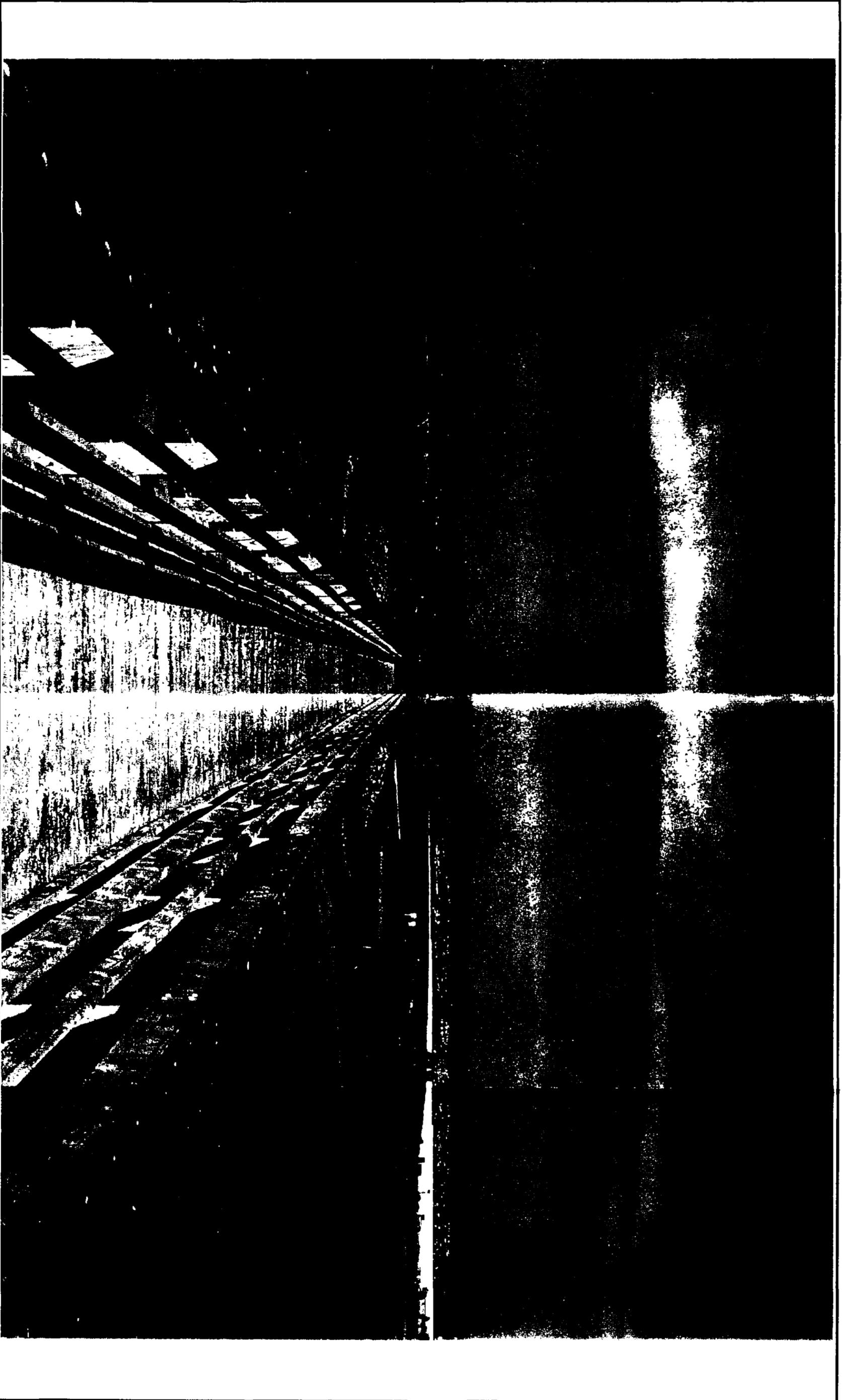


3. Looking east toward radio tower site (area covered with dry weeds). West end of parking area on left side of photo.

CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002

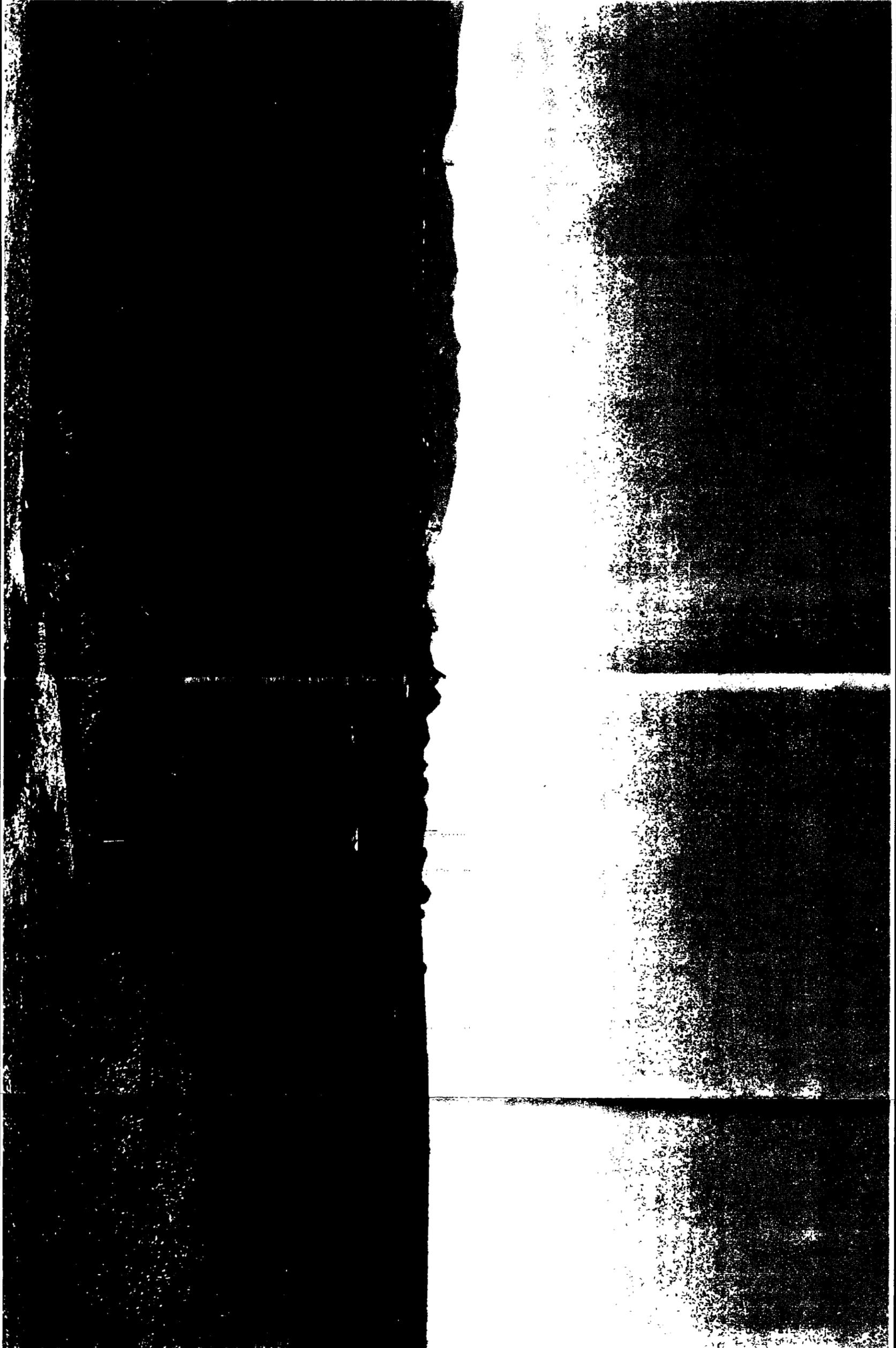
SOURCE: Photographs provided by Shelia G. Junge

VISUAL RESOURCES - FIGURE 4
Russell City Power Project - Shoreline Trail at Cogswell Marsh Footbridge (KOP 2)



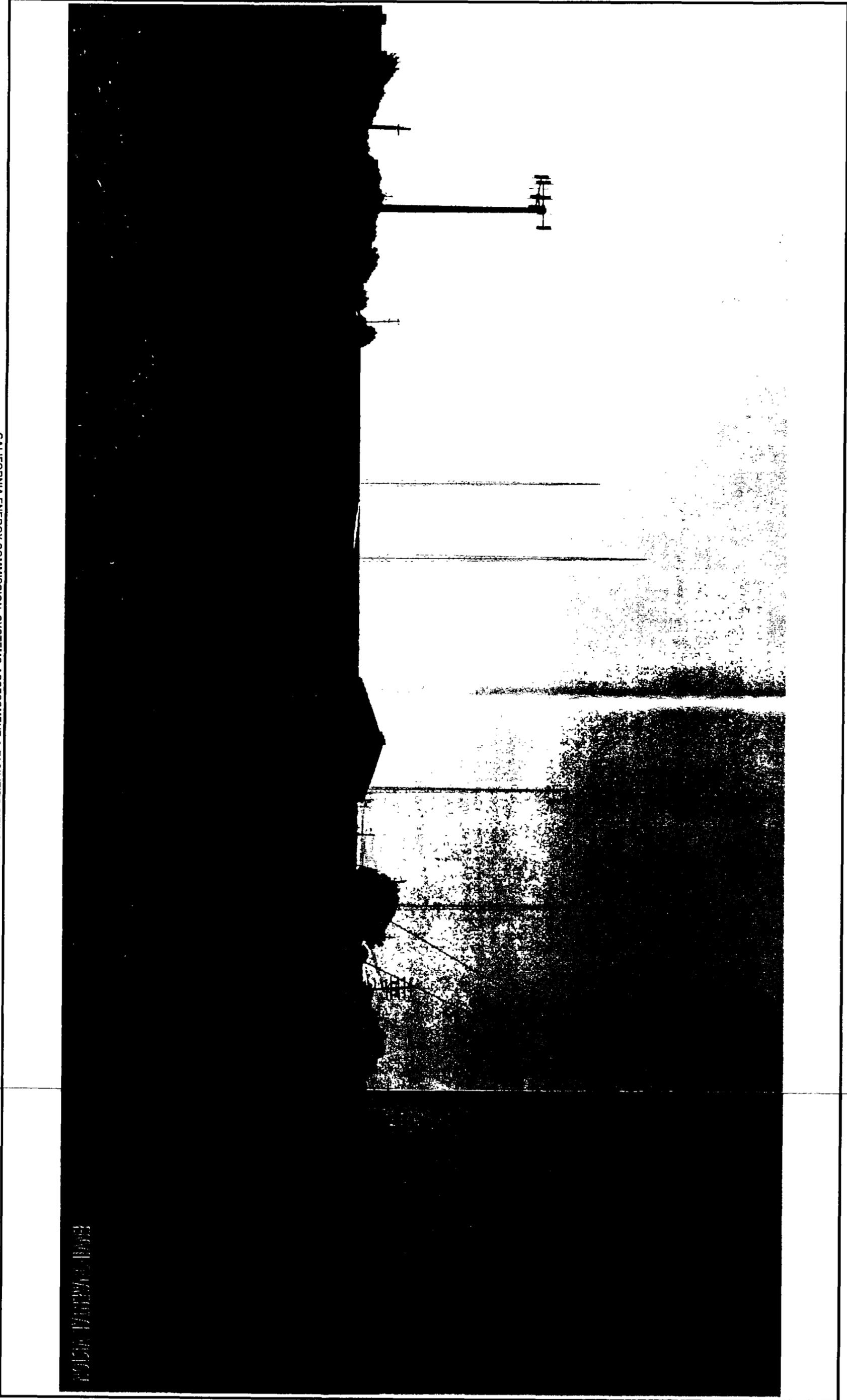
CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

VISUAL RESOURCES - FIGURE 5
Russell City Power Project - Shoreline Trail at Sulphur Creek (KOP 3)



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

VISUAL RESOURCES - FIGURE 6
Russell City Power Project - West Winton Avenue (KOP 1) - Visual Simulation



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

Russell City Power Project - Shoreline Trail at Cogswell Marsh Footbridge (KOP 2) - Visual Simulation

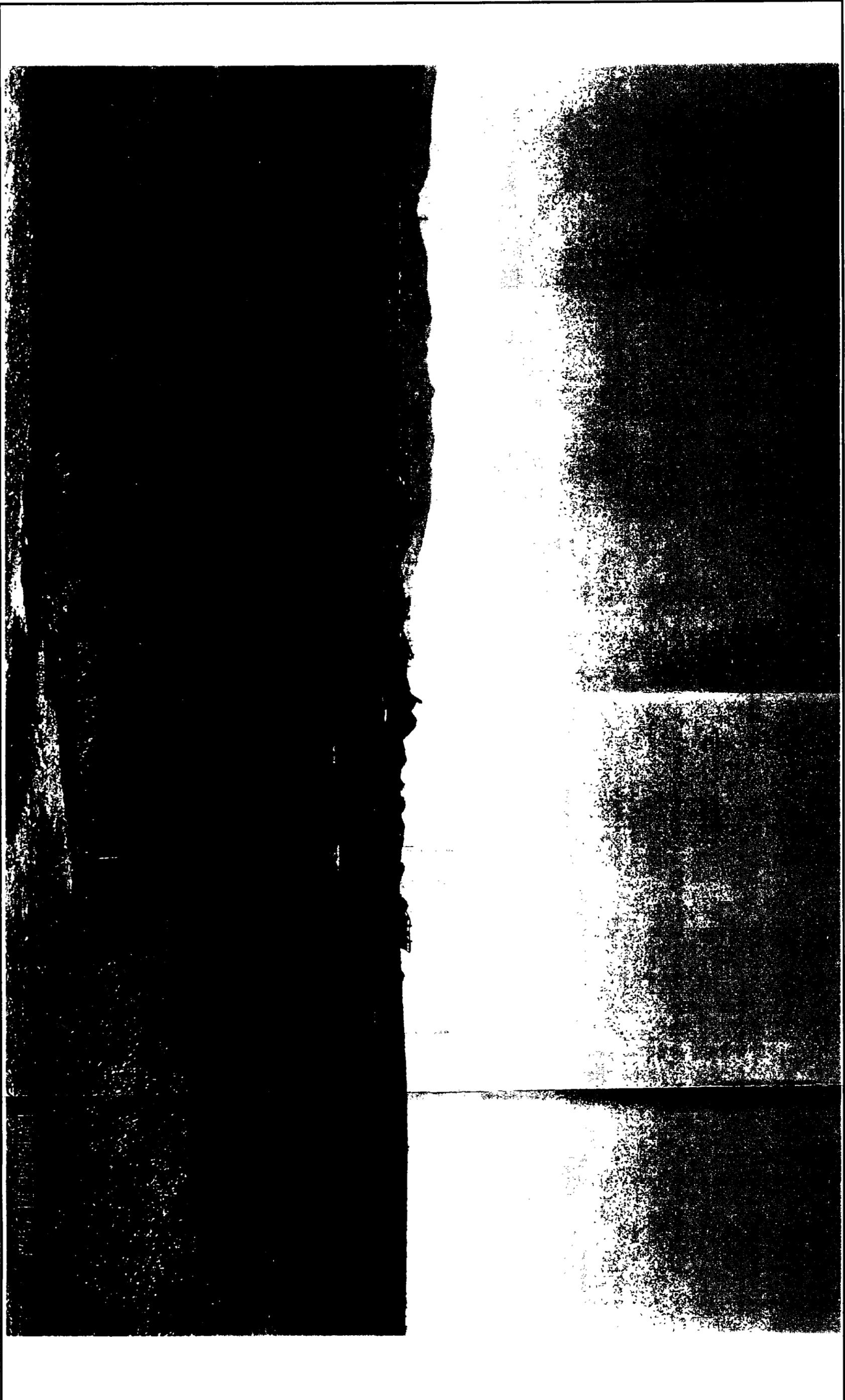
VISUAL RESOURCES - FIGURE 7



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

ENVIRONMENTAL REPORT

VISUAL RESOURCES - FIGURE 8
Russell City Power Project - Shoreline Trail at Sulpher Creek (KOP 3) - Visual Simulation



CALIFORNIA ENERGY COMMISSION, SYSTEMS ASSESSMENT & FACILITIES SITING DIVISION, JANUARY 2002
SOURCE: Calpine/Bechtel 2001

East Bay Regional Parks



Data Sources May Include:
EBRPD GIS/GPS mapping and digitizing;
Digital data from USGS, Oakland, EBMUD, ABAG,
Teale Data Center, Sure!MAPS RASTER, ETAK,
HJW's Carterra Orthophotography.

**Planning/Supervision and
GIS Services**

Calpine Mitigation

Disclaimer: Boundary and property lines shown on this map do not represent a boundary or property line survey. The East Bay Regional Park District makes no representation as to the accuracy of said property lines (or any other lines), and no liability is assumed by reason of reliance thereon. Use of this map for other than its intended purpose requires the written consent of EBRPD.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

March 11, 2002

RECEIVED

SACRAMENTO
FISH & WILDLIFE OFFICE

Jan C. Knight
Chief, Endangered Species Division
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Tracy - log in 'F' → David W
AB 2/19

Subject: Request for Formal Consultation Under Section 7 of the Federal Endangered Species Act for the Proposed Russell City Energy Center – Alameda County, California

Dear Ms. Knight:

I am writing to request initiation of formal consultation under section 7 of the federal Endangered Species Act (“ESA”) for the Russell City Energy Center (“Russell City”). Calpine/Bechtel Joint Development, LLC (“applicant”) has applied to the Bay Area Air Quality Management District (“District”) for a permit for its project in part to meet the requirements of the federal Prevention of Significant Deterioration (“PSD”) program. See Title 40 Code of Federal Regulations, Part 52.21. Although the authority to issue the federal PSD permit has been delegated to the District, EPA Region 9 (“EPA”) retains its responsibilities to ensure that PSD permitting actions by the District are consistent with the requirements of ESA section 7.

Under section 7 of the ESA, EPA must ensure that final action on a PSD permit is conditioned upon completion of the consultation process where required and the understanding that the applicants will be required to implement any necessary or appropriate alternatives or minimization measures required by EPA as a result of the consultation process.

EPA and the applicant have participated in informal consultation with U.S. Fish and Wildlife Service (“FWS”) regarding the Russell City project and have determined that the project may adversely affect the federally endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), California clapper rail (*Rallus obsoletus longirostris*), California least tern (*Sterna antillarum browni*), and the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*) which are protected pursuant to the ESA of 1973, as amended. With input from FWS, the applicant and its consulting firm, Foster Wheeler Environmental Corporation, have prepared the November, 2001 “Biological Assessment for the Russell City Energy Center” (which has already been forwarded to your office). Supplemental information on the draft Russell City Energy Center Wetland Mitigation Plan has been submitted to your office in December, 2001.

In conclusion, pursuant to section 7 of the ESA, EPA requests initiation of formal consultation for the project described in the Biological Assessment, and preparation of a biological opinion by FWS. EPA would like to receive and review a copy of the draft biological opinion. We look forward to working with FWS on this matter. If you require additional information, or have questions regarding this request, please contact Todd Marse at (415) 972-3976.

Sincerely,



Gerardo C. Rios
Chief, Permits Office

cc: Kae Lewis, CEC, Sacramento, CA
Calvin Fong, Corps, San Francisco, CA
James R. Leahy, Calpine, Pleasanton, CA
Douglas Davy, Foster Wheeler Environmental Corporation, Sacramento, CA
Steven Hill, Bay Area Air Quality Management District, San Francisco, CA

**FACSIMILE TRANSMISSION
CALIFORNIA ENERGY COMMISSION**



**ENERGY FACILITIES SITING &
ENVIRONMENTAL PROTECTION DIVISION**
1516 Ninth Street, Sacramento CA 95814-5512
Fax Phone # (916) 654-3882

To:	<i>Dr. [unclear]</i>	Telephone #:	
Address:		FAX #:	<i>916-654-3882</i>
From:	<i>Robert [unclear]</i>	Telephone #:	<i>916-654-3882</i>
Date:	<i>4/23/02</i>	No. Pages (including this page):	<i>1</i>

MATERIAL BEING TRANSMITTED:

1213 - [unclear] [unclear]

COMMENTS:

RECEIVED
APR 23 2002
SACRAMENTO
FISH & WILDLIFE OFFICE

Transmitted By:	
Telephone for Inquires:	

Stuart Itoga - Re: Summary of the Russell City Energy Center Wetland Mitigation Proposal

From: <DDavy@fwenc.com>
To: "Keith Lichten" <KHL@rb2.swrcb.ca.gov>, <jleahy@calpine.com>, <jlmd@calpine.com>, <andrea@argonautconsulting.com>
Date: 3/15/02 2:58 PM
Subject: Re: Summary of the Russell City Energy Center Wetland Mitigation Proposal
CC: "Dale Bowyer" <DCB.RB2Post.RB2Domain@rb2.swrcb.ca.gov>, <jdidonat@ebparks.org>, <hayward@ebparks.org>, <sitoga@energy.state.ca.us>, <ryork@energy.state.ca.us>, <rsmith@spd.usace.army.mil>, <etattersall@dfg.ca.gov>, <wile@haywardrec.org>, <bhartman@fwenc.com>, <dcarrier@fwenc.com>, <don_hankins@fws.gov>, <alexa@cl.hayward.ca.us>, <monroe.michael@epa.gov>

Keith,

Here are Brett Hartman's responses to your questions. Please let us know if you have additional questions.

1. The Waste Management Parcel is about 26 acres, and the adjacent City of Hayward parcel is 30 acres. Thus, the total area to be enhanced with tidal action is about 56 acres. The Waste Management parcel is approximately 26 acres, but the City of Hayward parcel is more than 30 acres. However, not all of the land area in these parcels is managed salt marsh. Additional habitats include uplands, diked seasonal marsh, and seasonal ponds. Using GIS, the approximate area of salt marsh enhancement was calculated at 36 acres, or 30 acres on the City of Hayward parcel, and 6 acres on the Waste Management parcel.

2. Levee reconstruction. The primary reason for reducing the levee height to four or five feet elevation is to create a more favorable habitat for pickleweed, due to increased soil moisture. This will increase the value of the levee as upland refugia and spring forage. The side slope angle of the Johnson Road levee will be 2:1, an acceptable grade for structural integrity. Side slope manipulation will be kept to a minimum on the western side, which borders the pickleweed marsh. The wetland creation will occur by removing the levee and regrading on the eastern side, which borders diked seasonal wetland and a seasonal pond. The eastern side of the Johnson Road levee is dominated by wild oats and black mustard, and pickleweed habitat is not expected to be impacted.

3. Removal of "miscellaneous pockets of fill" and the 0.08 acres of creation. In the diked seasonal wetlands, there is up to an acre of fill dispersed in small areas. In addition, there are approximately three acres of adjacent uplands on the historic marsh-upland transition zone. The diked seasonal wetland is not subject to the same risk of flooding as the tidal marsh, and upland refugia for the salt marsh harvest mouse is less critical in this habitat. Only 0.2 acres of fill will be removed where it can be accessed by the long reach excavator from the levee. There will be sufficient upland habitat remaining for salt marsh harvest mouse spring forage.

The 0.08 acres of creation will occur in the upland habitat of Area 1. This area is dominated by ruderal species and is not moist enough to sustain either creeping wildrye (*Leymus triticoides*) or saltgrass (*Distichlis spicata*), both native forage grasses for the salt marsh harvest mouse that are present on the RCEC site. If a small area of soil (0.08 acre) is excavated to 10" above mottle depth, it will meet the jurisdictional criteria for wetlands, provide sufficient soil moisture for these grass species (i.e. 'wet feet' but not inundation), while still maintaining the habitat characteristics of adjacent upland.

4. Removal of 'illegal' fill. Comment noted. We will refer to this as incidental fill.

5. Hydrologic study. The hydrologic study will be the foundation of the dredging and grading plans. A preliminary hydrologic assessment has already been done, and a detailed study will be completed once the aerial photographs with 1' contour lines has been obtained (expected by end of March).

Douglas Davy, Ph.D.
Project Manager
Foster Wheeler Environmental Corporation
3947 Lennane Drive, Suite 200
Sacramento, CA 95834
(916) 928-4805
(916) 928-0594 (fax)
ddavy@fwenc.com

"Keith
Lichten" To: <DDavy@fwenc.com>
<KHL@rb2.swrcb .ca.gov> cc: "Dale Bowyer"
<DCB.RB2Post.RB2Domain@rb2.swrcb.ca.gov>
03/14/02 02:13 PM Subject: Re: Summary of the
Russell City Energy Center Wetland
Mitigation Proposal

Doug,

Thank you for forwarding the summary to me. I had a few questions, which I will quickly email to you, as I have to be in a meeting shortly.

1. The Waste Mgmt. mitigation site is about 26 acres, and the adjacent City of Hayward land is about 30 acres. Thus, the total area to be enhanced with tidal action is about 56 acres. Is this correct?

2. Levee reconstruction. Reconstruction of the existing levee would steepen the existing fairly shallow slopes and could impact areas of existing pickleweed on the levee side. Is this correct? Would these

steeper slopes impact the ability of wildlife, including the salt marsh harvest mouse, to use them as a refuge? What are the expected impacts to pickleweed (i.e., can you spell that out as part of the overall proposal, ultimately, and do you have a general sense now of what we would be talking about).

3. Removal of "miscellaneous pockets of fill." I'm not sure what this means. Is the proposal to remove some of the islands at the mitigation site that may be providing refugia for SMHMs and other wildlife? It is not clear to me that this is something we could support as contributing to the enhancement of the overall project. Similarly, can you give me a little better detail on the 0.08 acre of creation? Where are you looking at doing this?

4. Removal of 'illegal' fill. A minor issue, but this is perhaps not the best way to word it, since as a regulatory agency, 'illegal' implies to us that we should be doing enforcement to get it removed, rather than considering it as part of a mitigation plan for additional fill. Perhaps recent incidental fill (or if it was 10 years ago, etc.)...perhaps there is a better way to word this.

5. Hydrology study. I did not see this explicitly listed as part of the mitigation plan, but I am assuming it would be completed, since it is a crucial element of successfully completing the tidal restoration. Is that assumption correct?

Overall, thanks for the submittal and I will take it up with management as soon as we get the clarifications.

Thanks,

-Keith H. Lichten
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

(510) 622-2380 direct
(510) 622-2460 fax
khl@rb2.swrcb.ca.gov

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EAST BAY REGIONAL PARK DISTRICT



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LETTER OF TRANSMITTAL

TO: DON HANKINS
USFWS

SUBJECT: CALPINE Mitigation
EBRPD Comments

SUBJECT: 6 - Pages + FAX Cover

WE ARE TRANSMITTING YOU:

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- For your review/comment
- For corrections
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COMMENTS: _____



By: [Signature]
Date: 1-9-02

u:\forms\transmit.wpd

EAST BAY REGIONAL



PARK DISTRICT



January 4, 2002

Mr. Doug Davy
 Project Manager
 Foster Wheeler Environmental Corporation
 3947 Lennane Drive, Suite 200
 Sacramento, CA 95834

Dear Mr. Davy,

Included is a list of technical comments from me and Mark Taylor, Supervisor of Hayward Regional Shoreline, on the *Wetland Mitigation Plan for the Russell City Energy Center* (the "Plan"). These comments are specific to the Plan and do not represent the entirety of comments from the East Bay Regional Park District (the "District") on the proposed energy center. This submission includes editorial and substantive comments related to the Plan and also includes comments on the *Predator Perching Deterrent and Monitoring Plan*.

Additionally, District staff has received a copy of the letter from the Regional Water Quality Control Board (RWQCB) dated January 3, 2002, on the mitigation plan. In general, we agree with the comments presented by the RWQCB that address the lack of substantial detail from which to judge success and adequacy of the Plan.

1. Comments specific to the Wetland Mitigation Plan:

- a. Page 9, 1st paragraph under Hydrology: The document shows no detail of the "containment curbing" that will adequately address the 100-year storm event. Therefore, it is difficult to judge its adequacy.
- b. Page 9, 2nd paragraph under Hydrology: What are the parameters under which the water quality will be judged before release?
- c. Page 11, under "Area 1" and "Area 2": the document does not include salt marsh harvest mouse (SMHM) as a species for which habitat is provided. The entire area, with the exception of perhaps the seasonal pond and panes, is SMHM habitat. This omission generates a misconception of the existing value of this portion of the WMA parcel and potentially, the impacts resulting from the restoration and RCEC facility construction and operation.
- d. Page 12, 1st paragraph under Habitat and Species Composition: the last line, "However, surveys in March...", appear to suggest that the applicants

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Pat O'Brien
General Manager

- surveyed the mitigation parcel in the Spring for rare plants, or, are you extrapolating from the plant surveys on the power plant site?
- e. Page 16, 2nd paragraph under E. Present and Proposed Uses: The Freshwater marsh should be included as one of the "Other important natural resources..." in the last line.
 - f. The document flip flops between Hayward Regional Shoreline Park and Hayward Shoreline Regional Park. The correct term should be *Hayward Regional Shoreline*.
 - g. Page 26, 2nd paragraph: *Spartina* should be changed to *Spartina alterniflora* in this and the proceeding paragraph to identify the specific non-native species of concern.
 - h. Page 26, under B. Monitoring Plan: It is impossible to determine if "20%" increase in "*native species cover or pickleweed*" is adequate as a success criteria without seeing the details of baseline surveys and maps showing the distribution and density of the existing habitat.
 - i. Page 27: Project Funding. Does "implementation" of the project include the anticipated five-year monitoring period or will this responsibility be endowed to the District? I believe that a \$400,000 endowment will not satisfy the needs of managing this parcel. Management must also include at a minimum, public safety, predator management, meetings and coordination with other agency staff, development of management agreements and annual reports, financial accounting and reporting, mosquito abatement costs, levee repair, dredging, patrol, litter removal and contingency efforts.
 - j. Page 6, 3rd paragraph under Hydrology: The statement, "The site itself currently drains into the adjacent Waste Management Property and the City of Hayward storm water retention pond". The City of Hayward property (north of the flood control channel) contains a seasonal pond that collects rainwater, not storm water and is (hydrologically) separated from the Waste Management parcel by a low berm. The Waste Management parcel drains through a drainage inlet into the Flood Control channel. The seasonal pond has no drains or storm water inlets. A storm water retention pond is designed and managed for the holding of storm water and that shallow seasonal pond has never been specifically managed for anything. It does provide habitat for shorebirds and waterfowl.
 - k. Page 11, Under "Existing Functions and Values of Mitigation Area, Area 1, second line: portions of the City of Hayward storm water retention pond," see above comments as they relate to correctly identifying the *seasonal pond*, not *storm water retention pond*.
 - l. Page 14, 2nd paragraph: EBRPD trapping records for the salt marsh harvest mouse (SMHM) at Hayward Shoreline are all from the SMHM preserve which is 100% pickleweed habitat. While there is published data supporting the use of upland/wetland ecotones and transitional areas, the SMHM is primarily found in diked and tidal marshes dominated by pickleweed.

- m. Page 14, 1st paragraph: Add. A Burrowing Owl was seen and photographed nesting in July of 1990 in the flood control channel by Mark Taylor. It was seen foraging in the upland area of Area 2 in the proposed mitigation parcel. Enhancement of this habitat could benefit this species.
- n. Page 14, 2nd paragraph under Hydrology: The Caltrans ditch does not connect to Area 2 as is suggested in the document. The ditch stops at the start of the industrial development also known as the Stone Works business.
- o. Page 14, under Hydrology: another reference to the Storm water retention pond should reflect its true nature as a seasonal pond that holds rainwater.
- p. Page 14, under hydrology, last sentence in 3rd paragraph: A sentence needs to be added. " Presently, the addition of salt water to the Mouse Preserve is accomplished only on an as-needed basis. This requires the Park District to shut off flow to the Freshwater marsh, and drain the central channel (which requires the opening and closing of 7 tide gates) in order to bring in salt water to the preserve.
- q. Page 15, last sentence of the 1st paragraph: "The identity of four 36" tide gates on the southwestern edge of the property and a 48" tide gate on the northwest portion of the property" is incorrect. The four new 36" combination slide/flap gates are located on two 36" culverts, one at each end, not four 36" culverts as is suggested. Also a 36" slide gate is located on the northwest portion of the preserve, not a 48". Figure 3-1 should reflect these changes.
- r. Page 18, 4th paragraph under III. Goals of Mitigation: see above comment related to culvert size and number.
- s. Page 19, 2nd full paragraph: The statement does not clearly distinguish between the southern levee of the Alameda County Flood Control Channel and the northern levee.
- t. Page 20, Figure 3-1: There are a number of errors. As suggested above, please change the culvert number and sizes to reflect current and planned conditions. The 36" tide gate in the corner of the SMHMP empties into the *central channel*, which is marked incorrectly as the HARD channel. The Caltrans ditch is indicated in blue and is shown connecting to the seasonal freshwater pond. This has not been discussed in the document and would not be desirable, as the Caltrans ditch has very questionable water quality.
- u. Page 25, under A. Implementation Plan: One very important item that has not been mentioned in the plan is the need for a detailed hydrological analysis that will have to be performed in conjunction with the HARD Marsh Restoration Project as the two projects are hydrologically linked. This analysis is critical in order to determine if there will be enough tidal exchange available to satisfy the RCEC project's mitigation goals (i.e. flood the property). If the HARD Marsh plan is not successful in meeting its goals of getting enough water to adequately flush the Mouse Preserve, there will not be enough water to flood the Mitigation parcel. It is possible that change orders will have to be made to the HARD Marsh project, and

- additional permits may be necessary, to develop adequate engineering to satisfy the hydrological goals of the RCEC mitigation plan.
- v. Page 26, 3rd paragraph: *Spartina* and the aquatic herbicide Rodeo. The statement about Rodeo being banned in the Bay Area is incorrect. Rodeo is the only herbicide in California registered for use in controlling *Spartina alterniflora*. The Regional Water Quality Control Board now requires the agencies or interested parties controlling *S. alterniflora* in the Bay Area to obtain a National Pollutant Discharge Elimination System (NPDES) permit before using any herbicide within the *Waters of the United States*.
 - w. Page 26, 3rd paragraph, last line: common names for *Lepidium latifolium* and *Dittrichia graveolens* are perennial pepperweed and stinkwort respectively. Both are non- native species and are not grasses.
 - x. Page 27, under D. Management Plan: If the long-term management plan includes the maintenance dredging of channels, who will be responsible for obtaining those permits? Long-term maintenance conditions and permits must be developed within the associated agency permits and five year Monitoring Plan.

2. Predator Perching Deterrents

- a. Page 1, 1st paragraph under Background: Within the statement "*Burrowing owls have been documented as having taken shorebirds chicks*", please change this reference to (J. DiDonato, East Bay Regional Parks District, pers.comm.).
- b. Page 2, top line: within what radius is the applicant claiming that there are "numerous structures providing nesting and roosting"?
- c. Page 2, 2nd paragraph: There is adequate information regarding the effects of predators on prey from which to determine potential effects of additional perches. For specific examples regarding burrowing owls and peregrine falcons preying on least terns, see: "Leora Feeney, Alameda Naval Air Station, CA Least Tern Monitoring reports, and Leora Feeney, Oakland Airport Least Tern Monitoring reports (ph. 510-522-8525); contact Mr. Ron Jurek, DFG, Sacramento (916-654-4267) and Mr. Brian Walton, UCSC Predatory Bird Research Group (408-459-2466) regarding raptors preying on endangered species.
- d. Page 2, 3rd bullet point: Some birds of prey occupy specialized niches.
- e. Page 3, Monitoring Plan:
 - 1. The initial pre-construction monitoring should identify and monitor the raptorial perching on all available locations. (Choosing an arbitrary six sites, especially by a person unfamiliar with the area, is not a well-designed method). Based on the survey results of the first 30 day period, six to ten sites can be identified as the primary potential perch sites, most likely to support raptor and scavenger perching. All additional perching birds should be recorded during the surveys.

2. Emphasis of the survey should be within the months of March through August, which represents the bulk of the nesting season for the species at risk. During this period, the survey should include visitations at a minimum of 3 days per week.
 3. Time of surveys should include periods within 1 hour after dawn since this is the time most raptor hunting occurs, in addition to the 4 time periods identified. 15 minutes is not an efficient amount of time to survey. This should be increased to 30-45 minutes per period.
 4. All perches and perching raptors/scavengers (and the subset of perches regularly monitored) should be identified and plotted on an aerial photo.
 5. All raptor observations should be included in the final analysis since aerial raptors may perch out of site and not be observed during the survey periods. Incidental information (i.e. locations of whitewash and pellets) should be plotted on the aerial photo.
- f. Page 4, 3rd bullet point from top: "Six sites nearest the shoreline...". Are these sites within the project footprint or elsewhere?
 - g. Page 4, Point 3: what is the plan for active roosting areas? Will they be detected and managed if necessary?
 - h. Appendix A: The list of expected raptors should **not** include osprey (fish predator only), bald eagle (highly unlikely to occur). Add to the list the sharp-shinned hawk, the Cooper's hawk, the merlin and golden eagle that do occur and are known bird predators. Additionally, add white-tailed kite to the list. It is a SMHM predator and may take advantage of additional perches near the harvest mouse habitat.
3. Noise Analysis and Monitoring Plan
- a. Page 2, 3rd paragraph: While the species of concern in the Russell City project vicinity do not utilize "song" for breeding purposes, they do utilize vocalizations necessary for breeding and courtship, and as a means to contact juveniles during feeding and dependant stages. In fact, due to the density of vegetation in the surrounding marsh and the lack of visual cues, vocalizations of the clapper rail are the most important aspect of communication for this species. The recognition of an individual's vocalization is the primary process by which least terns and other members of the *Laridae* family (gulls and terns) identify dependant young when returning with food.
 - b. Page 6, Monitoring Program (MP):
 1. Under point 1, the MP fails to clarify the number of monitoring periods but instead quotes "periodic" monitoring as a rate of monitoring periods. *Bi-weekly*
 2. Under point 2, the MP does not identify the specific location(s) or the conditions that identify "areas where current wildlife activity is evident".

3. The MP does not identify which species or group of species that is targeted by the monitoring and the level(s) of sensitivity of different groups of species.
4. Under point 3, the MP does not define the rate of visitation for monitoring purposes but refers to "*periodic visits*".
5. Under point 3, the MP does not identify the model of the noise meter to be used during monitoring (in order to determine its efficiency in recording noise levels).
6. Under point 3, the footnote identifying the "qualified biologist" refers to one "*familiar with the identification of raptorial bird species*". This definition is a footnote obviously copied from the Raptor Perching Deterrent Plan and does not adequately address a biologist's need for familiarity with the group of species utilizing the habitats to be monitored. The biologist should have an extensive amount of experience with shorebirds and other local shoreline species, which will help in the identification of both disturbances and natural behaviors.
7. The MP relies on the analysis of data collected during the construction period and one year after operations have begun. To what will this data be compared? No control or pre-construction data is available. Control and preliminary site data should be collected as a requirement for this plan.
8. Under point 4, the MP fails to identify the "*specific and significant effects*". What effects would generate a notification and how would this affect the construction and operation schedule?

Thank you for the opportunity to comment on these documents. Please feel free to contact me regarding any of the information. Mark and I will be attending the meeting on Tuesday, January 8th in Sacramento.

Sincerely,

Joseph E. DiDonato
Wildlife Program Manager



FOSTER WHEELER ENVIRONMENTAL CORPORATION

3947 Lennane Drive, Suite 200 • Sacramento, California 95834

Phone: 916-928-0202 Fax: 916-928-0594

C O N F I D E N T I A L

To: Don Hawkins From: Doug Day

Fax: 414-6712 Pages: 4 (Incl. cover)



Urgent For Your Information For Review Please Comment Please Reply

Message:

*Screening Tests - Russell City
Energy Center.*

*Doug Day
916-4805*

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Douglas Davy
01/25/02 09:27 AM

To: don_hankins@fws.gov
cc: andrea_argonautconsulting.com
Subject: Russell City Energy Center landscape trees

Hi Don,

When we met a few weeks back to discuss the Russell City Energy Center, one of the topics we discussed was the use of screening trees for landscaping the project that would not encourage raptors to perch for predation and egg predators to perch and nest. Our landscape architects have looked over the list of approved species that you provided (from the Pacific Shores project) and have suggested a couple of species that would work well for landscaping and, they believe, would have similar perch deterrent characteristics. Please review this list and let us know if these would be acceptable species to use.

Thanks very much,

Douglas M. Davy
Project Manager
Foster Wheeler Environmental Corporation
3947 Lennane Drive, Suite 200
Sacramento, CA 95834
(916) 928-4805
(916) 928-0594 (fax)
ddavy@fwenc.com

----- Forwarded by Douglas Davy/Sacramento/FWENC on 01/25/02 08:05 AM -----



Scott Muller
01/24/02 06:00 PM

To: Douglas Davy/Sacramento/FWENC@FWENC
cc: Brent Moore/Sacramento/FWENC@FWENC
Subject: Trees- RCEC

Dave:

I just wanted to remind you that we still need to get approval for five species of trees you sent the US Depart of Fish & Wildlife on December 17, 2001 before I can proceed with revisions to the Conceptual Landscape Plan for Russell City Energy Center. The five trees were:

California Pepper (Schinus molle)
California Bay (Umbellularia californica)
Myoporum (Myoporum laetum)
Horsetail Tree (Casurina equisetifolia)
Arizona Cypress (Cupressus arizonica)

The Australian Pepper (Schinus terebinthifolius), California Bay, Arizona Cypress and other species of the Horsetail Tree are already on US Fish & Wildlife's Pacific Shores List! The species of Horsetail above grows to 40-60ft. and although not on the list, two other species are on the list and this species has drooping branches which prevent perching. These are tree species that will do well in the wetlands area, are evergreen and should not pose a perching problem.

Attached are the species above discussed in detail.



Trees - USF&W approval 1-24-02.d

Scott C. Muller
Senior Landscape Architect
Alameda Office of FWENC
Foster Wheeler Environmental Corp
(510) 863-0152 (Office)
(510) 863-0128 (FAX)
e-mail: smuller@fwenc.com

1/24/02

Doug:

The following are my comments on the five species of trees that we are trying to obtain approval from the US Department of Fish & Wildlife for:

California Pepper (Schinus molle): Evergreen, compact rounded tree with flimsy, weeping branches with fast growth rate. The California pepper grows to a height of 30-40ft high with equal width. Very drought tolerant and tolerant of poor soils and soils high in salinity. A handsome tree for screening purposes. Only problem is that it drops litter and may reseed itself. The Brazilian pepper (Schinus terebinthifolius) is already on the Pacific shore Center of trees recommended by USF&W, however, it reseeds itself and has a more upright form.

California Bay (Umbellularia californica): Already on the list and rated Moderate to High by USF&W. Evergreen tree which is moderate to fast in growth rate growing to a height of 25ft with an equal width. Very wind tolerant and tolerant to many soils but needs deep soil with regular watering. An excellent tree for screening or background planting. Ideal for planting at the Southeast corner of the site or along the perimeter of the site.

Myoporum (Myoporum laetum): Evergreen tree with a rounded, very dense, compact form, with very fast growth, growing to a height of 30ft with 20 ft spread. Already growing in mass, to the North of the site in the wetlands area. Very wind and salt tolerant. Excellent for screening purposes due to its fast growth, dense handsome form and toughness to climatic conditions. Branches grow all the way to the ground.

Horsetail Tree (Casuarina equisetifolia): Very similar to the Drooping she-oak (Casuarina Stricta) which is on the USF&W list and rated moderate to high in that it has drooping branches, however, the horsetail Tree grows faster and grows to a height of 40-60ft. with a 20 ft. spread. Very tolerant to wind and salt spray and saline soils. Would be an excellent tree for screening the larger structures of the PP.

Arizona Cypress (Cupressus arizonica): Already on the USF&W list and rated Moderate to High. Evergreen, grey-green color, with a pyramidal form that grows to 40ft high with a 20ft spread. Moderate to fast in growth rate and drought tolerant and tolerant to poor soils. Excellent for screening especially at the Southwest corner of the site or along the South side to soften the visual impact of the wave structure.

Hope this provides better insight as to why we are recommending these specific tree species for approval. If you have any questions about growth characteristics, appearance or suitability to site conditions please call me.

Scott

3/5/02 Russell City
Rick Monk, ^{street,} Jim, Alice, Keith, Mike, Mark, Joe, Bob, Eric,
Bret, Dean, Doug, Jim, Don, ^(hus) Andrea.

Wetland Mit.

Jim says costs of both projects are comparable

Proj Mgr. Jack Caswell

Russell City - 500 acres

14.7 ac 1.68 ac wetlands.

600 MW natural gas fired generator

145' high smokestack

NO_x 2-5 ppmvd

- Advanced wastewater Treatment (AWT) → from EBDA + USD

- use 2° treated water

- 3.33-5.27 mgd Fresh water
↳ Peak

Pipes lines should have
bird detectors

- water temp 60-90°F

→ Connect power @ Eastshore substation

What about additive chemicals in effluent?

0.5 mg/l Cu?

No discussion of How project may facilitate development in area,
or what is baseline + projected.

2000	ALA	air NO _x	113.57 t/d
	Bay Area	→	558.15 t/d
	RCEC	→	134.6 t/d ⇒ 0.37 t/d ⇒ 815.71 lb/day
	↳ represents	0.325% ALA	
		0.066% BA	

Stuart Hooper
654-3882 FAX
654-4161 #

David ~~Kemper~~ Wampler, EPA
(March 11, 2002 initials
new lead.

(415) 972-3975
Air Division

EIA. INITIATION Received

March 13, 2002



FOSTER WHEELER ENVIRONMENTAL CORPORATION

May 15, 2002
SO-2449-0501502DD

Mr. Jack Caswell
Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814

**SUBJECT: REVISED PROJECT DESCRIPTION AND WETLAND MITIGATION PLAN
RUSSELL CITY ENERGY CENTER PROJECT (01-AFC-07)**

Dear Mr. Caswell:

Attached for filing with the California Energy Commission Docket Unit are an original and 12 copies of a document titled *Project Description and Wetland Mitigation Plan, Russell City Energy Center*. This document is filed in support of the for the Russell City Energy Center (01-AFC-07) and responds to Item #3 of the Committee's Notice of Scheduling Conference and Order Granting Request for Conversion to 12-Month Process issued April 25, 2002.

If you have any questions about this matter, please contact me at (925) 479-6676.

Sincerely,

James Leahy
Development Manager

Attachment

cc: Service list

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MAY 15 2002

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MAY 15 2002

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3947 LINDSEY DRIVE, SUITE 200, SACRAMENTO, CA 95811-1173
TEL: (916) 479-6676 FAX: (916) 479-6791

1-8-02 RUSSELL CITY ENERGY CENTER

26 AC

Wetland Mit. Plan 1.68 AC seas. wetlands impact \rightarrow Mitigate @ KEAX (Waste Mgt.)

Don't \rightarrow EBRPD for mgt. + Endowment fund \rightarrow create at least 1.68 AC seas. wetland.

- move berm \rightarrow expand existing freshwater marsh to provide 111 mit for loss of 1.68 AC of fresh water marsh.

- breach levee to enhance ~~tidal~~ recirculation of fresh water from storm drain

- Upland enhancement.

Z \rightarrow How might this affect veg. comp. in this area. Redirecting flow

- Hydrological Study needed.

- Noise impacts

\rightarrow HARD INT. Center \rightarrow Day Night AVE. 60 dBA

Lo Cogswell \rightarrow Day Night AVE. 50 dBA

Send for info on noise impacts.

Russell City Energy Center Mitigation Plan
Additional Needs

need to provide written comments.

- 1) First off the Service is pleased that efforts are underway to conserve additional habitat in the east bay.
- 2) There are some remaining issues that need to be addressed before we can consider this plan a final document. Additional needs are as follows:

Habitat acquisition/restoration:

- ✓ The compensation plan is too general. The plan should address specific habitat enhancement/restoration objectives (i.e., how much pickleweed, freshwater, and salt pan are proposed/desired).
- ✓ The applicant should develop and implement a restoration plan, including longterm management and place a conservation easement on the parcel(s) to be held by a 3rd party conservation organization.
- ✓ Success criteria are too general. The Service recommends specific objectives like within 5 years, the pickleweed marsh is expected to have 75% cover and dominated by 90% native species.

not discussed ✓ discussion of formal cons. process

Air Quality:

- Concerns for potential impacts of particulate outfall such as acrolein.
- Need an analysis of potential effects to complete the section 7 process.

Perch Deterents:

- If the purpose of the perch deterrent monitoring is to determine the effectiveness of such devices, then a longer monitoring period before and after construction should be implemented. Furthermore, a map depicting survey points should be provided to the Service.
- The applicant should accept an ongoing responsibility to address impacts to local conservation areas in conjunction with predator use associated with their facility.

Noise analysis:

Purpose is to detect behavior
4 → ∴ Existing noise level is not of concern

- We need analysis of the existing ambient noise at the adjacent marsh and anticipated levels during construction and operation. AFC doesn't have monitoring plan
- Remedial measures should be identified if negative affects are expected.
↳ Dean says this can't be done.

not discussed

Viewshed compensation:

- The proposed kiosk may pose perching opportunities for raptors. Such structures should be fitted with Nixalite.

2. ESD
Consent by
Docket

IN THE MATTER OF:
APPLICATION FOR CERTIFICATION OF
THE RUSSELL CITY ENERGY CENTER

DOCKET No. 01-AFC-7
(AFC accepted 7/11/01)

Don H
MB

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FISH & WILDLIFE OFFICE

NOTICE OF COMMITTEE SCHEDULING CONFERENCE

The Committee for this proceeding will hold a Scheduling Conference to take place as follows:

MONDAY, January 14, 2002
Beginning at 2 p.m.
California Energy Commission
First Floor Hearing Room A
1516 Ninth Street
Sacramento, California
(Wheelchair Accessible)

Teleconference

As a convenience, parties and members of the public who cannot attend the hearing in person may participate by calling the toll-free number for the proceeding: USA Toll Free Number: 1-888-625-1618.

The Passcode is: Russell City
The Conference Leader is: Gary Fay

Background

On December 6, 2001, the Committee held a Scheduling Conference to discuss the progress of this case. At the Conference a schedule mutually agreeable to all parties was discussed and agreed upon. However, subsequent to the Conference, both the Applicant and Staff informed the Committee that the parties will need more time than previously anticipated to meet with representatives of the United States' Fish and Wildlife Service (USF&WS) to address additional wetland mitigation matters concerning the proposed project.

Purpose

At the Scheduling Conference, the Committee expects the parties to summarize the results of a workshop scheduled for January 8, 2002, and to recommend a realistic schedule for the completion of this case. The Committee encourages the parties discuss such a schedule prior to the January 14th conference with the

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FISH & WILDLIFE OFFICE

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Jerry T. [unclear]
ESD
D. Buford MS 6/3

Jan H [unclear]

In the Matter of:)
Application for Certification of)
the Russell City Energy Center)

Docket No. 01-AFC-7
(AFC Accepted 7/11/01)

NOTICE OF EVIDENTIARY HEARINGS

PLEASE TAKE NOTICE that the committee designated to conduct proceedings on the Application for Certification for the *RUSSELL CITY ENERGY CENTER* will hold evidentiary hearings as follows:

THURSDAY & FRIDAY, JUNE 20 & 21, 2002
Beginning at 9:00 am
City of Hayward, City Hall
777 "B" Street
Hayward, California 94541
[Wheelchair Accessible]
[Map Attached]

TOPICS MAY BE CONTINUED FROM ONE DAY TO THE NEXT AS NECESSARY

At the evidentiary hearings, the parties (Applicant, Staff, Intervenors) may present evidence consisting of sworn testimony or declarations and exhibits on each topic area. Presentations will follow the agenda reflected in ATTACHMENT A, which is attached to this notice.

A. Formal Evidentiary Hearing Procedures

The purpose of these formal evidentiary hearings is to establish the factual record necessary to reach a decision in this case. This is done through the taking of written and oral testimony as well as through the pre-filed exhibits from the parties. These hearings are more structured than the Committee Conferences and the informal Staff workshops, which have already occurred. A party proposing to sponsor witnesses **must file in advance**, a written version of the witnesses' testimony and a statement of the witnesses' qualifications to testify upon the topic area(s) according to the schedule below. Witnesses who testify on contested topics will testify under oath or affirmation and be subject to cross-examination by other parties who have intervened in the case. Parties intending to offer documentary exhibits (including declarations) as evidence other than the Staff Assessment, the Application for Certification document or portions of either) shall also include a copy of such materials with their pre-filed written

testimony. For any uncontested topic, the parties may submit the witness's written testimony and declaration as an exhibit.

Please note that the Committee will not allow "surprise documents" offered without advance notice to opposing parties. To the extent that such documents contain information not previously filed, they may be subject to a motion to strike.

At the evidentiary hearings, a party sponsoring a witness shall briefly establish the witness' qualifications and have the witness orally summarize the prepared testimony before requesting that the testimony be moved into evidence. Relevant exhibits may be offered into evidence at that time as well. At the conclusion of a witness' direct testimony, the Committee will provide the other parties an opportunity for cross-examination, followed by redirect and recross examination as appropriate.

Where a topic area is not contested, declarations on a particular topic area will be received only if there are no credible objections by the other parties.

Parties are encouraged to consolidate presentations by witnesses and/or cross-examination to the greatest extent possible in order to minimize duplication and conserve hearing time.

FAILURE TO PRESENT WITNESSES AS SCHEDULED, OR TO CROSS-EXAMINE ON THE TOPICS AS SCHEDULED CAN CONSTITUTE A WAIVER OF THESE RIGHTS.

B. Public Adviser and Public Participation

The Energy Commission's Public Adviser is available to assist the public in participating in the certification review process. Members of the public may participate in all aspects of the review process in a variety of ways. If you need information concerning public participation, please contact the Commission's Public Adviser, Roberta Mendonca at (916) 654-4489, 800-822-6228 or, e-mail: [**pao@energy.state.ca.us**](mailto:pao@energy.state.ca.us)

If you have a disability and need assistance to participate in the hearing(s), please contact Lourdes Quiroz at (916) 654-5146 at least five days prior to the hearing(s) you wish to attend.

Technical questions concerning the project may be addressed to Jack Caswell, the Commission Staff's Project Manager at (916) 653-0062 or email at: [**jcaswell@state.ca.us**](mailto:jcaswell@state.ca.us)

Legal or procedural questions should be directed to Gary Fay, the Hearing Officer, at (916) 654-3893 or, email at: [**gfay@energy.state.ca.us**](mailto:gfay@energy.state.ca.us)

Media inquiries should be directed to Claudia Chandler, Assistant Executive Director for Media and Public Communications at (916) 654-4989 or, email at: energja@energy.ca.gov

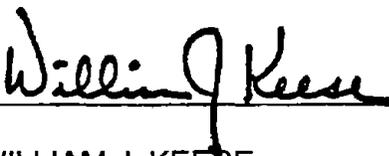
Information concerning the status of the project is available on the Energy Commission's Internet home page at: www.energy.ca.gov/sitingcases/russellcity

C. Schedule

Staff files Final Staff Assessment	June 10, 2002
Applicant and other parties file testimony ¹	June 10, 2002
Evidentiary Hearings	June 20-21, 2002
Briefs due	July 10, 2002

By Order of the Committee

Dated May 22, 2002, at Sacramento, CA



WILLIAM J. KEESE
Chairman and Presiding Member
Russell City AFC Committee



ROBERT PERNELL
Commissioner and Associate Member
Russell City AFC Committee

Mailed to lists 7078, 7079, 7080 and Proof of Service List.

¹ Parties other than CEC staff and Applicant may determine to file testimony or not at their discretion.

**ATTACHMENT A
RUSSELL CITY ENERGY CENTER PROJECT (01-AFC-7)**

Project Description

Air Quality

Biological Resources

Cultural Resources

Hazardous Materials

Land Use

Noise and Vibration

Public Health

Socioeconomic Resources

Soil and Water Resources

Traffic and Transportation

Transmission Line Safety and Nuisance

Visual Resources

Waste Management

Worker Safety

Facility Design

Geology and Paleontology

Power Plant Efficiency

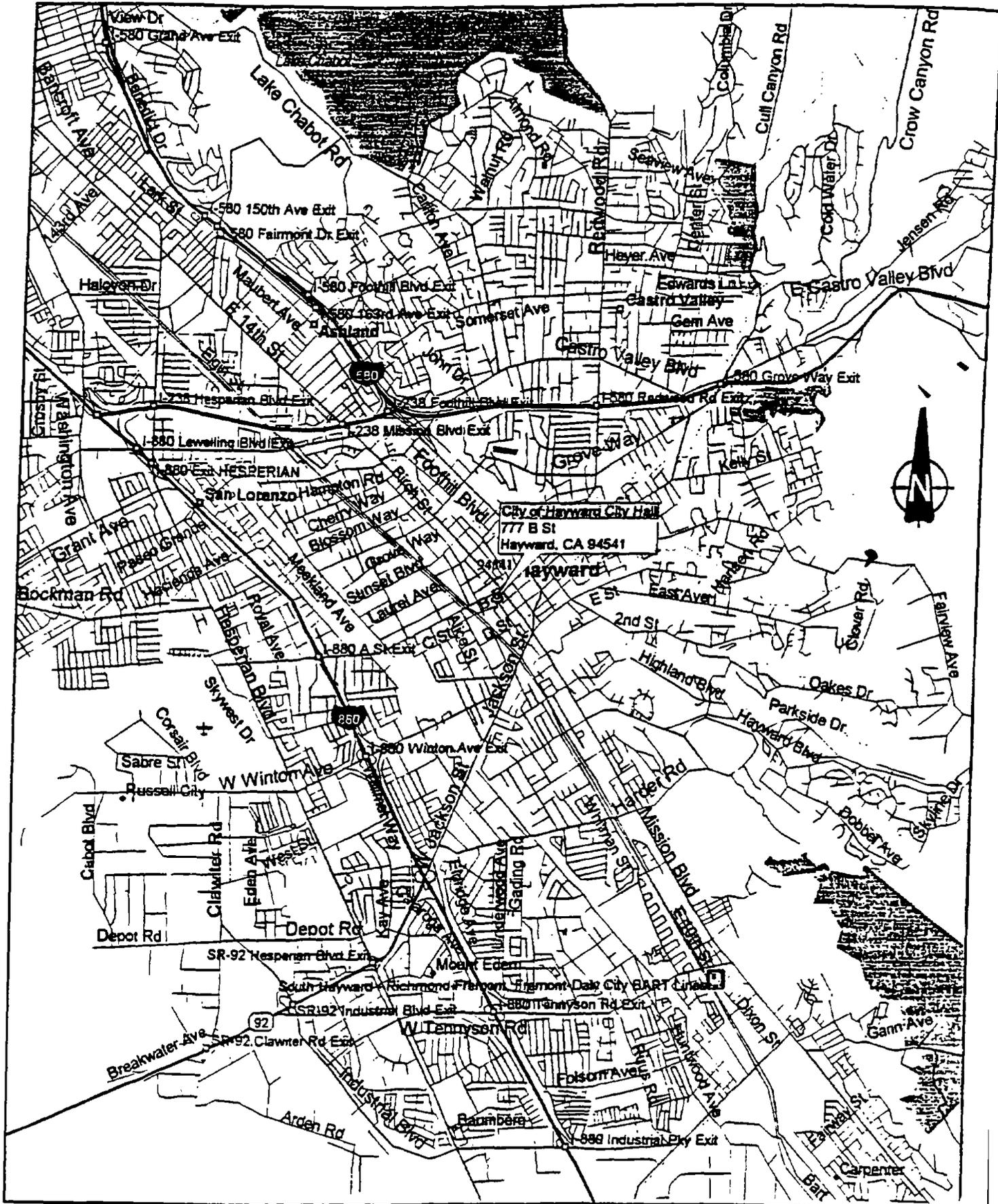
Power Plant Reliability

Transmission System Engineering

Alternatives

General Conditions

city of Hayward City Hall



City of Hayward City Hall
777 B St
Hayward, CA 94541

0m 0.5 1 1.5 2

Streets98

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of:

Application for Certification for the Russell City
Energy Center Project

)
)
)
)
)

Docket No. 01-AFC-7

PROOF OF SERVICE

I, Connie Stark, declare that on May 15, 2002, I deposited copies of the attached *Project Description and Wetland Mitigation Plan, Russell City Energy Center (01-AFC-07)* in the United States mail in Sacramento, California, with first-class postage thereon fully prepaid and addressed to all parties on the attached service list.

I declare under the penalty of perjury that the foregoing is true and correct.



Connie Stark

SERVICE LIST

01-AFC-7

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WILLIAM HAMERSKY	MOSQUITO ABATEMENT	510 783 7744

16

Post-It® Fax Note	7671	Date	3/6	# of pages	1
To	Don Hankins	From	Stuart Itoga		
Co /Dept.	USFWS	Co.	CEC		
Phone #		Phone #	654-4161		
Fax #	414-6713	Fax #			

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**Applicant's Comments on the
California Energy Commission
Staff Assessment**

Of the
Application for Certification
For the
Russell City Energy Center
Hayward, California
01-AFC-07

Submitted to the
California Energy Commission

Submitted by
Russell City Energy Center LLC

November 2001

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INTRODUCTION

The following are the Russell City Energy Center's (Applicant's) comments on the California Energy Commission (CEC) Staff Assessment for the Russell City Energy Center (RCEC) (01-AFC-0). The comments include notes on typographic errors, questions of fact, analysis, or conclusions drawn in the Staff Assessment, and discussion regarding the Staff's proposed Conditions of Certification. The comments are listed in the same order as the Staff Assessment (Project Description, Environmental Analysis, Engineering Assessment, General Conditions).

PROJECT DESCRIPTION

Executive Summary

Page 1.5:

- Transmission System Engineering, line 6. Change “congestion management” to “remedial action schemes”
- Delete "The Cal-ISO, however, has not yet approved the use of congestion management and reconductoring of lines may be required. (Although it is not expected, if reconductoring is necessary, the possibility of significant environmental impacts may yet arise.) Staff expects the Cal-ISO to make its decision prior to the evidentiary hearings on the RCEC’s certification.”

Introduction

Page 2-3, line 6

- Change "four-month" to "six-month"

Response to Comments

Page 3.0-4, 5th citation

- Change "HERD" to "HARD"

ENVIRONMENTAL ANALYSIS

Air Quality

Page 3.1-7, final sentence

- This sentence states: "...the calculated number of daily violations could be as high as six times the measured number of violations indicated." This sentence is speculative and unnecessary and should be deleted.

Page 3.1-11, 7th bullet

- The "emergency" generator should be referred to as the "standby" generator.

Page 3.1-13, Table 7

- See comment above, "emergency" should be "standby."

Page 3.1-26, Cooling Towers

- Refers to "...two proposed cooling towers..." The RCEC will use only one cooling tower.

Additional comments will be provided prior to the December 4 Staff Assessment Workshop on Air Quality.

Biological Resources

Page 3.2-3, paragraph two

- This paragraph states: "...the proposed project region was historically dominated by coastal salt marsh habitat." The project area as defined by the CEC (1-mile buffer around power plant site and 1,000 foot buffer on either side of all linear features) does include some coastal salt marsh habitat. However, both the power plant site and linear features are located on the East Bay alluvial plain (Sowers et al. 1997), which historically contained a wide diversity of habitats, including coastal prairie, coastal sage scrub, vernal pool complexes, and willow groves. The power plant site itself is located on this alluvial plain near salt marsh, but is not salt marsh habitat itself. Rather it consists of disturbed upland ruderal habitat, with some native grassland elements.

Sowers, J.M., W. Lettis & Associates. 1997. Creek and Watershed Map of Hayward & San Leandro. Oakland Museum of California, Oakland, CA.

Page 3.2-7

- Cites potential impacts on salt marsh harvest mouse, California clapper rail, California least tern, and western snowy plover. Though these are all protected species known to occur near the project site, the potential effects of the project are to salt marsh harvest mouse habitat only. Potential direct or indirect effects on the other species are speculative and unlikely, but will be mitigated.

Page 3.2-6 Environmental Checklist

- The CEQA checklist table (a) lists effects on protected species as “potentially significant.” This should be “Less than significant with mitigation incorporated.” Applicant has agreed to and proposed mitigation in the BA, and the Fish and Wildlife Service has informally agreed that the BA resolves the issues of concern they expressed in their letter. Staff has proposed conditions for bird flight diverters and noise mitigation. These conditions are acceptable to Applicant. The footnote to the table mentions that the Applicant is developing mitigation measures but that the impact is potentially significant until the mitigation is finalized. The note should instead state that acceptable mitigation is a condition of certification.

Page 3.2-7 Environmental Checklist

- The CEQA checklist table (c) lists wetlands fill effects as “potentially significant.” This should be “Less than significant with mitigation incorporated.” Applicant has proposed mitigation and the SA includes such mitigation as a Condition of Certification. The Corps of Engineers Clean Water Act Section 404 wetland fill permit is this a prerequisite to project construction in the SA.

Page 3.2-7 Environmental Checklist

- The CEQA checklist table lists “interfere substantially with the movement of any native resident or migratory fish or wildlife species...” (d) as a “potentially significant impact” for noise and habitat loss. This should be “Less than significant with mitigation incorporated.” The Staff has imposed a condition on noise and for habitat loss. The RCEC will not interfere substantially with the movement of species or with “the use of native wildlife nursery sites” adjacent to the construction and operation site or at the construction laydown areas due to mitigation measures that will be implemented. There is no basis for requiring mitigation for general habitat loss at the PG&E Substation because the project would not interfere with wildlife movement substantially and would not affect key wildlife corridors or other significant habitats. It is not necessary that the mitigation plan be finalized for a license to be issued.

Page 3.2-12

- Staff Assessment concludes that mitigation will be required to compensate for the loss of 10 acres of ruderal habitat (temporary construction loss) and 2 acres of ruderal habitat (permanent loss). Applicant finds no regulatory basis for this requirement. The affected land does not qualify as a key migration corridor or nursery area. Applicant requests that Staff identify the studies or records that indicate the PG&E Substation contains sensitive habitat, legally protected species, wetlands, key migration corridors, or nursery areas that will be impacted by the temporary or permanent disturbance of the PG&E Substation.

Page 3.2-10 and BIO-12

- There is no scientific basis for a requirement to limit operational noise to 65 dBA at the southern fence and to monitor operational noise for the life of the project. The change to existing ambient conditions will not be sufficient to affect wildlife (Condition BIO-12).
- Applicant suggests removing the requirement to monitor project noise for the life of the project. The project will be required to demonstrate and maintain compliance with the City's noise standards. Compliance measures for community noise should be sufficient to demonstrate compliance with BIO-12.

Page 3.2-17, Response to East Bay Regional Parks District EBRPD (8-20)-1

- The EBRPD comment raises the issue of construction damage to and potential loss of sensitive salt marsh areas. Staff responds that Applicant will be required to provide appropriate compensation for loss of habitat. Applicant suggests that Staff add a statement to the effect that the project will not directly affect any sensitive salt marsh areas. Temporary fencing will prevent construction vehicles from affecting upland areas on the adjacent parcel.

Cultural Resources

Page 3.3-9 and 10: Condition CUL-2

- Condition CUL-2 says that the Designated Cultural Resources Specialist (CRS) shall consult weekly with the Construction Superintendent regarding construction areas and schedules. It is more feasible to require the on-site monitor to consult weekly with the Construction Superintendent during periods of ground disturbance. The Monitor will be on site and will work with the Superintendent and others on site to determine where ground disturbance activities are to be performed and this checking will naturally devolve to the Monitor. The CRS should consult with the monitor weekly to make certain that there is a proper flow of information.
- Condition CUL-2 also requires that schedules of construction activity be provided the Compliance Project Manager (CPM) on a weekly basis and provided to the CPM in the Monthly report. Though it is not clear whether the requirement is for weekly or monthly coordination, this requirement does not belong in the Cultural Resources conditions, but in

general construction conditions.

Page 3.3-10 through 12: Condition CUL-3

- CUL-3 requires the development of a Monitoring and Mitigation Plan, and specifies (h) a discussion of the availability and access to equipment and supplies for site mapping, photographing, and data recovery. Applicant suggests deleting this requirement. The equipment mentioned is widely available. To state so in the MMP would be superfluous. A requirement for an inventory of such equipment would be burdensome.
- CUL-3 also requires a Cultural Resources Report that includes “All survey reports, monitoring records....” in an appendix. The daily and monthly monitoring records will be in the project file already. Including all of the daily monitoring records in the report would make for a very large volume. Should be either the monthly reports or none of them.

Page 3.3-13 and 14: Condition CUL-6

- CUL-6 says that the CRS should prepare a weekly report to the CPM. This would be burdensome and have limited benefit. The CPM will be notified immediately if there is a find. Applicant suggests a monthly report summarized by week by week, during the months when field monitoring takes place.
- CUL-6 (4) calls for a Native American monitor. There is no regulatory requirement under either CEQA or federal regulations that Native American monitors be present for construction activity. Some organizations recognize a benefit in having a monitor present if human remains are found or are likely to be found (to avoid public relations problems and construction delays) and employ them. It should be the Applicant’s choice. Applicant suggests removing this requirement.

Page 3.3-14: Condition CUL-7

- Similarly, CUL-7 requires that a Native American monitor be present on archaeological surveys of newly identified construction laydown areas. There is no basis for this and the Staff should remove it (see comment above).

Hazardous Materials

Page 3.4-5, Paragraph 3

- States that the quantity of sulfuric acid stored is 5,000 pounds. The quantity proposed is 5,000 gallons (RCEC) plus 7,000 gallons (AWT).

Page 3.4-9: Condition HAZ-2

- Condition HAZ-2 requires that the Risk Management Plan and Hazardous Materials Business Plan be submitted 30 days before construction. The Cal-ARP regulations, however, require an RMP for a new source to be submitted to the EPA and CUPA by the date the regulated substance will be present on the site above the threshold quantity. The proposed Condition should be revised to reflect the timeline imposed by the applicable LORS.

Land Use

No comments.

Noise

Page 3.6-22: Condition NOISE-6

- In the second paragraph of the NOISE-6 Protocol section, Applicant proposes that the clause “as a result of the project” be inserted after “indicate that” in the first sentence. Background noise levels could increase due to causes other than the project and the project should not be held liable for the noise of others.
- The Verification section of NOISE-6 requires a summary report of the post-construction survey within 15 days of completion. It also requires a revised report within 15 days of implementing additional mitigation measures after the post-construction survey. Applicant proposes that Staff increase the two durations to 30 days.

Pg. 3.6-13, second paragraph, third line.

- Change “Adjacent to the WPCF” to “On the northern site boundary”.

Pg. 3.6-13, second paragraph, second from last line

- Change “levels of 75 Ldn” to “level of 75 Ldn”.

Pg. 3.6-14, second paragraph, fourth line

- Insert “of” between “increase more”.

Pg. 3.6-14, fourth paragraph, second line

- Insert “the” between “to outside”.

Pg. 3.6-15, third paragraph, third line

- Change “piling” to “pile”.

Public Health

Page 3.7-5 and 3.7-6

- Staff conducted a risk analysis for construction equipment and concluded insignificant risk. Staff has assumed, however, that the construction equipment used for the project would not be used elsewhere if not used to construct the RCEC. Since this assumption is incorrect, the analysis is not needed.

Socioeconomic Resources

No comments.

Soil & Water Resources

Page 3.9-20: Condition SOIL & WATER 4

- Condition SOIL & WATER 4 requires that the project owner install metering devices to record the amounts of recycled and fresh water used. This information is to be provided to the City of Hayward. The City of Hayward will own and operate revenue meters to measure recycled and potable water use at RCEC. Applicant suggests deleting this requirement, since the City will own and operate the Advanced Water Treatment Plant and provide revenue metering for the AWT, as well as potable and backup feed water.

Traffic & Transportation

Page 3.10-6

- Staff concludes that there will be truck turn-around difficulties at the end of Enterprise Avenue. If this is found to be true, Russell City Energy Center will make provisions for

truck to turn around within the construction area.

Page 3.10-9: Condition TRANS-1

- Condition TRANS-1 calls for counting turning movements every four months at Enterprise Avenue and Clawiter Road to confirm construction trip generation rates. The intent of this requirement is not clear. Staff is requested to either clarify the intended application of the data that would be generated by the proposed counting of turning movements, or delete this proposed requirement.

Transmission Safety & Nuisance

No comments.

Visual Resources

Comments will be provided at the Staff Assessment Workshop in November 29.

Waste Management

Page 3.13-5, paragraph 6

- The sentence: "The refinery complex is immediately bordered by 470 acres of mostly undeveloped Valero property to the south and west and general industrial uses to the north and east." does not refer to the RCEC project area and should be deleted.

Page 3.13-9: Condition WASTE-5

- According to Condition WASTE-5, Applicant must submit a Remedial Action Plan for contamination and a schedule to remediate the site before construction starts. If remediation requires soil excavation, however, this may be done as part of early construction grading. Applicant requests that this condition be restated to allow remediation as part of early construction.

Worker Safety

Pages 3.14-12 through 14: Conditions of Certification

- Applicant suggests removing the requirement for air monitoring using EPA REL criteria. EPA REL criteria are established on long-term exposure criteria and are thus levels much lower than those normally established for worker exposure. Worker exposure to diesel particulates will be almost nil if they are in an outdoor work area and especially if the equipment will have pollution control devices installed. An ACGIH recommended level is 50 micrograms per cubic meter. This is far less than the PEL/TLV for PAHs, which is 200 micrograms per cubic meter.

ENGINEERING ASSESSMENT

Efficiency

No comments.

Facility Design

Page 4.1-3, paragraph 4, minimum standard for seismic design

- This paragraph should specify that a peak ground acceleration (pga) of 0.61g should be used for the structural design of the AWT.

Geology & Paleontology

Page 4.2-10 and 11, Condition PAL-2

- Condition PAL-2 says that the monitor shall halt construction in the event of a vertebrate fossil find until its significance can be determined. Applicant recommends clarifying this statement to specify that it applies only to macro-vertebrate finds, which are rare, not micro-vertebrate specimens (mice, voles, etc.) that require extensive screening to locate and identify. Such small specimens are more or less evenly distributed in these sedimentary environments and therefore could be found by sampling anywhere on this alluvial fan surface. Because these more widely distributed types of specimens are widely distributed and common, they do not qualify as unique paleontologic resources under CEQA checklist.

Reliability

No comment.

Transmission System Engineering

Page 4.5-3

- Line 1: Change "of a new switchyard adjacent to the East Shore Substation" to "of the expansion of the East Shore Substation."
- Existing Facilities and Related Systems, line 2: Change "by way of a new switchyard" to "by way of an expansion of the existing substation."
- Para 4, line 1: Change "A new switchyard" to "An expanded substation."
- Line 2; Change "...to the new switchyard..." to "...to the new substation expansion area."
- Interconnection Facilities, line 2: Change "...interconnection from the RCEC to a new switchyard to be located at PG&E's..." to "...interconnection from the RCEC to an a new 230 kV section at PG&E's..."

Page 4.5-4

- Line 1: Change "A new switchyard" to "An expanded substation."
- Line 4: Change "...to the East Shore line..." to "...to the East Shore substation..."
- Line 6: Change "...to the new switchyard..." to "...to the expanded substation..."
- Transmission Line, line 6: "...both new towers and replacement towers..." The current plan calls for new towers only.

Page 4.5-5

- End of second paragraph: Delete: "The Cal-ISO and PG&E have not yet approved the applicant's choice of mitigation. Discussions between the Cal-ISO, PG&E, applicant, and staff are ongoing and it is anticipated that approved mitigation will be known prior to the evidentiary hearings on RCEC certification." Replace with: "Studies show that a remedial action scheme (RAS) is an option to reconductoring the Eastshore-San Mateo lines. The ISO has granted preliminary interconnection approval for the project and has indicated in testimony that RAS is a viable option."

Page 4.5-8

- Add a third bullet under "Mitigation" as follows: "Utilize remedial action schemes (RAS)."
- Line 1 of second paragraph (not including bullets): Replace "intra-zonal congestion management" with "RAS."
- End of second paragraph (not including bullets): Replace the last 2 sentences with: "Studies show that a RAS is an option to reconductoring the Eastshore-San Mateo lines. The ISO has granted preliminary interconnection approval for the project and has indicated in testimony that RAS is a viable option."

Page 4.5-11

- Conclusion 2: Replace "congestion management" with "RAS" and replace: "The Cal-ISO, however, has not approved the use of ..." with "The Cal-ISO has granted preliminary interconnection approval based on studies that show RAS is an option to reconductoring."

Page 4.5-12

- Recommendations, sentence 1: Replace: "Staff cannot recommend the project until the Cal-ISO makes a decision..." with "Based on the System Impact Study and ISO testimony, preliminary interconnection approval, staff conditionally recommends the project proceed with the implementation of RAS instead of reconductoring the Eastshore-San Mateo lines."

Alternatives

No comments.

GENERAL CONDITIONS

Page 5-3

- Last paragraph: The RCEC is designed as a combined-cycle plant, so conversion from simple-cycle to combined-cycle will not be necessary. This reference should be deleted.

WORKSHOP NOTICE

Russell City Energy Center (01-AFC-7)

Biological Resources Workshop

Purpose: The workshop will feature the Applicant's Draft Wetland Mitigation Plan for project impacts to biological resources. Discussion of this plan and resolution of issues will be encouraged among the Applicant, the public, intervenors and interested federal, state and local agencies. The Draft Wetland Mitigation Plan can be reviewed at the www.energy.ca.gov/sitingcases/russellcity/documents-Applicant's Documents.

When: Thursday, February 14, 2002

01-AFC-7

Location: City Hall
777 B Street (corner of B and Watkins Streets)
Hayward, California 94541 (see map on reverse)
(510) 583-4000
This location is wheelchair accessible.

CALIF ENERGY COMMISSION

JAN 31 2002

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Time: 2:00 p.m. – 7:00 p.m.

Bus Reservation This workshop will include a visit to the project and mitigation sites. Bus Transportation to the sites will leave from the City Hall. Reservations for bus transportation must be made through the Public Adviser's Office; please call (916) 654-4489 or toll free (800) 822-6228 no later than Monday, February 11, 2002. Following the visit to the sites, the bus will return to the City Hall and the workshop will reconvene.

Project Summary: Calpine Corporation proposes to construct and operate a 600-megawatt, natural gas-fired, combined-cycle power plant. The proposed site is located in the Industrial Corridor of the City of Hayward in Alameda County at the intersection of Enterprise and Whitesell Streets.

Public Participation: For information on how to participate in the Energy Commission's review of the proposed project please contact Roberta Mendonca, the Energy Commission's Public Adviser, at (916) 654-4489 or toll free in California at (800) 822-6228, or by e-mail at PAO@energy.state.ca.us. If you require special accommodations, contact Priscilla Ross at (916) 653-6631, at least five days prior to the workshop.

Agency Participation: Energy Commission staff encourages attendance by representatives of agencies that have either direct or indirect interests in the purpose of this workshop.

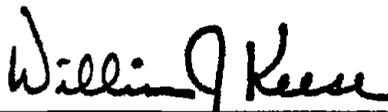


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Question : General information on the proposed power plant is available on the Energy Commission's website at <<http://www.energy.ca.gov/sitingcases/russellcity>>. Inquiries about the project schedule or analysis should be directed to Kae Lewis, Energy Commission Project Manager, at (916) 654-4176, or e-mail <klewis@energy.state.ca.us>. News media inquiries should be directed to Claudia Chandler, Assistant Director, at (916) 654-4989.

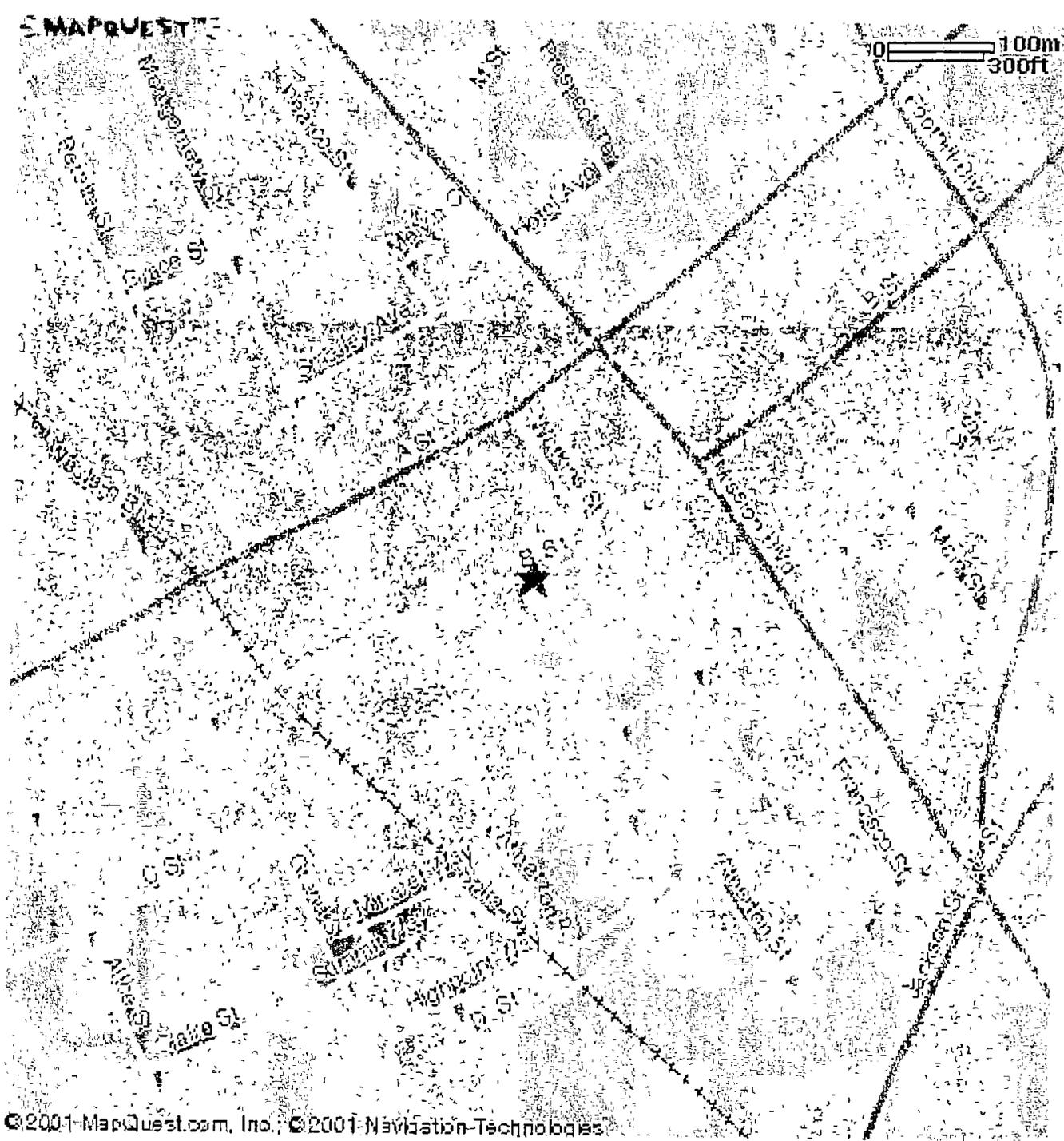
DATE: 1-31-02



WILLIAM J.KEESE Chairman and Presiding Member
Russell City Energy Center AFC Committee

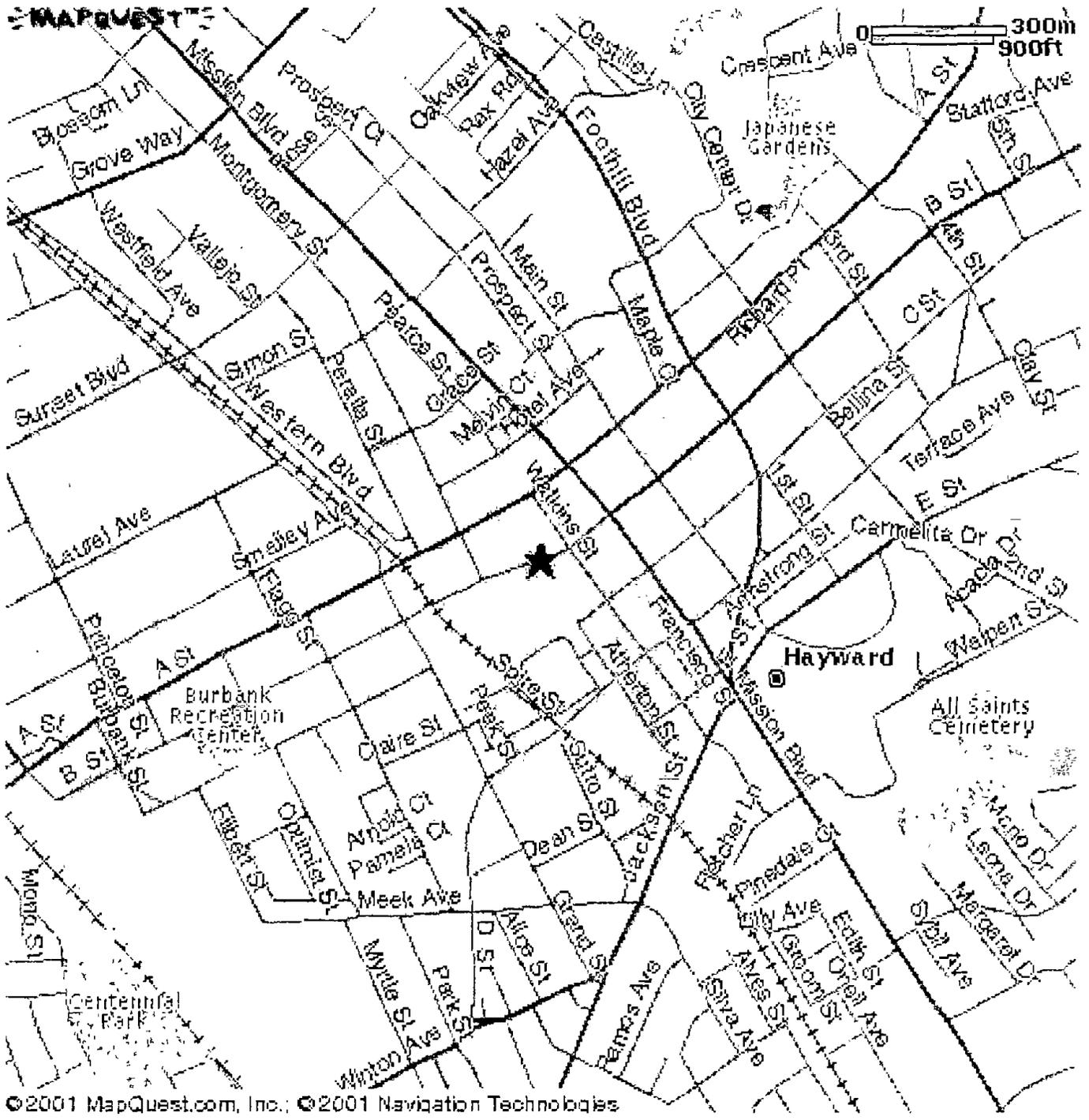
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