

Staff Report to the Zoning Administrator

Application Number: 05-0530

Applicant: Evan Shepherd Reiff Owner: Susan Maddox APN: 093-112-08 Agenda Date: March 3,2006 Agenda Item #: 7 Time: After 1:00 p.m.

Project Description: Proposal to construct an addition to an existing telecommunications facility to include the addition of three panel antennas to an existing 74-foot tall monopole and the construction of three equipment cabinets, two power/telco boxes, and a GPS antenna on a new 150 square foot steel platform. within **an** existing enclosure.

Location: Project located on the south side of Glenwood Drive approximately 300 feet west of the intersection of Highway 17 (23430 Glenwood Drive).

Supervisoral District: 1st District (District Supervisor: Janet Beautz)

Permits Required: Amendment *to* Commercial Development Permit 99-0436, a Biotic Presite and an Archeological Review

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 05-0530, based on the attached findings and conditions.

Exhibits

- A. Project plans
- B. Findings
- C. Conditions
- D. Categorical Exemption (CEQA determination)
- E. Assessor's parcel map

- F. Zoning & General Plan Maps
- G. Comments & Correspondence
- H. Photosimulation
- I. NIER Study by Hammet & Edison, Inc.

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060

Parcel Information

18.77 acres
Residential, Wireless Communications facility
Residential, Timber Production
Glenwood Drive
Skyline
R-M (Mountain Residential)
SU (Special Use)
InsideX_ Outside

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	142, 158 Lompico-Felton, Nisene-Aptos complex
Fire Hazard	Not a mapped constraint
Slopes:	5-30%, SO-75% slopes, however no new significant disturbance in
	steep slope areas
Env. Sen. Habitat:	Mapped biotic resources, however none identified by Environmental
	Planning staff and habitat not present
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Not visible from Highway 17
Drainage:	Existing drainage adequate
Archeology:	Mapped resource area, however no archeological site assessment did
	not reveal presence of resources

Services Information

Urban/Rural Services Line:	$$ Inside \underline{X} Outside
Water Supply:	Summit Water Systems, Inc.
Sewage Disposal:	Private Septic System (CSA 12)
Fire District:	Scotts Valley Fire Protection District
Drainage District:	None

History

Commercial Development Permit (CDP) 99-0436 allowed the construction of a wireless telecommunications facility consisting of a galvanized steel monopole structure 74 feet in height with eight spatial diversity panel antennas located on outrigger arms, a Global Positioning Systems (GPS) antenna (placed on top of the monopole), and the construction of nine equipment cabinets, approximately $\boldsymbol{6}$ feet in height and 30" **x** 30" located at the base of the pole on a concrete platform surrounded by a six foot high chain link fence.

Project Setting

The project site is 18.77 acres in area and is developed with three existing single-family dwellings and 2 detached garages. The site is adjacent to scenic State Highway 17 (upslope and due west). Access to the project site is via Highway 17 and Glenwood Drive. The project vicinity is rural in nature, with single-familydwellings on large lots. The site is densely vegetated with native conifers such as coast redwood and live *oaks*. The dense vegetation assures that the proposed additions to the existing telecommunications facility will not visible from Highway 17. Supplemental plantings of coast redwoods at the site were required as part of CDP 99-0436 and ensure continued vegetative screening.

Analysis and Discussion

This proposal consists of pole mounting three fifty-six inch antennas onto the existing 74-foot tall monopole at a height of 74 feet above grade. Additionally, three associated equipment cabinets and GPS are proposed to be platform-mounted, adjacent to the monopole and secured and concealed behind an existing 6-foot chain link fence. No significant ground disturbance will be required for the project, although some minor grading may be required to repair a small section of access road adjacent to the site.

As a condition of approval, the proposed antennae will be painted a non-reflective green color to minimize potential visual impact. Additionally, the slats in the chain link fence shall be brown stained wood or green plastic, with the equipment shelter and cabinets to be painted a neutral earth tone color.

The applicant has submitted a study by Hammett and Edison, Inc., consulting engineers which indicates that the maximum exposure to ambient RF (Radio Frequency) levels will be 0.12 percent of applicable public exposure limit. See Exhibit H.

Zoning & General Plan Consistency

The subject property is an approximately 18.77 acre parcel, located in the SU (Special Use) zone district and has a (R-M) Mountain Residential General Plan designation. The proposed co-located wireless communications facility is an allowed use within the zone district. The SU zone district is consistent with the site's R-M General Plan designation.

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan, Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Co-located Wireless Communication Facility

The project site is located within a restricted zone district for wireless communication facilities (per County Code Section 13.10.661(c). However, the proposed project will co-located on an existing wireless communication facility and is allowed within the zone district as a co-located facility.

The proposed wireless communication facility will consist of the placement of additional antennas on an existing tower and the installation of an equipment platform and associated equipment cabinets. An approximately 150 square foot equipment platform with equipment cabinets will be installed on the project site to support the wireless communication facility. All of the existing and proposed equipment is adequately screened by existing and proposed fencing and landscaping. The project access and utilities infrastructure is already in place to serve the proposed facility without additional environmental impacts that would be required through the creation of a new telecommunications site.

Visual Analysis

The project site is located within the Highway **17** Scenic Comdor. As stated above, the site of the existing and proposed wireless communications facilities is adequately screened from the Highway 17 Scenic Corridor by existing topography and the existing dense conifer forest, which has been supplemented by additional plantings. The proposed co-located antennas on the existing monopole will not be placed any higher than the existing monopole and will be similarly screened by the surrounding vegetation and will not be visible from the Highway **17** Scenic Comdor.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **05-0530**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report Prepared By: Robin Bolster-Grant Santa *Cruz* County Planning Department 701 Ocean Street, **4th** Floor Santa Cruz CA 95060 Phone Number: (**831**) **454-5357** E-mail: robin.bolster@co.santa-cruz.ca.us

Wireless Communication Facility Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10. and 8.6.6), and/or other significant County resources, including agricultural, open space, and community character resources; or there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by conditions and/or project design to minimize and mitigate its visual and other resource impacts.

The proposal will not significantly affect any designated visual resources in that, while the site is within a vista from a designated scenic road (Highway 17), and is therefore protected by General Plan Policy 5.10.3, steps have been taken to reduce the visual impacts of the development o a less than significant level. Specifically, the existing monopole and proposed antennas will be screened by the existing surrounding dense vegetation, which was supplemented under CDP 99-0436 by additional coast redwood plantings. The existing pole and proposed antennas will be painted in colors designed to blend into the existing natural surrounding, and the proposed equipment sheds will be screened by existing vegetation, will be painted a neutral earth tone color, and will not be visible from the scenic highway, as demonstrated by visual simulations provided by the applicant. The County Urban Designer has reviewed the proposed design of the facility and has approved the design as proposed and conditioned.

An alternative sites analysis was not required for the proposed project, due to the fact that the proposed wireless communications facility will be co-located on site with the existing wireless communication facility. Per Section 13.10.661(c)(3) of the County Code, application for co-located wireless communications facilities within a restricted zoning district (such as the Residential Agriculture zone district) are not required to submit an alternative sites analysis. Furthermore, the creation of an additional site for a wireless communication facility in the immediate area would require additional grading, electrical utilities, and the erection of additional towers that would create unnecessary, additional impacts to the scenic and natural resources that are located in the project vicinity.

2. That the site is adequate for the development of **the** proposed wireless communications facility and that the applicant has demonstrated that there are not environmentally superior and technically feasible alternative sites or designs for the proposed facility.

The presence of the existing wireless communications facility on the project site, with the associated access road and utilities infrastructure, as well as the existing negligible visual impat to the Highway 17 Corridor, result in the determination that the currently proposed project site is the environmentally superior site for this project. The creation of an additional wireless communications facility along the Highway 17 Scenic Corridor, including the associated grading of a new accessroad and equipment pad in adjacent vegetated areas, would most likely create a more viually intrusive project and cause additional impact to the natural resources in the surrounding areas.

An alternative sites analysis was not required for the proposed project, due to the fact that the proposed wireless communication facility will be co-located on a site with an existing wireless communication facility. Per Section 13.10.661(c)(3) of the County Code, applications for co-located wireless communications facilities within a restricted zoning district (such as the Residential Agriculture zone district) are not required to submit **an** alternative sites analysis.

Further, the creation of **an** additional site for a wireless communication facility in the immediate area would require additional road grading, electrical utilities, and the erection of additional towers that would create unnecessary, additional impacts to the scenic and natural resources that are located in the project vicinity.

3. That the subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning uses, subdivisions, and any other applicable provisions of this title and that all zoning violation abatement costs, if any, have been paid.

The existing residential use is in compliance with the SU (Special Use) zone district and R-M (Mountain Residential) General Plan designation in which it is located. Single-familydwellings are a principal permitted use within the SU zone district for parcels with a residential General Plan land use designation. The existing and proposed uses, as designed, are compatible with the zone district and General Plan designation.

No zoning violation abatement fees are application to the subject property.

4. That the proposed wireless communications facility will not create a hazard for aircraft in flight.

The proposed facility will not create a hazard for aircraft in flight in that the proposed wireless communications facility will be located on an existing wireless communications tower, which is 74 feet in height, and this elevation is too low to interfere with an aircraft in flight.

5. That the proposed wireless communications facility is in compliance with all FCC and California PUC standards and requirements.

The facility is in compliance with all FCC and California PUC standards and requirements in that the equipment for the facility is reviewed by the appropriate state and federal agencies.

The maximum **ambient** RF at ground level due to the proposed operation are calculated to 0.0012 mW/cm^2 , which is 0.12 percent of the most restrictive applicable limit. The maximum effective radiated power in any direction would be 1,000 watts.

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

The location of the proposed co-located antennas and the equipment cabinets and the conditions under which they would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity in that the maximum ambient RF at ground level in that the proposed operation are calculated to 0.0011 mW/cm^2 , which is 0.1 1 percent of the most restrictive applicable exposure limit.

The proposed project will not result in inefficient or wasteful use of energy, in that the most recent and efficient technology available will be required to provide wireless communication services as a condition of this permit. Upgrades to more efficient and effective technologies will be required to occur as new technologies are developed.

Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation energy and resources.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the installation of wireless communications facilities that are colocated with existing wireless communications facilities are allowed uses within the SU (Special Use) zone district, without the requirement of further alternatives analysis. The project site is located within the SU zone district with a residential General Plan land use designation.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

The proposed wireless communications facility will be co-located on an existing screened monopole. Wireless communication facility installations that are co-located with existing wireless communication facilities, such as this proposal, are an environmentally superior alternative to the creation of new wireless communication facility installations and their associated visual and environmental impacts.

The subject property is located adjacent to the Highway **17** Scenic Comdor. The existing groundmounted monopole is screened to the extent that it is not visible from the Scenic **Comdor.** The proposed co-located antennas will be located on the existing pole that **is** screened and painted in The subject property is located adjacent to the Highway **17** Scenic Corridor. The existing groundmounted monopole is screened to the extent that it is not visible from the Scenic Corridor. The proposed co-located antennas will be located on the existing pole that is screened and painted in earth tones. The proposed additional antennas will be similarly screened by surrounding vegetation and painted in earth tones to blend in with the environment. The lack of visibility of the project site from the Scenic Comdor, due to the topography of the area and the existing vegetative screening, will result in no visual impact to the Scenic Corridor as a result of this project.

The property is located in the Mountain Residential (R-M) land use designation, which is implemented by and consistent with the site's SU zone district.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

The use will not overload utilities and will not generate traffic on the streets in the vicinity in that the facilities are planned for unattended/non-habitable operation. Improved wireless communication resulting from the installation of this facility may have a positive impact on traffic circulation in that drivers will have improved access to emergency services thereby reducing response time.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

The proposed facilities will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects in that the co-located antennas and associated equipment cabinets will be painted earth tones colors and screened by the existing mature vegetation in the area in order to blend in with the natural environment. The proposed design will adequately camouflage the wireless communications facility from the surrounding neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

The proposed wireless communications facility is consistent with the Design Standards and Guidelines in that the proposed facility will be co-located on an existing monopole that is screened from view to reduce potential visual impacts to the surrounding neighborhood. The project has been reviewed and accepted by Larry Kasparowitz, the County Urban Designer.

Conditions of Approval

- Exhibit A: Project Plans entitled "SprinVGlenwood, SF16450," prepared by Omni Design Group, Inc., 6 sheets, dated September 1,2005.
- I. This permit amends and incorporates all of the findings and conditions of Commercial Development Permit 99-0436. Any findings or conditions contained in this permit that are in conflict with prior permits will be superceded by the conditions contained within this permit. This permit authorizes the installation of antennas onto an existing 74-foot tall monopole, the installation of **three** equipment cabinets and a ground-mounted GPS antenna, associated utilities and a 120 square foot raised steel equipment platform.
 - **A.** Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Obtain a Building Permit from the Santa Cruz County Building Official.
 - C. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).
- II. The applicant shall obtain approval from the California Public Utilities Commission and the Federal Communications Commission to install and operate this facility.
- III. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
 - 1. Identify finish and color of the proposed camouflage materials for Planning Department approval.
 - 2. Grading, drainage, and erosion control plan, if required.
 - 3. All new electric and telecommunications lines shall be placed underground.
 - 4. Details showing compliance with fire department requirements, including all requirements of the Urban Wildland Intermix Code, if applicable.
 - **5.** Exterior elevations of associated equipment shelter identifying finish materials and colors. Exterior materials shall be non-reflective earth tone colors to blend with surroundings.



- 6. Provide new fencing and/or repair existing slatted chain link fence and warning sign details. Include sign location, fence location, height, and materials for review and approval by the County. Slats in chain link fence shall be brown stained wood or green plastic.
- B. To guarantee that the screened, ground-mounted monopole remains in good visual condition and to ensure the continued provision of mitigation of possible visual impacts of the wireless communications facility, the applicant shall submit a maintenance program prior to building permit issuance which includes the following:
 - 1. A signed contract for maintenance with the company that provides the exterior finish, for annual visual inspection and follow-up repair, painting, and resurfacing as necessary.
- C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.
- D. Meet all requirements of and pay all required drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area. Please clearly label all proposed impervious areas. If there are additional proposed impervious areas describe where and how they will drain and that the added runoff will not cause any adverse downstream impacts.
- E. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.
- F. Meet all requirements and pay any applicable plan check fee of the Scotts Valley Fire Protection District.
- *G.* Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements imposed by the school district.
- IV. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
 - A. All site improvements shown on the final approved Building Permit plans shall be installed.
 - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
 - C. Any required road surface improvements shall be completed to the satisfaction of the Environmental Planning section of the Planning Department.



- D. The project must comply with all recommendations of the approved soils reports. Submit an observation from the project soils engineer, which states that the project, as constructed, is in compliance with report recommendations.
- E. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- V. Operational Conditions
 - A. <u>Additional Facilities:</u> A Planning Department review that includes a public hearing shall be required for any future co-location at this wireless communications facility.
 - B. <u>Equipment Modifications</u>: Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny or modify the conditions at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
 - C. <u>Camouflage</u>: The camouflage materials, and ground-mounted tower shall be permanently maintained and replacement materials and/or paint shall be applied as necessary to maintain the camouflage of the tower.
 - D. <u>Access Road</u>: The access road shall be permanently maintained in a manner that prevents erosion from the road surface and slope failure at adjacent slopes above or below the road surface. Any accelerated erosion or slope failure on or adjacent to the access road, as a result of neglect or lack of maintenance, will be in violation of the conditions of this permit.
 - E. <u>Noise</u>: All noise generated from the approved uses shall be contained on the property.
 - F. <u>Lighting</u>: All site, building, security and landscape lighting shall be directed onto the lease site and away from the scenic corridor and adjacent properties. Light sources shall not be visible from adjacent properties. Light sources can be shielded by landscaping, structure, fixture design or other physical means. Building and security lighting shall be integrated into the building design.

- *G.* If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the applicant agrees through accepting the terms of this permit to make those modifications, which would allow for reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the applicant agrees to abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding vegetation.
- H. If, as a result of future scientific studies and alterations of industry-wide standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to human health and/or safety, the Santa Cruz County Planning Department shall set apublic hearing and in its sole discretion, may revoke or modify the conditions of this permit.
- I. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- VI. As a condition of this development approval, the holder of this development approval ("DevelopmentApproval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
 - A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY **seeks** to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
 - B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.

- C. <u>Settlement</u>. The Development Approval Holder shall not be required to pay or perform any settlementunless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of **any** of the terms or conditions of the development approval without the prior written consent of the County.
- D. <u>Successors Bound</u>. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to **this** permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10of the County Code.

Please note: This permit expires two years from the effective date unless you obtain the required permits and commence construction.

Approval Date:	
Effective Date:	
Expiration Date:	

Don Bussey Deputy Zoning Administrator Robin Bolster-Grant Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10of the **Santa** Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 05-0530 Assessor Parcel Number: 093-112-08 Project Location: 23430 Glenwood Drive, Los Gatos

Project Description: Amendment to Commercial Development Permit 99-0436

Person or Agency Proposing Project: Evan Shepherd Reiff

Contact Phone Number : (831) 345-2245

A. _____ The proposed activity is not a project under CEQA Guidelines Section 15378.
 B. _____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060(c).
 C. _____ Ministerial Project involving only the use of fixed standards or objective measurements without personal judgment.
 D. _____ Statutorv Exemption other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. <u>X</u> <u>Categorical Exemption</u>

Specify type: Class 5 - Minor Alterations in Land Use Limitations (Section 15302)

F. Reasons why the project is exempt:

Construction of **an** additional small structure in **an** area of existing commerical uses.

In addition, none of the conditions described in Section 15300.2 apply to this project.

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Robin Bolster-Grant, Project Planner

Date:_____

EXHIBIT D











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EXHIBIT E





COUNTY OF SANTA CRUZ DISCRETIONARY APPLICATION COMMENTS

Project Planner: Robin Bolster Application No.: 05-0530 APN: 093-112-08

Date: February 3, 2006 Time: 10:43:18 Page: 1

EXMINIT

Environmental Planning Completeness Comments

NO COMMENT

Environmental Planning Miscellaneous Comments

Previous application 99-0436 did not require biotic review for the "existing" monopole and associated cabinets. Also the site is covered by dense forest, which is not habitat for the mapped special status plants. which occur in open vegetation consisting of manzanita, oaks, pines, where soil is exposed in large areas, providing habitat for the spineflower and the wallflower.

Dpw Drainage Completeness Comnents

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

----- REVIEW ON SEPTEMBER 2, 2005 BY CARISA REGALADO -----This application is for development in Zone 0.

Plans accepted as submitted. Discretionary stage application review is complete for this division. (Additional note in Miscellaneous Comments.)

Please call or visit the Dept. of Public Works, Stormwater Management Division, from 8:00 am to 12:00 pm if you have any questions.

Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

====== REVIEW ON SEPTEMBER 2, 2005 BY CARISA REGALADO ====== Maintain existing drainage patterns as shown on the plans and do not adversely affect adjacent and/or downstream structures and properties (by flooding, erosion, etc.).

Cal Dept of Forestry/County Fire Completeness Comm

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

DEPARTMENT NAME: CDF COUNTY FIRE

NOTE on the plans that a 100 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees, ornamental shrubbery or similar plants used as ground covers. provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt.

SHOW on the plans, DETAILS of compliance with the Access Standards of the Santa Cruz County General Plan (Objective 6.5 Fire Hazards). The access road shall be 12 feet minimum width and maximum twenty percent slope.

Project Planner: Robin Bolster Application No.: 05-0530 APN: 093-112-08 Date: February 3. 2006 Time: 10:43:18 Page: 2

INTEROFFICE MEMO

APPLICATION NO: 05-0530

Date: August 22,2005

To: David Heinlein, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Design Review for a wireless antennae co-location at 23430 Glenwood Road, Scotts Valley (Susan Maddox / owner, Peacock and Associates / applicant)

Add Conditions of Approval that require:

AN antennas and pole shall be painted non-reflective green.

Manual lighting only.

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Slats in chain linkfence shall be brown stained wood or green plastic.

Equipment shelter/cabinets shall be painted a neutral earth tone color.

Photosimulation of view looking southwest, representing the view for southbound Hwy 17.









5/3/2005

FXHIBIT

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of MetroPCS, a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF16450) proposed to be located at 23430 Glenwood Drive in Scotts Valley, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRF"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent Institute of Electrical and Electronics Engineers ("IEEE") Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes nearly identical exposure limits. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

The most restrictive limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Personal Wireless Service	Approx, Freauencv	Occupational Limit	Public Limit
Personal Communication ("PCS")	1,950 MHz	$5.00\mathrm{mW/cm^2}$	$1.00\mathrm{mW/cm^2}$
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30-300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "cabinets") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables about 1 inch thick. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward



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the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that the power level from an energy source decreases with *the* square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Metro, including zoning drawings by Omni Design Group, Inc., dated June 8, 2005, it is proposed to mount three EMS Model RR6518-00DPL directional panel PCS antennas on cross-arms atop an existing 70-foot steel pole located at 23430 Glenwood Drive in Scotts Valley. The antennas would be mounted at an effective height of about 74 feet above ground and would be oriented toward 20°T, 95°T, and 170°T. The maximum effective radiated power in any direction would be 1,890 watts, representing six channels operating simultaneously at 315 watts each.

Presently located on the same pole are similar antennas for use by Sprint PCS, another wireless telecommunications carrier. Sprint reports that it is using four EMS Model RV3320-02DPL3 and two EMS Model RV6515-04DP directional panel antennas, similarly mounted, and operating with a maximum effective radiated power in any direction of 6,000 watts.

Study Results

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed Metro operation by itself is calculated to be 0.0011 mW/cm^2 , which is 0.11% of the applicable public exposure limit. The maximum calculated cumulative level at ground for the simultaneous operation of both carriers is 0.49% of the public exposure limit; the maximum calculated level at the second floor elevation of any nearby home is 0.70% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels. Figure 3 attached provides the specific data required under Santa Cruz County Code Section 13.10.659(g)(2)(ix), for reporting the analysis of RF exposure conditions.



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No Recommended Mitigation Measures

Since they are to be mounted on a tall pole, the Metro antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Metro and Sprint will, as FCC licensees, take adequate steps to ensure that their employees or contractors comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the base station proposed by MetroPCS at 23430 Glenwood Drive in Scotts Valley, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30,2007. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

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FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electro	magnetic Fi	<u>ields (f is fr</u>	equency of	emission in	MHz)
Applicable Range (MHz)	Electric Field Strength (V/m)		ElectricMagneticField StrengthField Strength(V/m)(A/m)		Equivalent Power I (mW)	t Far-Field Density /cm ²)
0.3 - 1.34	614	614	1.63	1.63	100	100
1.34 - 3.0	614	823.8/f	1.63	2.19/f	100	$180/f^2$
3.0-30	18421 f	823.8/f	4.891 f	2.19/f	900/ f ²	$180/f^2$
30-300	61.4	27.5	0.163	0.0729	1.0	0.2
300- 1,500	3.54 √ f	1.59 √ f	√ f/106	√ ƒ/238	f/300	f/1500
1,500- 100,000	137	61.4	0.364	0.163	5.0	1.0



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

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FCC Guidelines Figure 1

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RFR.CALC[™] Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over **six** or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications cell sites. The near field zone is defined by the distance, D, from an antenna beyond which the manufacturer's published, far field antenna patterns will be fully formed; the near field may exist for increasing D until some or all of three conditions have been met:

1)
$$D > \frac{2h^2}{\lambda}$$
 2) $D > 5h$ 3) $D > 1.6\lambda$

where h = aperture height of the antenna, in meters, and

 λ = wavelength of the transmitted signal, in meters.

The FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives this formula for calculating power density in the near field zone about an individual RF source:

power density
$$\mathbf{S} = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times \mathbf{D} \times \mathbf{h}}$$
, in mW/cm²,

where θ_{BW} = half-power beamwidth of antenna, in degrees, and

 P_{net} = net power input to the antenna, in watts.

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates distances to FCC public and occupational limits.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density
$$S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERF}{4 \times \pi \times D^2}$$
, in mW/cm²,

where ERP = total ERP (all polarizations), in kilowatts,

RFF = relative field factor at the direction to the actual point of calculation, and

D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of $1.6 (1.6 \times 1.6 = 2.56)$. The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

Methodology Figure 2



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Compliance with Santa Cruz County Code §13.10.659(g)(2)(ix)

"Compliance with the FCC's non-ionizing electromagnetic radiation (NIER) standards or other applicable standards shall be demonstrated for any new wireless communication facility through submission, at the time of application for the necessary permit or entitlement, of NIER caiculations specifying NIER levels in the area surrounding the proposed facility. Calculations shall be made of expected NIER exposure levels during peak operation periods at a range of distances from fifty (50) to one thousand (1,000) feet, taking into account cumulative NIER exposure levels from the proposed source in combination with all other existing NIER transmission sources within a one-mile radius. This should also include a pian to ensure that the public would be kept at a safe disfance from any NIER transmission source associated with the proposed wireless communication facility, consistent with the NIER standards of the FCC, or any potential future superceding standards."



Calculated Cumulative NIER Exposure Levels during Peak Operation Periods

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997), considering terrain variations within 1,000 feel of site.

Maximum effective radiated power (peak operation) - 1,890 watts

Effective Metro antenna height above ground - 74 feet

Other sources nearby - Spnnt PCS

Other sources within one **mile** - No AM, FM, or TV broadcast stations No two-way stations close enough to affect compliance

Plan for restricting public access - Antennas are mounted on a tall pole

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MPI645595 Figure 3A



Calculated NIER Exposure Levels Within 1,000 Feet of Proposed Site for Simultaneous Operation of MetroPCS and Sprint PCS



Aerial photo from Terraserver

Legend

blank - less than 0.4% of FCC public limit (*i.e.*, more than 250 times below)
- 0.4% and above near ground level (highest level is 0.49%)
- 0.4% and above at 2nd floor level (highest level is 0.70%)

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997), considering terrain variations within 1,000 feet of site. See text for further information.



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MP1645595 Figure 3B

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