BOARD OF SUPERVISORS
AGENDA LETTER

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
(805) 568-2240

Agenda Number:

Department Name:	Planning and Development
Department No.:	053
For Agenda Of:	October 20, 2009
Placement:	Departmental
Estimated Tme:	1 hour
Continued Item:	No
If Yes, date from:	
Vote Required:	No Vote Required

TO: Board of Supervisors

FROM:

Department Director(s)	Glenn Russell Ph.D., Director, 568-2085 Planning and Development
Contact Info:	Dave Ward, Deputy Director, 568-2520 Development Review Division-South County

SUBJECT: **Briefing on Telecommunications Program and Current Projects**

County Counsel Concurrence
As to form: Yes

Auditor-Controller Concurrence
As to form: N/A

Other Concurrence: N/A
As to form: N/A

Recommended Actions:

That the Board of Supervisors receives a briefing in the matter of the Santa Barbara County Telecommunications Program and current permit processing.

Summary Text:

At the Board's October 6, 2009 hearing, several community members provided public comment regarding telecommunications projects currently being processed. Due to heightened community interest and the number of permits currently pending decision, Planning and Development staff scheduled this briefing for the earliest Board hearing, October 20, 2009, to generally discuss the permitting framework. Under the LUDC, your Board is the final local appeal authority and therefore staff is not presenting merits of the individual projects, as this is not an appeal hearing.

Regulatory Framework- Federal

The Federal Telecommunications Act of 1996 amended the Communications Act of 1932 to establish federal regulatory authority over the deployment of telecommunications facilities across the nation. The Federal Act set health and safety emissions thresholds and restricted the regulatory treatment of telecommunications facilities by local agencies (i.e. cities and counties).

The Federal Telecommunications Act preempts local authorities from prohibiting any telecommunications service, stating "No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." (47 U.S.C.A. § 253 (b).)

However, the Federal Telecommunications Act acknowledges that although local authorities may not prohibit telecommunications facilities, their general local zoning authority is preserved "over decisions regarding placement, construction, and modification of personal wireless service facilities,"(47 U.S.C.A. § 332 (c)(7)) within certain limitations.

Local Authority Limitations

Although the County can influence siting and design of these facilities, there are limitations as to the County's authority to regulate such facilities. As previously discussed, the purview of local agencies to apply zoning requirements is limited by the Federal Telecommunications Act:

> *"LIMITATIONS.--*
> *(i) The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof--*
> > *(I) shall not unreasonably discriminate among providers of functionally equivalent services; and*
> > *(II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.*
> *(ii) A State or local government or instrumentality thereof shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time after the request is duly filed with such government or instrumentality, taking into account the nature and scope of such request.*
> *(iii) Any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.*
> *(iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."(47 U.S.C.A. § 332 (c)(7)(B).)*

Regulatory Framework- Santa Barbara County Telecommunications Program

The County's Telecommunications Ordinance "establishes the permit requirements and standards for the siting and development of commercial telecommunication facilities….to promote their orderly development and ensure they are compatible with surrounding land uses in order to protect the public safety and visual resources." (LUDC 35.44.010). The County's Telecommunications Ordinance was first adopted in 1995 in response the exponential growth of the telecommunications industry, and has subsequently been amended several times as the industry has continued to evolve. In the mid 1990's the County received numerous applications from all of the various carriers attempting to deploy their

networks in the County, however the County's ordinance at the time did not have specific provisions for telecommunications facilities. The County's Telecommunications Ordinance was created to provide a tiered streamlined approach to processing of these applications depending on the size, location and visibility of facilities.

Then in 1996, the Federal Telecommunications Act set standards for the regulatory processing of telecommunications facilities. Among those standards, the Federal Telecommunications Act reinforced the need for streamlined permitting requiring that local agencies "act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time."(47 U.S.C.A. § 332 (c)(7)(B)(ii).) The County Ordinance was subsequently amended to recategorize the tier classifications and reduce the decision-maker level of certain tiers from the Planning Commission, to Zoning Administrator or Director.

The County's tiered permit process, shown in the chart below, allows for "very small facilities" more commonly known as Distributed Antenna Systems (DAS) in all zone districts, including residential, under the Tier 1 processing requirements. The intention of this provision is to encourage only small facilities in residential areas to the extent feasible, as opposed to the larger new tower sites, allowed in other zone districts. (The DAS design is discussed in more detail in the following sections.)

Project Level Tier	Zones Where Allowed	Permit Requirements
Tier 1 Project (Very small facilities only)	All zones	Coastal Development Permit or Land Use Permit
Tier 1 Project (Other than very small facilities)	Nonresidential zones	Coastal Development Permit or Land Use Permit
Tier 2 Project (Tenant improvements)	Nonresidential zones	Development Plan approved by the Director
Tier 2 Project (Other than tenant improvements)	Nonresidential zones, except not allowed in the Recreation (REC) zone	Development Plan approved by the Director
Tier 3 Project	Nonresidential zones, except not allowed in the Recreation (REC) zone	Minor Conditional Use Permit
Tier 4 Project	All zones	Conditional Use Permit

Table 4-16 County LUDC - Allowable Zones and Permit Requirements for Commercial Telecommunications Facilities

Subsequent revisions to the County Telecommunications Ordinance have addressed advances in technologies and development design standards. "Additional development standards for telecommunications facilities" as enumerated in Sec. 35.44.010.D of the LUDC, require such things as preservation of existing vegetation, installation of new landscaping for back-drop/screening, use of non-reflective finishes on visible surfaces, lighting restrictions, and use of creative design solutions. These development standards also address siting of facilities on sensitive areas such as ridgelines, scenic highways, sensitive habitat areas, and collocation amongst existing facilities.

Radio Frequency Emissions Regulation

As referenced above, the Federal Communications Act states that local governments *cannot* "regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions." (47 U.S.C.A. § 332 (c)(7)(B)(iv).)

The adopted emission limits are identified in the Code of Federal Regulations, 47 C.F.R. § 1.1310 and detailed guidelines for analysis of these standards are given in the FCC's OET Bulletin 65.[1] The emissions standards "are designed to protect the public health with a very large margin of safety."[2] It is also noted that "the limits themselves are many times below levels that are generally accepted as having the potential to cause adverse health effects."[3] Therefore, if a facility demonstrates compliance with the FCC emissions limits, the facilities are determined to be operating at safe levels. Moreover, the County cannot further regulate a facility based on emissions once the facility has been shown to comply with these standards.

However, local governments *can* evaluate compliance with federal radiofrequency emissions standards. Therefore, Santa Barbara County has adopted requirements in the County Telecommunications Ordinance (LUDC Sec. 35.44.010) for carriers to demonstrate compliance with FCC standards 1) as part of the application process, 2) upon installation, and 3) post-installation every five years. The County has an RF expert on contract to peer review these reports as necessary.

Alternative Siting and Coverage Objective Analysis

Often during the permit review and public process, questions over facility siting and coverage needs are raised. In such cases, carriers have provided coverage maps and/or analyses of alternative site locations for the proposed facility. Staff and/or decision makers may use this information in their review and approval of such facilities as it pertains to their ability to make required findings or confirm that the project complies with applicable development standards. However, pursuant to the FCC requirements, decisions of local authorities must allow carriers to provide adequate coverage. Furthermore, decisions by local authorities must not have the effect of creating coverage gaps.

Current Trends

In Fiscal Year 2008-2009 Santa Barbara County received a number of permit applications for telecommunications facilities. The large majority of these applications were from Metro PCS, who is a new carrier in Santa Barbara County and is in the initial phases of deploying their network. The County has also received applications from other carriers, such as Verizon, T-Mobile and Sprint-Nextel, to add new facilities to their existing networks.

New technological trends have also had an influence on the influx of permit applications. The County has also received a number of applications to replace or add equipment at existing sites, some of which are upgrades to provide for data transfer and other newer technologies for cellular providers. In addition to cellular facilities, the County has also received applications for wireless internet providers, namely Clearwire, to add new wireless broadband sites in the County.

Lastly, the County has received a large number of applications from NextG Networks, also new to Santa Barbara County, proposing a Distributed Antenna System (DAS) network which wireless carriers (cellular or broadband) could use to disperse their coverage.

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[1] FCC OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," Revised June 29, 2001.
[2] Kennard, William E., et al. "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance," June 2, 2000, p. 1.
[3] Kennard, William E., et al, p. 1.

NextG Networks DAS

NextG Networks has applied for permits to deploy a Distributed Antenna System (DAS) throughout the south coast of Santa Barbara County. They have also applied for, and obtained in some cases, similar permits from other local municipalities such as City of Goleta, City of Santa Barbara, and the City of Carpinteria.

NextG Networks submitted 39 Tier 1 applications (LUP/CDP/CDH) to the County on August 5, 2009. The applications are for the installation of 39 different "node" or antenna sites throughout the south coast, including areas in Goleta, Santa Barbara, Montecito and Summerland (see Exhibit B for a standard visual simulation).

According to their applications, each of the node sites would consist of one (1) 26-inch omnidirectional whip antenna to be placed on an existing utility pole along with a 32" x 6" x 5" equipment box, also to be mounted on the pole. Back-up emergency generators are no longer proposed as part of the project. The facilities would be unlit and would not require any vegetation removal.

Also required as part of the network, is the addition of fiber optic cabling to connect the individual node sites. The cabling would either be strung along the existing aerial power lines, or trenched underground.

Until this point, coverage in residential areas has been achieved by siting facilities on the fringes of urban areas and directing the signal towards the needed coverage area. However, with the increasing number of cell phone users and other personal communications devices (i.e. PDA, Blackberry, Smart-phones), coverage (and capacity) needs have greatly increased. Specifically, in residential areas, land lines are becoming more and more obsolete as people use their cell phones as their primary (or only) phone. As a result, cellular carriers are now applying for facilities (e.g. macrocells camouflaged as "monopines") located in the residential areas to provide the needed coverage.

The DAS network is a different approach to coverage in the urban area. It uses multiple node sites that work in conjunction with each other to distribute coverage throughout the residential areas in which they are located; this is different than traditional cellular facilities that have several (3-12) large (4-6 ft.) antennas at one location, requiring a large support structure to reach the same coverage objective. Additionally, DAS technology allows for coverage by multiple carriers without additional infrastructure consistent with the County's adopted policy encouraging collocation. The fiber optic cabling has the capacity to carry signal for up to five wireless carriers (once connected to the network) greatly reducing the number of sites in an area by negating the need for a separate facility for each carrier, as with traditional cellular facilities.

The antennas would provide coverage with a range of approximately 1500 – 2000 feet in each direction and would operate in the Advanced Wireless Service (AWS) bandwidth at 1710 – 2170 MHz with a maximum of 3 channels. The maximum radiofrequency emissions at ground level due to the NextG antennas are reported at 0.3% of the FCC public safety standard.[4]

NextG Processing Status

The permit applications are currently being processed and have received significant public inquiry. The County has requested that NextG provide site-specific cumulative emissions tests in order to be able to affirmatively make the finding of the installation's compliance with FCC's emissions thresholds. Upon receipt of the site specific radio frequency emissions tests, the County will have the reports peer

[4] Bushberg, Jerrold. NextG Networks Radiofrequency Emissions Report dated April 29, 2009, p. 3.

reviewed for accuracy; following, decisions on these LUP, CDP and CDH permit applications will be rendered.

Approval of the Tier 1 projects that are outside of the Coastal Commission appeals jurisdiction (all but three LUP/CDPs), do not require a public hearing. However, all parties who have expressed interest and have provided contact information will be notified of any approval date. Per the LUDC, all decisions are subject to appeal to the Montecito or County Planning Commission.

Three of the 39 nodes are located within the Coastal Commission appeals jurisdiction (CDHs). These three nodes will require a Zoning Administrator hearing for approval, and would also be appealable to the Montecito or County Planning Commission.

Lastly, development of the DAS network also requires installation of both aerial and underground fiber optic cabling. With the exception of cabling requiring trenching in coastal zone areas, the placement of the fiber optic cabling both aerial and underground is exempt from zoning permits. Trenching requires only a road encroachment permit. Installation of aerial cabling requires no permits. Therefore, NextG may proceed with installation of the fiber optic cabling at any time, in the case of aerial cable and upon issuance of necessary road encroachment permits for trenched cable. For coastal areas where trenching is required, NextG has submitted applications for CDP/CDHs as required. These CDP/CDHs are being processed concurrently with the permits for the nodes and will be appealable to the Montecito or County Planning Commission.

Performance Measure:

N/A

Fiscal and Facilities Impacts:

Budgeted: Yes

Fiscal Analysis: Preparation of this Board briefing was unanticipated. The 28 hours of staff time is budgeted in the Permitting and Compliance Division of the Development Review South Division on page 308 of the adopted 2009-2010 fiscal year budget.

Staffing Impacts:

None.

Special Instructions:

N/A.

Attachments:

Exhibit A: Commercial Telecommunications Ordinance, LUDC Section 35.44.010
Exhibit B: Standard visual simulation

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cc:

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