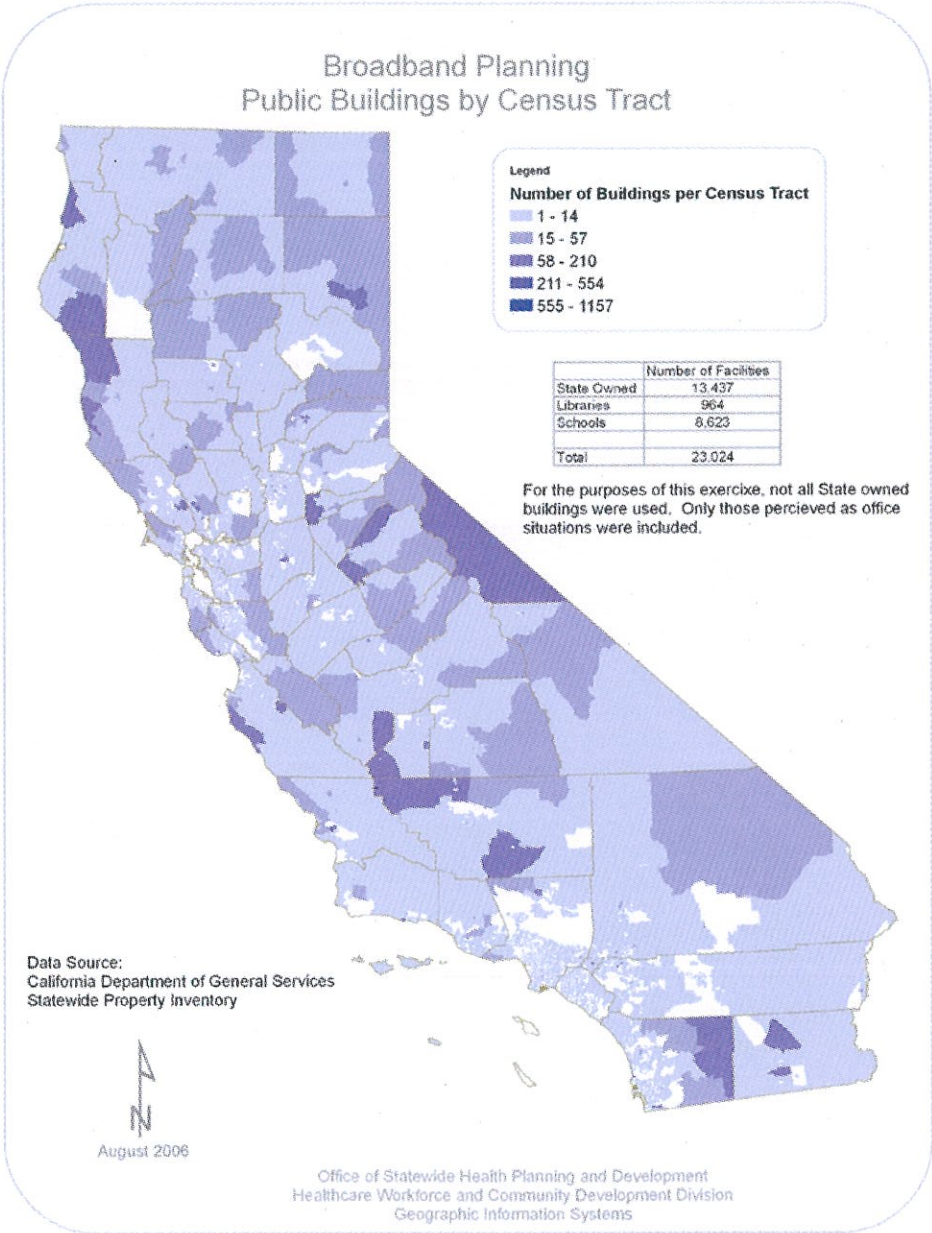

Figure 3 - Number of State facilities by census tract. Facilities mapped include schools, libraries, prisons, office buildings, university buildings, and other State-owned buildings.[8]. Mapping these facilities allows identification of places where public infrastructure may serve as a backbone for additional broadband deployment.

[8] We have not included State "leased" properties.

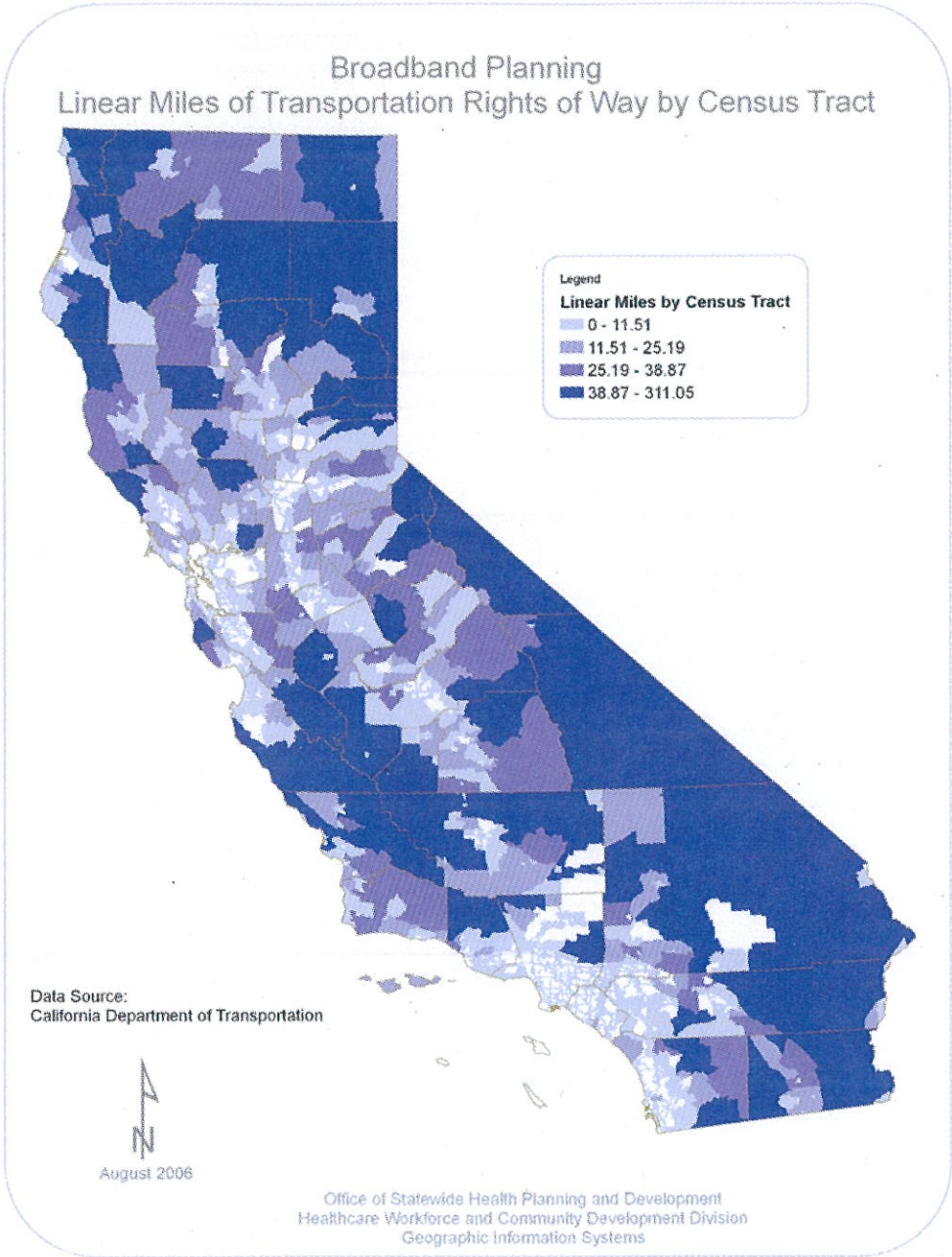

Figure 4 - Linear miles per census tract of Caltrans ROW. Further maps also will indicate ROW information contained by State Agencies with regulatory oversight over water, petroleum pipelines, electrical distribution lines, and railroads. This map gives more insight on how State resources may be leveraged to increase broadband access.

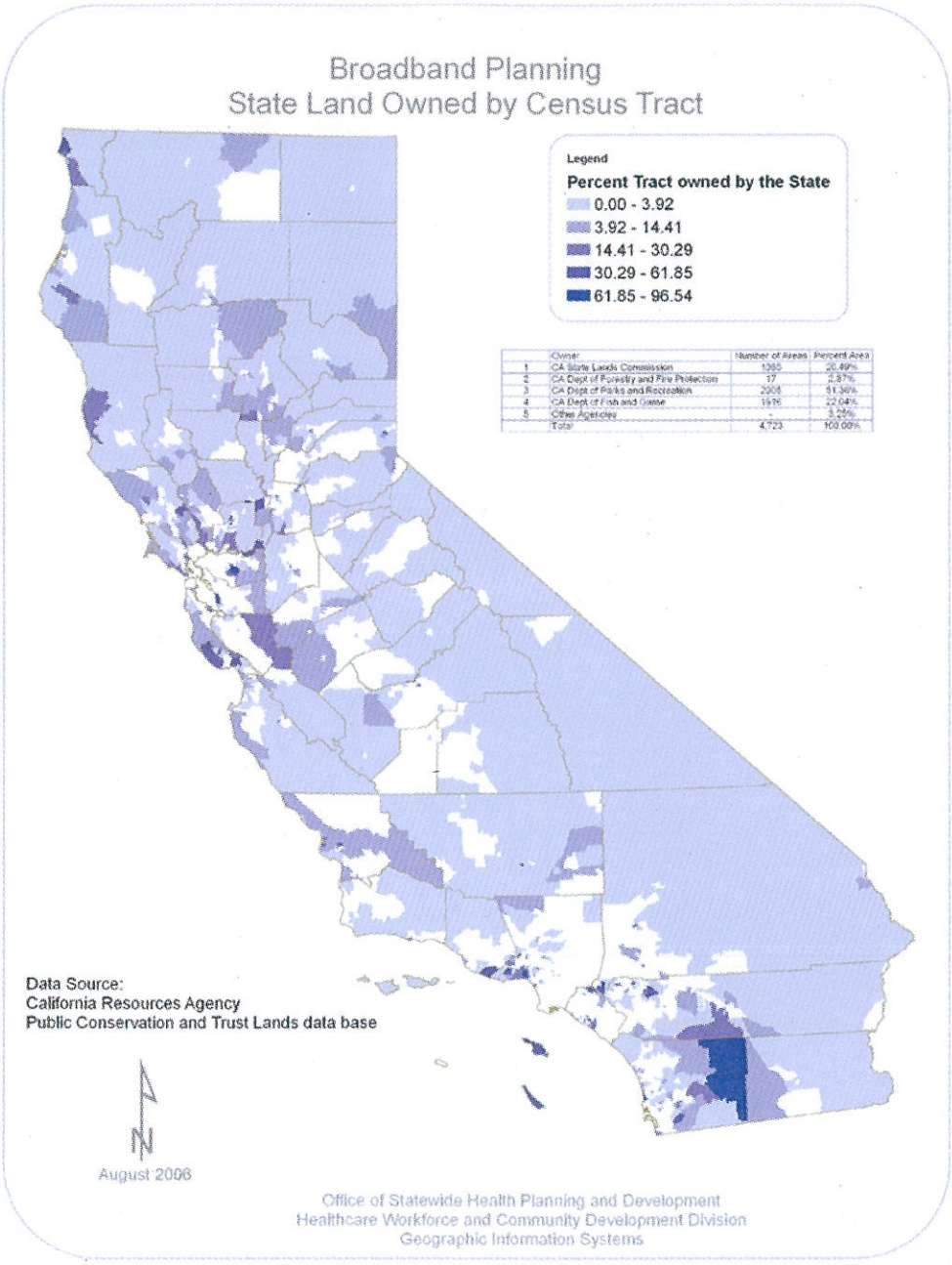

Figure 5 - Percent area per census tract of State owned land. Land-owning State Agencies include the Department of Parks and Recreation; the State Lands Commission; the Department of Forestry and Fire Protection; and the Department of Fish and Game.

While similar to Figure 4, this map shows alternative route availability for wired broadband access.

B. Usage of Streaming Video Technologies

Streaming video can provide important on-demand or real-time transmission of video over the Internet. Streaming video can benefit the public in a variety of ways:

- Provide greater visibility and enable more participation in State meetings, especially when the meetings are held at event locations where space is at a premium or to which attendees would have to travel
- Permit access to public records with additional context and accuracy
- Allow faster preparation of written meeting transcripts
- Enhance the State's capacity to communicate and inform constituents
- Improve the State's ability to facilitate remote worker capability, and thereby reduce personnel travel time and expenses
- Increase accessibility and compliance with the Americans with Disabilities Act and other related regulations
- Allow Internet broadcast of emergency announcements and related information
- Permit provision of tutorials and instructions on government processes and forms
- Provide enhanced classroom learning and facilitate distance learning capability
- Allow flexible on-demand viewing of broadcasts stored online
- Enable quick dissemination to the broadcast media for public viewing

Given these public benefits, the Executive Order directs departments under the State and Consumer Services Agency to facilitate usage of streaming video.

i. Webcasting

Webcasting, or broadcasting over the Internet, uses streaming video technology to take a single content source and distribute it to remote viewers. This technology may be used to enhance public access to meetings, enable remote access to training materials, and provide widespread emergency notifications.

Caltrans has been a leader among State Agencies using Webcasting technologies. Through the utilization of satellite technology, the Department can produce and deliver media content from remote sites throughout California. Caltrans provides streaming video of public hazards, ranging from earthquakes and floods to hazardous spills on freeways. It successfully uses Webcasting for broadcasting its meetings and staff training programs too.

Many more State Agencies, however, could also benefit from Webcasting. For example, the Resources Agency and Department of Water Resources could use streaming video services to monitor levees and flood levels. Remote Webcasting also could be particularly valuable for State Agencies with field offices in remote locations.

To facilitate further benefits of Webcasting, DGS shall establish a Master Services Agreement (MSA) for State usage of Webcasting. The MSA – which may be used by State Agencies, boards, commissions, local government agencies, and other non-profit tax supported agencies – allows State and local governments to procure Webcasting services without conducting separate procurement efforts. The MSA leverages State purchasing power to reduce costs, and saves individual State Agencies time and money. DGS shall develop the MSA within 180 days of the date of this Executive Order.

After the release of the MSA, the Department of Technology Services (DTS) shall assist government entities and MSA contractors deploying streaming video services. DTS shall offer State and local government entities consulting and training on how to effectively use streaming video services.

ii. VIDEOCONFERENCING

Streaming video technologies also support videoconferencing services, when two or more locations interact via two-way video and audio transmissions simultaneously. To further efficient use of such services, DGS shall identify State Agencies with significant field office operations and provide them information on how video conferencing may increase Agency efficiency. This effort will build upon the experience of those State Agencies that have already begun to take advantage of video conferencing to facilitate intragovernmental meetings. Departments that have substantial video conferencing capabilities include the following:

- Department of Corrections and Rehabilitation: Statewide application between headquarter office and adult facilities.
- Department of General Services/Division of the State Architect: Statewide application between headquarter office and regional field offices.
- Caltrans: Statewide application between headquarter office and regional headquarter offices.

While the cost of installing video conferencing facilities and ongoing operations is significant,[9] video conferencing may nonetheless be a cost-effective alternative when it replaces expensive travel by Agency officials.

C. WIRELESS BROADBAND ACCESS IN PUBLIC FACILITIES

State facilities that regularly host members of the general public may find it valuable to offer public wireless broadband access. DGS provides a noteworthy example of the benefits of providing wireless broadband access. Launched in 2005, the

[9] The cost of setting up a new video conferencing site is approximately $15,000 - $20,000 per site for equipment and professional services. Operational costs are approximately $1.00/minute/site for the conference connection, and $1.20/minute/site for a dial out charge.

Department's wireless network gives members of the public – including vendors, consultants, lobbyists, and other visitors – Internet access when they visit departmental headquarters.

DGS shall build upon its existing wireless broadband efforts and identify other State buildings that may be appropriate for wireless broadband access. Given the cost of establishing new wireless broadband hotspots,[10] appropriate facilities should be ones that house a large number of staff and regularly host members of the public.

DGS may begin to identify appropriate wireless broadband access points by reviewing the needs of the State's largest buildings. Currently there are approximately fifty State buildings with square footage over 50,000 square feet. A subset of these buildings may be appropriate Phase I deployment targets. Other facilities may be identified as Phase II and Phase III priorities, depending on the willingness of the State to invest in public wireless broadband access.

In particular, DGS shall pursue deployment of wireless broadband access in the State Capitol Building, which hosts several hundred thousand visitors each year. DGS shall make a proposal to both the Legislature and Office of the Governor for wireless broadband access in the Capitol within 180 days of the date of this Executive Order.[11]

D. Deployment of VoIP Technologies

Within 180 days of the date of this Executive Order, DGS shall establish a CALNET II contract for Voice over Internet Protocol (VoIP) services. Adoption of the contract will make it easier for State and local government entities to procure VoIP services. The CALNET II contract will leverage the State's buying power for the benefit of State and local government entities. These entities' time and money will be saved by eliminating the need for costly and time-consuming Request for Proposals, and eliminating or reducing the need for costly and time-consuming Feasibility Study Reports. The CALNET II contract will result in VoIP platform standardization too.

Benefits of using VoIP more may include the following:

- Reduction of costs for calls within the organizational network
- Cost savings on wiring infrastructure associated with new building construction
- Remote workers and business travelers allowed to use features and services previously only available in their State offices

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[10] The cost of the specific deployment is dependent on the technology, range, and architectural features of the specific site. In addition, the number of concurrent users would factor into the cost of the project. Given the experience of DGS, $20,000 could be used as a reasonable cost for the one-time development cost for deploying a hotspot in a small geographic area. Ongoing maintenance and operations also would be required, and the cost for these is dependent on the scope of the deployment.

[11] Control of the State Capitol Building is split between the Legislature and the Office of the Governor.

- Groundwork laid for new applications that boost collaboration among employees and business partners by providing: (i) Web- enabled call centers; (ii) Collaborative white boarding; (iii) Remote telecommuting; (iv) Personal productivity applications (e.g., unified message handling that integrates voicemail/e-mail messages)

The Department of Consumer Affairs already serves as an existing example of how State entities can use VoIP to enhance their operations.

DTS shall provide technical consulting and training to State and local government customers using the CALNET II contract. Implementation of VoIP services pursuant to the contract shall begin in early 2007.