



**Dave Freudenthal**  
Governor

**Steve DeCecco**  
Chairman

# State of Wyoming

## Public Safety Communications Commission

### ~ Annual Report to the Governor of the State of Wyoming ~

#### **Mission Statement and Statutory Responsibilities**

The mission of the Wyoming Public Safety Communications Commission (PSCC) is to develop recommendations for policy and guidelines, identify technology and standards, and coordinate intergovernmental resources to facilitate statewide wireless communications interoperability with emphasis on public safety.

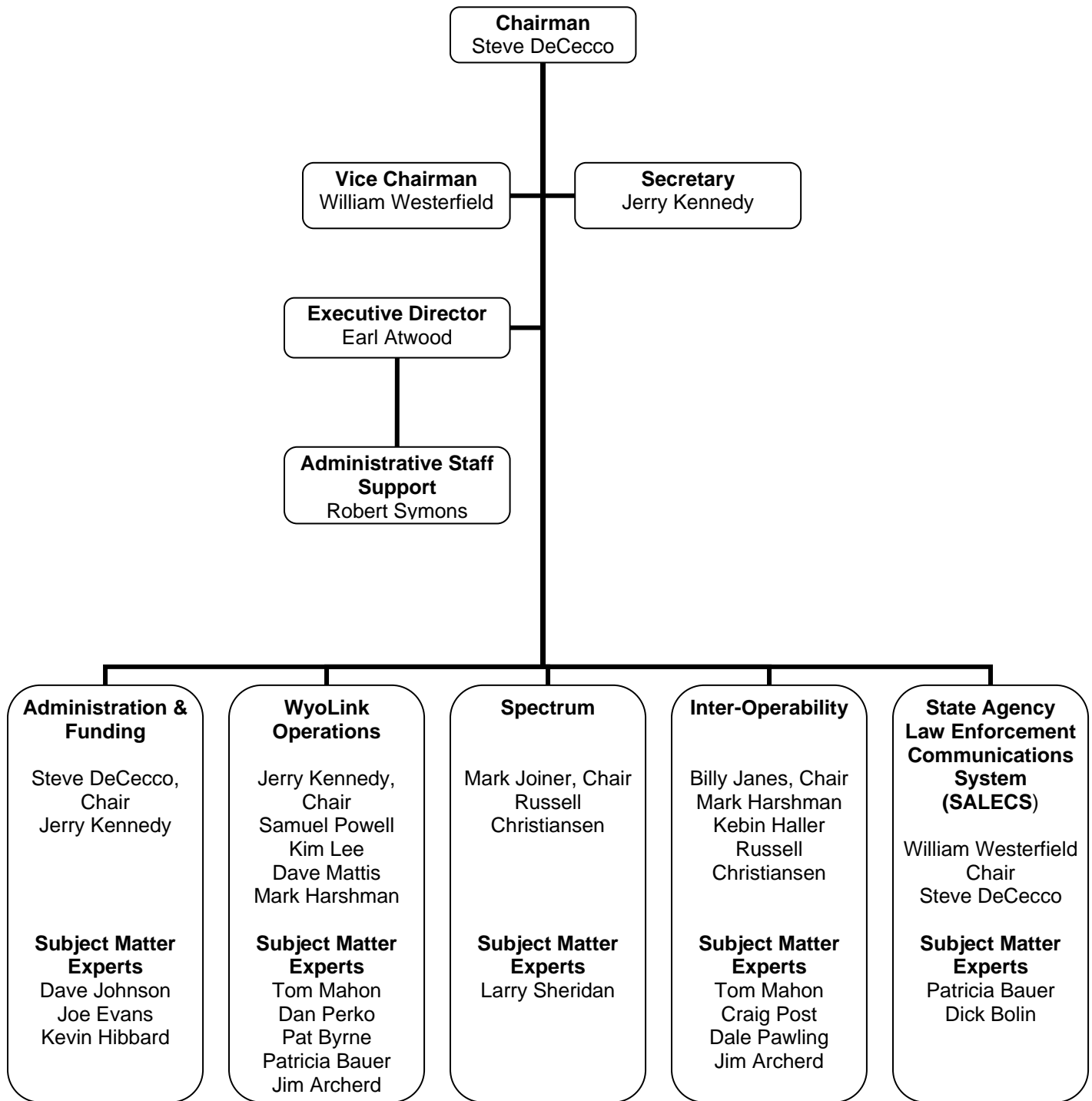
Wyoming Statute 9-2-1104 states the commission shall:

- (i) Work with the administrator of the information technology division of the department of administration and information and the department of transportation in an advisory capacity to promote the development, improvement and efficiency of public safety communications systems in the state.
- (ii) Report in writing each year in October to the governor concerning any problems related to the installation, operation and maintenance of the system and shall make any recommendations it deems appropriate as part of the report.**
- (iii) Submit a plan for statewide system networking to the administrator of the information technology division for inclusion in the statewide telecommunications plan developed pursuant to W.S. 9-2-1026.1(a)
- (iv) In cooperation with participating federal agencies, establish and assess user fees upon any federal law enforcement agency electing to use and participate in the system.
- (v) Promulgate necessary rules and regulations governing system operation and participation and upon failure to comply with adopted rules and regulations, may suspend system use and participation by any participating and noncomplying public safety agency or private entity.
- (vi) Determine the participation of public safety agencies and private agencies in the wireless communications network.

## Commission Members and Operating Structure

The PSCC is comprised of representatives appointed by the Governor from the following public safety agencies, professional associations, and State departments:

<b>Representing</b>	<b>Name</b>	<b>Location</b>
Wyoming Police Chief's Association	Billy Janes, Police Chief	Torrington
Wyoming Sheriff's Association	Dave Mattis, Sheriff	Big Horn County
Division of Criminal Investigation, Office of the Attorney General	Kebin Haller, Assistant Director	Cheyenne
Wyoming Game and Fish Department	Steve DeCecco	Green River
Wyoming Department of Transportation	Colonel Samuel Powell	Cheyenne
Wyoming Livestock Board	Jimmy Siler	Cheyenne
Department of State Parks and Cultural Resources	William Westerfield	Cheyenne
Wyoming Fire Chief's Association	Mark Harshman, Division Chief Casper Fire Department	Casper
Wyoming State Fire Marshal	Lanny Applegate, Director	Cheyenne
Wyoming Office of Homeland Security	Kim Lee, Division Chief	Cheyenne
The Public at Large	Robert J. Wyatt, Attorney	Sheridan
Wyoming Ambulance and Emergency Medical Services Association	Russell Christiansen	Casper
Municipal Government or a municipal government association	Neil Kourbelas, City Councilor	Rock Springs
County Government or county government association	Jerry Kennedy, Commissioner	Albany County
Wyoming Department of Health	Robert Dean	Cheyenne
Tribal Government or tribal government association	Doug Noseep	Fort Washakie
Federal Government or federal government association	Mark Joiner, US Bureau of Land Management	Lander



**Wyoming PSCC Organization Chart**  
*(effective 10/31/2006)*

## Achievements

The Public Safety Communications Commission (PSCC) and the WyoLink project have realized many accomplishments this past year:

- Ribbon cutting and kick-off of WyoLink Pilot Phase on May 15, 2006.
- WyoLink trunked infrastructure functionality meets the planned core requirements and was fully demonstrated and evaluated through the functional acceptance test plan. The five pilot phase radio sites performance was verified through coverage drive testing, mobile radio coverage in the pilot phase area exceeds the 95% requirement.
- Upgrade of the WyoLink operating system from Astro-25 version 6.5 to 7.2. Upgrade costs are within present budget, will provide more features, extend lifecycle and simplify system architecture, and offer lower long-term costs. Implementation will occur in the first quarter of 2007.
- Hosted a Federal Agency Interoperability Summit in Cheyenne attended by fifty-eight (58) people. Agencies represented include:
  - National Telecommunications and Information Administration – Boulder Labs
  - Department of Homeland Security-Wireless Management Office and Federal Partnership for Interoperable Communications,
  - National Law Enforcement and Corrections Technology Center
  - Alcohol Tobacco and Firearms
  - Department of the Interior (CIO, BIA, FWS, and NPS)
  - Mindbank – BIA
  - U.S. Forest Service
  - Federal Emergency Management Agency – Region 8 and MERS
  - Drug Enforcement Agency
  - Federal Bureau of Investigation
  - United States Department of Agriculture-APHIS
  - Department of Justice – Wireless Management Office
  - Utah Army National Guard
  - Cheyenne Weather Service
  - Department of Veteran Affairs
  - Immigration and Customs Enforcement
  - Motorola,
  - Wyoming Department of Transportation and WyoLink
  - U.S. Senator Enzi’s Office
  - U.S. Senator Thomas’ Office
  - Montana Public Safety Services Bureau
  - Wyoming Public Safety Communications Commission.
- Memorandum of Understanding between Wyoming Department of Transportation and Eastern Shoshone Joint Business Council. The MOU is to establish responsibilities and roles for collaborative radio telecommunications site planning and implementation on or near the Wind River Indian Reservation
- Quarterly meetings held in Cheyenne, Thermopolis and Riverton

## Activities

Ongoing projects include:

- Rules Promulgation – The PSCC rules have been promulgated, the comment period has expired and a public hearing has been held. The rules are being reviewed per the comments submitted, with formal adoption anticipated by January 1, 2007.
- Dispatch Center Connectivity Grants – The Governor and Wyoming Legislature provided funding for local enhancements. A grant process has been developed and advertised. The grant applications from the local dispatch centers are due on December 31, 2006.
- Drafting policies, procedures, membership agreement and handbook for the users of the WyoLink system.
- Interoperability talkgroup development.
- ‘Train the trainer’ training for WyoLink end users
- Development of portable radio coverage solutions for Laramie County and policy for addressing similar concerns statewide.
- Develop cooperative agreements and Memorandum of Understandings with federal agencies for frequency sharing and WyoLink use.
- Publication of PSCC quarterly newsletters and updating PSCC and WyoLink policies and activities on the PSCC website at <http://psc.wyoming.gov>

### Commission Re-organization

On September 26, 2006 the Public Safety Communications Commission completed a re-organization of the commission at the quarterly meeting in Riverton, Wyoming. The new officers are: Steve DeCecco, Chairman; William Westerfield, Vice Chairman; and Jerry Kennedy, Secretary. Upon the appointments or re-appointments of Dave Mattis, Steve DeCecco, Jimmy Siler, Mark Harshman, Mark Joiner and Doug Noseep the PSCC representation fulfills the statutory requirement of seventeen (17) representatives.

## Challenges

During the initial stages of the WyoLink Project, stakeholders agreed upon an approach to managing the uncertainties posed by such a large, complex project as a statewide public safety communications system. The PSMC plan proposed a six-year schedule for completing the system infrastructure, ending in year 2010. Opportunities for accelerating the schedule and potentially reducing the project costs were identified during contract negotiation with Motorola. This accelerated schedule was approved with the expectation that scheduling conflicts were likely to occur.

A philosophy for managing risk on the project was discussed at the September, 2004 PSCC meeting, at which time it was agreed that the project schedule may need revision as the project went ahead in order to deal with unanticipated problems. Under this philosophy, risks or challenges to the project would be resolved in the following order of priority: #1 – Scope, #2 – Budget, and #3 – Schedule. Consistent with that approach, following is a discussion of current challenges to the project, their status and planned mitigation.

### Frequency Plan

Building a statewide radio system in the Very High Frequency (VHF) band has many advantages and has one distinct challenge – frequency allocation. For the past year Motorola has been working on the frequency engineering and plan for WyoLink. Some of the challenges presented to the frequency plan include having to match the plan with Wyoming's neighboring states and the current allocation of VHF frequencies within Wyoming. Radio frequency licenses will not be issued if there is interference with adjoining states or licensees. There is limited spectrum available in the VHF band and all Federal Communications Commission (FCC) pools are being explored for use in Wyoming. The pools include not only public safety but also industrial/business, marine and private land mobile paging. Using frequencies outside of the public safety pool will require authorization from the FCC.

Because of the frequency challenge within the FCC VHF spectrum, the PSCC has been working with federal agencies on frequency sharing with them. The Department of the Interior and the PSCC have agreed to the terms of a Memorandum of Understanding (MOU) on frequency sharing. The signing of this MOU is scheduled for December, 2006. The PSCC is also working with the Federal Partnership for Interoperable Communications (FPIC) on frequency sharing with federal agencies other than the Department of the Interior. Having the prospect of frequency sharing with federal agencies, Motorola is striving to complete the frequency plan in November 2006. Completion of the frequency plan is directly related to the completion of all of the radio sites for the WyoLink system.

### Construction Schedule

The construction of WyoLink tower infrastructure is currently behind schedule. The construction schedule is dependent upon the State having buildings and towers prepared at the various tower sites for the installation of the radio frequency equipment by Motorola. In 2005, one tower contractor responsible for preparation of Phase 2 and Phase 3 sites filed bankruptcy and defaulted on its construction contract in the middle of the construction season. Due to a shortage of other qualified contractors in the region, no other contractors could be arranged in 2005 and this work had to be deferred until the next construction season.

This problem has been compounded by difficulties with recruitment and retention of WyDOT radio technicians. The expanded workload and inability to fill critical positions has limited the progress they have been able to make in preparing sites for Motorola to install, exacerbating the site schedule problem. Options for bringing the schedule in line are further limited by short construction seasons in high elevations.

Eighteen (18) radio sites in construction Phase 2 and ten (10) sites in Phase 3 required site work by the State before Motorola can proceed with WyoLink equipment installs. For Phase 2, eight (8) sites have the towers, antennas and radio frequency equipment installed. The remaining ten (10) Phase 2 sites have some portion of work remaining to complete tower construction or structural analysis, install equipment buildings and/or generators. Three (3) sites have the radio frequency equipment installed on the ground and are on hold until the tower and/or antenna work is completed.

For Phase 3, design and site acquisition is completed for all ten (10) sites. Completion of the buildings and tower upgrades must be accomplished before installation of the WyoLink equipment can proceed. New towers have been constructed and concrete pads for pre-built buildings have been poured at seven (7) of the ten (10) sites. All pre-built buildings are completed and delivery is currently being

scheduled. Three (3) of the Phase 3 sites are existing sites that require retrofit, not yet completed. According to the original project schedule Phase 4 site development is scheduled to begin in early 2007.

In 2006, The State contracted another tower contractor to prepare Phase 2 and Phase 3 radio sites for the installation of the radio equipment by Motorola. The State is also negotiating for “turnkey” site preparation services by Motorola for Phase 4. This would involve Motorola completing all tower and building preparation and installation of radio equipment while the State continues its work on Phase 2 and Phase 3 sites. Adjusting the resource strategy to include “turnkey” site preparation carries its own cost and schedule risks, but should mitigate some of the project delays described above.

The original project plan called for 57 sites statewide, with a contingency for several additional sites if needed to meet coverage targets. The site plan has been revised to correct mobile coverage gaps in the original plan. Phase 5 has been added to the project plan to account for changes that will assure mobile radio coverage in deficient areas. Some challenges exist in these areas due to complexities or delay in obtaining access to federal lands, or due to accessibility problems with some of the original proposed locations. For these reasons it is expected that some of these additional or revised sites will be have to completed as 2008 enhancements.

The attached revised WyoLink timeline chart reflects the changes and challenges to the completion schedule. Taking all factors into consideration, it appears the completion of the WyoLink project will extend past the projected completion date of 2007. The project timeline is somewhat less a concern than the potential for additional costs that are not covered by existing appropriations or grants. There may be added costs to the WyoLink project resulting from greater reliance on contracted resources, but at this time they are not completely estimated. Some contingency funds are available within the project budget. The PSCC supports the continuation of out-sourcing and sub-contracting of the site development work to regain the schedule, so long as the existing budget contingencies will cover any of resulting cost increases.

### Portable radio coverage

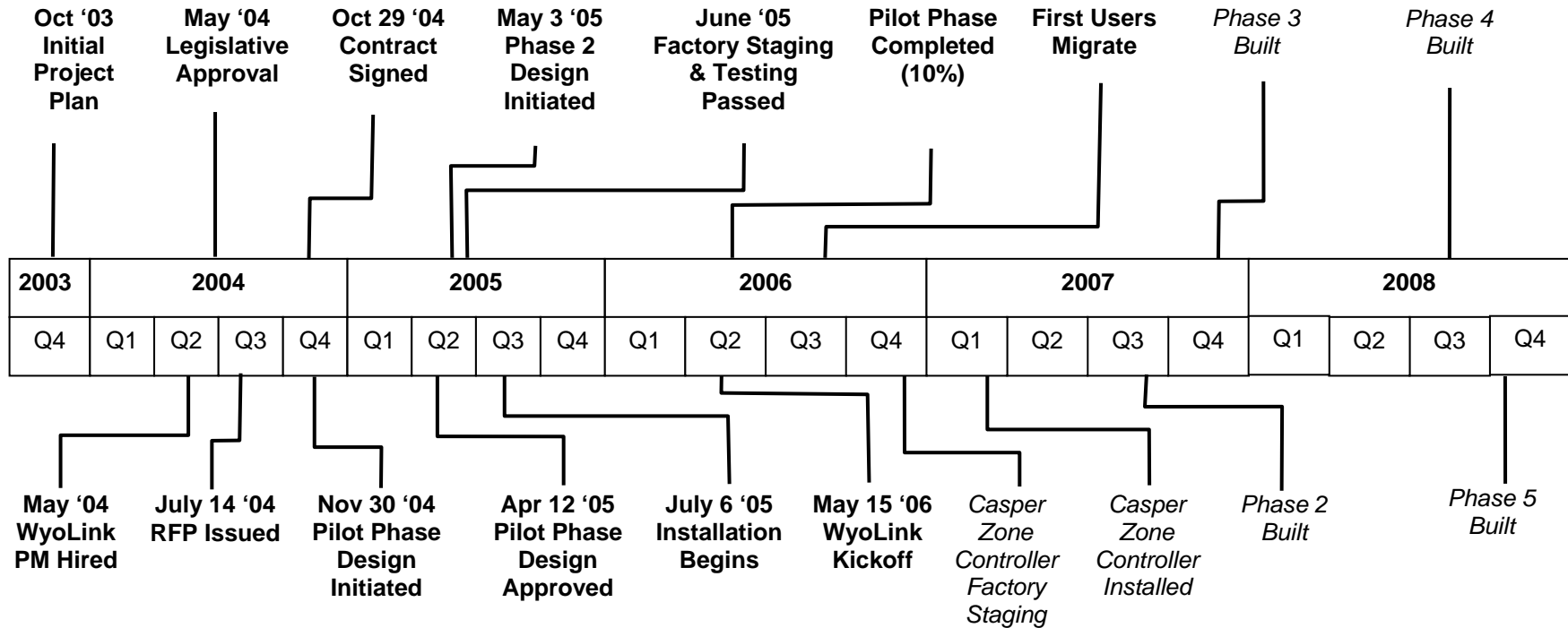
Portable radio coverage with WyoLink has become a major discussion point with many local agencies. A WyoLink project goal has been to improve statewide mobile radio coverage for public safety users within the State. Where improvement is not economically feasible, the project is committed to providing mobile radio coverage equal to the existing coverage.

In balancing system requirements and system cost, the Wyoming Public Safety Mobile Communications (PSMC) Steering Committee referenced the 95% coverage target on the performance of mobile radios. The WyoLink radio system will provide coverage for portable radios as a function of reaching the mobile radio target. Portable radio coverage will not be as extensive as mobile radio coverage but should be better than the current portable radio coverage in most areas. In some cities, portable radio coverage and in-building penetration is paramount and the public safety officials are expressing concerns that WyoLink will not meet their needs. As the WyoLink system is constructed, the coverage provided for portable radios will be evaluated and compared against existing portable radio coverage. Testing of a given area will be conducted and evaluated upon optimization of all WyoLink sites that could impact coverage for that area.

A portable radio coverage test has been completed in Laramie County and Cheyenne, the WyoLink pilot phase. Comparisons have been made between the current law enforcement, fire department and WyoLink systems. The WyoLink Operations Work Group, WyoLink project team and Motorola are working with the Laramie County agencies to determine solutions and costs for improving in-building and portable radio coverage.



## Revised Estimated WyoLink Timeline



### WyoLink Phases

- Pilot Phase – Master Controller, Laramie County, Platte County, Goshen County and Albany County – 5 Radio Sites
- \*Phase 2 – Platte County, Goshen County, Niobrara County, Converse County, Natrona County, Albany County, Carbon County, Sweetwater County, Uinta County and Casper Zone Controller – 18 Radio Sites
- \*Phase 3 – Weston County, Crook County, Campbell County, Johnson County, Sheridan County – 10 Radio Sites
- \*Phase 4 – Fremont County, Washakie County, Hot Springs County, Big Horn County, Park County, Sublette County, Lincoln County, Teton County – 18 Radio Sites
- \*Phase 5 – Additional sites for coverage improvements – 5 Radio Sites

\* This timeline reflects an accelerated schedule and provides an estimated timeline for completion. The PSMC Plan estimated a completion by 2010. The PSCC and WyoLink are committed to complete the build-out within the current budget, adjusting the timeline as needed.