State of Wyoming

Public Safety Communications Commission

~ 2014 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:

(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.

WyoLink History

In 2002, Governor Geringer appointed the Public Safety Mobile Communications (PSMC) Steering Committee to oversee the development of a statewide radio communications plan. The Steering Committee recommended development of WyoLink as a VHF digital trunked P-25 radio network. The WyoLink plan was submitted to the Governor and Legislature as the most cost-effective method to meet the goals expressed by the Wyoming user community. The VHF WyoLink plan proposed a core of 57 radio tower sites statewide. The plan established a path for compliance with the approaching FCC mandates and would provide a technically advanced, interoperable solution meeting the needs of the vast majority of public safety entities in Wyoming. Specifically, the following benefits were identified:

• Significantly improved interoperability between any WyoLink subscriber (local, state and federal agencies and users) statewide at any time
• Relatively easy transition from pre-existing analog systems
• A single, state-of-the-art P-25 digital trunked infrastructure
• Compliance with FCC mandatory requirements
• Flexible design & smooth transition to user adoption
• Integrated voice and low-speed data capabilities
• Improved survivability and reliability of the overall network compared to the legacy systems
• Vastly improved shared, statewide mobile coverage
• Improved portable coverage for selected areas
• Unified plan for replacement of aging, obsolete equipment
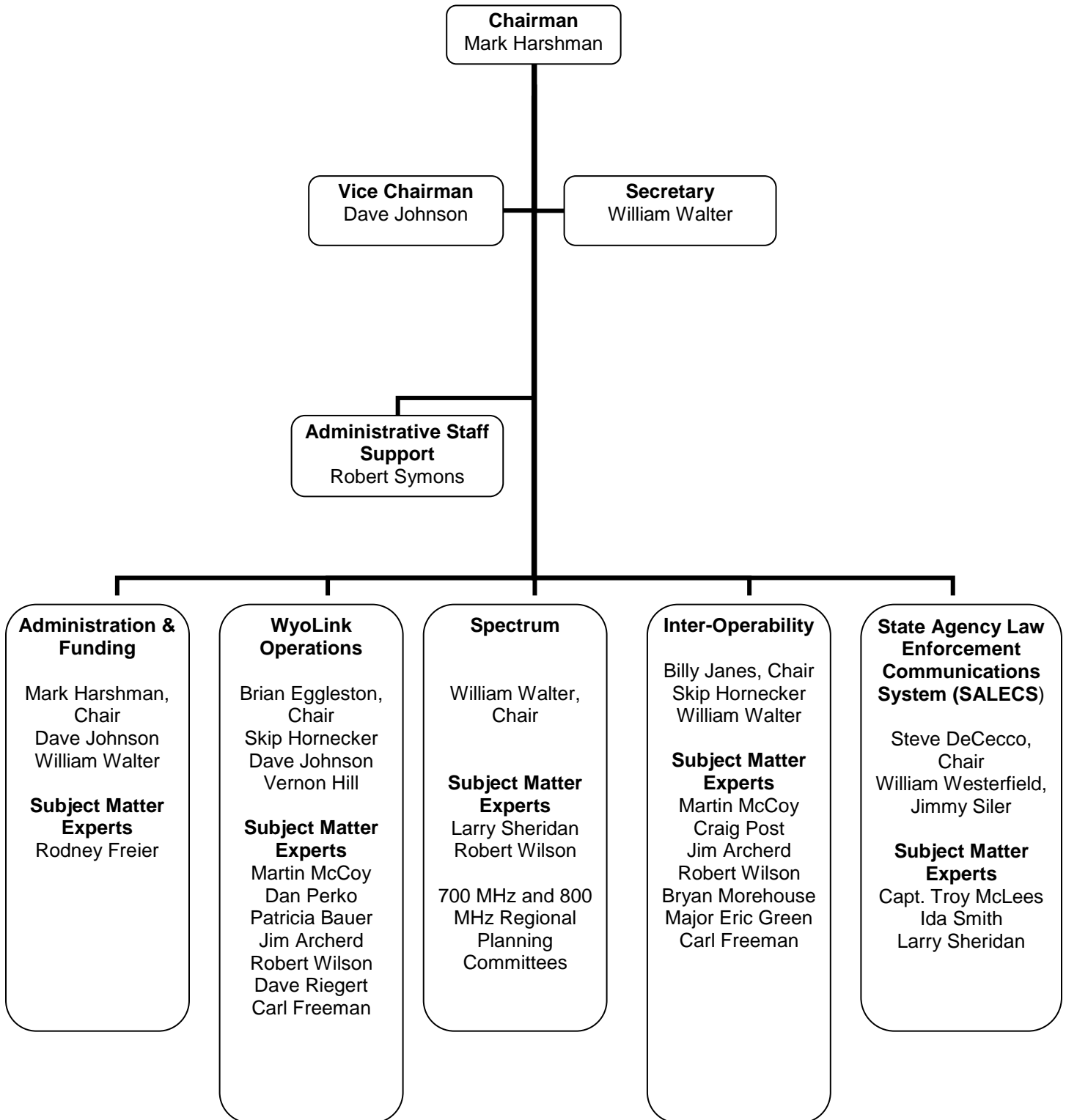
Achievements for 2013 and 2014

The Public Safety Communications Commission (PSCC) and the WyoLink program have achieved many accomplishments and goals this past year:

- 21 WyoLink Membership Applications were approved by the PSCC for a total of 297 members
- 3,614 subscriber units (mobile radios and portable radios) programmed and operable on WyoLink for a total of 16,062 subscriber units
- Over 1.4 million radio calls per month have been logged by the WyoLink System
- 53 core WyoLink radio sites have been activated and are operational.
- Two core WyoLink sites, serving portions of Teton and Lincoln Counties are under construction, Signal Mountain (Grand Teton National Park) and Black Mountain Idaho which are scheduled for completion in Spring 2015
- 12 Portable Radio Coverage Sites (PRCS) - Douglas, Gillette, Green River, Lander, Laramie, Powell, Rawlins, Riverton, Sheridan, Thermopolis, Torrington and Wheatland are operational. Construction has begun for the PRCS site at White Pine, near Pinedale with completion in 2015
- Four local government owned 800 MHz sites are operational in Casper, Cheyenne and Gillette. These sites provide seamless interoperability between the WyoLink VHF users and the 800 MHz users
- 69 total WyoLink sites operational
- WyoLink operating software was updated to Version 7.14
- Quarterly PSCC meetings were held in Cheyenne (December 2013), Casper (March 2014), Riverton (June 2014) and Laramie (September 2014).
- Seven WyoLink and Interoperability Train-the-Trainer classes were held in each of the Wyoming Office of Homeland Security Regional Response Areas with 112 total participants
- Department of Homeland Security, Office of Emergency Communications, Interoperable Communications Technical Assistance Program provided a FirstNet pre-consultation workshop in Casper on March 25, 2014
- PSCC representatives have been attending the Wyoming County Commissioners Association meetings
- Creating and distributing the "Tip of the Month" about using WyoLink and interoperability
- Approved the Communications Unit Policies and Procedures for recognition of communication unit leaders
- Created a process and application for New Connections to the WyoLink 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:

Representing	Name	Location
Wyoming Police Chief's Association	Billy Janes, Police Chief	Torrington
Wyoming Sheriff's Association	Skip Hornecker, Sheriff	Fremont County
Division of Criminal Investigation, Office of the Attorney General	Brian Eggleston, DCI	Riverton
Wyoming Game and Fish Department	Steve DeCecco, Regional Wildlife Supervisor	Green River
Wyoming Department of Transportation	Major Perry Jones, Wyoming Highway Patrol	Cheyenne
Wyoming Livestock Board	Jimmy Siler, Law Enforcement Administrator	Cheyenne
Department of State Parks and Cultural Resources	William Westerfield, Chief of Operations/Chief Ranger	Cheyenne
Wyoming Fire Chief's Association	Mark Harshman, Division Chief Casper Fire Department	Casper
Wyoming State Fire Marshal	Mark Young, Assistant State Fire Marshal	Cheyenne
Wyoming Office of Homeland Security	Kim Lee, Operations Chief	Cheyenne
The Public at Large	Jonathan Downing, Wyoming Mining Association	Cheyenne
Ambulance and Emergency Medical Services Organization	Vacant	
Municipal Government or a municipal government association	Dave Johnson, Wyoming Association of Municipalities	Cheyenne
County Government or county government association	Jim Latta, Sublette County Commissioner	Pinedale
Wyoming Department of Health	Brandon Kelley, EMS Education & Compliance Supervisor	Cheyenne
Tribal Government or tribal government association	Vernon Hill, Wind River EMA Coordinator	Fort Washakie
Federal Government or federal government association	William Walter	Cheyenne

Chairman
Mark Harshman

Vice Chairman
Dave Johnson

Secretary
William Walter

Administrative Staff Support
Robert Symons

Administration & Funding	**WyoLink Operations**	**Spectrum**	**Inter-Operability**	**State Agency Law Enforcement Communications System (SALECS)**
Mark Harshman, Chair Dave Johnson William Walter **Subject Matter Experts** Rodney Freier	Brian Eggleston, Chair Skip Hornecker Dave Johnson Vernon Hill **Subject Matter Experts** Martin McCoy Dan Perko Patricia Bauer Jim Archerd Robert Wilson Dave Riegert Carl Freeman	William Walter, Chair **Subject Matter Experts** Larry Sheridan Robert Wilson 700 MHz and 800 MHz Regional Planning Committees	Billy Janes, Chair Skip Hornecker William Walter **Subject Matter Experts** Martin McCoy Craig Post Jim Archerd Robert Wilson Bryan Morehouse Major Eric Green Carl Freeman	Steve DeCecco, Chair William Westerfield, Jimmy Siler **Subject Matter Experts** Capt. Troy McLees Ida Smith Larry Sheridan

Wyoming PSCC Organization Chart
(Effective 10/31/2014)

Activities

Ongoing projects include:

- ➢ Refinement of WyoLink operations to deliver outstanding service and availability
- ➢ WyoLink and Interoperable Communications training
- ➢ PSCC and WyoLink policies and activities on the PSCC website at http://pscc.wyoming.gov
- ➢ WyoLink coverage testing and mapping
- ➢ Nationwide Public Safety Broadband Network and FirstNet planning

Priorities for 2015

- ➢ Continue the emphasis on increasing utilization and partnerships
- ➢ Communication and collaboration with potential user agencies on WyoLink membership
- ➢ Collaboration with the Governor's Office, Administration and Information – Economic Analysis, Homeland Security, and WYDOT clearly defining the needs of the WyoLink system for public safety users, with the assistance of Wyoming Association of Municipalities and Wyoming County Commissioners Association
- ➢ Work with the Wyoming Office of the Chief Information Officer (CIO) and Department of Enterprise Technology Services on public safety broadband usage and needs through the State and Local Improvement Grant Program (SLIGP)

Challenges

WyoLink Coverage

WyoLink System Coverage - Upon the completion of the core WyoLink sites and the portable coverage sites, coverage testing and user experience may indicate additional areas requiring coverage. WyoLink is utilizing test equipment to determine the radio signal coverage currently being provided and to identify areas with poor or no WyoLink coverage. The testing results are being imported to a Geographic Information System (GIS) map to identify and analyze the data. WYDOT's GIS has completed work on the public version of the map displaying bit error rate (BER) based coverage testing results. Testing results are being uploaded to GIS program and the coverage map is showing these results as they are uploaded. The URL for this map is: https://apps.wyoroad.info/wyolink/coveragemap.html. This map displays coverage testing results from a mobile radio (vehicle mounted) standpoint.

Bit Error Rate (BER) testing – records the signal strength and quality of the radio signal. BER results are between 5 and 0 with 5 being not usable to 0 being excellent. WyoLink recognizes BER results of 3.5 to 0 as providing average to excellent coverage.

WyoLink Life Cycle Plan

WyoLink has moved from the heavy construction phase to a daily operational phase. The focus for the future includes maintaining the system infrastructure, updating the system software and hardware, and additional radio coverage tower sites as identified by our continued coverage testing.

The current and future needs and responsibilities of each agency, which rely upon the WyoLink System for operable and inter-operable communications must be clearly defined and developed. The Department of Administration and Information, Division of Economic Analysis has initiated a third party review to establish the WyoLink system user needs.

This third party review will involve representatives from the Public Safety Communications Commission, Department of Transportation and the Office of Homeland Security. This needs analysis will include working with the Wyoming Association of Municipalities and the Wyoming County Commissioners Association. The review seeks assistance from local governments to clearly document every community's needs, including radio coverage, communication center consoles, hand held and vehicle mounted radios. The review will include what equipment will be required to be replaced and when, schedule for updating the operating system software and firmware, and define responsibilities of the stakeholders.

WyoLink Funding Mechanism

The current WyoLink and Public Safety Communications Commission budget process and mechanism needs to be reviewed and defined by the Governor's Office, Administration and Information Budget Division, Wyoming Department of Transportation and Public Safety Communications Commission. The WyoLink needs assessment will be used to develop a budget and long term forecast for presentation to the Governor and Legislature.

State and Local Investment Grant Program (SLIGP)-National Public Safety Broadband Network
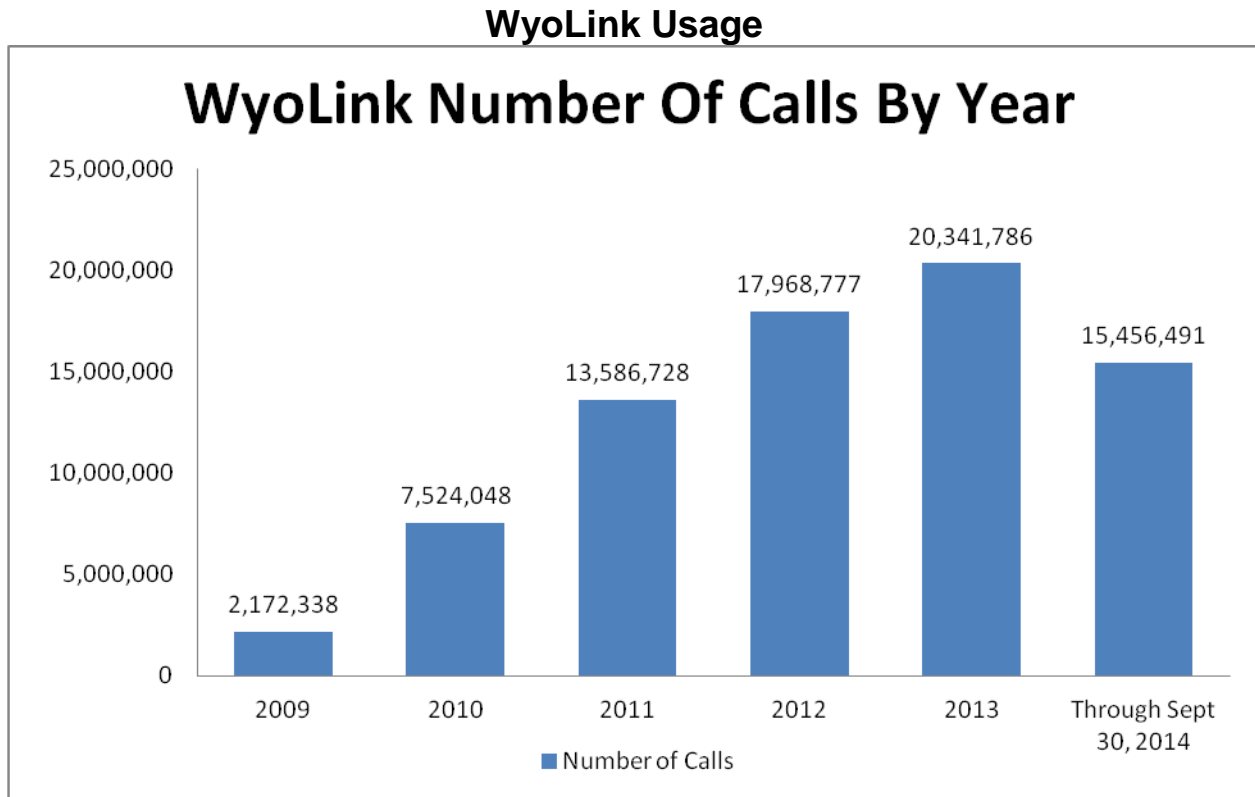
On August 22, 2013 the State of Wyoming received the Financial Assistance Award for the FirstNet State and Local Investment Grant Program (SLIGP) from Department of Commerce – National Telecommunications and Information Administration (NTIA). The SLIGP grant is a planning grant for the National Public Safety Broadband Network (NPSBN) and has a performance period of three years. The Federal share of the grant is $1,350,593.00, Wyoming's share is $337,648.00 and the total award is $1,688,241.00. The SLIGP application listed soft match funds to cover the Wyoming share of the grant.

Wyoming named Troy Babbitt, Enterprise Broadband Architect, as the Point-of-Contact for the SLIGP grant. Wyoming Statute 9-2-1104(a)(i) states: "Work with the department of enterprise technology services, the department of homeland security and the department of transportation in an advisory capacity to promote the development, improvement and efficiency of public safety communications systems in the state;"

The National Public Safety Broadband Network will be a public safety data communication system and will not replace WyoLink for public safety voice communications. The PSCC has created a Broadband Work Group to assist with the governance of the public safety broadband effort in Wyoming. The PSCC will assist Troy Babbitt with the grant guidance requirements.

SLIGP grant activities will start with stakeholder education and outreach. FirstNet will schedule a pre-consultation with the State of Wyoming in 2015. The pre-consultation meeting will include stakeholders and State of Wyoming officials. FirstNet is developing outreach and education documents which will be used in engaging stakeholders in every county. Upon the completion of the outreach and education, the grant efforts will shift to collecting input to the network requirements and design. The development of a Wyoming public safety broadband plan is a goal for 2015. This plan will be used by

FirstNet to identify the Wyoming requirements and develop a plan for FirstNet to present to the Governor.

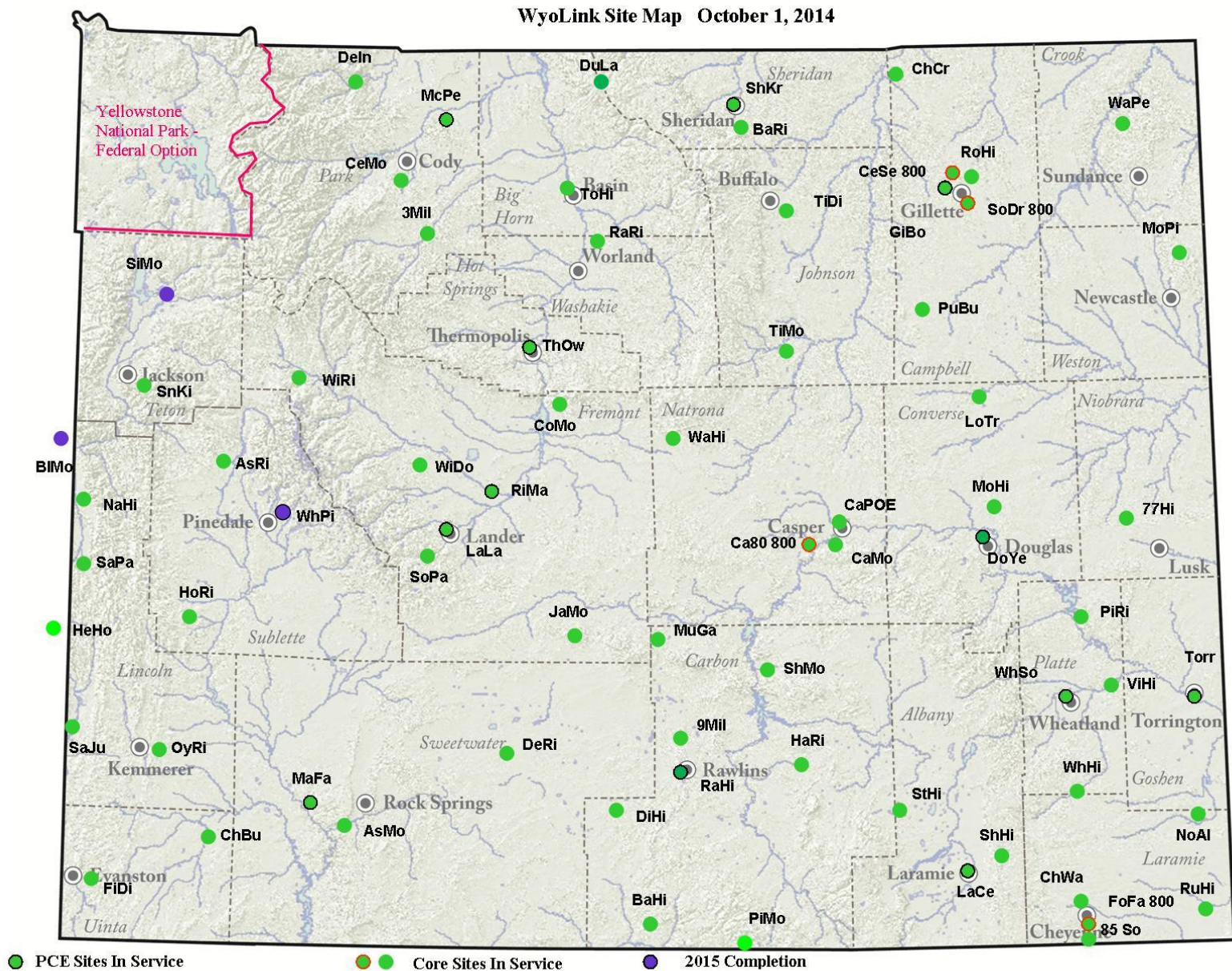## WyoLink Usage

WyoLink Number Of Calls By Year

WyoLink Usage by Time - Oct 2013 – Sept 2014: **70366:15:32** (hours:minutes:seconds)

WyoLink Busies – Oct 2013 – Sept 2014: **15,932** Calls; **10:13:51** (hours:minutes:seconds)
Average busy wait – **2 seconds**   Percentage of busies by time - **0.008%**

WyoLink Availability: **99.939%** of total possible time

WyoLink Usage by all Users – October 1, 2013 through September 30, 2014

Name	Air Time in Minutes	Percentage of System Usage by Time
Natrona County	326,423.6	14.93%
Fremont County	238,058.6	10.89%
Laramie County	215,745.1	9.87%
Campbell County	155,715.4	7.12%
Sweetwater County	147,142.3	6.73%
Albany County	113,056.7	5.17%
Platte County	85,206.3	3.90%
Converse County	62,735.4	2.87%
Park County	59,756.0	2.73%
Sheridan County	55,709.1	2.55%
Goshen County	48,228.6	2.21%
Niobrara County	33,936.6	1.55%
Washakie County	31,223.5	1.43%
Hot Springs County	14,366.5	0.66%
Sublette County	3271.0	0.15%
Teton County	1805.2	0.08%
Carbon County	872.7	0.04%
Johnson County	336.1	0.02%
Lincoln County	212.9	0.01%
Crook County	123.3	0.01%
Big Horn County	103.3	0.00%
Weston County	63.7	0.00%
Uinta County	34.1	0.00%
County Total	**1,708,055.4**	**78.12%**
State Agencies	**575,187.5**	**26.31%**
Federal Agencies	**34,074.1**	**1.56%**

WyoLink Site Map   October 1, 2014

WyoLink Site Names	Abbreviation	WyoLink Site Names	Abbreviation	Portable Coverage Site	Abbreviation
3 Mile	3Mil	Narrows Hill	NaHi	Douglas Yellowstone Hwy	DoYe
77 Hill	77Hi	Nine Mile Hill	9Mil	Gillette Boxelder Road	GiBo
85 South	85So	North Albin	NoAl	Laramie Cemetery	LaCe
Aspen Mountain	AsMo	Oyster Ridge	OyRi	Lander Landfill	LaLa
Aspen Ridge	AsRi	Pine Ridge	PiRi	Mans Face –Green River	MaFa
Baggs Hill	BaHi	Pinkham Mountain	PiMo	McCullough Peaks – Powell	McPe
Banner Ridge	BaRi	Pumpkin Buttes	PuBu	Rawlins Hill	RaHi
Black Mountain	**BlMo (2015)**	Rattlesnake Ridge	RaRi	Riverton Main Street	RiMa
Casper Mountain	CaMo	Rozet Hill	RoHi	Sheridan Kroe Lane	ShKr
Casper Port of Entry	CaPo	Russell Hill	RuHi	Thermopolis Owl Creek Rd	ThOw
Cedar Mountain	CeMo	Sage Junction	SaJu	Torrington	Torr
Cheyenne Water Tank	ChWa	Salt Pass	SaPa	Wheatland South Street	WhSo
Chicken Creek	ChCr	Sherman Hill	ShHi	**White Pine - Pinedale**	**WhPi (2015)**
Church Buttes	ChBu	Shirley Mountain	ShMo		
Copper Mountain	CoMo	**Signal Mountain**	**SiMo (2015)**	**Rendezvous Peak (Microwave Only)**	**RePe**
Dead Indian	DeIn	Snow King	SnKi		
Delaney Rim	DeRi	South Pass	SoPa	**Locally Owned Sites**	
Divide Hill	DiHi	Strouss Hill	StHi	Casper Mountain 800	Ca80
Duncan Lake	DuLa	Tisdale Divide	TiDi	Cemetery Separation 800	CeSe (Gillette)
First Divide	FiDi	Tisdale Mountain	TiMo	Southern Drive 800	SoDr (Gillette)
Halleck Ridge	HaRi	Torch Hill	ToHi	Fox Farm 800	FoFa (Cheyenne)
Hell Hole	HeHo	Virgin Hill	ViHi		
Hogsback Ridge	HoRi	Waltman Hill	WaHi		
Jade Mountain	JaMo	Warren Peak	WaPe	**WyoLink Core Sites**	**55**
Lone Tree	LoTr	Whitcomb Hill	WhHi	**Portable Coverage Sites**	**13**
Morton Hill	MoHi	Windy Ridge	WiRi	**Locally Owned Sites**	**4**
Mount Pisgah	MoPi	Winkleman Dome	WiDo	**Microwave Only**	**1**
Muddy Gap	MuGa			**Total**	**73**