

Land Mobile Radio System Semi-Annual REPORT



SUMMARY

The Washington State Patrol (WSP) was originally appropriated \$7,962,000 from the State Patrol Highway Account (SPHA) in the 2021-2023 Biennium for Land Mobile Radio (LMR) system replacement, upgrade, and other related activities. The 2022 and 2023 Supplemental Transportation Budgets reduced our appropriation by \$1,540,000 and \$2,069,000 respectively bringing our SPHA appropriation to \$4,353,000. Please refer to the LMR Standard Radio Replacement project status section for additional details.

Substitute Senate Bill 5165 requires the WSP to provide semiannual reports, beginning January 1, 2022, on progress related to the projects and activities associated with the LMR system, to include governance structure, outcomes achieved in the prior six month time period, and how the activities are being managed. This report is the fourth report for the 2021-2023 Biennium and covers the time period of January 1, 2023 through June 30, 2023.

The current appropriation provided to WSP for the LMR system is consolidated from four separate decision packages. These four decision packages are distinct projects and do not have interdependencies; however, each fall into the scope of the WSP LMR program. The funding distribution (including General Fund) for the four decision packages is as follows:

Project	Budget
LMR System Upgrade	\$1,488,000
Communications Infrastructure	\$2,626,000
LMR System Strategic Plan	\$491,000
LMR Standard Radio Replacement	\$64,000
Current Total	\$4,669,000

Available funding resulting from 2022 and 2023 Supplemental Transportation Budget reductions.

As of November 2022, three of the four projects had been initiated. Below is a summary of the current appropriated budget and expenditures to date:

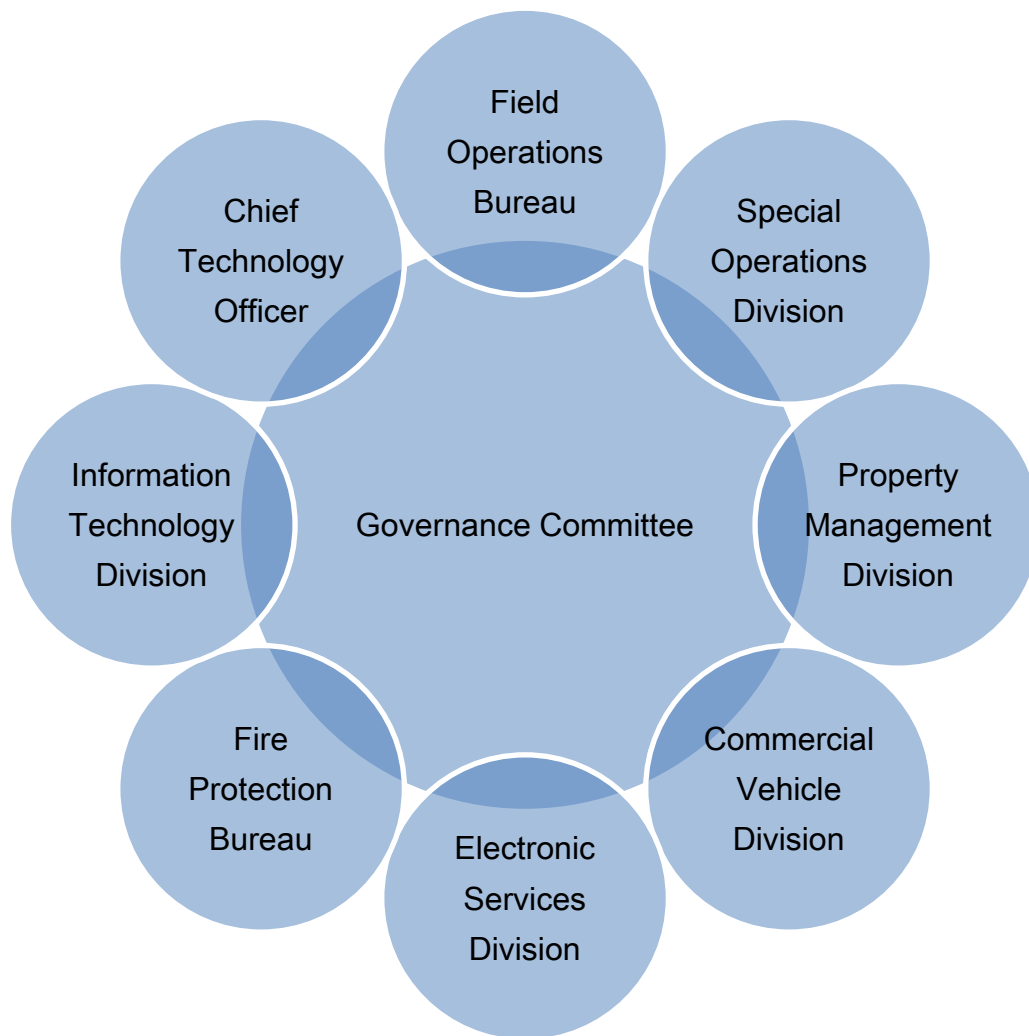
Project	Budget	Spent to date	Balance
LMR System Upgrade	\$1,488,000	\$1,441,437	\$46,563
Communications Infrastructure	\$2,626,000	\$2,085,610	\$540,390
LMR System Strategic Plan	\$491,000	\$491,000	\$0
LMR Standard Radio Replacement	\$0	\$0.00	\$64,000
Total	\$4,605,000	\$4,108,047	\$650,953

LMR PROGRAM GOVERNANCE

Overview

Provide program governance over the WSP Public Safety Land Mobile Radio (LMR) system, which is a vital statewide communications network that provides real-time communications to support Public Safety response throughout the state of Washington.

Structure



Roles and Decision Making Process

Governance (Steering) Committee Roles:

- Approve project deliverables.
- Make decisions on matters pertaining to scope and schedule.
- Attend steering committee meetings to address questions, issues, risks, and concerns identified by the project.
- Set priorities and resolve issues.
- Represent the interests and concerns of WSP stakeholders.
- Track issues that may affect stakeholders and their organizations.
- Identify, secure, and assign project resources.
- Provide governance structure for prioritization of rollout.

Decision Making Process: Decisions will be made based upon a majority approval or via consensus, with each area represented. Governance/Steering committee meetings are used to address concerns and reservations before moving forward with recommendations.

In cases where a full consensus or majority cannot be agreed upon, the concerns or reservations will be provided to each respected Bureau Commander for guidance and/or determination. Ultimately, the Chief, will have final decision.

Accomplishments: Charter has been approved that defines roles and responsibilities for each stakeholder. ESD has established a technical committee that provides support for/or clarification to the governance committee.



Project Updates

LMR System Upgrade – Project Complete

WSP received \$1,488,000. This funding enabled WSP to enter into an agreement with Motorola for upgraded land mobile software, hardware, and equipment. The system upgrade agreement is a six-year agreement that provides three full system updates during those six years at a significantly reduced cost compared to one time upgrades. Upgrade activities commenced in the fall of 2021 and completed January 2022.

- Successfully completed on-site LMR system upgrades in November 2021 in accordance with planned scope, schedule, and budget.
- Successfully completed 911 call logging and recording software upgrades in January 2022.
- Final scheduled milestone payment for this biennium received from Motorola in September 2022.

Communications Infrastructure – In Scope, Behind Schedule

WSP received \$2,626,000 to continue replacement and upgrade of aging public safety communications system hardware. This includes replacing 1/3 of the WSP LMR base stations, replace repeaters, microwave radios, site batteries, and associated support equipment, such as network routers and switches, over three biennia.

- LMR Base Stations: **Behind Schedule**
 - The WSP scheduled sixty-seven base station replacements from aging Quantar to Motorola GTR base station radios during the 21-23 biennium.
 - Fifty-five base stations have been successfully installed as of June 13, 2023.
 - The remaining twelve base station installations remain.
 - WSP is on schedule to complete the remaining twelve sites by July 21, 2023 (13 business days behind schedule).
 - Weather complications resulted in installation delays. The state experienced late mountain snowfall over the 2022/23 winter/spring seasons causing accessibility issues to mountain radio sites. As the snowpack has begun to melt, installations have resumed at an accelerated pace.
- Microwave Radios: **Behind Schedule**
 - The WSP scheduled sixty-six microwave radio installations during the 2021-23 biennium.

- Complications from the worldwide supply chain issues during the 2021 – 2023 biennium resulted in severe equipment delivery delays.
 - As of 6/28/2023, the WSP has not received a complete shipment allowing the installation of any microwave radios.
 - Confirmation of shipments as “In Transit” has been received; delivery date is July 7, 2023.
 - The table below shows purchase orders for equipment that have not been received during this reporting period.

Communications Infrastructure	Total
Microwave radio replacement	\$146,332.12
Total	\$146,332.12

- Installations scheduled to begin July 10, 2023.
 - Installation schedule estimates the completion of the sixty-six microwave radios to be the week of 10/16/2023 (74 business days behind schedule).
 - The delay encountered will not affect the ordering and installation for the 2023-25 biennium.
- Site Battery Installation: **Complete**
 - The WSP scheduled to have twenty-five site battery installations during the 2021-2023 biennium.
 - All twenty-five sites are complete as of 6/22/2023.

LMR System Strategic Plan – Project Complete

WSP received \$491,000 for the 2021-2023 Biennium. This funding enabled WSP to partner with a vendor to develop a comprehensive strategic plan for the WSP Land Mobile Radio (LMR) system. This project is in response to a recommendation provided as a result of a performance audit by the State Auditor’s Office in December 2016 and a subsequent engineering study completed with a private consultant in 2018, which assessed the condition and coverage of the WSP LMR system.

Milestones:

Vendor Milestones	Planned Completion	Status
Conduct Project Initiation Meeting and Finalize Project Management Plan	6/8/2022	Complete
Finalize model and methods	6/13/2022	Complete
Supply Memo with findings following staffing/organizational analysis	8/03/2022	Complete
Supply Memo with findings following process/procedures analysis	9/12/2022	Complete
Supply Memo with findings following system, interconnections, and coverage analysis	10/20/2022	Complete
Supply Draft Report of Analysis and Near-Term recommendations	12/30/2022	Complete
Supply Draft report of LMR System Strategic Plan for the short-term actions and long-term strategy	2/27/2023	Complete
Develop & deliver executive-level PowerPoint Presentation to WSP	4/14/2023	Complete
Deliver Final LMR System Strategic Plan	4/27/2023	Complete
Finalize Strategic Plan / Project Closeout	4/28/2023	Complete

On 4/27/2023, Federal Engineering provided the WSP a 171-page report detailing their recommendations as requested, focusing on People, Processes, and Technology. The WSP will use the report to develop both tactical and strategic plans to allow development and increased capabilities of the WSP LMR network based on state goals and return on investment.

LMR Radio Standard Replacement – Project deferred until 2023-25

WSP originally received \$3,673,000 in the 2021-2023 Biennium to replace 2,671 mobile and portable land mobile radios that are nearing end of life. The request was submitted as 96% percent of the WSP mobile and portable radio fleet had or would have aged beyond seven years (OFM defined useful life) during the period, and current radio models will no longer be supported by the vendor as of December 31, 2023.

- Mobile and Portable Radios: Per December 2022 Land Mobile Radio System Report, WSP submitted a 2023-25 decision package requesting funding to conduct the mobile and portable radio replacements.
 - The request for deferment was a result of to supply chain issues and staffing impacts due to the state vaccine mandate.
- On 05/16/2023, Governor Inslee signed Engrossed Substitute House Bill 1125 that fully funded the request in support of procurement and deployment of 2,860 mobile and portable radios via a Certificate of Participation to begin in the 2023-2025 biennium.