

# Land Mobile Radio System Semi-Annual REPORT



## SUMMARY

The Washington State Patrol (WSP) was appropriated \$6,575,000 from the State Patrol Highway Account (SPHA) in the 2023-2025 Biennium for Land Mobile Radio (LMR) system replacement, upgrade, and other related activities.

Engrossed Substitute House Bill 1125 requires the WSP to provide semiannual reports, beginning January 1, 2024, on progress related to the projects and activities associated with the LMR system, to include governance structure, outcomes achieved in the prior six-month period, and how the activities are being managed. This report is the third report for the 2023-2025 Biennium and covers the period of July 1, 2024, through December 31, 2024.

The current appropriation provided to WSP for the LMR system is consolidated from three separate decision packages. Two of these decision packages are distinct projects and do not have interdependencies (LMR System Upgrade Agreement and LMR Standard Radio Replacement), while the third (Communication Infrastructure) encompasses three interconnected projects (LMR Base Station Replacement, Microwave Radio Replacement, and Alternative Power Units); however, all aspects of each project support the LMR System. The funding distribution (including General Fund) for the three decision packages and expenditures to date are as follows:

Project	Budget	Expenditures to Date (through 12/18/24)
LMR System Upgrade Agreement	\$1,434,000	\$1,457,899
Communications Infrastructure	\$4,485,000	\$3,162,192
Standard Radio Replacement*	\$953,700	-
<b>Current Total</b>	<b>\$6,872,700</b>	<b>\$4,620,091</b>

\*The appropriated funding for the Standard Radio Replacement is tied to an anticipated Certificate of Participation (COP) valued at \$27,500,911.

# 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 – Complete

WSP received \$1,434,000. This funding enabled WSP to enter into an agreement with Motorola for upgraded land mobile radio equipment including software and hardware. The System Upgrade Agreement (SUA) 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 October 2023.

- The LMR System Upgrade has been completed within Scope and Schedule as of January 2024.
- The table below represents the funds spent in the 23-25 biennium.

LMR System Upgrade Agreement	Total
	\$1,457,899

### Communications Infrastructure – In Scope, On Schedule, within Budget

WSP received \$4,485,000 to continue replacement and upgrade of aging public safety communications system hardware. This includes replacing 1/3 of the WSP LMR base stations, repeaters, microwave radios, site batteries, and associated support equipment, such as network routers and switches, over three biennia.

- LMR Base Station Replacement: **Complete**
  - As of November 20, 2024, the remaining 14 LMR GTR Base Station have been installed and are operational.
  - All 76 purchased GTR Base Stations are installed.
  - The table below represents the funds spent in the 23-25 biennium.

LMR Base Station Replacement	Total Spent
	\$1,613,544

- Microwave Radio Replacement: **In Scope, On Schedule, within Budget**

- Cisco Switches – 48 switches
  - Contracted vendor has developed the needed configuration for the Cisco switches.
  - Five Cisco switches have been installed and are being tested with the developed configuration.
  - The remaining switches will be installed and operational prior to June 30, 2025.
- Nokia Microwave Radios – 104 radios
  - The final shipment of 50 Nokia microwave radios were received November 2024.
  - Of the 104 Nokia microwave radios to be installed, 80 were installed this reporting period.
  - The remaining 24 Nokia microwave radios are being scheduled for installation.
- NetGuardian – 95 network monitoring devices - **Complete**
  - The final 45 NetGuardian devices have been installed
- The table below represents the funds spent in the 23-25 biennium.

Microwave Radio Replacement	Total Spent
Cisco Switches	\$345,388
50 Nokia microwave radios	\$784,971
45 NetGuardian alarm monitoring devices	\$324,298
<b>Total</b>	<b>\$1,454,657</b>

- Alternative Power Units: **In Scope, On Schedule, within Budget**

- WSP has identified 23 sites to have battery Alternative Power Units replaced.
- Nine sites have been completed.
- Nine sites have been ordered and vendor is waiting for parts to arrive to schedule the installation date.
- Two sites are out for vendor quotes
- Three sites are pending design.
- The table below represents the funds spent in the 23-25 biennium.

Alternative Power Units	Total Spent
Four Site Battery Replacements	\$93,991
<b>Total</b>	<b>\$93,991</b>

## Standard Radio Replacement – In Scope, On Schedule, within Budget

WSP received appropriated funding tied to an anticipated Certificate of Participation (COP) valued at \$27,500,911. The appropriation allows replacement of all mobile (in vehicle) and portable radios that are Out of Service as of December 31, 2023.

- Mobile Radio (In Vehicle)
  - 1399 APX 8500 – mobile (cars)
  - 40 APX 8500 – mobile (motorcycle)
  - 50 APX 1500 – mobile (Academy track car)
  - APX 8500 Cars – 1399 radios - **Complete**
    - The team developed the needed radio program specifically for the mobile radio.
    - July 8, 2024, the issuance and installation of the mobile radios began.
    - As of December 23, 2024, the team had successfully deployed 1315 radios, totaling 94.0% deployed.
      - All numbers and percentages are based on staffing and staff locations identified July 1, 2024.
      - The remaining radios not issued/installed to active users, will be directly coordinated between the user and the local technician.
        - This total will take the deployment to 97%.
      - The remaining mobile radios are part of normal operations for WSP Fleet Section and will be installed into new trooper’s vehicles as assigned.
    - Based on the count of deployed mobile radios and issuance of the remaining radios to the WSP Fleet Section (as normal operating procedures), the deployment of the mobile radios has been identified as **“Complete”**.

APX 8500			
	1399	1315	94.00%
APX 8500	Identified	Issued	%
D1	116	116	100.00%
D2	198	181	91.41%
D3	105	105	100.00%
D4	108	106	98.15%
D5	113	113	100.00%
D6	91	87	95.60%
D7	158	158	100.00%
D8	105	102	97.14%
D10/Fleet	405	347	85.68%

- D10/Fleet represents staff in Helen Sommers Building and radios to be installed by WSP Fleet Section into new trooper vehicles.
  - The replaced APX7500 mobile radios have been sent to WA State Surplus.
  
- APX 8500 Motorcycle – 40 radios
  - The team developed the needed radio program specific to the radios.
  - The team worked with the contracted installer of motorcycle equipment and developed the installation requirements and design.
  - One radio is installed and is in “pilot” testing to ensure no signal conflicts with other systems being installed.
    - Once the pilot is complete, remaining radios will be issued and installed by vendor.
    - As of 12/17/2024, design recommendations have been approved by the agency. The remaining radios will begin the scheduling for installation phase.
  
- APX 1500 Academy Track Cars – 50
  - The team developed the radio program specific to the radios.
  - All radios have been issued to the academy mechanic for installation during normal vehicle maintenance.
    - One radio has been installed.
    - The remaining 49 radios will be installed after January 1.



- Portable Radio
  - May 2024, WSP received all 1388 Motorola APX NEXT portable radios ordered.
  - Since July 2024, Motorola and WSP have worked together to develop the needed programming (codeplug) to allow the radio to work in the WSP environment.
  - Scheduled deployment for the portable radios is identified to begin February 3, 2024.
  - Radios have been shipped and staged in each of the eight districts for issuance/deployment.
    - Radio users will self-schedule the issuance and familiarization time with their local radio technician.
  - We have submitted our Certificate of Participation (COP) documents to the Office of the State Treasurer to be included in the February 2025 sale. We will not know our agency installment payment schedule until the sale is complete. We anticipate the first COP payment will be due June 1, 2025.