



AGENDA
PSERN OPERATOR BOARD OF DIRECTORS MEETING
June 27, 2024

Location: PSERN Conference Room 19717 62nd Ave S, E102, Kent, WA 98032

Virtual meeting: Microsoft Teams (details below)

Date: Thursday, June 27, 2024

Time: 2:30 p.m. – 3:30 p.m.

Microsoft Teams Meeting: Members of the public are invited to participate in the meeting in person at the location above or virtually by telephone or video by using the following phone number and meeting ID: 1-323-433-2132 Meeting ID: 116856674#.

Directors: Chief Harold Scoggins (Chair), Dwight Dively, Commissioner Chris Elwell, Vonnie Mayer, Diane Carlson in for Kurt Triplett, Chief Dan Yourkoski

Alternates: Undersheriff Jesse Anderson, Shawn Hayes, Kristin Meitzler, Mark Schmidt

Agenda Details

1. Call to Order – Meeting Chair 2:30 p.m.
2. Roll Call – Tracey Doss 2:30 p.m.
3. Public Comment – Meeting Chair 2:31 – 2:33 p.m.

Board Chairperson to open floor for public comment. Members of the public are invited to address the Board of Directors for a period not to exceed three minutes.

4. Consent Agenda – Meeting Chair 2:33 – 2:35 p.m.

Note: Directors can request to have any item removed from the consent agenda.

- a. Approve the May 23 Meeting Minutes
- b. Payment Approvals

(Decision: Approve the Consent Agenda)

5. Action Register Review – Meeting Chair 2:35 – 2:37 p.m.

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| 6. | Executive Director Report – Mike Webb | 2:37 – 2:50 p.m. |
| 7. | 2025 Budget & Service Fee Rates – Mike Webb | 2:50 – 3:00 p.m. |
| <i>(Decision: Approve Resolution 24-04 – 2025 Budget and Service Fees)</i> | | |
| 8. | Authorize Engineering Studies – Mike Webb | 3:00 – 3:10 p.m. |
| <i>(Decision: Approve the Maloney/Sobieski power improvements engineering study)</i> | | |
| <i>(Decision: Approve the North simulcast coverage assessment study)</i> | | |
| 9. | Operations Committee Report – Assistant Chief Lombard | 3:10 – 3:15 p.m. |
| 10. | Board of Directors Officer Report - Board Officers | 3:15 - 3:18 p.m. |
| 11. | Review New Action Items - Meeting Chair | 3:18 - 3:20 pm. |

Adjourn

Next Meeting: July 25, 2024 @ 2:30



PSERN Board of Directors
Agenda Item #4

Title: Consent Agenda

PSERN Operator Board of Directors Meeting Date: June 27, 2024

PSERN Staff Contact: Tracey Doss, Administrator

Appendix A – May 23, 2024, Meeting Minutes

Appendix B – Payment Approvals

Date	Payment Type	Amount
6/4/2024	Check	\$ 1,128.45
6/7/2024	ACH/EFT	\$ 41,345.75
6/3/2024	ACH/EFT	\$ 13,179.85
6/7/2024	ACH/EFT	\$ 9,555.75
5/28/2024	Checks and ACH/EFT	\$ 83,442.13
5/28/2024	Check	\$ 34,075.38
5/30/2024	Check	\$ 4,920.63
6/4/2024	Check	\$ 85,133.81
6/7/2024	Check	\$ 35,583.01
6/7/2024	Checks and ACH/EFT	\$ 30,349.40
5/28/2024	ACH/EFT	\$ 554.59
5/22/2024	ACH/EFT	\$ 6,957.75
6/4/2024	ACH/EFT	\$ 9,199.61
6/7/2024	Check	\$ 211.77
5/31/2024	Special District Journal Entry	\$ 56.75
5/22/2024	Payroll and Benefits	\$ 137,354.25
5/25/2024	Payroll and Benefits	\$ 314.28
6/5/2024	Payroll and Benefits	\$ 87,363.25
6/6/2024	Payroll and Benefits	\$ 828.55
6/10/2024	Payroll and Benefits	\$ 38,182.27
Total		\$ 619,737.23

MOTION: Approve the Consent Agenda.



Minutes
PSERN OPERATOR BOARD OF DIRECTORS MEETING
May 23, 2024

Location: PSERN Conference Room 19717 62nd Ave S, E102, Kent, WA 98032

Virtual meeting: Microsoft Teams (details below)

Date: Thursday, May 23, 2024

Time: 2:30 p.m. – 3:30 p.m.

Microsoft Teams Meeting: Members of the public are invited to participate in the meeting in person at the location above or virtually by telephone or video by using the following phone number and meeting ID: 1-323-433-2132 Meeting ID: 116856674#.

Directors Present: Chief Harold Scoggins (Chair), Dwight Dively, Commissioner Chris Elwell, Vonnie Mayer, Kurt Triplett, Chief Dan Yourkoski

Attendees: Spencer Bahner, Felix Corcoro, Andrew Dziedzic, Adrian Englet, Julia Holden, Hank Krajewski, Nanne Lasswell, Assistant Chief Lombard, David Mendel, Tony Minor, Ric Myers, Tracy Plouse, Bob Potts, Alex Rampley, Mark Schmidt, Creighton Watley, Mike Webb,

- | | | |
|----|--------------------------------|------------------|
| 1. | Call to Order – Meeting Chair | 2:30 p.m. |
| 2. | Roll Call – Julia Holden | 2:31 p.m. |
| 3. | Public Comment – Meeting Chair | 2:31 – 2:33 p.m. |
| | No public comments. | |
| 4. | Consent Agenda – Meeting Chair | 2:33 – 2:35 p.m. |

Note: Directors can request to have any item removed from the consent agenda.

- a. Approve the April 25 Meeting Minutes
- b. Payment Approvals

Motion to approve the April 25 Meeting Minutes made by Dwight Dively, seconded by Kurt Triplett. Members unanimously approved the motion.

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| 5. | Action Register Review – Meeting Chair | 2:35 – 2:37 p.m. |
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Mike Webb updated the Board on a meeting with FirstNet/AT&T as part of action item #20, subleasing on PSERN towers. Action #21, information on subleases and fees, has not begun and will be on the agenda in a future meeting.

6. Executive Director Report – Mike Webb 2:37 – 2:50 p.m.

Mike Webb provided an overview of PSERN activities and operational updates since the Board meeting in April. It was noted that the number of outstanding service fees for Q2 shown in the presentation has gone down due to payments received.

The Chair asked when PSERN would be pushing out radio programming updates over the air? Mike Webb responded that those can be done now (Over-the-air-programming/OTAP using the P25 network) but this provides very limited capability and is not the preferred method. Some agencies are also planning to implement radio programming via Wi-Fi, but the timing is unknown.

Spencer Bahner added that Seattle ran a local test of programming over WIFI and verified that it did work.

The challenge is that using the radio system (OTAP) to update the programming is inefficient due to a limited capacity for data transmission and it can take a very long time, also if a radio is not turned on it will not update.

7. 2023 Financial Results – Tracy Plouse 2:50 – 3:00 p.m.

Tracy Plouse provided an overview of the 2023 preliminary year-end financial results. Full details are in the meeting materials.

8. Preliminary 2025 Budget & Service Fee Rates – Mike Webb 3:00 – 3:10 p.m.

Mike Webb provided a summary of the 2025 preliminary draft budget. Details can be found in the meeting materials.

A reserve is not needed in the 2025 budget due to the decision to transfer about \$9M in surplus project funds to the Operator, some of those funds can be used for extraordinary, one-time operating expenses.

Some errors and omissions in the 2024 budget have been incorporated in the 2025 budget, such as an over calculation of standby pay, and a more appropriate budget for fuel and maintenance for vehicles.

PSERN staff is going through the services included in the Motorola contract to determine which optional services will not need to be provided by Motorola and can be done by PSERN resources, potentially reducing the Motorola post-warranty support costs from \$1.9M to about \$1.3M.

The higher rate increase for consoles in subsequent years is due to the allocation of network operating expenses between consoles and radios. PSERN will review the allocation method between radios and consoles in the 2026 budget.

Kurt Triplett asks if there was a downside to starting the operating reserve in 2027? Mike Webb responded that the only downside is that some of the existing surplus funds are earmarked for specific projects and so the available reserve funds are limited.

PSERN will prepare an illustrative scenario showing the operating reserve beginning in 2027, reduced post-warranty support costs and a revised allocation of rate stabilization funds. The Board agreed with this approach.

9. PSERN Public Records Policy – Mike Webb 3:10 – 3:20 p.m.

Motion to approve Resolution 24-03 adopting a public records request policy made by Kurt Triplett, seconded by Vonnie Mayer. Members unanimously approved the motion.

10. Operations Committee Report – Assistant Chief Lombard 3:20 – 3:25 p.m.

The Operations Committee did not meet in May. The committee put PSERN in touch with contacts at FirstNet to discuss subleasing on PSERN towers.

11. Board of Directors Officer Report - Board Officers 3:25 - 3:28 p.m.

Kurt Triplett will not be at the June meeting; Diane Carlson will be the alternate.

12. Review New Action Items - Meeting Chair 3:28 - 3:30 pm.

No new action items.

Adjourn

Next Meeting: June 27, 2024 @ 2:30

PSERN Operator

Check Register - Consent Agenda
Check Issue Dates: 5/16/2024 - 6/17/2024

Page: 1
Jun 17, 2024 11:39AM

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/07/2024	557	AWC Employee Benefit Tru	AWC Employee Benefit Tru	41,345.75	56836*	Benefits	Benefits
05/28/2024	1145	American Tower	AMERICAN TOWER COR	9,593.02	411687276	North Bend Lease - April	GASB 87 Clearing - Leases
05/28/2024	1145	American Tower	AMERICAN TOWER COR	6,303.11	411687283	Iron Horse Lease - April	GASB 87 Clearing - Leases
05/28/2024	1146	American Tower	AMERICAN TOWER COR	9,593.02	411813836	North Bend Lease - May	GASB 87 Clearing - Leases
05/28/2024	1146	American Tower	AMERICAN TOWER COR	6,303.11	411813833	Iron Horse Lease - May	GASB 87 Clearing - Leases
05/28/2024	1147	Tessco Technologies, Inc	Tessco Technologies, Inc	386.21	9400250097	Weather Boot for Cable	Repairs & Maintenance - Sites
05/28/2024	1147	Tessco Technologies, Inc	Tessco Technologies, Inc	-386.21	9400250097	Weather Boot for Cable	Repairs & Maintenance - Sites
05/28/2024	1148	Ziplyfiber	Ziplyfiber	73.42	18245 MAY 2024	Utilities - Site	Utilities - Sites
05/28/2024	1148	Ziplyfiber	Ziplyfiber	-73.42	18245 MAY 2024	Utilities - Site	Utilities - Sites
05/28/2024	1149	City of Bellevue	City of Bellevue	4,122.00	49284	2024 Monthly Lease Paym	GASB 87 Clearing - Leases
05/28/2024	1149	City of Bellevue	City of Bellevue	1,210.00	49285	2024 Monthly Lease Paym	GASB 87 Clearing - Leases
05/28/2024	1149	SPECTRASITE COMMUNI	SPECTRASITE COMMUNI	7,761.34	154397859	Burien Lease - April	GASB 87 Clearing - Leases
05/28/2024	1149	SPECTRASITE COMMUNI	SPECTRASITE COMMUNI	7,889.03	154427207	Burien Lease - May	GASB 87 Clearing - Leases
05/28/2024	1151	Ziplyfiber	Ziplyfiber	73.42	18245 MAY 2024	Utilities - Site	Utilities - Sites
05/28/2024	1152	Tessco Technologies, Inc	Tessco Technologies, Inc	386.21	9400250097	Weather Boot for Cable	Repairs & Maintenance - Sites
05/28/2024	1153	Spirit 105.3	Spirit 105.3	352.39	57016-35	Utilities Sites	Utilities - Sites
05/28/2024	1153	Spirit 105.3	Spirit 105.3	2,763.61	59699-6	Lease Payment	GASB 87 Clearing - Leases
05/28/2024	1154	Century Link	CenturyLink	30,499.75	684652073 A	Fiber/Backhaul Services	Fiber/Backhaul Services
05/30/2024	1155	Mold Solutions	Mold Solutions	979.20	8309 MAY 2024	Mold remediation	Repairs & Maintenance - Sites
05/30/2024	1155	Mold Solutions	Mold Solutions	1,088.00	8320 MAY 2024	Mold remediation	Repairs & Maintenance - Sites
05/28/2024	1158	Tessco Technologies, Inc	Tessco Technologies, Inc	240.06	9400251894	Repairs & Maintenance	Repairs & Maintenance - Sites
05/30/2024	1158	Saybr	Saybr	2,853.43	29643 APR 2024		Repairs & Maintenance - Sites
06/04/2024	1160	Bowen Scarff Ford in Kent	Bowen Scarff Ford in Kent	1,128.45	538942	Vehicle Maintenance and R	Vehicle Maintenance
06/04/2024	1182	American Tower	American Tower	6,303.11	7867 JUNE 2024	Lease	GASB 87 Clearing - Leases
06/04/2024	1182	American Tower	American Tower	9,593.02	411918016	Lease	GASB 87 Clearing - Leases
06/04/2024	1185	Century Link	Century Link	161.42	8298 MAY 20204	Phone Service	Phone Service
06/04/2024	1186	Cummins Sales and Servic	Cummins Sales and Servic	959.15	15-98120	Generator Maintenance	Generator Maintenance
06/04/2024	1186	Cummins Sales and Servic	Cummins Sales and Servic	959.15	15-98121	Generator Maintenance	Generator Maintenance
06/04/2024	1186	Cummins Sales and Servic	Cummins Sales and Servic	959.15	15-98122	Generator Maintenance	Generator Maintenance
06/04/2024	1187	Fearey	Fearey	7,064.40	*APRIL 2024-218	Consulting	Consulting Services
06/04/2024	1188	Johnson Controls Security	Johnson Controls Security	1,063.07	40162063	Security Alarm Services	Security Services
06/04/2024	1189	King County Finance	King County Finance	1,125.00	2781875	Lease	GASB 87 Clearing - Leases
06/04/2024	1190	Lumen	Lumen	2,223.00	*688223603	Network IT Services	IT Network Services - Kent Ofc
06/04/2024	1191	Maicom LLC	Maicom LLC	220.40	*CINV0093297	Misc	Misc Services
06/04/2024	1191	Maicom LLC	Maicom LLC	220.40	CINV0096486	Misc	Misc Services
06/04/2024	1191	Maicom LLC	Maicom LLC	1,355.46	CINV0096486	Misc	Misc Services
06/04/2024	1192	Pacifica Law Group LLP	Pacifica Law Group LLP	4,321.50	*89882	Legal Services	Legal Services
06/04/2024	1193	PIE Management	PIE Management	1,366.22	307633	Consulting	Consulting Services
06/04/2024	1193	PIE Management	PIE Management	1,366.22	307569 MAR 2024	Consulting	Consulting Services
06/04/2024	1194	Richard J Busch	Richard J Busch	12,800.00	*186942	Legal	Legal Services
06/04/2024	1195	Sean Douglas	Sean Douglas	1,663.32	REIMBURSEMENT	TRAVEL REIMBURSEME	Memberships & Registrations

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/04/2024	1196	SMS Cleaning	SMS Cleaning	935.10	PSE KENT-0524	Monthly Janitorial Services	Janitorial Services
06/04/2024	1197	SourcePanel	SourcePanel	4,255.00	*I042224BA	Consulting	Consulting Services
06/04/2024	1197	SourcePanel	SourcePanel	4,995.00	*I042224B	Consulting	Consulting Services
06/04/2024	1198	SPECTRASITE COMMUNI	SpectraSite	7,994.18	154453682	Lease	GASB 87 Clearing - Leases
06/04/2024	1199	Summit Law	Summit Law	604.50	154387	Legal Services	Legal Services
06/04/2024	1200	Washington State Ferries	Washington State Ferries	50.00	RK424011	Travel - Ferries	Travel - Parking, Tolls
06/04/2024	1201	Washington State Patrol	Washington State Patrol	5,774.71	00182773	Lease	GASB 87 Clearing - Leases
06/04/2024	1202	Caselle Inc	Caselle Inc	2,014.99	132967	Misc Services	Software Supp & Mtce - Admi
06/04/2024	1203	CDW Government	CDW Government	3,091.11	*SE2407670	Consulting Services	Consulting Services
06/04/2024	1203	CDW Government	CDW Government	1,695.23	RD24425	Consulting Services	Software License Subscription
06/07/2024	1204	PIE Management	PIE Management	3,119.27	1545 DAYDRA	Consulting	Consulting Services
06/07/2024	1204	PIE Management	PIE Management	664.14	1569 DAYDRA	Consulting	Consulting Services
06/07/2024	1204	PIE Management	PIE Management	2,885.19	1536 DAYDRA	Consulting	Consulting Services
06/07/2024	1204	PIE Management	PIE Management	1,259.49	307810 THERESA	Consulting	Consulting Services
06/07/2024	1205	Spirit 105.3	Spirit 105.3	2,763.61	59699-7	Lease	GASB 87 Clearing - Leases
06/07/2024	1205	Spirit 105.3	Spirit 105.3	7,164.31	60709-1	Lease	GASB 87 Clearing - Leases
06/07/2024	1206	Cascade Public Media	Cascade Public Media	15,882.91	CAPITOL HILL LEASE JU	Lease	GASB 87 Clearing - Leases
06/07/2024	1207	South King Fire & Rescue	South King Fire & Rescue	2,011.36	JUN 2024	Lease	GASB 87 Clearing - Leases
06/07/2024	1208	Ziplyfiber	Ziplyfiber	211.77	8245 JUN 2024	Site Utilities	Utilities - Sites
06/07/2024	1209	City of Bellevue	City of Bellevue	4,122.00	49490 JUN 2024	Lease	GASB 87 Clearing - Leases
06/07/2024	1209	City of Bellevue	City of Bellevue	1,210.00	49491 JUN 2024	Lease	GASB 87 Clearing - Leases
06/07/2024	1210	SourcePanel	SourcePanel	12,395.00	I060324C	Consulting	Consulting Services
06/03/2024	60324	Washington Finance Office	U.S. Bank Corporate Paym	429.00	****3644 APR 2024	200076329536	Memberships & Registrations
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	36.21	****3644 APR 2024	111-7900846-5461019	Office Supplies
06/03/2024	60324	Powerful Signal	U.S. Bank Corporate Paym	2,893.30	****3644 APR 2024	17047729	Tech Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	30.36	****3644 APR 2024	111-9007355-8613822	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	20.70	****3644 APR 2024	111-0492495-4906642	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	67.15	****3644 APR 2024	111-1624355-5624259	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	67.15	****3644 APR 2024	111-9814450-9947460	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	61.60	****3644 APR 2024	111-0109260-6098661	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	158.60	****3644 APR 2024	111-4596353-8914636	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	153.34	****3644 APR 2024	111-9567533-8511419	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	17.62	****3644 APR 2024	111-4348095-5995431	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	18.68	****3644 APR 2024	111-1711037-1876265	Office Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	29.70	****3644 APR 2024	111-1455572-2925803	Office Supplies
06/03/2024	60324	Powerful Signal	U.S. Bank Corporate Paym	-1,429.10	****3644 APR 2024	17047729	Tech Supplies
06/03/2024	60324	Magnum Electronics Inc	U.S. Bank Corporate Paym	256.84	****3644 APR 2024	SO112178	Tech Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	30.44	****3644 APR 2024	111-7570221-0122619	Tech Supplies
06/03/2024	60324	Radioparts	U.S. Bank Corporate Paym	1,122.19	****3644 APR 2024	100092632	Tech Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	29.21	****3644 APR 2024	111-3935881-8017851	Vehicle Fuel
06/03/2024	60324	Shell	U.S. Bank Corporate Paym	125.52	****3644 APR 2024	9042605	Vehicle Fuel

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	132.20	****3644 APR 2024	111-393-5881-8017851	Vehicle Fuel
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	159.79	****3644 APR 2024	111-8458702-1750615	Vehicle Fuel
06/03/2024	60324	Safelite Group, Inc	U.S. Bank Corporate Paym	517.46	****3644 APR 2024	00440_158852 (05043_15	Vehicle Fuel
06/03/2024	60324	Home Depot	U.S. Bank Corporate Paym	250.86	****3644 APR 2024	WM64474831	Site Parts/Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	217.58	****3644 APR 2024	111-0497439-6093812	Warehouse Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	47.56	****3644 APR 2024	111-6745641-5947427	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	36.78	****3644 APR 2024	111-7897284-4232205	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	11.01	****3644 APR 2024	111-1648170-4395432	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	13.43	****3644 APR 2024	111-9663053-0504262	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	46.68	****3644 APR 2024	111-9502794-9995454	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	65.84	****3644 APR 2024	111-7138698-5015418	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	99.15	****3644 APR 2024	111-3660536-9975448	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	134.62	****3644 APR 2024	111-8468459-3579440	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	187.09	****3644 APR 2024	111-0329597-0990642	Startup Supplies
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	1,053.48	****3644 APR 2024	111-1386586-3488268	Startup Supplies
06/03/2024	60324	American Airlines	U.S. Bank Corporate Paym	35.00	****3644 APR 2024	NUCBTK	Memberships & Registrations
06/03/2024	60324	Uber	U.S. Bank Corporate Paym	50.72	****3644 APR 2024	Uber 3/28/2024	Memberships & Registrations
06/03/2024	60324	Uber	U.S. Bank Corporate Paym	64.94	****3644 APR 2024	Uber 3/38/2024	Memberships & Registrations
06/03/2024	60324	Doubletree Hotel	U.S. Bank Corporate Paym	710.96	****3644 APR 2024	3474660592	Memberships & Registrations
06/03/2024	60324	Uber	U.S. Bank Corporate Paym	23.90	****3644 APR 2024	Uber 4/16/2024	Memberships & Registrations
06/03/2024	60324	Good To Go	U.S. Bank Corporate Paym	64.20	****3644 APR 2024	Good To Go March 2024	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	6.00	****3644 APR 2024	Bothel Parking	Travel - Parking, Tolls
06/03/2024	60324	Brown Bear Car Wash	U.S. Bank Corporate Paym	18.00	****3644 APR 2024	Plate# D8574C	Travel - Parking, Tolls
06/03/2024	60324	Diamond Parking	U.S. Bank Corporate Paym	20.31	****3644 APR 2024	1448538084	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	7.62	****3644 APR 2024	1450112838	Travel - Parking, Tolls
06/03/2024	60324	Brown Bear Car Wash	U.S. Bank Corporate Paym	12.00	****3644 APR 2024	621358	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	3.22	****3644 APR 2024	1451237162	Travel - Parking, Tolls
06/03/2024	60324	Brown Bear Car Wash	U.S. Bank Corporate Paym	12.00	****3644 APR 2024	153495	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	14.00	****3644 APR 2024	64105	Travel - Parking, Tolls
06/03/2024	60324	IM Parking	U.S. Bank Corporate Paym	12.00	****3644 APR 2024	00029551	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	20.95	****3644 APR 2024	Plate# D8574C	Travel - Parking, Tolls
06/03/2024	60324	Good To Go	U.S. Bank Corporate Paym	85.40	****3644 APR 2024	Good to Go April 2024	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	7.00	****3644 APR 2024	Parking April 10 2024	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	9.25	****3644 APR 2024	1468668510	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	11.00	****3644 APR 2024	Parking April 10 2024	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	11.23	****3644 APR 2024	1466902476	Travel - Parking, Tolls
06/03/2024	60324	U-PARK	U.S. Bank Corporate Paym	14.97	****3644 APR 2024	00045200	Travel - Parking, Tolls
06/03/2024	60324	Washington State Ferries	U.S. Bank Corporate Paym	22.75	****3644 APR 2024	122801211AWDAT	Travel - Parking, Tolls
06/03/2024	60324	U-PARK	U.S. Bank Corporate Paym	24.95	****3644 APR 2024	00002412	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	8.86	****3644 APR 2024	Plate D8503C	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	10.00	****3644 APR 2024	1468588936	Travel - Parking, Tolls

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	10.00	****3644 APR 2024	Parking April 11 2024	Travel - Parking, Tolls
06/03/2024	60324	Washington State Ferries	U.S. Bank Corporate Paym	22.75	****3644 APR 2024	1288121AWDAT	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	5.00	****3644 APR 2024	000295	Travel - Parking, Tolls
06/03/2024	60324	Brown Bear Car Wash	U.S. Bank Corporate Paym	12.00	****3644 APR 2024	653396	Travel - Parking, Tolls
06/03/2024	60324	Washington State Ferries	U.S. Bank Corporate Paym	22.75	****3644 APR 2024	I02881211AWDAT	Travel - Parking, Tolls
06/03/2024	60324	City of Seattle Parking	U.S. Bank Corporate Paym	2.00	****3644 APR 2024	1479650266	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	4.99	****3644 APR 2024	054595	Travel - Parking, Tolls
06/03/2024	60324	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	10.00	****3644 APR 2024	002631	Travel - Parking, Tolls
06/03/2024	60324	Brown Bear Car Wash	U.S. Bank Corporate Paym	12.00	****3644 APR 2024	803761	Travel - Parking, Tolls
06/03/2024	60324	FedEx	U.S. Bank Corporate Paym	41.62	****3644 APR 2024	6-065-18534	Postage, shipping
06/03/2024	60324	Public Storage	U.S. Bank Corporate Paym	270.00	****3644 APR 2024	050098	Misc Services
06/03/2024	60324	Government Jobs	U.S. Bank Corporate Paym	199.00	****3644 APR 2024	000Qcp 0008Uo	Misc Services
06/03/2024	60324	Ingallina's Box Lunches	U.S. Bank Corporate Paym	200.81	****3644 APR 2024	#01-046976	Misc Services
06/03/2024	60324	Century Link	U.S. Bank Corporate Paym	161.42	****3644 APR 2024	334048298 Apr 2024	Phone Service
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	71.70	****3644 APR 2024	111-7020598-4262657	Repairs & Maintenance - Sites
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	25.11	****3644 APR 2024	111-3428311-1613062	Repairs & Maintenance - Sites
06/03/2024	60324	Amazon	U.S. Bank Corporate Paym	301.52	****3644 APR 2024	111-4369431-2868266	Repairs & Maintenance - Sites
06/03/2024	60324	Dropbox Inc	U.S. Bank Corporate Paym	118.91	****3644 APR 2024	KKCS8H32BBMR	Software License Subscription
06/03/2024	60324	Adobe Inc	U.S. Bank Corporate Paym	122.27	****3644 APR 2024	2729715900	Software License Subscription
06/03/2024	60324	Atlassian	U.S. Bank Corporate Paym	76.00	****3644 APR 2024	AT-309978659	Software License Subscription
06/03/2024	60324	Atlassian	U.S. Bank Corporate Paym	540.87	****3644 APR 2024	AT-310351143	Software License Subscription
06/03/2024	60324	Bowen Scarff Ford in Kent	U.S. Bank Corporate Paym	1,113.28	****3644 APR 2024	46379	Vehicle Maintenance
06/03/2024	60324	Safelite Group, Inc	U.S. Bank Corporate Paym	979.98	****3644 APR 2024	00440_158843 (0605_158	Vehicle Maintenance
06/03/2024	60324	Moove Agency	U.S. Bank Corporate Paym	74.50	****3644 APR 2024	Moove37085	Software - Network
06/03/2024	60324	Stellarwp.com	U.S. Bank Corporate Paym	109.10	****3644 APR 2024	13314	Startup Services
06/03/2024	60324	Yourmembership	U.S. Bank Corporate Paym	299.00	****3644 APR 2024	R67068974	Software - Network
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	86.94	****3644 MAY 2024	111-7005171-3490619	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	21.58	****3644 MAY 2024	111-5855451-5400215	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	39.50	****3644 MAY 2024	111-7808200-6686656	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	40.20	****3644 MAY 2024	111-0675179-1345848	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	59.42	****3644 MAY 2024	111-0827961-2361814	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	78.11	****3644 MAY 2024	111-7691932-0705026	Office Supplies
06/07/2024	60724	Keeney's Office Supply	U.S. Bank Corporate Paym	209.31	****3644 MAY 2024	KI-00116313	Office Supplies
06/07/2024	60724	Keeney's Office Supply	U.S. Bank Corporate Paym	252.31	****3644 MAY 2024	KI-00116839	Office Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	24.23	****3644 MAY 2024	111-4339644-9657058	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	66.11	****3644 MAY 2024	111-9029106-0241010	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	83.72	****3644 MAY 2024	111-7485866-9203404	Tech Supplies
06/07/2024	60724	Global Industrial	U.S. Bank Corporate Paym	411.30	****3644 MAY 2024	24734299	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	23.02	****3644 MAY 2024	111-6029730-6469013	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	140.99	****3644 MAY 2024	111-6447215-3330651	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	180.85	****3644 MAY 2024	111-7482416-3410604	Tech Supplies

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	185.22	****3644 MAY 2024	111-2299331-8529837	Tech Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	28.67	****3644 MAY 2024	111-6643566-0351463	Vehicle Maintenance
06/07/2024	60724	Bowen Scarff Ford in Kent	U.S. Bank Corporate Paym	111.17	****3644 MAY 2024	538434	Vehicle Maintenance
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	17.44	****3644 MAY 2024	111-1756874-0170659	Warehouse Supplies
06/07/2024	60724	Uline Inc	U.S. Bank Corporate Paym	211.72	****3644 MAY 2024	19231454	Warehouse Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	485.26	****3644 MAY 2024	111-3748461-8693851	Warehouse Supplies
06/07/2024	60724	Home Depot	U.S. Bank Corporate Paym	9.17	****3644 MAY 2024	4081125	Warehouse Supplies
06/07/2024	60724	Home Depot	U.S. Bank Corporate Paym	24.69	****3644 MAY 2024	4081085	Warehouse Supplies
06/07/2024	60724	Home Depot	U.S. Bank Corporate Paym	43.98	****3644 MAY 2024	2623842	Warehouse Supplies
06/07/2024	60724	Home Depot	U.S. Bank Corporate Paym	69.13	****3644 MAY 2024	2081630	Warehouse Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	36.96	****3644 MAY 2024	111-2840170-4448251	Startup Supplies
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	154.42	****3644 MAY 2024	111-2840170-4448251	Startup Supplies
06/07/2024	60724	Washington Finance Office	U.S. Bank Corporate Paym	495.00	****3644 MAY 2024	1.20442E+11	Memberships & Registrations
06/07/2024	60724	Brown Bear Car Wash	U.S. Bank Corporate Paym	13.23	****3644 MAY 2024	826738	Travel - Parking, Tolls
06/07/2024	60724	Good To Go	U.S. Bank Corporate Paym	70.20	****3644 MAY 2024	97887738	Travel - Parking, Tolls
06/07/2024	60724	Good To Go	U.S. Bank Corporate Paym	81.25	****3644 MAY 2024	97887738	Travel - Parking, Tolls
06/07/2024	60724	IM Parking	U.S. Bank Corporate Paym	8.00	****3644 MAY 2024	31002	Travel - Parking, Tolls
06/07/2024	60724	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	15.97	****3644 MAY 2024	907814003	Travel - Parking, Tolls
06/07/2024	60724	RPNW Seattle	U.S. Bank Corporate Paym	16.00	****3644 MAY 2024	34125	Travel - Parking, Tolls
06/07/2024	60724	U-PARK	U.S. Bank Corporate Paym	18.73	****3644 MAY 2024	19957	Travel - Parking, Tolls
06/07/2024	60724	Washington State Ferries	U.S. Bank Corporate Paym	28.30	****3644 MAY 2024	392885336	Travel - Parking, Tolls
06/07/2024	60724	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	6.24	****3644 MAY 2024	6.18003E+17	Travel - Parking, Tolls
06/07/2024	60724	Dropbox Inc	U.S. Bank Corporate Paym	38.46	****3644 MAY 2024	10139860	Travel - Parking, Tolls
06/07/2024	60724	Good To Go	U.S. Bank Corporate Paym	92.30	****3644 MAY 2024	Credit Card Charges May 2	Travel - Parking, Tolls
06/07/2024	60724	Laz Parking	U.S. Bank Corporate Paym	9.98	****3644 MAY 2024	49939	Travel - Parking, Tolls
06/07/2024	60724	Laz Parking	U.S. Bank Corporate Paym	22.00	****3644 MAY 2024	878B0061227	Travel - Parking, Tolls
06/07/2024	60724	Washington State Ferries	U.S. Bank Corporate Paym	28.30	****3644 MAY 2024	392920746	Travel - Parking, Tolls
06/07/2024	60724	UPS	U.S. Bank Corporate Paym	20.00	****3644 MAY 2024	41831	Misc Services
06/07/2024	60724	Parking Not Otherwise Spe	U.S. Bank Corporate Paym	10.00	****3644 MAY 2024	768042249	Travel - Parking, Tolls
06/07/2024	60724	Amazon	U.S. Bank Corporate Paym	211.68	****3644 MAY 2024	111-1388047-0861864	Repairs & Maintenance - Sites
06/07/2024	60724	Public Storage	U.S. Bank Corporate Paym	270.00	****3644 MAY 2024	36387	Misc Services
06/07/2024	60724	Easy Badges	U.S. Bank Corporate Paym	122.27	****3644 MAY 2024	AD01925805378CUS	Software License Subscription
06/07/2024	60724	Dropbox Inc	U.S. Bank Corporate Paym	59.56	****3644 MAY 2024	2XCD86QZZV4W	Software License Subscription
06/07/2024	60724	Atlassian	U.S. Bank Corporate Paym	72.00	****3644 MAY 2024	AT-316696002	Software License Subscription
06/07/2024	60724	Atlassian	U.S. Bank Corporate Paym	520.36	****3644 MAY 2024	AT-317143248	Software License Subscription
06/07/2024	60724	Dropbox Inc	U.S. Bank Corporate Paym	59.56	****3644 MAY 2024	W4CGDLOCM4ZTW	Software License Subscription
06/07/2024	60724	Les Schwab	U.S. Bank Corporate Paym	2,053.55	****3644 MAY 2024	40400454602	Vehicle Maintenance
06/07/2024	60724	Les Schwab	U.S. Bank Corporate Paym	2,053.55	****3644 MAY 2024	40400455165	Vehicle Maintenance
06/07/2024	60724	Misc Credit Card Receipts	U.S. Bank Corporate Paym	63.84	****3644 MAY 2024	4.129E+11	Office Supplies
06/04/2024	5050524	Puget Sound Energy	Puget Sound Energy	484.68	*0505 MAY 2024	Utilities	Utilities - Sites
06/07/2024	6072402	WFT Company Two LLC	WFT Company Two LLC	9,101.00	JUNE 2024 WFT	Kent Facility Lease	GASB 87 Clearing - Leases

Check Issue Date	Check Number	Merchant Name	Payee	Amount	Invoice Number	Description	Invoice GL Account Title
06/07/2024	6072402	WFT Company Two LLC	WFT Company Two LLC	3,354.13	JUNE 2024 WFT	Kent Facility Lease	Utilities - Kent Office
05/22/2024	8390524	Snohomish County PUD	Snohomish County PUD	176.19	0839 MAY 2024 1	Utility	Utilities - Sites
05/22/2024	8470524	Snohomish County PUD	Snohomish County PUD	231.33	0847 MAY 2024 1	Utility	Utilities - Sites
06/04/2024	11150524	Puget Sound Energy	Puget Sound Energy	848.03	1115 MAY 2024	Utilities	Utilities - Sites
06/04/2024	12710524	Puget Sound Energy	Puget Sound Energy	332.70	1271 MAY 2024	Utilities	Utilities - Sites
05/22/2024	13540524	Puget Sound Energy	Puget Sound Energy	172.07	1354 MAY 2024 1	Utilities	Utilities - Sites
05/22/2024	13620524	Puget Sound Energy	Puget Sound Energy	2,665.86	1362 MAY 2024	Utilities	Utilities - Sites
05/22/2024	15940524	Puget Sound Energy	Puget Sound Energy	360.82	1594 MAY 2024	Utilities	Utilities - Sites
05/22/2024	16280524	Puget Sound Energy	Puget Sound Energy	349.70	1628 MAY 2024	Utilities	Utilities - Sites
05/22/2024	16440524	Puget Sound Energy	Puget Sound Energy	430.92	1644 MAY 2024	Utilities	Utilities - Sites
05/22/2024	17920524	Puget Sound Energy	Puget Sound Energy	344.78	1792 MAY 2024 1	Utilities	Utilities - Sites
05/22/2024	20220524	Puget Sound Energy	Puget Sound Energy	484.89	2022 MAY 2024	Utilities	Utilities - Sites
06/04/2024	36480524	Seattle City Light	Seattle City Light	952.59	3648 MAY 2024	Utilities - Sites	Utilities - Sites
06/04/2024	52180524	Seattle City Light	Seattle City Light	30.24	5218 MAY 2024	Utilities - Sites	Utilities - Sites
05/22/2024	63110524	Chelan County PUD	Chelan County PUD	64.46	6311 MAY 2024 A	Utilities	Utilities - Sites
05/22/2024	67450524	Puget Sound Energy	Puget Sound Energy	486.51	6745 MAY 2024	Utilities	Utilities - Sites
06/04/2024	67780524	Puget Sound Energy	Puget Sound Energy	446.62	6778 MAY 2024	Utilities	Utilities - Sites
05/22/2024	69010524	Puget Sound Energy	Puget Sound Energy	509.47	6901 MAY 2024	Utilities	Utilities - Sites
05/22/2024	69350524	Puget Sound Energy	Puget Sound Energy	237.49	6935 MAY 2024 1	Utilities	Utilities - Sites
06/04/2024	69740524	Seattle City Light	Seattle City Light	294.56	6974 MAY 2024	Utilities - Sites	Utilities - Sites
05/22/2024	72060524	Puget Sound Energy	Puget Sound Energy	296.23	7206 MAY 2024	Utilities	Utilities - Sites
06/04/2024	88610524	Puget Sound Energy	Puget Sound Energy	1,106.13	*8861 MAY 2024	Utilities	Utilities - Sites
06/04/2024	89310524	Puget Sound Energy	Puget Sound Energy	811.15	8931 MAY 2024	Utilities	Utilities - Kent Office
05/28/2024	96690524	Tanner Electric Cooperativ	Tanner Electric Cooperativ	554.59	9669 MAY 2024	Utilities	Utilities - Sites
06/04/2024	173700524	Puget Sound Energy	Puget Sound Energy	362.85	17370 MAY 2024	Utilities	Utilities - Sites
06/04/2024	188460524	Puget Sound Energy	Puget Sound Energy	2,688.68	18846 MAY 2024	Utilities	Utilities - Sites
06/04/2024	209920524	Puget Sound Energy	Puget Sound Energy	472.06	20992 MAY 2024	Utilities	Utilities - Sites
06/04/2024	214120524	Puget Sound Energy	Puget Sound Energy	369.32	21412 MAY 2024	Utilities	Utilities - Sites
05/28/2024	241490017	Marsh USA LLC	Marsh USA LLC	30,427.44	261349283443	Paying additinal fee	Prepaid Expenses
05/22/2024	631105252	Chelan County PUD	Chelan County PUD	71.59	6311 MAY 2024 B	Utilities	Utilities - Sites
05/22/2024	631105253	Chelan County PUD	Chelan County PUD	75.44	6311 MAY 2024 C	Utilities	Utilities - Sites
Grand Totals:				<u>355,637.88</u>			



PSERN Board of Directors Staff Report Agenda Item #6

Title: Executive Director Report – June 2024
Meeting Date: June 27, 2024
PSERN Staff Contact: Michael Webb, Executive Director
Action: Discussion

SUMMARY:

This report provides a summary of the activities of the PSERN Operator (PSERN) since the last report to the Board at the May 23, 2024, meeting.

DISCUSSION:

PSERN Operator Staffing

- PSERN Operator staffing currently stands at 22 out of 24 authorized in the 2024 budget:
 - Recruitment to backfill the System Administrator and Field Service Manager positions are underway.
 - Laura Marungo is starting as Accountant on June 17th.
- Collective bargaining training for PSERN and IBEW local 77 bargaining committees was provided by PERC on June 12th.
- A major focus for the technical team is participation in the training provided under the Motorola contract, which also includes training on microwave, MPLS and test equipment.

Financial

- As of June 13th, \$28K in 1Q 2024 and \$54K in 2Q 2024 service fee invoice payments are outstanding (out of a total payable of ~\$2.3M per quarter).
 - Most outstanding invoices are with hospitals and follow-up is underway.
- Invoices for the 3rd quarter will be issued on July 1st.

Procurement Activity

- PSERN has completed evaluation of proposals in response to a Request for Qualifications (RFQ) for Architectural and Engineering (A&E) consultants to support RF, microwave engineering:
 - A roster of 3 qualified firms has been established and master service agreements executed with Federal Engineering, Mission Critical Partners, and Hatfield & Dawson.
-

- An initial Work Order Request for assessment of coverage in the North Simulcast system has been issued, with responses due June 21st.
- This coverage assessment work is further discussed in agenda item 8.
- PSERN has selected Salas O'Brien as its A&E consultant to assess and define improvements to site power at the Maloney/ Sobieski radio sites.
 - Approval to proceed with this work is requested in agenda item 8.
- PSERN staff are preparing a solicitation document (Invitation to Bid/ITB) for the Grass Mountain tower remediation work discussed at the April board meeting.

PSERN Operations Committee

- The PSERN Operations Committee met on June 10th.
- 8 committee members out of the 9 members identified in the bylaws are in place:
 - A request to the King County Police Chiefs and Sheriff's Association to identify an individual to fill the vacant position is still outstanding.
- The Technical Working Group held its inaugural meeting on June 6th.

PSERN User Agency Updates

- No updates.

Operational Status and Updates

- Codeplug updates to remove legacy (KCERCS) system programming from PSERN radios:
 - Total codeplugs to be updated/modified: 514.
 - Codeplugs in progress: 94.
 - Number of codeplugs completed: 165.
 - DAS migration and validation of new systems:
 - As of June 13th, 550 out of an estimated 980 (56.1%) systems across the County have migrated.
 - PSERN is also processing requests for activation and validation of new DAS systems:
 - Approximately 175 new systems have been discovered or added since August 2023.
 - DAS migrations are expected to continue until at least the end of 2024.
 - DAS interference and in-building coverage related activities:
 - Bellevue interference related to a known DAS system has been largely mitigated by the vendor making design changes.
 - PSERN is providing technical support to user agencies to troubleshoot DAS issues in Kirkland and Bothell.
 - PSERN technical staff are also doing field work to assess coverage in some parts of the North simulcast system.
-

- System maintenance:
 - Multiple radio sites are having antennas or feedline cables replaced under warranty due to installation issues exacerbated by weather conditions.
 - PSERN and Motorola vendors are performing annual preventive maintenance, including:
 - Power system, battery plants, generators, etc.
 - Building environmental controls, HVAC, fire systems.
 - Microwave, LMR and MPLS equipment.
- The next Motorola system upgrade (to version A.2024) has been tentatively scheduled for September 2025.

Radio Site Leases and Subleases

- The following additional subleases or amendments have been executed:
 - Pano AI (wildfire detection cameras) – Mt. McDonald – new sublease.
 - Federal Aviation Administration – Grass Mountain – amendment to add consent for sublease.

Upcoming Board Meeting Topics

- Topics expected to be brought forward over the next 2 board meetings include the following:
 - July 2024:
 - 2Q 2024 financial results.
 - Capital expenditure approvals.
 - September 2024:
 - 2Q 2024 financial results.
 - Capital expenditure approvals.
- A revision of the corporate procurement policy to reflect changes in state law related to Small Works Rosters will be brought forward for approval, either at the July or September meetings.
- These topics are in addition to the regular standing items, including the Consent Agenda, Action Item Log, Executive Director’s report, and any additional approvals that may be required.
- Please note that no meeting is currently scheduled for August 2024.

CONCLUSION:

This report has provided a summary of the work undertaken by the PSERN Operator since the previous report in May 2024.

SUPPORTING DOCUMENTATION:

None



PSERN Operator Board of Directors Action Log - Open Items

#	Date Opened	Item	Responsible	Due Date	Notes
13	2/24/22	Request for additional information related to In-Building Sites to include details of funding options for the remaining 10 areas recommended by the task force, any budget considerations, improvements found in Coverage Testing, impacts of additional sites on Operator rates, Operations Board and Technical Committee perspective, and impact on backhaul capacity.	Operator Staff	TBD	Planning work for how to fulfill this set of requests will begin once the in-building sites are live on the system and testing is complete. This action item was moved from the Project Action Log to the Operator Action Log on 4/27/23. Work has begun to prepare initial deliverables. It is expected to take about a year. Procurement for A&E firms have concluded and are results are pending Board approval.
19	1/25/24	Compile and create a fiscal policy manual.	Operator Staff		Work to begin on this after the work on the 2025 budget is complete.
20	4/25/24	Follow up with FirstNet on subleasing space on PSERN towers.	Mike Webb	In Progress	PSERN had initial meeting with FirstNet.
21	4/25/24	Provide information on how PSERN explores and negotiates subleases and how fees are determined.	Adrian Englet	TBD	On the PSERN radar for a future board meeting.



PSERN Operator Board of Directors Action Log - Closed Items and Archive

#	Date Opened	Item	Responsible	Due Date	Notes
1	4/28/22	Summary of portfolio of PSERN leases	Project Staff	6/1/22	Operator
2	4/28/22	Budget workshop to discuss 2023 budget and rate setting	Mike Webb/ Tracy Plouse	7/15/22	Workshop held July 11th. Update at July board meeting.
3	6/23/22	Operator staff will send a calendar invite for the July 11, 2022 budget workshop.	Tracy Plouse	6/24/22	
4	3/24/22	Facility recommendation and approval	Mike Webb	8/25/22	Leased approved at 8/25 meeting.
5	6/23/22	Review availability for the August and September regular Board meetings.	Board Members	7/28/22	Need to confirm quorum
6	4/28/22	Provide a report on possible changes to the Operator ILA associated with a change to the milestone at which the Operator takes over operational responsibility. Assess the Motorola contract for any concerns.	Mike Webb	9/22/22	This pertains to the proposal to set the date for operational transition and PSERN service fee commencement to something other than FSA.
7	5/26/22	Review existing procurement policy to consider issues identified in Clark Nuber phase 1 report.	Mike Webb/ Tracy Plouse	9/22/22	Procurement policy amendments approved.

#	Date Opened	Item	Responsible	Due Date	Notes
8	8/25/22	Update the draft budget and service fee estimates to reflect revised CPI rates.	Tracy Plouse	9/22/22	Updated budget report provided at September meeting.
9	9/22/22	Approval of warrant vouchers (checks) needs to be added to future board meetings as a standing item. This could be done as part of a consent agenda that would also include approval of previous meeting minutes.	Mike Webb/ Tracy Plouse	10/27/22	Will be incorporated as part of consent agenda starting with October meeting
10	9/22/22	Operator staff will bring additional information on the alternatives to modifying or setting the Operator Transfer date and the associated funding requirements and approaches	Mike Webb	10/27/22	Closed, follow up item added to action log.
11	1/26/23	Mike Webb will consult with legal counsel on the wording of the motion for the Board to approve the transfer agreement prior to sending for Council approval.	Mike Webb	2/23/23	This is complete. Wording for the agreement has been provided. Pacifica advised the wording to be "it is also recommended that the Board plan to approve the Agreement, in substantially final form."

#	Date Opened	Item	Responsible	Due Date	Notes
12	10/27/22	The Operator will add the decision regarding collection of service fees from agencies beginning in 2024 to a future Board meeting.	Mike Webb/ Tracy Plouse	NA	FSA will not occur until December and there is no ability for the Operator to collect fees until after FSA. Recommend this item be closed. The Board of Directors agreed that this item should be closed at the 4/27/23 meeting.
14	3/24/22	2024 budget and service fee development.	Mike Webb/ Tracy Plouse	6/22/23	Budget approved in June.
15	3/24/22	Report on proposed plan for development of sublease agreement templates to be drawn up for discussion.	Mike Webb	5/25/23	Agenda item #8 of the 5/25/2023 Board meeting.
16	10/27/22	Operator staff will prepare a draft operational support agreement between the County and the Operator.	Mike Webb	5/25/23	Recommended to close this item as there is no OSA.

#	Date Opened	Item	Responsible	Due Date	Notes
17	5/25/23	The Operator has an action item to come back with some further analysis and proposed budget scenarios for the June meeting.	Tracy Plouse	6/22/23	On the June agenda.
18	7/27/23	The PSERN Operator will look into options on how it could offset the higher out of pocket maximums and deductibles for transferring employees and bring this information to the Board in August.	Operator Staff	8/24/23	Completed August 24,2023



PSERN Board of Directors Staff Report

Agenda Item #7

Title: 2025 PSERN Operating Budget & Service Fee Rates
Meeting Date: June 27, 2024
PSERN Staff Contact: Michael Webb, Executive Director
Action: Decision

SUMMARY:

This report presents a 2025 operating budget, service fee rates and a resolution for the Board's review and discussion. In comparison to the draft budget presented at the May meeting, this version includes minor updates to operating expenses, addition of a scenario for 2026 involving reduced post-warranty costs, and changes to proposed distribution of rate stabilization funds in 2026, 2027 and 2028.

ANALYSIS AND DISCUSSION:

At the May 23, 2024 meeting, staff presented a draft 2025 operating budget for the Board's review, with the intention of bringing forward a proposed 2025 budget at this June meeting for adoption by the Board. Since the May meeting, staff have made minor updates to operating expense projections and prepared an additional, hypothetical scenario for determination of service fee rates, as discussed below.

Proposed 2025 Operating Budget

The 2025 operating budget has been developed based on the 2024 budget and expenses from current operations. However, many categories of operating expenses are still high-level estimates as PSERN's operational history and experience only extends from January 2024 to approximately the end of April 2024.

The following assumptions have been made in the development of the 2025 operating budget:

- One scenario has been presented for consideration and approval:
 - Collection of 5% operating reserve to start in 2027.
- An additional scenario has been presented for discussion and illustration purposes:
 - Reduction of Motorola post-warranty expenses (starting in 2026) by approximately 32%.
 - Staff will be determining the scope of post-warranty services to be provided by Motorola over the next 12 months, in time for approval of the 2026 budget.
- Headcount is projected to be 24 FTE in 2025 and remains constant through 2029.
- Wages have been calculated using a general wage increase consistent with the projections in the 2024 budget and with progression through pay steps for eligible staff in 2025.
- Costs other than wages and benefits were escalated by 3% for 2025 and all subsequent years (to be consistent with the projections in the 2024 budget) unless explicitly estimated, revised and/or updated.
- The following numbers of radios and consoles were used in calculating rates, which represents approximately:

- Public Safety radios – 13,560
- Non-Public Safety radios – 5,050
 - *Total Radios – 18,610 (increase of 60 from May estimate)*
- Consoles – 143
- Network operating expenses, including lease costs, have been extensively reviewed and where possible, are based on actual costs incurred for the last few months of operations; however, certain expenses are still estimates and based on limited operational history and experience and will need to be adjusted as more operational experience is obtained.
- Certain errors, omissions and changes relative to the 2024 budget have been identified and addressed in the preliminary 2025 budget, including:
 - Addition of Radio Management software expenses - \$224K increase.
 - Overestimation of standby expenses - \$366K decrease.
 - Review of net lease and sub-lease expense - \$98K increase in expense.
 - Review of fiber backhaul expenses - \$147K decrease.

Two changes to 2025 operating expenses have been made since the May meeting:

- \$24,600 has been added to Corporate Technology Costs for additional Caselle (financial system) user licenses.
- \$30,000 has been added to Network Technology Costs for test equipment calibration services.

Overall, the 2025 preliminary budget is projected to increase by 3.3% from the 2024 approved budget, which is in line with the 2025 baseline projection in the 2024 budget.

Considerations for 2026, 2027 and 2028 Operating Budgets

Costs for Motorola post-warranty support are assumed to start on January 1, 2026. In the proposed budget scenario, Motorola post-warranty support costs have been estimated based on the schedule of payments in Change Order 8 of the Motorola contract. This amount is \$1.926M in 2026.

Because of the commencement of the Motorola post-warranty support, the 2026 operating budget is projected to increase by 25.5% before the application of rate stabilization funds.

Rate stabilization funds (total of \$2.6M available) have been applied in 2026, 2027 and 2028 to offset some of the MSI post warranty support services starting in 2026 and reduce the increase in net operating budget. The proposed budget shows the following use of rate stabilization funds: \$1.34M in 2026, \$1.07M in 2027 and \$209K in 2028. This results in net increases in operating budget in the range of 11-12% per year for those three years.

PSERN management will be assessing the need for certain categories of Motorola post-warranty support services over the coming year. Many of the optional services included in the contract are not expected to be required as PSERN Operator technical staff complete training and become proficient in supporting and maintaining the radio network and supporting infrastructure.

A hypothetical and illustrative budget and service fee rate scenario has been developed that assumes the post-warranty services can be reduced from \$1.926M to \$1.310M in 2026 (a 32% reduction). It should be noted that this scenario does not assume any increase in headcount, however that needs to be further assessed. This scenario also assumes a 5% operating reserve will be collected starting in 2027.

This scenario shows the following use of rate stabilization funds: \$995K in 2026, \$1.05M in 2027 and \$576K in 2028. This results in net increases in operating budget in the range of 8-9% per year for those

three years and 2029.

As the 2026 budget does not need to be approved at this time, it is proposed that the use of rate stabilization funds be further reviewed and updated as part of the 2026 budget development, in consideration of the expected increase in operating expenses due to Motorola support costs.

A summary of the PSERN Operator's proposed preliminary operating budget for 2025 and projected budgets for 2026-2029 are shown in Table 1 below. A more detailed budget report can be found in Appendix A.

Table 1: Proposed 2025 Budget Consolidated Operating Costs Summary

Puget Sound Emergency Radio Network Operator
2025 Budget (with 4 year proforma 2026 - 2029) - 80/20 & Refined Network Split
Consolidated Operating Costs - Summary

Description	for reference	PROPOSED BUDGET					Total	Variance	
	Approved 2024	2025	2026	2027	2028	2029		Cur vs PY (\$)	Cur vs PY (%)
	annual increases for all expense categories (except salaries)	3.0%	3.0%	3.0%	3.0%	3.0%		for info	for info
Revenue - investment income	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(125,000)	-	0%
Salaries & benefits	5,558,710	5,490,880	5,710,520	5,938,940	6,176,500	6,423,550	29,740,390	(67,830)	-1%
Employee related costs	90,270	109,050	112,320	115,680	119,150	122,720	578,920	18,780	21%
Premise costs	213,020	212,080	218,440	224,990	231,730	238,680	1,125,920	(940)	0%
Corporate technology costs	145,980	114,240	117,670	121,200	124,840	128,600	606,550	(31,740)	-22%
Professional services	220,000	167,000	169,310	171,690	174,140	176,670	858,810	(53,000)	-24%
King County services	1,500	1,500	1,550	1,600	1,650	1,700	8,000	-	0%
Radio site facilities costs	1,557,930	1,689,550	1,712,610	1,749,380	1,793,430	1,839,990	8,784,960	131,620	8%
Radio site systems costs	1,330,760	1,268,610	1,396,620	1,438,510	1,481,660	1,526,090	7,111,490	(62,150)	-5%
Network technology costs	33,030	398,060	2,416,370	2,461,910	2,507,530	2,456,560	10,240,430	365,030	1105%
Total Operating Expenses	9,126,200	9,425,970	11,830,410	12,198,900	12,585,630	12,889,560	58,930,470	299,770	3%
		3.3%	25.5%	3.1%	3.2%	2.4%			
Operating Reserve	-	-	-	609,950	629,280	644,480	1,883,710	-	n/a
"Smoothing" Rate Stabilization Allocation, 5% Operating Reserve Beginning 2027	0%	0%	51%	41%	8%	0%			
Rate Stabilization Funds	-	-	(1,335,890)	(1,073,960)	(209,550)	-	(2,619,400)	-	n/a
Total Operating Expenses	9,126,200	9,425,970	10,494,520	11,734,890	13,005,360	13,534,040	58,194,780	299,770	3%
		3.3%	11.3%	11.8%	10.8%	4.1%			

Table 2: 2025 Budget with Adjusted Post Warranty Services (2026 and Beyond)

Puget Sound Emergency Radio Network Operator
2025 Budget (with 4 year proforma 2026 - 2029) - 80/20 & Refined Network Split
Consolidated Operating Costs - Summary

2025 BUDGET - HYPOTHETICAL SCENARIO - MSI POST WARRANTY SERVICES ADJUSTED

		for reference	PROPOSED BUDGET									
Description	Approved							Total	Variance			
	2024	2025	2026	2027	2028	2029	Cur vs PY (\$)		Cur vs PY (%)			
	annual increases for all expense categories (except salaries)						3.0%		3.0%	3.0%	3.0%	3.0%
Revenue - investment income	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(125,000)	-	-	0%	
Salaries & benefits	5,558,710	5,490,880	5,710,520	5,938,940	6,176,500	6,423,550	29,740,390	-	(67,830)	-1%		
Employee related costs	90,270	109,050	112,320	115,680	119,150	122,720	578,920	-	18,780	21%		
Premise costs	213,020	212,080	218,440	224,990	231,730	238,680	1,125,920	-	(940)	0%		
Corporate technology costs	145,980	114,240	117,670	121,200	124,840	128,600	606,550	-	(31,740)	-22%		
Professional services	220,000	167,000	169,310	171,690	174,140	176,670	858,810	-	(53,000)	-24%		
King County services	1,500	1,500	1,550	1,600	1,650	1,700	8,000	-	-	0%		
Radio site facilities costs	1,557,930	1,689,550	1,712,610	1,749,380	1,793,430	1,839,990	8,784,960	-	131,620	8%		
Radio site systems costs	1,330,760	1,268,610	1,396,620	1,438,510	1,481,660	1,526,090	7,111,490	-	(62,150)	-5%		
Network technology costs	33,030	398,060	1,800,380	1,837,090	1,892,550	1,896,380	7,824,460	-	365,030	1105%		
Total Operating Expenses		9,126,200	9,425,970	11,214,420	11,574,080	11,970,650	12,329,380	56,514,500	✓	299,770	3%	
			3.3%	19.0%	3.2%	3.4%	3.0%					
Operating Reserve		-	-	-	578,700	598,530	616,470	1,793,700	-	-	n/a	
"Smoothing" Rate Stabilization Allocation, 5% Operating Reserve Beginning 2027		0%	0%	38%	40%	22%	0%					
	Rate Stabilization Funds	-	-	(995,370)	(1,047,760)	(576,270)	-	(2,619,400)	-	-	n/a	
	Total Operating Expenses	9,126,200	9,425,970	10,219,050	11,105,020	11,992,910	12,945,850	55,688,800	-	299,770	3%	
			3.3%	8.4%	8.7%	8.0%	7.9%					

Service Fee Rates

The radio quantities used to determine the rates have been updated based on current best estimates, considering any changes and/or deactivations that are known at this time. Changes to radio counts provided by user agencies as of June 1st, 2024 have been incorporated.

Compared to the 2024 budget, the projected 2025 radio quantities have increased by 1036 radios (~5.9%). This has resulted in a decrease in the 2025 budget service fee rates for public safety and non-public safety radios compared to the 2024 service rates (despite the 3.3% increase in the 2025 operating budget).

As an operating reserve will not be collected in 2025, the 2025 service fee rates are not required to increase as projected in the 2024 budget. Rather, they will decrease by approximately 1% in 2025 if set to precisely recover budgeted operating expenses. As there is limited operational history and experience and some budget estimates are still an estimate, management is recommending that service fee rates for 2025 remain the same as the 2024 rates (with no reduction).

Console rates are projected to increase by 1.4% in 2025 (as console quantities decreased by 1 for the 2025 budget as a result of revising console equipment usage).

The proposed 2025 service fee rates for Public Safety and Non-Public Safety radios and Consoles are provided in Table 3 below. The 2024 service fee rates are included in the table for reference.

The projected 2026 and beyond service fee rates for the scenario involving adjusted post-warranty costs are shown in Table 4 below.

Table 3: Proposed 2025 Budget Summary Rate Table

Puget Sound Emergency Radio Network Operator
 2025 Budget (with 4 year proforma 2026 - 2029) - 80/20 & Refined Network Split
 Operator Cost Allocation Rates - Summary Rate Table

	PSERN Rates (Monthly)																	
	Public Safety Radios						Non-Public Safety Radios						Consoles					
	2024	2025	2026	2027	2028	2029	2024	2025	2026	2027	2028	2029	2024	2025	2026	2027	2028	2029
"Smoothing" Rate Stabilization Allocation, 5% Operating Reserve Beginning 2027	\$36.92	\$36.61	\$40.09	\$44.92	\$49.82	\$51.85	\$28.80	\$28.55	\$31.27	\$35.04	\$38.86	\$40.44	\$999.22	\$1,013.18	\$1,209.70	\$1,341.18	\$1,482.74	\$1,542.36
annual % increase		-0.8%	9.5%	12.1%	10.9%	4.1%		-0.8%	9.5%	12.1%	10.9%	4.1%		1.4%	19.4%	10.9%	10.6%	4.0%

2025 Proposed Rates - Summary	Monthly Rates	% Change vs 2024
Public Safety Radios	\$36.92	0.0% align with 2024 rate
Non-Public Safety Radios	\$28.80	0.0% align with 2024 rate
Consoles	\$1,013.18	1.4%

Table 4: Proposed 2025 Budget Summary Rate Table with Adjusted Post Warranty Services (2026 and beyond)

Puget Sound Emergency Radio Network Operator
 2025 Budget (with 4 year proforma 2026 - 2029) - 80/20 & Refined Network Split
 Operator Cost Allocation Rates - Summary Rate Table

2025 BUDGET - HYPOTHETICAL SCENARIO - MSI POST WARRANTY SERVICES ADJUSTED

	PSERN Rates (Monthly)																	
	Public Safety Radios						Non-Public Safety Radios						Consoles					
	2024	2025	2026	2027	2028	2029	2024	2025	2026	2027	2028	2029	2024	2025	2026	2027	2028	2029
"Smoothing" Rate Stabilization Allocation, 5% Operating Reserve Beginning 2027	\$36.92	\$36.61	\$39.03	\$42.45	\$45.87	\$49.57	\$28.80	\$28.55	\$30.44	\$33.11	\$35.78	\$38.67	\$999.22	\$1,013.18	\$1,178.79	\$1,277.01	\$1,375.33	\$1,478.06
annual % increase		-0.8%	6.6%	8.8%	8.1%	8.1%		-0.8%	6.6%	8.8%	8.1%	8.1%		1.4%	16.3%	8.3%	7.7%	7.5%

COMPARISON VS 2025 BUDGET WITHOUT MSI POST WARRANTY ADJUSTMENTS

PSERN RATES (MONTHLY) - 2025 BUDGET	\$36.92	\$36.61	\$40.09	\$44.92	\$49.82	\$51.85	\$28.80	\$28.55	\$31.27	\$35.04	\$38.86	\$40.44	\$999.22	\$1,013.18	\$1,209.70	\$1,341.18	\$1,482.74	\$1,542.36
VARIANCE \$	\$0.00	\$0.00	(\$1.06)	(\$2.48)	(\$3.94)	(\$2.28)	\$0.00	\$0.00	(\$0.83)	(\$1.93)	(\$3.08)	(\$1.77)	\$0.00	\$0.00	(\$30.91)	(\$64.17)	(\$107.40)	(\$64.30)
VARIANCE %	0.0%	0.0%	-2.6%	-5.5%	-7.9%	-4.4%	0.0%	0.0%	-2.6%	-5.5%	-7.9%	-4.4%	0.0%	0.0%	-2.6%	-4.8%	-7.2%	-4.2%

Note: In 2026, the projected console rate increases are higher than radios. This is because of the significant increase in network operating expense in 2026 due to the commencement of Motorola post-warranty services, and the allocation of those costs between radio and consoles.

Comparison to the 2024 Operating Budget and Services

The proposed 2025 operating budget is 3.3% higher than the 2024 budget (increased from \$9.126M to \$9.426M). This is primarily attributable to network operating costs (as personnel and corporate/admin expenses are projected to decrease by approximately 2% - \$135K):

- Radio Site Facilities Expenses: increase of \$132K, specifically related to estimates for radio site operations and maintenance costs (including private powerline maintenance costs).
- Network Technology Expenses: increase of \$365K for tools and supplies, network consulting costs and the addition of radio management hosting and support.

Capital Costs

The proposed 2025 budget does not include any provision for capital expenses. The PSERN Operator's capital expense requirements in 2024 and beyond were outlined in a report to the Board at the April 2024 meeting. In that report, it was stated that the PSERN Operator would seek Board approval to expend surplus project funds transferred from the PSERN Project.

Each capital purchase, including those required in 2024 (up to a total of \$1.2M), will be brought to the Board with a justification or business case for approval.

RECOMMENDATION:

It is recommended that the Board approve the proposed 2025 operating budget shown in Table 1 and service fee rates shown at the bottom of Table 3 above. This includes the proposal to keeping 2025 radio service fee rates at the 2024 level.

The Operator Board is therefore, being requested to approve the following motion:

MOTION: Approve Resolution No. 24-04 adopting service fees to be effective January 1, 2025 and an operating budget for 2025 as provided therein.

SUPPORTING DOCUMENTATION:

Appendix A: 2025 Operating Budget Detail

Appendix B: Resolution 24-04

Appendix A: 2025 Operating Budget Detail

Puget Sound Emergency Radio Network Operator
2025 Budget (with 4 year proforma 2026 - 2029) - 80/20 & Refined Network Split
Consolidated Operating Costs - Detailed

		for reference	PROPOSED BUDGET							Variance	
Description	Approved 2024		2025	2026	2027	2028	2029	Total	Cur vs PY (\$)	Cur vs PY (%)	
annual increases for all expense categories (except salaries)			3%	3%	3%	3%	3%		for info	for info	
OTHER NON-OPERATING REVENUE											
Interest	(25,000) a		(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(125,000)	-	0%	
	(25,000)		(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(125,000)	-	0%	
SALARIES AND BENEFITS											
Salaries	3,330,270 e		3,584,320	3,727,690	3,876,800	4,031,870	4,193,140	19,413,820	254,050	8%	
Overtime	351,580 e		364,690	379,280	394,450	410,230	426,640	1,975,290	13,110	4%	
Standby/After Hours Pay	478,150 e		111,670	116,140	120,790	125,620	130,640	604,860	(366,480)	-77%	
Benefits	1,398,710 e		989,040	1,028,600	1,069,740	1,112,530	1,157,030	5,356,940	(409,670)	-29%	
ER Payroll Taxes	- e		441,160	458,810	477,160	496,250	516,100	2,389,480	441,160	n/a	
	5,558,710		5,490,880	5,710,520	5,938,940	6,176,500	6,423,550	29,740,390	(67,830)	-1%	
EMPLOYEE RELATED COSTS											
Training & Conferences	48,000 e		48,000	49,440	50,920	52,450	54,020	254,830	-	0%	
Travel - Parking, Tolls	5,000 e		5,000	5,150	5,300	5,460	5,620	26,530	-	0%	
Mobile Phone Service	22,270 e		12,150	12,510	12,890	13,280	13,680	64,510	(10,120)	-45%	
Office Supplies	10,000 e		8,000	8,240	8,490	8,740	9,000	42,470	(2,000)	-20%	
Postage, shipping	- e		2,000	2,060	2,120	2,180	2,250	10,610	2,000	n/a	
Misc Services	5,000 e		5,000	5,150	5,300	5,460	5,620	26,530	-	0%	
Payroll Processing	- e		3,900	4,020	4,140	4,260	4,390	20,710	3,900	n/a	
Safety Supplies	- e		25,000	25,750	26,520	27,320	28,140	132,730	25,000	n/a	
	90,270		109,050	112,320	115,680	119,150	122,720	578,920	18,780	21%	
PREMISE COSTS											
Lease Expense - Kent Office	109,490 a		112,770	116,150	119,640	123,230	126,930	598,720	3,280	3%	
Utilities - Kent Office	58,430 a		58,090	59,830	61,620	63,470	65,370	308,380	(340)	-1%	
Insurance - Kent Office	15,000 a		24,000	24,720	25,460	26,220	27,010	127,410	9,000	60%	
Janitorial Services	12,080 a		12,010	12,370	12,740	13,120	13,510	63,750	(70)	-1%	
Security Services	4,220 a		4,190	4,320	4,450	4,580	4,720	22,260	(30)	-1%	
Phone Service	1,800 a		1,020	1,050	1,080	1,110	1,140	5,400	(780)	-43%	
Phone Service VOIP	12,000 a		-	-	-	-	-	-	(12,000)	-100%	
	213,020		212,080	218,440	224,990	231,730	238,680	1,125,920	(940)	0%	
CORPORATE TECHNOLOGY COSTS											
IT Network Services - Kent Ofc	10,570 a		21,010	21,640	22,290	22,960	23,650	111,550	10,440	99%	
Software License Subscription	99,160 a		6,300	6,490	6,680	6,880	7,090	33,440	(92,860)	-94%	
GASB 87 Clearing - SBTA	26,250 a		31,630	32,580	33,560	34,570	35,610	167,950	5,380	20%	
Tech Supplies	10,000 a		10,000	10,300	10,610	10,930	11,260	53,100	-	0%	
Software Supp & Mtce - Admin	- a		45,300	46,660	48,060	49,500	50,990	240,510	45,300	n/a	
	145,980		114,240	117,670	121,200	124,840	128,600	606,550	(31,740)	-22%	
PROFESSIONAL SERVICES											
Legal Services	120,000 a		90,000	90,000	90,000	90,000	90,000	450,000	(30,000)	-25%	
Consulting Services	100,000 a		75,000	77,250	79,570	81,960	84,420	398,200	(25,000)	-25%	
Audit Services	- a		2,000	2,060	2,120	2,180	2,250	10,610	2,000	n/a	
	220,000		167,000	169,310	171,690	174,140	176,670	858,810	(53,000)	-24%	
CASH MANAGEMENT SERVICES											
Cash Management/Investment Services	1,500 a		1,500	1,550	1,600	1,650	1,700	8,000	-	0%	
	1,500		1,500	1,550	1,600	1,650	1,700	8,000	-	0%	
RADIO SITE FACILITIES COSTS											
Sublease Revenue	(583,840)		(554,670)	(567,360)	(586,960)	(607,280)	(628,330)	(2,944,600)	29,170	-5%	
Leases - Sites	1,439,570		1,508,220	1,521,880	1,555,500	1,596,440	1,639,910	7,821,950	68,650	5%	
Insurance - Sites	505,000 n		470,000	484,100	498,620	513,580	528,990	2,495,290	(35,000)	-7%	
Tower Inspection Services	42,200		28,000	28,840	29,710	30,600	31,520	148,670	(14,200)	-34%	
Tower Rigger Services	50,000		67,500	69,530	71,620	73,770	75,980	358,400	17,500	35%	
Private Powerline R&M	-		20,000	20,600	21,220	21,860	22,520	106,200	20,000	n/a	
Repairs & Maintenance - Facilities	75,000		126,500	130,300	134,210	138,240	142,390	671,640	51,500	69%	
Road Maintenance	30,000		24,000	24,720	25,460	26,220	27,010	127,410	(6,000)	-20%	
	1,557,930		1,689,550	1,712,610	1,749,380	1,793,430	1,839,990	8,784,960	131,620	8%	
RADIO SITE SYSTEMS COSTS											
Fire Monitoring	8,360		8,620	8,880	9,150	9,420	9,700	45,770	260	3%	
Fire Suppresion	159,730		164,530	169,470	174,550	179,790	185,180	873,520	4,800	3%	
Generator Maintenance	207,800		140,220	207,800	214,030	220,450	227,060	1,009,560	(67,580)	-33%	
HVAC Maintenance	92,950		69,160	97,810	100,740	103,760	106,870	478,340	(23,790)	-26%	
Fuel/Diesel - Sites	182,690		188,170	193,820	199,630	205,620	211,790	999,030	5,480	3%	
Utilities - Sites	122,150		125,820	129,590	133,480	137,480	141,600	667,970	3,670	3%	
E-Line / Fiber	447,080		300,090	309,090	318,360	327,910	337,750	1,593,200	(146,990)	-33%	
Fuel Systems R&M	-		40,000	41,200	42,440	43,710	45,020	212,370	40,000	n/a	
Site Parts/Supplies	60,000 n		120,000	123,600	127,310	131,130	135,060	637,100	60,000	100%	
Transportation Services - Vehicle Fuel	50,000 n		60,000	61,800	63,650	65,560	67,530	318,540	10,000	20%	
Transportation Services - Vehicle Maintenance	- n		52,000	53,560	55,170	56,830	58,530	276,090	52,000	n/a	
	1,330,760		1,268,610	1,396,620	1,438,510	1,481,660	1,526,090	7,111,490	(62,150)	-5%	
NETWORK TECHNOLOGY COSTS											
Network Software Maintenance & Support	6,610 n		-	-	-	-	-	-	(6,610)	-100%	
Software - Network	19,810 n		35,000	76,050	78,330	80,680	83,100	353,160	15,190	77%	
Jira software annual license	6,610 n		-	-	-	-	-	-	(6,610)	-100%	
Tools & Supplies	- n		65,000	66,950	68,960	71,030	73,160	345,100	65,000	n/a	
Software Support Expense	- n		223,060	269,630	276,370	283,280	291,780	1,344,120	223,060	n/a	
Network Consulting	- n		75,000	77,250	79,570	81,960	84,420	398,200	75,000	n/a	
MSI -post warranty support services (including upgrades)	-		-	1,926,490	1,958,680	1,990,580	1,924,100	7,799,850	-	n/a	
	33,030		398,060	2,416,370	2,461,910	2,507,530	2,456,560	10,240,430	365,030	1105%	
Total Operating Expenses		9,126,200	9,425,970	11,830,410	12,198,900	12,585,630	12,889,560	58,930,470	299,770	3%	
			3.3%	25.5%	3.1%	3.2%	2.4%				
"Smoothing" Rate Stabilization Allocation, 5% Operating Reserve Beginning 2027											
Operating Reserve	-		-	-	609,950	629,280	644,480	1,883,710	-	n/a	
Rate Stabilization Funds	-		-	(1,335,890)	(1,073,960)	(209,550)	-	(2,619,400)	-	n/a	
	-		-	51%	41%	8%	-	-	-	-	
Total Operating Expenses		9,126,200	9,425,970	10,494,520	11,734,890	13,005,360	13,534,040	58,194,780	299,770	3%	
			3.3%	11.8%	11.8%	10.8%	4.1%				

Appendix B: Draft Resolution 24-04

PUGET SOUND EMERGENCY RADIO NETWORK OPERATOR

DRAFT RESOLUTION NO. 24-04

A RESOLUTION of the Puget Sound Emergency Radio Network Operator
Board of Directors adopting the 2025 Budget.

RECITALS

WHEREAS, in accordance with Section 4.4 of the Puget Sound Emergency Radio Network Operator Interlocal Cooperation Agreement (the “Interlocal Agreement”), by and among King County and the cities of Auburn, Bellevue, Federal Way, Issaquah, Kent, Kirkland, Mercer Island, Redmond, Renton, Seattle, and Tukwila, the Board of Directors (the “Board”) of the Puget Sound Emergency Radio Network Operator (“PSERN Operator”) is responsible for approving a budget for PSERN Operator; and

WHEREAS, budget for the 2025 period has been prepared by PSERN Operator staff and presented to this Board for consideration; and

WHEREAS, after due consideration the Board now desires to adopt the 2025 budget as set forth herein.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PUGET SOUND EMERGENCY RADIO NETWORK OPERATOR AS FOLLOWS:

Section 1. Adoption of 2025 Budget. The Board hereby approves and adopts the 2025 budget in the total amount of \$9.426M (the “2025 Budget”). The 2025 Budget represents operating costs that would be due and payable in fiscal year 2025. A summary budget for 2025 and a table of service fees are attached as Exhibit A and Exhibit B, respectively, and are incorporated herein by reference. For clarity, 2025 radio service fees are shown at the bottom of Exhibit B and will be unchanged from 2024 rates.

Section 2. Mid-Annual Review. The Board shall provide for a mid-annual budget review of the 2025 Budget and shall make modifications to such budget as determined to be necessary and in the best interest of the PSERN Operator.

Section 3. Further Authority; Prior Acts. All PSERN Operator officials, agents, and representatives are hereby authorized and directed to undertake all action necessary or desirable from time to time to carry out the terms of, and complete the transactions contemplated by, this resolution. All acts taken pursuant to the authority of this resolution but prior to its effective date are hereby ratified and confirmed.

Section 4. Severability. If any section, subsection, paragraph, sentence, clause, or phrase of this resolution is declared unconstitutional or invalid for any reason, such decision shall not affect the viability of the remaining portions of this resolution.

Section 5. Effective Date. This resolution shall take effect immediately upon its passage and adoption.

PASSED at a special meeting of the Puget Sound Emergency Radio Network Operator Board of Directors on this 27th day of June, 2024.

CONCURRED by the Chairperson of the Puget Sound Emergency Radio Network Operator Board of Directors on this 27 day of June, 2024.

Chief Harold Scoggins, Chairperson, Board of
Directors, Puget Sound Emergency Radio
Network Operator

PSERN Board of Directors Staff Report Agenda Item # 8

Title:	Authorization to Proceed with Engineering Studies
Meeting Date:	June 27, 2024
PSERN Staff Contact:	Michael Webb, Executive Director
Action:	Discussion/Decision

SUMMARY:

This report discusses two planned engineering studies and requests Board approval to proceed with both projects and make the required expenditures. The first study is to assess the electrical power situation at the Maloney and Sobieski radio sites and develop short term and long-term improvement recommendations. The second study involves the review of coverage provided by the North simulcast system and determine whether any network changes are needed to improve coverage in that area. This is the first step in the broader in-building coverage study that is on the Board's action register.

BACKGROUND:

Sobieski & Maloney Power Assessment and Reconfiguration

At the April 2024 meeting, PSERN Operator staff presented a report that identified potential capital projects or one-time expenditures that need to be completed in 2024 using either surplus project funds or other set-aside funds. One of these projects involved the assessment and reconfiguration of electrical power at the Maloney and Sobieski radio sites.

PSERN has two radio sites in the Highway 2 corridor near the Town of Skykomish. The two sites are approximately one mile apart – the lower site on Maloney Ridge and the upper site near the top of Sobieski Mountain, at approximately 5000 ft. elevation. The two sites provide redundant microwave connectivity to all other sites in the Highway 2 corridor. Both are served by a private underground power line, dating to the 1970's and owned by Puget Sound Energy (PSE), that is unreliable and slated for replacement in approximately 2026, although this timing is not confirmed.

Due to the unreliability of the power line, PSERN has temporarily installed additional generators and fuel tanks at Sobieski and is regularly operating both sites on generator power while the powerline is inoperable. The generator and switching configurations were modified after the PSERN site was designed and built, but they have not been optimized for sustained operations during extended commercial power outages. Because of these issues and site access challenges in the winter, the sites are prone to service interruptions and has a high time-to-repair, as evidenced by a 3-day service outage experienced at Sobieski in January 2024.

PSERN is planning to undertake an engineering study in the summer of 2024 to define a set of interim (2024-2026) improvements intended to improve reliability and maintainability of the power supply at both sites and prepare for the implementation of the new powerline in 2026 or beyond.

In-Building Coverage Assessment

The PSERN Operator Board of Directors have been tracking the following action item:

- *Request for additional information related to In-Building Sites to include details of funding options for the remaining 10 areas recommended by the (In-Building) Task Force, any budget considerations, improvements found in Coverage Testing, impacts of additional sites on Operator rates, Operations Board and Technical Committee perspective, and impact on backhaul capacity.*

This action was removed from the PSERN Project action log and assigned to the PSERN Operator in early 2023. \$1,000,000 in funding was transferred from the Project to the Operator for this work, which is expected to take approximately 1 year. The work will be carried out in several phases, the first of which involves a detailed assessment of the current in-building coverage provided by the system as built and tested by Motorola (see Appendix C).

Because of recent reports of coverage issues in the Kirkland/Bothell area, PSERN is proposing to start this effort with an assessment of the coverage provided by the North Simulcast system, which provides service to the areas north and east of Lake Washington, including Bellevue, Kirkland, Bothell, Issaquah, etc.

Subsequent phases of work will address the remaining RF systems within the Primary Bounded Area – West Simulcast, South Simulcast, Northeast Simulcast and the McDonald and 3 Sisters ASR sites. An overview of the planned phases for the coverage assessment work is provided in Appendix C. The simulcast systems serving highway 2, I-90 and highway 410 are not planned to be assessed or considered for additional in-building coverage but will be included in some of the other aspects of the work, including development of revised coverage predictions.

Procurement for A&E Services

PSERN has recently completed procurement activities for Architectural & Engineering (A&E) consulting services of two types:

- Electrical Engineering services – Salas O’Brien has been selected via an RFQ process for the Maloney/Sobieski work.
- RF, Microwave and Network Design services – an A&E roster of 3 qualified firms has been established and Master Service Agreements executed with the following:
 - Federal Engineering
 - Mission Critical Partners
 - Hatfield & Dawson

By establishing the A&E roster for RF, Microwave and Network Design services, PSERN can now submit Work Order Requests to the 3 firms on the roster to request proposals for completing specific scopes of work. A Work Order Request has been submitted for an initial scope of work to undertake a review of coverage (including in-building coverage) provided by the North simulcast system.

Responses to this Work Order Request are expected by June 21st, so the selected firm and the cost of this initial work were not known at the time this report was drafted.

DISCUSSION/ANALYSIS:

Sobieski & Maloney Power Assessment

The full scope of work for this project is provided in Appendix A. As discussed below, the work will define, assess, and design a preferred set of modifications at both sites, including:

- Modification or replacement of one or more generators and transfer switches.
- Interconnecting the two sites together using segments of the existing powerline.
- Assessing and possibly modifying fuel storage, supply and refueling arrangements.
- Assessment of feasibility of alternative power sources.
- Installation of additional monitoring and control equipment.

Following the engineering study, supply and implementation of equipment, switching and interconnection changes are expected to occur in multiple phases in 2024, 2025, and possibly 2026, when the new PSE powerline is expected to be available.

The selected consultant (Salas O'Brien) has proposed a Not-to-Exceed fee of \$65,000 (plus taxes) for the engineering and design study (this was previously estimated in the April report at \$150K). Sourcing and implementation costs were previously estimated at \$275K, but this will be revised once the engineering study is complete.

This work is to be funded using surplus project/levy funds that were transferred to the PSERN Operator after the March 2024 Project Joint Board decision.

The objective is to complete an initial set of improvements before the sites become inaccessible in the late fall of 2024. A supply and implementation contractor will be selected through the Public Works Invitation to Bid (ITB) process or Small Works Roster process defined in PSERN's Procurement Policy. Once the engineering study is complete, the Board will be requested to approve procurement and contracting for the sourcing implementation work.

North Simulcast Coverage Assessment

As noted above, costs and preferred consultant for this work have not been identified yet. However, PSERN expects to be able to identify a Not-to-Exceed cost prior to the June Board meeting and will present that information at the meeting. Approval to proceed with this work will be requested at the June meeting.

The detailed scope of work is provided in Appendix B. As discussed above, the same assessment will be carried out for all simulcast systems in the network during subsequent phases of work.

This work is to be funded using the funds set aside for the In-Building Coverage Assessment work (\$1M) discussed above.

RECOMMENDATION:

It is requested and recommended that the Board authorize the Executive Director to proceed with the two engineering studies discussed above:

- Maloney/Sobieski Power Assessment
 - Consultant: **Salas O'Brien**
 - NTE Cost: **\$65,000** plus taxes
- North Simulcast Coverage Assessment
 - Consultant: **To be provided**
 - NTE Cost: **To be provided**

It is therefore recommended that the Board of Directors approve the following motions:

MOTION: That the PSERN Operator Board authorize the Executive Director to proceed with the Maloney/Sobieski Power Assessment study at a Not-to-Exceed cost of **\$65,000** plus taxes.

MOTION: That the PSERN Operator Board authorize the Executive Director to proceed with the North Simulcast Coverage Assessment study at a Not-to-Exceed cost of **\$TBD** plus taxes.

CONCLUSION:

This report has discussed two proposed engineering studies and requested Board approval to proceed with both projects and make the required expenditures. The first study is to assess the electrical power situation at the Maloney and Sobieski radio sites and develop short term and long-term improvement recommendations (not-to-exceed cost of \$65,000). The second study involves the review of coverage provided by the North simulcast system and determine whether any network changes are needed to improve coverage in that area.

SUPPORTING DOCUMENTATION:

Appendix A – Scope of Work for Maloney/Sobieski Power Assessment

Appendix B – Scope of Work for North Simulcast Coverage Assessment

Appendix C – General Phases of Work for In-Building Coverage Assessment

Appendix A – Scope of Work for Maloney/Sobieski Power Assessment

Note: The Not-to-Exceed cost for this scope of work is \$65,000 plus applicable taxes.

Description of Services

1. General:

- A.** Provide site review of the Maloney and Sobieski Radio sites to review existing equipment and to develop short term (2024) and long term (2025) options for stable / uninterruptable power at Maloney and Sobieski Radio Sites. Both sites are located at remote mountain top locations where accessibility can be limited during a significant portion of the year. Site access will impact and needs to be accounted for all construction schedules, routine maintenance, fueling and overall system reliability. Site access may be limited to snow cats and snow mobiles during winter months.

2. Site Review and Development of AC Power Options:

- A.** Provide an on-site review of the Maloney site to review the age and condition of the existing feeders and equipment including the PSE buried underground line to the underground vault, feeder to the buried step-down transformer and underground transformer. We understand the underground PSE power line will be up for renewal in 3-5 years. Review will include a possible spare transformer to be stored at the site. Site utility loads, power consumption and 30-day load metering will be evaluated.
 - (1). Review of the existing ASCO ATS and 50kW standby generator for prolonged operation during extended AC power outages and conversion to primary power including overall fuel consumption, emissions, and maintenance schedules, including complete unit overhaul. If primary power is selected, we suggest that a second standby generator and ATS be provided to operate in an alternating lead/lag configuration with two transfer switches to even out unit run time and extend maintenance schedules.
 - (2). Review feasibility of alternate power sources including wind, solar, fuel cells and energy storage solutions at this site. The remote location, snowfall, and trees may result in these systems not being feasible.
 - (3.) Review site loads and generator rating for possible load banks.
 - (4). Review the site DC Power System, HVAC systems and remote alarming for feasibility of power options presented.
 - (5.) Review site access for equipment and material delivery and contractor access.
- B.** Provide an on-site review of the Sobieski site to review the age and condition of the existing feeders and equipment including the PSE aboveground feeder in conduit from the underground vault to the underground transformer. Options for consideration include feeding Maloney from Sobieski and assuming ownership of the above ground feeder and conversion of both sites to a primary metered system and taking ownership of both utility transformers. Review will include a possible spare transformer to be stored at the site. Site utility loads, power consumption and 30-day load metering will be evaluated.
 - (1). Review of the existing Cummins ATS and 60kW standby generators for prolonged operation during extended AC power outages and conversion to primary power including overall fuel consumption, emissions, and maintenance schedules, including complete unit overhaul.
 - (2.) Review of the existing Thompson ATS and 80kW standby generator for prolonged operation during extended AC power outages and conversion to primary power including overall fuel consumption,

emissions, and maintenance schedules, including complete unit overhaul. Review of both generators for operation in a lead/standby configuration. Review site loads and generator ratings for possible load banks.

- (3.) If primary power is selected, we suggest that a second standby generator and ATS be provided to operate in an alternating lead/lag configuration with two transfer switches to even out unit run time and extend maintenance schedules. Review the feasibility of a single primary power plant and service at Sobieski to serve both sites. (Sobieski has the larger service and distribution system).
- (4.) Review feasibility of alternate power sources including wind, solar, fuel cells and energy storage solutions at this site. The remote location, snowfall, and trees may result in these systems not being feasible.
- (5.) Review the site DC Power System, HVAC systems and remote alarming for feasibility of power options presented.
- (6.) Review site access for equipment and material delivery and contractor access.

C. Develop Short Term and Long Term for Stable/Uninterruptable power options that include:

- (1.) Modifications to existing equipment and systems for improved reliability and operation.
- (2.) PSE feeder and transformer upgrades.
- (3.) PSERN assumption of some or all site feeders and transformers including costs, maintenance, and primary metering.
- (4.) Prime Power generation through on-site generators.
- (5.) Alternate power sources including wind, solar, fuel cells and emergency storage solutions for use with either PSE primary power or prime power generation.

D. Proposed recommendations/design will utilize as much of existing equipment, components, material, and infrastructure as possible. Each recommendation needs to include a complete cost estimate including:

- (1.) New equipment, components, and material costs.
- (2.) Estimated Construction costs.
- (3.) Preventative and ongoing maintenance costs.
- (4.) Schedule, including equipment lead times.

E. Submittal of Upgrade Options to PSERN for review and direction.

3. Design of PSERN selected Upgrade Option:

- A.** Design documents will be prepared using Salas O'Brien template drawings and specifications incorporating PSERN and code requirements. The design will be submitted to PSERN for review at the 60% and 100% phases for review and comment.
- B.** Salas O'Brien will submit drawings for AHJ review if required. Permit costs will be paid by others.
- C.** Weekly design teleconference calls will be held with design team members and PSERN stakeholders. The Salas O'Brien project manager will issue weekly meeting minutes.

4. Preparation of Procurement Documentation and Implementation Management Support Services:

- A. Based on approved recommendations by PSERN for power changes at Maloney and Sobieski, the services scope includes the preparation all necessary documentation to allow PSERN to issue an Invitation to Bid (ITB) under the Small Works category.
- B. Provide implementation support services including working with the PSERN team during the ITB process to select and ultimately manage the work required to complete the approved design changes at the Maloney and Sobieski radio sites.

5. Construction Administration:

- A. Salas O'Brien will conduct weekly construction meetings via telephone conference followed up with meeting minutes. Salas O'Brien will assist in resolution of issues identified in the construction meetings.
- B. Salas O'Brien will also make periodic trips to the site(s) for construction observation. Three site visits for observation and one visit for punch walk are planned.
- C. Construction Administration will include:
 - (1.) Skilled-trade submittal reviews and maintaining a submittal Log. Reviews to be provided within five days of submittal receipt.
 - (2.) Response to Contractor RFIs and maintaining an RFI Log. RFI responses to be provided within three days of RFI receipt.
 - (3.) Review Contractor Methods of Procedure (MOPs).
 - (4.) Issue clarifications and construction change directives for changes to the contract documents as required.
 - (5.) Review and process payment requests.
- D. Provide record drawings to PSERN based on contractor "as-built" drawings. Our scope of work will include as-built conditions and provide as-built record drawings based upon contractor's submittal of redlined drawings and Salas O'Brien's field observations.

It is important to note that due to the limited weather access window to both the Maloney and Sobieski sites, time is of the essence for completion of all aspects of the services described. PSERN would prefer to have all approved design changes implemented at both Maloney and Sobieski in 2024, although it is recognized that this may not be possible, and improvements may have to be phased between 2024 and 2025.

Throughout the execution of the Work, the Contractor shall consult with PSERN regarding the assessment of the various alternatives, in consideration of cost, schedule and level of improvement in power reliability. Work to prepare procurement documentation shall not commence until PSERN has provided explicit approval of the recommendations to be implemented and the scope of procurement.

Appendix B – Scope of Work for North Simulcast Coverage Assessment

Note: The Not-to-Exceed cost and preferred consultant for this scope of work will be identified at the June Board meeting.

Description of Services

PSERN requires the services of a qualified P25 radio network design engineer to review the design of its North simulcast system, develop a coverage prediction and model for the simulcast system and develop recommendations for any design or configuration changes in order to improve and optimize coverage.

The North simulcast system consists of 11 P25 Phase II RF sites and 2 geo-redundant prime sites, interconnected via PSERN's MPLS network which primarily uses microwave transport. The simulcast system serves a number of cities in the north and east part of King County (east of Lake Washington), including Bellevue, Redmond, Kirkland, Issaquah, Bothell, Woodinville and Sammamish.

Certain public safety user agencies in the northern part of the simulcast coverage area have reported system performance issues, in both indoor and outdoor situations. Through this project, PSERN wishes to better understand the current coverage performance of the system and the level of in-building coverage (building penetration margin) that is available.

As part of this work, PSERN is looking for recommendations for changes to the design and configuration of the North simulcast system to address any significant predicted coverage deficiencies, including changes to antenna type/model, placement, and orientation. PSERN is interested in both short term (to be implemented within 6 months) and long-term design changes, including the addition of new RF sites.

The following activities should be included in the project scope:

- Develop a coverage performance model (bottom-up) using industry-standard or proprietary RF propagation models applicable to 800 MHz P25 Phase II operation for both uplink and downlink.
 - This needs to include both uplink and downlink link budgets based on the as-built configuration of the North simulcast system.
 - The model should be focused on predicting the performance of a handheld portable radio.
- Import technical and equipment details of the existing system (as-built) into a coverage prediction tool (EDX SignalPro is preferred) that can predict:
 - Uplink and downlink RSSI, BER and DAQ
 - Time Domain Interference impact
 - Dominant RF site locations/areas (primarily for selecting DAS donor sites)
- Run coverage prediction and display/visualize coverage prediction data using coverage prediction tool or other GIS-based visualization tool.
- Develop reports and plots that enable PSERN to access, query and otherwise visualize predicted system coverage and area reliability, including area reliability with additional in-building signal margin added in specific areas.
- The coverage prediction tool needs to incorporate a variety of base maps, including orthophotos, and other feature layers (rivers, highways, etc.).
- The coverage prediction tool must be able to provide reports on area reliability given the coverage and performance criteria defined above – with or without additional margin for in-building coverage.
- Develop recommendations for changes to the design and configuration of the North simulcast system to address any significant predicted coverage deficiencies, including short term changes to antenna type/model, placement, and orientation.

PSERN will supply the following:

- As-built design information and hardware configuration for all RF sites in the simulcast system.
- Any additional available system configuration data that may be required.
- Raw coverage test data generated by Motorola during Coverage Acceptance Testing over the period of late 2021 – early 2023.
- Access to radio sites as required.

For reference, during Coverage Acceptance Testing, system coverage was verified as meeting the following requirements:

- Primary Bounded Area (PBA)
 - 97% area reliability, DAQ 3.4, portable on hip (14.3 dB attenuation)
 - 2.4% downlink BER
 - 2.6% uplink BER
- An additional 17 dB of signal margin for building penetration (97% area reliability) was implemented within a polygon corresponding to downtown Bellevue.
- The table below summarizes the radio testing configuration used during system design and implementation:

Table 5: Radio Testing Configuration

Parameter	Portable Radio	Mobile Radio
Antenna Type	1/2 wave antenna on belt	Unity gain antenna
Antenna Height	1 m = 3.3 ft. (hip level)	1.5 m = 5 ft.
Transmitter Power	3 W = 34.8 dBm	10 W = 40.0 dBm
Antenna/Body/Cable loss	-14.3 dB	-1.5 dB
Approximate ERP (after Loss)	20.5 dBm (-9.5 dBW)	38.5 dBm (8.5 dBW)

Appendix C – General Phases of Work for In-Building Coverage Assessment

This appendix provides a general outline of the full program of work to complete the In-Building Coverage Assessment study that was identified by the PSERN Project and subsequently assigned to the PSERN Operator.

The timing and scope of each phase will be further defined in individual scopes of work that will be included in Work Order Requests to be submitted to consultants on PSERN's A&E roster for RF, Microwave and Network Design services.

Please note that the coverage assessment for the North Simulcast system discussed in this report is part of Phase 2 but will be undertaken prior to the Phase 1 work because of recent user agency feedback regarding coverage in the Kirkland/Bothell area. A further work order will be developed to complete the Phase 2 scope once Phase 1 is complete.

Phase 1 – Analysis of Existing Coverage Test Data

- Analyze coverage test data generated by Motorola (collected over the period of late 2021 – early 2023)
- Import all coverage test data into a GIS based tool that will enable PSERN to visualize DAQ and BER performance relative to contract objective (PBA 97% area reliability, DAQ 3.4, portable on hip, 95% for highways outside PBA, 2.4% downlink BER, 2.6% uplink BER)
- Incorporate into GIS model the 3 “In-Building Polygons” for which 17 dB additional signal margin is required (Seattle, Bellevue, Renton)
- GIS tool needs to incorporate a variety of base maps, including orthophotos, and other feature layers (rivers, highways, etc.).
- Ensure GIS tool is able to provide reports on area reliability given the criteria above – with or without the IBC polygons.

At the completion of this phase of work, PSERN should have a tool and datasets that can be used to interactively access, and query system coverage performance as measured back in 2021-2023.

Phase 2 – Coverage Modelling

- Develop a performance model (bottom-up) using industry-standard (Hata, Cost-231, etc.) or proprietary RF propagation models applicable to 800 MHz mobile operation for both uplink and downlink:
 - This needs to include both uplink and downlink link budgets.
- Import technical and equipment details of the existing system (as-built) into a coverage prediction tool that can predict:
 - Uplink and downlink RSSI, BER and DAQ
 - Time Domain Interference predictions
 - Best server locations/areas (based on Motorola system configuration, i.e. roaming/affiliation parameters)
- Run coverage prediction for each RF subsystem and import coverage prediction data into GIS

visualization tool (or use visualization tools built into coverage prediction tool).

- Develop reports and plots that enable PSERN to access and query predicted system coverage and area reliability, including area reliability with additional in-building signal margin in specific areas included.

At the completion of this phase of work, we should be able to visualize and correlate what Motorola measured during system acceptance with predicted coverage.

Phase 3 – Develop Revised In-Building Coverage Criteria

- Develop and propose additional in-building coverage signal margin polygons, based on assessment and categorization of land use, terrain, building type, construction, and density.
 - Consultant will have to source the required data, which may necessitate some analysis of readily available data sets such as 3D building profiles.
- PSERN should request several scenarios with different in-building coverage margins (for example, one scenario could be to increase the 17 dB used to date to 21 dB in certain areas)
- In all scenarios there should be multiple “tiers” of in-building margin (e.g. suburban residential single story 6 dB, suburban residential multi-story 9 dB, urban multi-story 15 dB, dense urban 21 dB, etc.)
- Ensure coverage reports/plots developed in Phase 2 can be run with revised in-building polygons in multiple scenarios so that locations potentially requiring additional radio sites can be identified.

At the completion of this phase of work, PSERN should understand the areas where new sites might be justified based on re-defined in-building coverage criteria.

Phase 4 – Drive Testing

- Undertake drive testing to verify and fine-tune the coverage prediction model created/used in Phase 2
 - Methodology and test procedure (including tile size, number of measurements over distance, etc.) should be as per TSB-88C recommendations.
- King County should be broken into 4 regions, to be completed in the following order:
 - Primary bounded area (excluding City of Seattle) north of I-90
 - Primary bounded area (excluding City of Seattle) south of I-90
 - City of Seattle
 - Highway corridors – Hwy 2, 410 and I-90 outside of PBA
- There may be some areas outside of the County needing to be tested (e.g. Lynnwood for Sound Transit purposes)
- Update and refine the coverage prediction and propagation model developed in Phase 2

At the completion of this phase of work, PSERN should have an updated and verified coverage prediction model to be used in determining current in-building signal margins and deficient areas based on updated coverage criteria.

Phase 5 – Develop Recommendations for Network Changes

- Develop recommendations for addition of new radio sites, including search rings.
- Identify whether any modifications to existing sites is warranted (relocating or modifying antennas, including azimuth, down tilt, and changes to power levels, etc.).
- Recommendations should be in order of priority or magnitude of improvement as define by increased area reliability considering revised in-building requirements developed in Phase 3.

After Phase 5, PSERN will need to undertake financial analysis so that it can prepare recommendations for our stakeholders on addition of new sites or modifications to existing sites.