



Final Presentation 12/9/21

# 800 MHz Users Meeting

December 9<sup>th</sup>, 2021





Final Presentation 12/9/21

# LID Status Update

Agenda Item 5



# LID Status

- Remaining LIDS: 28\* (After Requests granted)
  - Truckee Meadow Fire Protection District (TMFPD)
    - issued 3 LIDs (Consoles)
  - Reno Sparks Indian Colony (RSIC)
    - issued 5 LIDS
    - Requesting 7 Additional LIDS\*\*
  - Sparks Dispatch
    - Issued 4 LIDS
  - Washoe County Sheriffs Dispatch
    - Issued 2 LIDS
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    - Requesting 7 LIDS\*\*
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    - Requesting 6 LIDS for DRI ← Agency to be sponsored\*\*
      - 2 Initially, 4 in the future
- Issuance of LIDs will be looked at **case by case** and prioritized accordingly. Please allow for a few weeks to get back to all requests.





Final Presentation 12/9/21

# System Status Update

Agenda Item 6



# System Status Update

Final Presentation 12/9/21

- Site issues
  - Slide channel 5 & 11
  - Fox Channel 4
- Outages
  - Fox Solar Panel Commissioning December 1<sup>st</sup> – 3<sup>rd</sup>
- Updates
  - Sums updates conducted monthly





# WCRCs Infrastructure Maintenance and Replacement Plan 5 Year Plan

Agenda Item 7



# Maintenance completed in calendar year 2021

Final Presentation 12/9/21

- DC battery banks & rectifier testing
  - Virginia Peak Replaced
  - Mt Rose, Slide and Snowflake purchases made, and planned for installation for next calendar year
- HVAC inspection & repair
  - Snowflake
  - All Sites had filter replacement due to wild fires this year
- Dehydrator/Waveguide pressure testing
  - Slide transmission line replaced
- Generator inspections and repair
  - All sites completed Red Peak & Marble Bluff required some rebuild, and getting parts delayed installation.



# Maintenance completed in calendar year 2021

Final Presentation 2/9/21

- Tower inspections
  - Marble Bluff 230% Overloaded
  - Mount Rose 84.5% Loaded
  - Poito 24% loaded
  - Ophir 94.5% loaded
- Radio maintenance & alignments
  - All sites spot checked. Alignments & Adjustments made on Slide, Virginia, Red Peak, & Fox Mountain
- Security cameras maintenance and installation
  - Marble Bluff, Peavine, Virginia Peak, Snowflake, Red Peak
- Remote alarms verification and tests
  - Tested at all sites, looking for new solutions at Red Peak and Slide. Eventually entire remote alarming will be replaced with new P25 Radio system.



# Revised Maintenance Budget

Final Presentation 12/9/21

<u>Maintenance Type</u>	<u>Accounts</u>	<u>Acct. Name</u>	<u>WCRCS Maintenance</u> <u>2022-2023</u>	<u>WCRCS Maintenance</u> <u>2023-2024</u>	<u>WCRCS Maintenance</u> <u>2024-2025</u>	<u>WCRCS Maintenance</u> <u>2025-2026</u>	<u>WCRCS Maintenance</u> <u>2026-2027</u>	
Battery Replacement	781004	Equipment Capital	\$130,000.00				\$120,000.00	on-going Maintenance
Generator Replacement	710205	Repair and Maintenance	\$50,837.71	\$62,000.00	\$62,000.00	\$62,000.00	\$62,000.00	New Maintenance
Tower Replacement	710100	Professional Services				\$211,000.00	\$145,000.00	
Electrical Repairs	711502	Build Imp Non-Capital	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Safety Expenses (ie-Carbon Monitor)	710571	Safety Expense	\$800.00	\$3,200.00	\$800.00	\$3,200.00	\$800.00	
Redundancy Project	710100	Equipment Capital			\$250,000.00	\$250,000.00		
DC to DC Converters	711504	Equipment Non-Capital	\$0.00					
Grounding	711504	Equipment Non-Capital	\$20,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
Network (ie- routers, switches, Fiber)	711504	Equipment Non-Capital	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	
Security	711504	Equipment Non-Capital	\$24,075.00	\$21,000.00	\$20,000.00	\$20,000.00	\$20,000.00	
Air conditioner- HVAC	710205	Repair and Maintenance	\$10,000.00	\$10,000.00	\$30,000.00	\$30,000.00	\$30,000.00	
Antenna Waveguide System	711504	Equipment Non-Capital	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	
Building Maintenance	710205	Repair and Maintenance	\$6,000.00	\$6,000.00	\$60,000.00	\$6,000.00	\$6,000.00	
Breaker replacements	711504	Equipment Non-Capital	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	
Roof repair/ patching	710205	Repair and Maintenance	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	
Painting/ Building maintenance	710205	Repair and Maintenance	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	
Flooring	710205	Repair and Maintenance	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	
Door Maintenance or replacement	710205	Equipment Service Replace			\$6,000.00	\$6,000.00	\$6,000.00	
Radio Alignments	710205	Repair and Maintenance	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	
Existing Maintenance			\$196,375.00	\$65,700.00	\$136,300.00	\$84,700.00	\$202,300.00	
New Maintenance			\$126,337.71	\$118,500.00	\$374,500.00	\$585,500.00	\$269,500.00	
<b><u>Total Maintenance Cost</u></b>			<b><u>\$322,712.71</u></b>	<b><u>\$184,200.00</u></b>	<b><u>\$510,800.00</u></b>	<b><u>\$670,200.00</u></b>	<b><u>\$471,800.00</u></b>	

<u>Acct. Name</u>	<u>Accounts</u>	<u>WCRCS Maintenance</u> <u>2022-2023</u>	<u>WCRCS Maintenance</u> <u>2023-2024</u>	<u>WCRCS Maintenance</u> <u>2024-2025</u>	<u>WCRCS Maintenance</u> <u>2025-2026</u>	<u>WCRCS Maintenance</u> <u>2026-2027</u>	<u>Past 5 Year</u> <u>average spend</u>	<u>Budgeted</u>
Equipment Capital	781004	\$130,000.00	\$0.00	\$0.00	\$0.00	\$120,000.00	\$ 234,115.89	\$ 60,000.00
Professional Services	710100	\$0.00	\$0.00	\$250,000.00	\$461,000.00	\$145,000.00	\$ 43,549.72	\$ 23,655.58
Safety Expense	710571	\$800.00	\$3,200.00	\$800.00	\$3,200.00	\$800.00	\$ 480.83	\$ 500.00
Equipment Non-Capital	711504	\$94,575.00	\$72,500.00	\$71,500.00	\$71,500.00	\$71,500.00	\$ 125,110.13	\$ 242,138.20
Repair and Maintenance	710205	\$97,337.71	\$108,500.00	\$188,500.00	\$134,500.00	\$134,500.00	\$ 41,887.58	\$ 60,000.00
							<b>\$ 445,144.15</b>	<b>\$ 386,293.78</b>



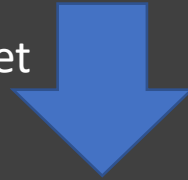
# 5 Year Plan

- Multi-Year
  - Network Upgrades to Core Network \$250K (Split over Multiple years)
    - Backhaul that houses the Camera system, remote alarm monitoring and system alarms (Redundant network)
  - Adding cameras and security to new sites (\$7K per site)
    - Yellow Peak, Smokey Quartz, Cold Spring, Red Peak, Red Rock, Biltmore/Water tank
  - Adding alarming, remote monitoring to new sites (\$2K per site)
    - Contact control point updates and refresh of all alarms, addition of carbon monoxide monitors, door alarms, system alarms- replacement of Network sentry.
  - Upgrade existing generators to Blue Star Generators, and Upgrade all HVAC units to one standard (2 a year- As needed)
- 2022-2023
  - Additional Staff to support bringing 5 new sites on-line. (Proposing 1 Technician)
- 2024-2025\*
  - Add 1 more technician (Adding total of 2 positions over 2 years)
  - Add Microwave Link from Red Rock to Virginia Peak (\$250K- Professional Svc)
- 2025-2026\*
  - Upgrade the Monopole at Edison to a Proper tower (\$211K- Professional Svc)
  - Add Microwave Link from Smokey Quartz to Edison Microwave (\$250K)
- Not Budgeted Yet\*\*
  - Connect fiber in through Incline Village to Tahoe Basin Sites
  - Connect Fiber to Marble Bluff, when County gets fiber to Gerlach.



# 5 Year Plan- Add 2 bodies

WCRCS proposing to add 1  
Technicians in 2022-2023 Budget  
year.



WCRCS proposing to add 1  
Technicians in 2023-2024 Budget  
year.



WCRCS Adding 1 position		2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Accounts		Plan	Plan	Plan	Plan	Plan	Plan
701110	Base Salaries	\$ 395,503.25	\$ 480,126.59	\$ 574,352.46	\$ 585,839.51	\$ 597,556.30	\$ 609,507.43
701130	Pooled Positions	\$ 14,728.35	\$ 14,728.35	\$ 15,022.92	\$ 15,323.38	\$ 15,629.84	\$ 15,942.44
701140	Holiday Work	\$ 500.00	\$ -	\$ -	\$ -	\$ -	\$ -
701200	Incentive longevity	\$ 3,150.00	\$ 3,475.00	\$ 3,544.50	\$ 3,615.39	\$ 3,687.70	\$ 3,761.45
701300	Overtime	\$ 5,250.00	\$ 5,250.00	\$ 5,355.00	\$ 5,462.10	\$ 5,571.34	\$ 5,682.77
701406	Standyby Pay	\$ 33,000.00	\$ 39,000.00	\$ 39,780.00	\$ 40,575.60	\$ 41,387.11	\$ 42,214.85
701408	Call Back	\$ 6,500.00	\$ 6,500.00	\$ 6,630.00	\$ 6,762.60	\$ 6,897.85	\$ 7,035.81
705110	Group insurance	\$ 42,322.54	\$ 58,570.44	\$ 59,741.85	\$ 60,936.69	\$ 62,155.42	\$ 63,398.53
705115	ER HSA Contribs	\$ 8,500.00	\$ 8,500.00	\$ 8,670.00	\$ 8,843.40	\$ 9,020.27	\$ 9,200.67
705190	OPEB Contribution	\$ 21,235.00	\$ 22,296.75	\$ 22,742.69	\$ 23,197.54	\$ 23,661.49	\$ 24,134.72
705210	Retirement	\$ 118,500.86	\$ 143,871.44	\$ 146,748.87	\$ 149,683.85	\$ 152,677.52	\$ 155,731.07
705230	Medicare April 1986	\$ 5,449.97	\$ 6,595.07	\$ 6,726.97	\$ 6,861.51	\$ 6,998.74	\$ 7,138.72
705320	Workmens Com	\$ 3,168.76	\$ 3,241.42	\$ 3,306.25	\$ 3,372.37	\$ 3,439.82	\$ 3,508.62
705330	Umemply Comp	\$ 318.25	\$ 318.25	\$ 324.62	\$ 331.11	\$ 337.73	\$ 344.48

# 5 Year Plan

## Cost per Radio

- 2021-2022- \$254.72
- **2022-2023- \$257.39**
- 2023-2024- \$248.94
- 2024-2025- \$289.75
- 2025-2026- \$316.63\*\*
- 2026-2027- \$284.14\*\*

**Assume radio count 6876.5**

**1 Technician a year for 2 years included in these radio cost above**

**\*\* Subject to change when P25 system cut over. (NSRS Members acceptance scheduled for December 2025-March 2026)**

710100	Professional Services	\$ 160,015.00	\$ 150,000.00	\$ 60,000.00	\$ 250,000.00	\$ 461,000.00	\$ 145,000.00
710149	Invest Pool Allocation	\$ 325.00	\$ 325.00	\$ 325.00	\$ 325.00	\$ 320.00	\$ 320.00
710200	Service Contracts	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
710205	Repairs and Maintenance	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 126,500.00	\$ 72,500.00	\$ 72,500.00
710210	Software Maintenance	\$ 120,000.00	\$ 120,000.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00
710212	Software Subscriptions	\$ 5,500.00	\$ 5,500.00	\$ -	\$ -	\$ -	\$ -
710302	Small Tools and Allow	\$ 5,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710310	Parts and Supplies	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
710350	Office Supplies	\$ 500.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 10,000.00
710355	Books and Subscriptions	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
710360	Postage	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00
710361	Express Courier	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00
710503	License and Permits	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00
710505	Rental Equipment	\$ -	\$ 1,500.00	\$ 1,500.00	\$ -	\$ -	
710506	dept ineductible	\$ 900.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00
710507	Network and data Lines	\$ 2,500.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00
710508	Telephone Land lines	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710509	Seminars and Meetings	\$ 3,000.00	\$ 6,000.00	\$ 6,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
710512	Auto Expenses	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
710519	Cellular Phones	\$ 2,700.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710529	Dues	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
710571	Safety Expense	\$ 500.00	\$ 800.00	\$ 3,200.00	\$ 800.00	\$ 3,200.00	\$ 800.00
710594	Insurance premiums	\$ 1,100.00	\$ 1,600.00	\$ 1,600.00	\$ 1,697.93	\$ 1,731.89	\$ 1,766.53
710610	LT Lease- Land	\$ 149,612.55	\$ 149,612.55	\$ 152,604.80	\$ 155,656.90	\$ 158,770.03	\$ 161,945.44
711010	Utilities	\$ 59,000.00	\$ 67,000.00	\$ 68,340.00	\$ 69,706.80	\$ 71,100.94	\$ 72,522.95
711040	Natural Gas	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ -
711100	ESD Asset Management	\$ 4,890.00	\$ 5,379.00	\$ 5,486.58	\$ 5,596.31	\$ 5,708.24	\$ 5,822.40
711113	Equipment Services Replace	\$ 21,447.72	\$ 23,592.49	\$ 24,064.34	\$ 24,545.63	\$ 25,036.54	\$ 25,537.27
711114	Equipment Srv O&M	\$ 24,679.38	\$ 27,147.32	\$ 27,690.27	\$ 28,244.07	\$ 28,808.95	\$ 29,385.13
711117	ESD Fuel Charge	\$ 10,003.32	\$ 14,000.00	\$ 14,280.00	\$ 14,565.60	\$ 14,856.91	\$ 15,154.05
711210	Travel	\$ 5,000.00	\$ 12,000.00	\$ 12,240.00	\$ 12,484.80	\$ 12,734.50	\$ 12,989.19
711400	Overhead- General Fund	\$ 46,973.00	\$ 46,973.00	\$ 47,912.46	\$ 48,870.71	\$ 49,848.12	\$ 50,845.09
711504	Equipment non Capital	\$ 170,489.45	\$ 70,000.00	\$ 72,500.00	\$ 71,500.00	\$ 71,500.00	\$ 71,500.00
711508	Computer Noncapital	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
711509	Comp Softwavre non capital	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00
711510	Comm Equipment noncapital	\$ -	\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
781004	Equipment Capital	\$ 60,000.00	\$ 130,000.00	\$ 60,100.00	\$ 60,100.00	\$ 60,000.00	\$ 120,000.00





# 5 Year Plan

- 2022-2024 Add two additional positions over 2 year period time
  - Most of the Team's time will be dedicated to the installations of the new P25 system. Still need to support daily activities during construction of new P25 Site builds.
  - Maintenance increases to support 5 additional sites. New system will require Network Centric type position as we transition into IP systems.
- 2024-2026 Radio costs increase due to redundancy projects
  - There is an initiative to **Increase redundancy within the network to add reliability.** These costs may need to be taken out of the infrastructure costs ( if there is remaining money after the P25 System cut over\*\*) These projects can be cut, they are "like to have" not "need" based.
- I believe in planning; A 5 year look ahead gives you time to prepare for or budget for planned projects. 😊

# 2022-2023 Budget Discussion

## Agenda Item 8-







# WCRCs Radio Counts, End of Life Notices, and replacement Options

Agenda Item- 9



# Radio Counts

- Our New L3Harris Sales Representative is Claire Pender.



- 2,073 radios ordered out of 5097 contractual commitment of the P25 Radios
  - We have reached 40% of our contractual obligation
  - Reminder – Harris to be onsite for installation Oct 2022- Dec 2023
    - Radio One-Touch for portables “ Make ready” for new system
    - Mobile Installations (Don’t forget your warranty is on hold until the device goes into service) May begin as early as October 2022.
    - Please have radios purchased prior to these events to be ready for the System cut-over.





# End of Life notices & Replacements options

Final Presentation 12/9/21

- The 700/800 MHz P7300 and XG Portable series radios, introduced in 2009 are reaching the end of product life.
  - These especially effect the XG-15P, XG-25P, XG-75P & P7300 Radios

MILESTONE	DESCRIPTION	DATE
End-of-Manufacturing announcement	Sales Connection Mailing	8/02/2021
Equipment last-time-buy date (Last date for shipments from L3Harris facilities)	P7300	No LTB Offered
	XG-75P/Pe	11/30/2021
	XG-25P	11/30/2021
	XG-15P	11/30/2021
End-of-Firmware Support	XG Portables	11/30/2022
End-of-service parts support*	The end date for purchasing service parts, hardware maintenance support and TAC support.	11/30/2026
*Limited availability		



# XL FAMILY FEATURE LIST

tion 12/9/21

SERIES	CONNECT	CONVERGE				EXTREME
SPECIFICATION	XL-95P	XL-150P	XL-185P	XL-200P	XL-400P	
VHF (136-174 MHz)	FUTURE	✓	✓	✓	✓	
UHF (378-522 MHz )	FUTURE	✓	✓	✓	✓	
700/800 MHz	✓	✓	✓	✓	✓	
900 MHz			✓			
P25/Analog	✓	✓	✓	✓	✓	
P25 Trunking	✓	✓	✓	✓	✓	
Single Key AES/DES	✓	✓	✓	✓	✓	
Multikey AES/DES Encryption	✓		✓	✓	✓	
Over-the-Air Programming	✓	✓	✓	✓	✓	
Over-the-Air Rekeying	✓		✓	✓	✓	
Multiband Capable				✓	✓	
GPS	✓	✓	✓	✓	✓	
Bluetooth®	✓	✓	✓	✓	✓	
LTE Ready		✓	✓	✓	✓	
Wi-Fi	✓	✓	✓	✓	✓	
Top Display		✓	✓	✓	✓	
Advanced Noise Cancellation	✓	✓	✓	✓	✓	
Voice Annunciation	✓	✓	✓	✓	✓	

- **XL Connect 95P Order Number:** XN-PF78M, Portable, XL-95P, 7/800 MHz, Black
  - Web: <https://www.l3harris.com/all-capabilities/xl-connect-95p-portable-radio>
- **XL Connect™ 45P Order Number:** XK-PF78B, Portable, XL-45P, 7/800 MHz, Gray
  - Web: <https://www.l3harris.com/all-capabilities/xl-connect-45p-portable-radio>





# UNR Sponsorship of Desert Research Institute (DRI) to Join the WCRCs as a Sponsored Agency

Agenda Item 10





# Questions?

**Melissa Lawney**  
**[Mlawney@washoecounty.us](mailto:Mlawney@washoecounty.us)**  
**775-771-4241**  
**775-858-5952**









Items 5, 6, 7, 8, 9, 10 - Presentation \*revised 12/9/21\*

# 800 MHz Users Meeting

December 9<sup>th</sup>, 2021





Items 5, 6, 7, 8, 9, 10 - Presentation \*revised 12/9/21\*

# LID Status Update

Agenda Item 5



# LID Status

Items 5, 6, 7, 8, 9, 10 - Presentation \*revised 12/9/21\*

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Agenda Item 6





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Agenda Item 7





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Grounding	711504	Equipment Non-Capital	\$20,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
Network (ie- routers, switches, Fiber)	711504	Equipment Non-Capital	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	
Security	711504	Equipment Non-Capital	\$24,075.00	\$21,000.00	\$20,000.00	\$20,000.00	\$20,000.00	
Air conditioner- HVAC	710205	Repair and Maintenance	\$10,000.00	\$10,000.00	\$30,000.00	\$30,000.00	\$30,000.00	
Antenna Waveguide System	711504	Equipment Non-Capital	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	
Building Maintenance	710205	Repair and Maintenance	\$6,000.00	\$6,000.00	\$60,000.00	\$6,000.00	\$6,000.00	
Breaker replacements	711504	Equipment Non-Capital	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	
Roof repair/ patching	710205	Repair and Maintenance	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	
Painting/ Building maintenance	710205	Repair and Maintenance	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	
Flooring	710205	Repair and Maintenance	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	
Door Maintenance or replacement	710205	Equipment Service Replace			\$6,000.00	\$6,000.00	\$6,000.00	
Radio Alignments	710205	Repair and Maintenance	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	
Existing Maintenance			\$196,375.00	\$65,700.00	\$136,300.00	\$84,700.00	\$202,300.00	
New Maintenance			\$126,337.71	\$118,500.00	\$374,500.00	\$585,500.00	\$269,500.00	
<b><u>Total Maintenance Cost</u></b>			<b><u>\$322,712.71</u></b>	<b><u>\$184,200.00</u></b>	<b><u>\$510,800.00</u></b>	<b><u>\$670,200.00</u></b>	<b><u>\$471,800.00</u></b>	

<u>Acct. Name</u>	<u>Accounts</u>	<u>WCRCS Maintenance</u> <u>2022-2023</u>	<u>WCRCS Maintenance</u> <u>2023-2024</u>	<u>WCRCS Maintenance</u> <u>2024-2025</u>	<u>WCRCS Maintenance</u> <u>2025-2026</u>	<u>WCRCS Maintenance</u> <u>2026-2027</u>	<u>Past 5 Year</u> <u>average spend</u>	<u>Budgeted</u>
Equipment Capital	781004	\$130,000.00	\$0.00	\$0.00	\$0.00	\$120,000.00	\$ 234,115.89	\$ 60,000.00
Professional Services	710100	\$0.00	\$0.00	\$250,000.00	\$461,000.00	\$145,000.00	\$ 43,549.72	\$ 23,655.58
Safety Expense	710571	\$800.00	\$3,200.00	\$800.00	\$3,200.00	\$800.00	\$ 480.83	\$ 500.00
Equipment Non-Capital	711504	\$94,575.00	\$72,500.00	\$71,500.00	\$71,500.00	\$71,500.00	\$ 125,110.13	\$ 242,138.20
Repair and Maintenance	710205	\$97,337.71	\$108,500.00	\$188,500.00	\$134,500.00	\$134,500.00	\$ 41,887.58	\$ 60,000.00
							<b>\$ 445,144.15</b>	<b>\$ 386,293.78</b>



# 5 Year Plan

- Multi-Year
  - Network Upgrades to Core Network \$250K (Split over Multiple years)
    - Backhaul that houses the Camera system, remote alarm monitoring and system alarms (Redundant network)
  - Adding cameras and security to new sites (\$7K per site)
    - Yellow Peak, Smokey Quartz, Cold Spring, Red Peak, Red Rock, Biltmore/Water tank
  - Adding alarming, remote monitoring to new sites (\$2K per site)
    - Contact control point updates and refresh of all alarms, addition of carbon monoxide monitors, door alarms, system alarms- replacement of Network sentry.
  - Upgrade existing generators to Blue Star Generators, and Upgrade all HVAC units to one standard (2 a year- As needed)
- 2022-2023
  - Additional Staff to support bringing 5 new sites on-line. (Proposing 1 Technician)
- 2024-2025\*
  - Add 1 more technician (Adding total of 2 positions over 2 years)
  - Add Microwave Link from Red Rock to Virginia Peak (\$250K- Professional Svc)
- 2025-2026\*
  - Upgrade the Monopole at Edison to a Proper tower (\$211K- Professional Svc)
  - Add Microwave Link from Smokey Quartz to Edison Microwave (\$250K)
- Not Budgeted Yet\*\*
  - Connect fiber in through Incline Village to Tahoe Basin Sites
  - Connect Fiber to Marble Bluff, when County gets fiber to Gerlach.



# 5 Year Plan- Add 2 bodies

WCRCS proposing to add 1  
Technicians in 2022-2023 Budget  
year.



WCRCS proposing to add 1  
Technicians in 2023-2024 Budget  
year.



WCRCS Adding 1 position		2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Accounts		Plan	Plan	Plan	Plan	Plan	Plan
701110	Base Salaries	\$ 395,503.25	\$ 480,126.59	\$ 574,352.46	\$ 585,839.51	\$ 597,556.30	\$ 609,507.43
701130	Pooled Positions	\$ 14,728.35	\$ 14,728.35	\$ 15,022.92	\$ 15,323.38	\$ 15,629.84	\$ 15,942.44
701140	Holiday Work	\$ 500.00	\$ -	\$ -	\$ -	\$ -	\$ -
701200	Incentive longevity	\$ 3,150.00	\$ 3,475.00	\$ 3,544.50	\$ 3,615.39	\$ 3,687.70	\$ 3,761.45
701300	Overtime	\$ 5,250.00	\$ 5,250.00	\$ 5,355.00	\$ 5,462.10	\$ 5,571.34	\$ 5,682.77
701406	Standyby Pay	\$ 33,000.00	\$ 39,000.00	\$ 39,780.00	\$ 40,575.60	\$ 41,387.11	\$ 42,214.85
701408	Call Back	\$ 6,500.00	\$ 6,500.00	\$ 6,630.00	\$ 6,762.60	\$ 6,897.85	\$ 7,035.81
705110	Group insurance	\$ 42,322.54	\$ 58,570.44	\$ 59,741.85	\$ 60,936.69	\$ 62,155.42	\$ 63,398.53
705115	ER HSA Contribs	\$ 8,500.00	\$ 8,500.00	\$ 8,670.00	\$ 8,843.40	\$ 9,020.27	\$ 9,200.67
705190	OPEB Contribution	\$ 21,235.00	\$ 22,296.75	\$ 22,742.69	\$ 23,197.54	\$ 23,661.49	\$ 24,134.72
705210	Retirement	\$ 118,500.86	\$ 143,871.44	\$ 146,748.87	\$ 149,683.85	\$ 152,677.52	\$ 155,731.07
705230	Medicare April 1986	\$ 5,449.97	\$ 6,595.07	\$ 6,726.97	\$ 6,861.51	\$ 6,998.74	\$ 7,138.72
705320	Workmens Com	\$ 3,168.76	\$ 3,241.42	\$ 3,306.25	\$ 3,372.37	\$ 3,439.82	\$ 3,508.62
705330	Umemply Comp	\$ 318.25	\$ 318.25	\$ 324.62	\$ 331.11	\$ 337.73	\$ 344.48

# 5 Year Plan

## Cost per Radio

- 2021-2022- \$254.72
- **2022-2023- \$257.39**
- 2023-2024- \$248.94
- 2024-2025- \$289.75
- 2025-2026- \$316.63\*\*
- 2026-2027- \$284.14\*\*

**Assume radio count 6876.5**

**1 Technician a year for 2 years included in these radio cost above**

**\*\* Subject to change when P25 system cut over. (NSRS Members acceptance scheduled for December 2025-March 2026)**

710100	Professional Services	\$ 160,015.00	\$ 150,000.00	\$ 60,000.00	\$ 250,000.00	\$ 461,000.00	\$ 145,000.00
710149	Invest Pool Allocation	\$ 325.00	\$ 325.00	\$ 325.00	\$ 325.00	\$ 320.00	\$ 320.00
710200	Service Contracts	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
710205	Repairs and Maintenance	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 126,500.00	\$ 72,500.00	\$ 72,500.00
710210	Software Maintenance	\$ 120,000.00	\$ 120,000.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00
710212	Software Subscriptions	\$ 5,500.00	\$ 5,500.00	\$ -	\$ -	\$ -	\$ -
710302	Small Tools and Allow	\$ 5,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710310	Parts and Supplies	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
710350	Office Supplies	\$ 500.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 10,000.00
710355	Books and Subscriptions	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
710360	Postage	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00
710361	Express Courier	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00
710503	License and Permits	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00	\$ 2,300.00
710505	Rental Equipment	\$ -	\$ 1,500.00	\$ 1,500.00	\$ -	\$ -	
710506	dept ineductible	\$ 900.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00
710507	Network and data Lines	\$ 2,500.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00	\$ 6,600.00
710508	Telephone Land lines	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710509	Seminars and Meetings	\$ 3,000.00	\$ 6,000.00	\$ 6,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
710512	Auto Expenses	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00
710519	Cellular Phones	\$ 2,700.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
710529	Dues	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
710571	Safety Expense	\$ 500.00	\$ 800.00	\$ 3,200.00	\$ 800.00	\$ 3,200.00	\$ 800.00
710594	Insurance premiums	\$ 1,100.00	\$ 1,600.00	\$ 1,600.00	\$ 1,697.93	\$ 1,731.89	\$ 1,766.53
710610	LT Lease- Land	\$ 149,612.55	\$ 149,612.55	\$ 152,604.80	\$ 155,656.90	\$ 158,770.03	\$ 161,945.44
711010	Utilities	\$ 59,000.00	\$ 67,000.00	\$ 68,340.00	\$ 69,706.80	\$ 71,100.94	\$ 72,522.95
711040	Natural Gas	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ -
711100	ESD Asset Management	\$ 4,890.00	\$ 5,379.00	\$ 5,486.58	\$ 5,596.31	\$ 5,708.24	\$ 5,822.40
711113	Equipment Services Replace	\$ 21,447.72	\$ 23,592.49	\$ 24,064.34	\$ 24,545.63	\$ 25,036.54	\$ 25,537.27
711114	Equipment Srv O&M	\$ 24,679.38	\$ 27,147.32	\$ 27,690.27	\$ 28,244.07	\$ 28,808.95	\$ 29,385.13
711117	ESD Fuel Charge	\$ 10,003.32	\$ 14,000.00	\$ 14,280.00	\$ 14,565.60	\$ 14,856.91	\$ 15,154.05
711210	Travel	\$ 5,000.00	\$ 12,000.00	\$ 12,240.00	\$ 12,484.80	\$ 12,734.50	\$ 12,989.19
711400	Overhead- General Fund	\$ 46,973.00	\$ 46,973.00	\$ 47,912.46	\$ 48,870.71	\$ 49,848.12	\$ 50,845.09
711504	Equipment non Capital	\$ 170,489.45	\$ 70,000.00	\$ 72,500.00	\$ 71,500.00	\$ 71,500.00	\$ 71,500.00
711508	Computer Noncapital	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
711509	Comp Softwavre non capital	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00	\$ 2,700.00
711510	Comm Equipment noncapital	\$ -	\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
781004	Equipment Capital	\$ 60,000.00	\$ 130,000.00	\$ 60,100.00	\$ 60,100.00	\$ 60,000.00	\$ 120,000.00





# 5 Year Plan

- 2022-2024 Add two additional positions over 2 year period time
  - Most of the Team's time will be dedicated to the installations of the new P25 system. Still need to support daily activities during construction of new P25 Site builds.
  - Maintenance increases to support 5 additional sites. New system will require Network Centric type position as we transition into IP systems.
- 2024-2026 Radio costs increase due to redundancy projects
  - There is an initiative to **Increase redundancy within the network to add reliability.** These costs may need to be taken out of the infrastructure costs ( if there is remaining money after the P25 System cut over\*\*) These projects can be cut, they are "like to have" not "need" based.
- I believe in planning; A 5 year look ahead gives you time to prepare for or budget for planned projects. 😊

# 2022-2023 Budget Discussion

## Agenda Item 8-







# WCRCs Radio Counts, End of Life Notices, and replacement Options

Agenda Item- 9



# Radio Counts

- Our New L3Harris Sales Representative is Claire Pender.



- 1,818 radios ordered out of 5097 contractual commitment of the P25 Radios
  - We have reached 35% of our contractual obligation
  - Reminder – Harris to be onsite for installation Oct 2022- Dec 2023
    - Radio One-Touch for portables “ Make ready” for new system
    - Mobile Installations (Don’t forget your warranty is on hold until the device goes into service) May begin as early as October 2022.
    - Please have radios purchased prior to these events to be ready for the System cut-over.





# End of Life notices & Replacements options

Items 5, 6, 7, 8, 9, 10 - Presentation \*revised 12/9/21\*

- The 700/800 MHz P7300 and XG Portable series radios, introduced in 2009 are reaching the end of product life.
  - These especially effect the XG-15P, XG-25P, XG-75P & P7300 Radios

MILESTONE	DESCRIPTION	DATE
End-of-Manufacturing announcement	Sales Connection Mailing	8/02/2021
Equipment last-time-buy date (Last date for shipments from L3Harris facilities)	P7300	No LTB Offered
	XG-75P/Pe	11/30/2021
	XG-25P	11/30/2021
	XG-15P	11/30/2021
End-of-Firmware Support	XG Portables	11/30/2022
End-of-service parts support*	The end date for purchasing service parts, hardware maintenance support and TAC support.	11/30/2026
*Limited availability		



# XL FAMILY FEATURE LIST

ed 12/9/21\*

SERIES	CONNECT	CONVERGE				EXTREME
SPECIFICATION	XL-95P	XL-150P	XL-185P	XL-200P	XL-400P	
VHF (136-174 MHz)	FUTURE	✓	✓	✓	✓	
UHF (378-522 MHz )	FUTURE	✓	✓	✓	✓	
700/800 MHz	✓	✓	✓	✓	✓	
900 MHz			✓			
P25/Analog	✓	✓	✓	✓	✓	
P25 Trunking	✓	✓	✓	✓	✓	
Single Key AES/DES	✓	✓	✓	✓	✓	
Multikey AES/DES Encryption	✓		✓	✓	✓	
Over-the-Air Programming	✓	✓	✓	✓	✓	
Over-the-Air Rekeying	✓		✓	✓	✓	
Multiband Capable				✓	✓	
GPS	✓	✓	✓	✓	✓	
Bluetooth®	✓	✓	✓	✓	✓	
LTE Ready		✓	✓	✓	✓	
Wi-Fi	✓	✓	✓	✓	✓	
Top Display		✓	✓	✓	✓	
Advanced Noise Cancellation	✓	✓	✓	✓	✓	
Voice Annunciation	✓	✓	✓	✓	✓	

- **XL Connect 95P Order Number:** XN-PF78M, Portable, XL-95P, 7/800 MHz, Black
  - Web: <https://www.l3harris.com/all-capabilities/xl-connect-95p-portable-radio>
- **XL Connect™ 45P Order Number:** XK-PF78B, Portable, XL-45P, 7/800 MHz, Gray
  - Web: <https://www.l3harris.com/all-capabilities/xl-connect-45p-portable-radio>





# UNR Sponsorship of Desert Research Institute (DRI) to Join the WCRCs as a Sponsored Agency

Agenda Item 10





# Questions?

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**775-858-5952**



