TOPAZ
Detail of Operating and Maintenance
Fiscal Year 2025 / 2026

Description	Budget	Updated Forecast	YTD Forecast*	YTD Actual	$ Var From YTD Forecast Incr/(Decr)	% Var Forecast
	Year to Date Through May 31,2026					
Personnel Services	$ 891,837	$ 891,837	$ 754,631	$ 570,502	$ (184,129)	-24%
Insurance Premiums	10,606	10,606	9,722	-	(9,722)	-100%
Temp Services	-	-	-	-	-	0%
Leases and Rents - Land	27,573	27,573	25,275	24,224	(1,051)	-4%
Professional Services - Consulting	331,261	331,261	303,656	177,217	(126,439)	-42%
Professional Services - Other-combining legal, consulting &	-	-	-	14,760	14,760	0%
Utilities	100,234	100,234	91,881	73,532	(18,349)	-20%
Telephone	-	-	-	727	727	0%
Training & Travel	48,062	48,062	44,057	-	(44,057)	-100%
Repairs & Maintenance	216,319	216,319	198,292	74,470	(123,823)	-62%
Equipment Usage (Vehicles)	33,585	33,585	30,786	24,501	(6,285)	-20%
All Other Services	14,150	14,150	12,971	-	(12,971)	-100%
Sub-total Services	781,790	781,790	716,640	389,431	(327,209)	-46%
Motorola Contract	1,194,168	1,194,168	1,094,654	-	(1,094,654)	-100%
Software (Genisys)	-	-	-	-	-	0%
Materials & Parts	36,617	36,617	33,566	282	(33,284)	-99%
Non Cap Assets	218,059	218,059	199,887	52,294	(147,593)	-74%
All Other Commodities	-	-	-	-	-	0%
Sub-total Commodities	1,448,844	1,448,844	1,328,107	52,577	(1,275,530)	-96%
Subtotal O&M	3,122,471	3,122,471	2,799,378	1,012,509	(1,786,869)	-64%
Contingency - 1.5% of total O&M	46,837	46,837	42,934	-	(42,934)	-100%
VHF Operations	59,630	59,630	54,661		(54,661)	-100%
Total	$ 3,228,938	$ 3,228,938	$ 2,896,973	$ 1,012,509	$ (1,884,464)	-65%

*YTD Forecast represents 11 months of operational costs plus any contractual expenses already incurred (i.e. one time payments such as Insurance Premiums, Land Rental and Motorola Contract).

TOPAZ
Detail of Capital Projects
Fiscal Year 2025 / 2026

Year to Date Through May 31, 2026

Project	Project ID	Budgeted	YTD Forecast*	YTD Actual	$ Var From YTD Forecast Incr/(Decr)	% Var
Site Expansion #2 WOL	CP0754CAP	-	-	728,335	$ 728,335	0.00%
Site Expansion #3 QC Land Purchase	CP0779	2,334,505	1,945,421	374	$ (1,945,047)	-99.98%
Consulting Services for VHF & 7/800 MHz Coverage Expansion	CP0907CAP	-	-	9,309	9,309	0.00%
Wireless Backhual (Microwave) Network Lifecycle Upgrade	LF0403CAP	-	-	884	884	0.00%
Radio & Core Sites DC Power Plant Lifecycle Upgrade	LF0267	750,000	625,000	-	(625,000)	-100.00%
Fire Hazard Zone System Coverage Improvement & Expansion	CP0907	257,500	214,583	-	(214,583)	-100.00%
Fire Hazard Zone System Lifecycle Upgrade	LF0465CAP	-	-	-	-	0.00%
Tower (infrastructure) upgrade/replacement	CP1200	107,000	89,167	-	(89,167)	-100.00%
TOPAZ Radio Site Physical Security Upgrades	LF0694RSPS	150,000	125,000	8,998	(116,002)	-92.80%
Radio & Core Sites Battery Backup Lifecycle Upgrade	LF0266	96,300	80,250	122,717	42,467	52.92%
Internet Protocol Network Routers & Switches Upgrade	LF0248/336	549,552	457,960	-	(457,960)	-100.00%
Total Capital Projects		$ 4,244,857	$ 3,537,381	$ 938,160	$ (2,599,221)	-73.48%
Capital Assessment to Members						
Mesa	64.75%	1,718,496	1,432,080	611,041	(821,039)	-57.33%
Gilbert	15.84%	315,604	263,003	148,909	(114,094)	-43.38%
Apache Junction	9.21%	152,393	126,994	82,871	(44,123)	-34.74%
Ft McDowell	1.37%	22,148	18,457	11,897	(6,560)	-35.54%
Superstition Fire & Medical	0.79%	35,901	29,918	7,337	(22,581)	-75.48%
Queen Creek	7.76%	1,981,226	1,651,022	73,195	(1,577,827)	-95.57%
Rio Verde	0.02%	6,657	5,548	254	(5,294)	-95.42%
Fountain Hills	0.26%	12,432	10,360	2,656	(7,704)	-74.36%
Total Assessment to Members	100.00%	$ 4,244,857	$ 3,537,382	$ 938,160	$ (2,599,222)	-73.48%

*YTD Forecast represents 10 months of project costs plus any contractual expenses already incurred (i.e. one time payments).

TOPAZ Regional Wireless Cooperative
Board of Directors Meeting, June 30, 2026
Administrator Update

800 MHz P25 & Fire VHF Operations

- *System Software Upgrade*
  During March, 2026, the 800 MHz P25 network was successfully upgraded to Motorola Astro® System Release 2024.1. The upgrade went smoothly with minimal downtime. This upgrade is part of the System Upgrade Assurance contract the TRWC has with Motorola.

- *Wolverine Radio Site*
  On March 16, 2026, the Acceptance Test Plan for the 800 MHz P25 portion of the new Wolverine radio site was completed and the site was made fully operational. This is a wide-area radio site providing coverage in areas where the 800 MHz P25 simulcast cell does not provide coverage and can provide coverage should there be a failure of the simulcast cell. This site is much closer to the TRWC Service Area than the other wide-area sites on Thompson Peak, in Florence Gardens, and on Shaw Butte. The Wolverine site improves wide-area coverage in the TRWC Service Area, particularly to areas of Apache Junction and the Superstition Fire & Medical District Service Areas blocked by terrain from Thompson Peak radio coverage.

  The Fire VHF equipment at Wolverine is still being made operational (see below).

- *Radio Coverage*
  There have been reports of radio coverage problems in two areas of the TRWC as follows:
  - Adora Trails area of southwest Gilbert. The radio coverage problems in Adora Trails have involved primarily 800 MHz P25 radio coverage. There was an equipment problem discovered at the South Water Plant radio site that has been corrected. However, reports of 800 MHz P25 radio coverage problems in Adora Trails have been reported since the repairs. Efforts to recreate the 800 MHz P25 communications problems have not been successful. There were also reports cell phones did not have communications at the same time the 800 MHz P25 communications problems were reported. The Adora Trails area is at the limit of the reliable communications range from the only TRWC simulcast radio site (South Water Plant) near Adora Trails. This supports the need for additional 800 MHz P25 infrastructure in southwest Gilbert to improve radio coverage.

  - Queen Creek has reported some problems with 800 MHz P25 radio coverage and significant problems with Fire VHF radio coverage. Both the 800 MHz P25 and Fire VHF radio coverage problems appear to be caused by insufficient radio infrastructure to provide reliable communications in Queen Creek. Currently, Queen Creek has 800 MHz P25 and Fire VHF radio coverage only from the South Water Plant and TRW radio sites. Most locations in Queen Creek are at the at the limit of the reliable communications range from the South Water Plant and TRW radio sites. Work is underway to commission a new radio site ("Bella Vista") at the Pinal County Sheriff's

Office San Tan Valley Substation on Schnepf Road in San Tan Valley. This new radio site is expected to improve both the 800 MHz P25 and Fire VHF radio coverage in Queen Creek. Unfortunately, the improvement to Fire VHF radio coverage from the Bella Vista radio site is unlikely to provide sufficient radio coverage to solve many of the Fire VHF radio coverage problems reported in Queen Creek. Additional Fire VHF infrastructure will be required to provide more reliable Fire VHF radio coverage in Queen Creek.

We are continuing to investigate methods to mitigate the Fire VHF coverage problems in Queen Creek but so far none of those potential solutions have proven to be practical.

- We're investigating methods to improve the ongoing testing and quality assurance for both the 800 MHz P25 and Fire VHF networks. There are two aspects to this investigation, as follows:
  - Drive testing by having a mobile radio travel through the TRWC Service Area and measure radio signal strength and quality and analyze the results to identify areas that need further investigation or investment in radio infrastructure. We're envisioning driving the TRWC Service Area to "audit" coverage over a repeating four-year cycle.
  - Fixed "test mobiles" that would test radio coverage on a more frequent basis than the drive testing described above. This would allow for regular and frequent testing of the network without incurring the cost of drive testing and identify problems sooner than receiving user complaints.

- *Radio Dispatch Console Outage*
  At 8:42 AM on Wednesday, June 3, 2026, all the Motorola MCC7500 radio dispatch consoles experienced an interruption in service lasting approximately 4 minutes. The cause of this outage is still under investigation by Motorola and TRWC personnel. The Motorola AXS radio dispatch consoles in service at the Town of Gilbert and City of Apache Junction Police Departments did not experience this failure.

- *Upcoming Service-affecting Work*
  All the Motorola radio site routers in the 800 MHz P25 simulcast cell will be upgraded to hardware currently supported by the manufacturer. The current plan is for this work to take place the week of August 17, 2026. This work will cause a brief outage of the P25 800 MHz simulcast cell and will be coordinated with all TRWC Members in advance. The cost for this hardware upgrade is part of the Motorola System Upgrade Assurance contract.

- *Upcoming Non-service-affecting Work*
    - Motorola Active Eye EDR (Endpoint Detection & Response) Upgrade
      This upgrade will provide the TRWC radio networks with enhanced cybersecurity incident detection and response to detect and respond more quickly to any potential cybersecurity incidents more quickly and thoroughly to avoid any incidents from adversely affect the TRWC's radio networks. This upgrade is planned to take place the week of July 13-16, 2026.
    - Motorola Cirrus Central Network Management Upgrade
      This upgrade will provide enhanced TRWC radio network management information to both the TRWC operations staff and to the dispatch centers that are part of the TRWC network. Cirrus Central will provide more information to operators and dispatchers to identify and respond to radio network issues more quickly and give a visual indication of network status. This upgrade will continue the operation of the Cirrus Central demonstration currently in place effective July 1, 2026.
    - City of Mesa Police and Fire & Medical Departments Logging Recorder Upgrade
      The City of Mesa will be upgrading the logging recorders for the Mesa Police Department and the Mesa Fire & Medical Department dispatch centers. The logging recorders will change from Verint to Eventide brand recorders. This work is scheduled to take place the weeks of July 13 and July 20, 2026. The upgrade for Mesa Police Department dispatch will take place first, then the Mesa Fire & Medical Department Regional Dispatch Center.

TOPAZ Regional Wireless Cooperative
Board of Directors Meeting, June 30, 2026
Administrator Update

Personnel Changes

- Chuck Craig, IT Manager for Wireless Communications, City of Mesa, moved to a different position within the City on January 5, 2026
- Dave Brunk, IT Architect for Wireless Communications, City of Mesa, retired from the City on January 8, 2026
- Jordan Morton, Communications Project Liaison, City of Mesa, left the City on March 2, 2026
- Carey Rochelle, IT Technician III – Radio, City of Mesa, retired from the City June 12, 2025

TRWC Capital Projects Update

- *Bella Vista Expansion Site – CP0779*
  As mentioned above, the new Southeast Valley (Queen Creek / San Tan Valley) Expansion Site will be called Bella Vista and located at the Pinal County Sheriff's Office San Tan Valley Substation on Schnepf Road in San Tan Valley. The TRWC will be collocating at a radio site being built by Pinal County for expansion of the Pinal Radio Communications Consortium (PRCC). Work is underway with Pinal County to enable the TRWC to utilize space at Pinal County Bella Vista radio site for both 800 MHz P25 simulcast and Fire VHF infrastructure, although the space available at the Bella Vista radio site is very limited. This radio site construction is awaiting permitting to begin with completion anticipated in the fourth calendar quarter of 2026. Pinal County expects to complete the installation of their 800 MHz P25 radio equipment in the first calendar quarter of 2027.

  The TRWC 800 MHz P25 simulcast and Fire VHF equipment is forecast to be operational by June 30, 2027.

- *Relocation of FS262 Radio Site – CP1311*
  The current radio site located at Superstition Fire & Medical Department FS262 is a commercial radio tower that has a history of being overloaded. The FS262 tower site is now managed by a company that is very difficult to work with and has locked TRWC radio service personnel out of the site on multiple occasions. For these reasons, the current radio site at FS262 will be relocated to a new radio site managed by the TRWC. TRWC personnel are working with personnel from the City of Apache Junction to identify a new radio site. The current planned location is on the western edge of the Weekes Wash Regional Multi-use Detention Facility / Regional Flood Control Facility east of the Elks Lodge in Apache Junction north of East Lost Dutchman Blvd and east of North Apache Trail (AZ SR88).

  This new radio site will require a new tower, radio equipment building, emergency generator with fuel tank, and perimeter fencing. The Pinal County Radio Consortium is interested in collocating at this new radio site. The 800 MHz P25 simulcast and Fire VHF radio equipment is forecast to be operational at this new site by June 30, 2028.

- *Network Routers & Switches Lifecycle Upgrade – LF0336*
  The current Juniper Networks routers and switches were placed in service during 2018. This equipment has a service life of about 7 years. The manufacturer of the replacement routers and switches is to be determined. The upgrade of the backhaul network routers and switches is forecast to be complete by June 30, 2027.

- *Radio & Core Sites Battery Backup Lifecycle Upgrade – LF0266*
  The 48VDC power plant at each radio and core site uses batteries to power the equipment until the emergency generator begins supplying power to the site. This ensures continuous operation of equipment during power outages. These batteries have a service life of ±10

years and were last replaced in 2014-2016. The current TRWC Capital Budget envisioned these battery replacements as part of the P25 Voice Radio Network Lifecycle Upgrade described below. It seems likely replacing these batteries as an independent project will be more cost-effective for the Members of the TRWC.

- *Radio & Core Sites DC Power Plant Lifecycle Upgrade – LF0267*
  The 48VDC power plant at each radio and core site employs rectifiers to convert the incoming alternating current to direct current. The current rectifiers and associated power plant equipment was put in service in August, 2011. This equipment is at the end of its service life. In addition, the Sageon® line of rectifiers was divested by C&D Technologies in 2015 and has gone through different owners since 2015. Ongoing support of this equipment is uncertain. This equipment needs to be replaced to ensure continued reliable operation of the TRWC radio and core sites. The current TRWC Capital Budget envisioned these battery replacements as part of the P25 Voice Radio Network Lifecycle Upgrade described below. It seems likely replacing these batteries as an independent project will be more cost-effective for the Members of the TRWC.

- *P25 Voice Radio Network Lifecycle Upgrade – LF0269*
  Although the project to upgrade to the TRWC 800 MHz P25 equipment to the Motorola Astro® NEXT platform is not planned to begin until Fiscal Year 2027-2028, the planning for a project of this magnitude must start soon. Due to next-generation equipment availability from Motorola, the upgrade of the TRWC Fire VHF network infrastructure will likely lag the 800 MHz P25 upgrade by 1-2 years.

- *Wireless Backhaul Network Lifecycle Upgrade – LF0403*
  There is limited progress to report on the lifecycle upgrade of obsolete wireless backhaul (point-to-point microwave radio) equipment. See Appendix A for a detail.

- *Radio Tower Maintenance, Upgrades, & Replacements – CP1200*
  There is no progress to report on the radio tower maintenance, upgrades, and replacements project.

- *Radio Site Physical Security Lifecycle Upgrades – LF0694*
  There is no progress to report on radio site physical security lifecycle upgrades project.

- *Radio Coverage Enhancement for Northern Gilbert & South-central Mesa – CP1344*
  This project would establish a new TRWC radio site near Gilbert Fire & Rescue Department FS252. This site would provide 800 MHz P25 simulcast and Fire VHF radio coverage addition to the current radio site at Mesa Fire & Medical Department FS205. FS205 would remain as an 800 MHz P25 and Fire VHF receive-only site. This new site would improve TRWC simulcast radio coverage in northern Gilbert and south-central Mesa. This project is currently in the TRWC Capital Plan for Fiscal Years 2029-2030 and 2030-2031.

- *Radio Coverage Enhancement for Southwestern Gilbert and Western Queen Creek - NEW*
  This project would establish a new TRWC radio site near Gilbert Fire & Rescue Department FS2511. This site would enhance 800 MHz P25 simulcast and Fire VHF radio coverage in addition to the current South Water Plant radio site and should address the radio coverage problems described above in the Adora Trails subdivision. It is to be determined if this site would be an 800 MHz P25 simulcast or receive-only site. This new site would improve TRWC radio coverage in southwestern Gilbert and western Queen Creek. This project is currently not in the TRWC Capital Plan but would likely be budgeted for Fiscal Years 2029-2030 and 2030-2031.

  We are discussing with the Regional Wireless Cooperative (RWC) and City of Chandler the possibility of collocating an RWC 700 MHz P25 simulcast site at this location to address radio coverage problems in the far southeast portion of the City of Chandler.

- *Radio Coverage Enhancement for the TRWC Northern Subregion – CP1343*
  The TRWC Northern Subregion Members (Rio Verde Fire District, Fort McDowell Yavapai Nation, and Town of Fountain Hill Fire Department) are completely dependent on the Thompson Peak radio site for their 800 MHz P25 radio coverage. The dependence on a single radio site for Public Safety communications leaves the TRWC Northern Subregion vulnerable to 800 MHz P25 radio coverage outage due to the failure of a single site. The budgeting proposed in Fiscal Years 2029-2030 and 2030-2031 is for a 1-3 site (simulcast) cell for the Northern Subregion. An alternative to a 1-3 site (simulcast) cell for the Northern Subregion, an additional high elevation site would provide radio service redundancy and may improve radio coverage in areas where Thompson Peak coverage is inadequate.

Fire Hazard Zone (VHF) Special Assessment Capital Projects

- *Fire Hazard Zone (VHF) Coverage Improvement and Expansion – CP0907*
    - *Wolverine Fire VHF Receiver Site*.
      As stated above, work is in progress to commission the Fire VHF receiver site at the new Wolverine radio site. The forecast is for this Fire VHF receive site to be operational by July 31, 2026.

    - *Gilbert Public Safety Building Fire VHF Receiver Site*.
      Work is in progress to commission the Fire VHF receiver site at the Gilbert Public Safety Building. The forecast is for this Fire VHF receive site to be operational by July 31, 2026.

    - *Queen Creek Fire & Medical Department FS412 Fire VHF Receiver Site*.
      This Fire VHF receiver site will be located at Queen Creek Fire & Medical Department FS412 in an air-conditioned outdoor cabinet adjacent to a 100-foot cellular monopole near FS412. The construction work for the monopole and air-conditioned outdoor cabinet foundation, electrical supply, and fiber optic connectivity to the cabinet is in progress. It is unknown when the Fire VHF receiver site at FS412 will be ready for the cabinet. In addition, there is no fiber optic cable connectivity between the Town of Queen Creek and City of Mesa to facilitate the connection of this Fire VHF receive site into the Fire VHF network. Alternative connection methods are under investigation. It is unknown when the Fire VHF receiver site at FS412 will be operational. We are working with the Town of Queen Creek personnel to expedite making this Fire VHF receiver site operational to address the Fire VHF radio coverage problems described above.

    - *Fire VHF receiver site for Mesa Gateway Airport Area*.
      There is a need for a Fire VHF receiver site near Mesa Gateway Airport. There was a proposal to locate the Fire VHF receiver site at Mesa Fire & Medical Department FS215 at Mesa Gateway Airport, but the low antenna height would limit the range of this Fire VHF site. There are other nearby locations under consideration, but there has been no firm progress on utilizing an alternate site.

    - *Proposed VHF Coverage Improvement in Far Southwest Gilbert and Western Queen Creek*.
      This would be part of the project described above “Radio Coverage Enhancement for Southwestern Gilbert and Western Queen Creek” and would add a Fire VHF receiver site at Gilbert Fire & Rescue FS2511. This would improve TRWC Fire VHF radio coverage for the areas described above.

- *Proposed VHF Coverage Improvement for the TRWC Northern Subregion*.
  This project is focused on providing Fire VHF service for the Fountain Hills Fire Department to enable their participation in the Phoenix Automatic Aid system. The next step is for the Fountain Hills Fire Department to approve a Fire VHF radio coverage study by Federal Engineering. In addition, we are working with the Fountain Hills Fire Department and Motorola to implement the same Fire VHF infrastructure configuration at FS451 as is in place at Rio Verde Fire District FS441.

  The Rio Verde Fire District is satisfied with the TRWC Fire VHF radio coverage they have from FS441 currently. The Rio Verde Fire District is currently a participant in the Phoenix Automatic Aid system.

  The Fire VHF radio coverage in the Rio Verde area may be improved by implementing another Fire VHF radio site at a cellular tower being constructed adjacent to FS442. There may also be an opportunity to have the Regional Wireless Cooperative collocate Fire VHF equipment at this site to improve their radio coverage to the far eastern edge of Scottsdale.

  The Fort McDowell Yavapai Nation Fire Department chose not to be part of the TRWC Fire Hazard Zone (VHF) Communications System.

- *Fire Hazard Zone (VHF) Router Lifecycle Upgrades – LF0465*
  This $297,500 Fire Hazard Zone (VHF) Special Assessment Capital project was a placeholder for the upgrade of the site routers at the Fire VHF sites. Motorola will be replacing the Fire VHF site routers as part of the overall site router upgrade project funded by the Motorola System Upgrade Assurance contract.

- *Fire Hazard Zone (VHF) Infrastructure Lifecycle Upgrade – LF0268*
  Due to next-generation equipment availability from Motorola, the upgrade of the TRWC Fire VHF network infrastructure will likely lag the 800 MHz P25 upgrade by 1-2 years.

- *Fire Hazard Zone (VHF) Core Site Equipment Upgrade – NEW*
  The Fire VHF radio network uses “audio gateway” devices at the radio sites to convert the audio from the Fire VHF base stations from analog to digital. At the Fire VHF core site, devices known as voters or comparators are used to select the best Fire VHF signal from the radio sites and present it to the radio dispatch consoles in the Alarm Room (Mesa Fire & Medical Department dispatch center) as well as being retransmitted on the 800 MHz P25 “BB” deck. The audio gateway and voter / comparator devices are obsolete and no longer available from Motorola. For this reason, once the three Fire VHF projects in progress described above are complete, the TRWC will be unable to add radio sites to the Fire VHF network. This would inhibit the Fountain Hills Fire Department from adding Fire VHF

capability and the Town of Queen Creek from adding additional Fire VHF radio sites to improve Fire VHF radio coverage.

The solution to this problem is to upgrade the Fire VHF radio base stations to directly output digital audio signals and upgrade the voter / comparator equipment to the current supported Motorola product. The cost of this upgrade is approximately $486K. To fund this upgrade, we're recommending the $297.5K contingency for the Fire VHF site routers upgrade (LF0465) along with $188.5K of the Capital budgeted for Fire VHF expansion (CP0907) to fund this upgrade.

The timeline for this upgrade will be as soon as funding and purchasing approvals are obtained and Motorola can deliver and implement this equipment. This project is anticipated to be complete in the 4th calendar quarter of 2026.

- *Lifecycle Replacement of Fire Hazard Zone (VHF) Radio Site Antennas and Transmission Lines – NEW*
  The antennas and transmission lines for the Fire VHF radio system sites are approaching 10 years old and need to be replaced to ensure continued reliable operation of the Fire VHF radio network infrastructure. The cost and timeline for this project are still under development and will be presented to the TRWC Board of Directors at a future meeting. This project will be part of the TRWC Fire Hazard Zone (VHF) Special Assessment Capital budget for FY2027-2028.

TOPAZ Regional Wireless Cooperative
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Administrator Update

Radio Dispatch Console Upgrades Capital Projects Special Assessment

Upgrades from the Motorola MCC 7500 radio dispatch console to the Motorola AXS radio dispatch console are pending decisions by the user organizations to move ahead with their radio dispatch console upgrades. The organizations with console upgrades pending their decision to proceed are as follows:

- City of Mesa Police Department
- City of Mesa Fire & Medical Department
- City of Mesa Utilities Control Center
- Fort McDowell Yavapai Nation Police Department

TOPAZ Regional Wireless Cooperative
Board of Directors Meeting, June 30, 2026
Administrator Update

Appendix A