



TRWC Board of Directors Meeting

September 27, 2021 - 2:30 p.m.

Phoenix-Mesa Gateway Airport (PMGA)

Administration Building, Board Room

5835 S. Sossaman Road

Mesa, AZ 85212

Audio Conference: 480-535-7460 access number 22245530#

Members of the public may address the Board on any item. Please complete a "Request to Speak Card", located at the entry of the room and promptly turn it in to the Executive Director or designee prior to the beginning of the meeting. There is a time limit of three minutes for comments.

Agenda

1) Call to Order and Opening Comments

- a. Materials and sign-in sheet
- b. Speaker cards
- c. Audio and video recording
- d. Board representative roll-call

2) Public Comment

Members of the public may address the Board on items not on the printed agenda. Please complete a "Request to Speak Card", located at the entry of the room and promptly turn it in to the Executive Director or designee prior to the beginning of the meeting. There is a time limit of three minutes for comments.

3) Discussion and Action on Board Meeting Minutes

May 6, 2021, Board Meeting Minutes

4) Discussion and Action on Chairman and Vice-Chairman Elections – Executive Director Shaw

5) Executive Committee Updates – Co-Chair Dvorak, Co-Chair Duggan

6) Discussion and Action on FY 22/23 Preliminary Budget – Executive Director Shaw, Angie Huckaby, Denis Murphy

In the event that action is taken, a Super Majority vote will be required.

7) Regional Updates

- a. CSSA Task Order Updates – Dale Shaw, John Minick
- b. Building Code Working Group – Thomas Grebner

8) Discussion and Action Policy Manual Updates – Denis Murphy

9) Network Administrator Updates

- a. Finance Update – Angie Huckaby
- b. Network Updates and Performance overview – Denis Murphy

10) FirstNet / AT&T Updates – Amos Chalmers

11) Comments from the Board

An opportunity will be provided for Board members to present a brief summary of current events. The Board is not allowed to propose, discuss, deliberate or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed for legal action.

12) Next TRWC Board Meetings:

December 9, 2021 – Budget Adoption

13) Future Board of Directors Schedule

Date	Upcoming Agenda Items
12/9/19	Budget Adoption
3/10/22	
5/12/22	
9/8/22	Prelim Budget Review
12/15/22	Budget Adoption

- 14) Retirement Recognition - Board of Directors, Vice Chairman Chief Farber
Service Recognition - Executive Committee, Co-Chair Chief Badgett

15) Adjournment



TRWC Board of Directors Meeting Minutes

May 6, 2021 - 9:00 a.m.

Video Conference: Microsoft Teams Meeting
Phone: 480-535-7460, Access Code 909878511#

Minutes

1) Call to Order and Opening Comments

- a. Audio and video recording
- b. Board representatives in attendance
Mike Farber, Matt Busby, John Pombier, Jay Ducote, Thomas Gonzales, Rob Duggan, Vance Gray, Richard Mooney

2) Public Comment

Members of the public may address the Board on items not on the printed agenda. Please address the Board by sending an email to gina.ross@mesaaz.gov by 9:00 a.m. on May 6, 2021. (limited to 500 words – identify your name, address and whether you wish your comment to be read at the meeting or just submitted as part of the written record). The Board may not discuss or take action on any issue raised during public comment until a later meeting. Speakers are limited to three (3) minutes each. Only one comment per person per Agenda Item will be allowed and comments without identifying name and address will not be read or submitted as part of the written record.

No emails were received.

3) Discussion and Action on Board Meeting Minutes

December 10, 2020, Board Meeting Minutes

There were no comments or actions regarding the Board Meeting Minutes from December 10, 2020. Director Pombier motioned for an approval of the minutes and Director Ducote seconded the motion. All Board members who were in favor signaled by saying aye; there was no opposition, the motion passed unanimously.

4) Committee Updates – Executive Director Shaw, Co-Chair Dvorak, User Committee Chairman Crogan

- a. Departure of Co-Chair Badgett
Co-Chair Badgett departed the TRWC in February of 2021. Mr. Shaw recognized Co-Chair Badgett's great contributions as Co-Chair to the TRWC Executive Committee. Mr. Shaw gave a brief history of Co-Chair Badgett's time with the TRWC and also thanked him for his willingness to extend his time with the Committee to cover staffing changes. Vice Chairman Farber extended his thanks to Co-Chair Badgett as well. Co-Chair Badgett thanked the Board and Committee for the opportunity to work with everyone for the last 5 plus years and recognized the amazing and critical work that everyone is doing.
- b. Introduction of Co-Chair Rob Duggan
Mr. Shaw announced that he has appointed Chief Rob Duggan from Gilbert Fire to replace Co-Chair Badgett as the new Co-Chair to the Executive Committee. Mr. Shaw gave a brief overview on the role of Co-Chair for the Executive Committee. Co-Chair Duggan stated that he is looking

forward to the opportunity to work the committee and learn more about the operations. He then and gave a brief background of his experience with the TRWC User Group.

c. Executive Update – Co-Chair Dvorak

Co-Chair Dvorak thanked Co-Chair Badgett for his service and stated that he is looking forward to working with his new Co-Chair Duggan. For the Committee updates Co-Chair Dvorak stated that there are no items currently before the board that will require action. He went on to update the board letting them know that the Committee is working diligently on the System Expansion rollout and remains the ongoing priority.

5) Discussion and Possible Action on Network Administrator Updates

a. Finance Update – Angie Huckaby

For the financial update Ms. Huckaby stated that we are currently under budget on the operation side. For the project side, in the last fiscal year, part of the Shaw Butte Florence Garden fund was allocated to the wrong account. It was in error coded into City of Mesa's general fund. It has been moved to the correct account but the budget for the capital side will not look the same for April through June. After a meeting with Mr. Shaw and a few Board members, it was agreed upon to bill the other partners at the end of June so that it will go into the next fiscal year budgets. Mr. Shaw stated that the way the funds will be billed, the agency will have the option of using this fiscal year or next fiscal year. He informed the board that he is available to take any calls from the agencies regarding any difficulties that may occur due to this change.

b. Network Updates and Performance Overview – Denis Murphy

Mr. Murphy reviewed the network updates. He covered the completed items for this fiscal year 20/21. The completed items are the 800MHz Transmission Lines and Antennas, the first set of two new receiver sites, and two radio site replacement generators. Some projects that are in process are the VHF Simulcast Timing References Replacement. This project does have all the equipment on board, and they are working with Motorola on some alarm issues with the timing reference. The other project is the First-Net PTT- 60 Day free trial and this is scheduled to start in mid-May. Mr. Murphy stated that the large project is the TOPAZ VHF and 800 MHz expansion site, and they are currently working with Mesa Legal and Real Estate on the land purchase. TOPAZ is working on the Fire VHF network router replacement and will be finishing the upgrade for Shaw Butte and Florence Gardens to P25 Phase II. Mr. Murphy went on to inform the Board that there were zero outages from August 2020 to April 2021.

6) FirstNet /AT&T Updates – Geronimo Ramirez

Mr. Ramirez reviewed for the board the FirstNet / AT&T updates. Mr. Ramirez stated that he is currently working with Mr. Murphy and Mr. Brunk on the FirstNet project obtaining the appropriate licensing and training on the admin portal. The target date is mid-May. Mr. Ramirez went on to inform the board that the 5G network has been fully incorporated in the RF network that is currently deployed and it has also been incorporated in the fully separate core system. He gave a brief overview of benefits of the FirstNet's Wellness program and the FirstNet Ecosystem.

7) Comments from the Board

An opportunity will be provided for Board members to present a brief summary of current events. The Board is not allowed to propose, discuss, deliberate, or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed for legal action.

Director Ducote gave an update on Rio Verde's new Fire Station. He is currently working with Mr. Brunk and Mesa Dispatch on telecommunications at the new station. Director Ducote informed the board they hired a new Deputy Chief Scott Krushak, and he starts June first.

Vice Chair Farber announced that he will be retiring. He went on to say that it has been an honor working with Chairman Kross and the board. Vice Chair Farber stated that his replacement will be Chief Whitney and Chief Mooney will be taking his place as the primary for the TRWC. He also thanked Mr. Murphy stating that the communications have immensely improved over the last year.

8) Future Meetings Schedule

Director Pombier requested to have the next meeting in person. Mr. Shaw responded that due to the varying agency policies we can likely conduct the meeting in person with an option to attend remotely for those individuals who cannot attend.

The September meeting will have the elections, preliminary budget, and Chief Farber's retirement and recognition.

Director Pombier has requested the board receives an update on the RWC communications at the next meeting.

9) Adjournment

Vice Chairman Farber adjourned the meeting at 9:34 am.

All meeting materials, dates and times are posted on the TOPAZ website <http://topazrwc.org/>.



Date: September 27, 2021
To: Topaz Regional Wireless Cooperative (TRWC) Board of Directors
From: Dale Shaw, TRWC Executive Director
Rob Duggan, TRWC Executive Committee Co-chairman
Mike Dvorak, TRWC Executive Committee Co-chairman
Subject: Fiscal Year 2022/2023 Budget

Recommendation

The TRWC Executive Director and Executive Committee recommend the review and consideration of the Preliminary TRWC Budget (attached) in the amount of \$5,828,219 for Fiscal Year 2022/2023.

Background & Discussion

The attached Preliminary Budget for Fiscal Year 2022/2023 has been under review and endorsed by the TRWC Executive Committee. When compared to the current 2021/2022 Fiscal Year Budget, the proposed Operating & Maintenance expenses will increase by \$269,398 (predominately due to increases in professional services, network subscription, and monitoring costs). When compared to the previously presented forecast, Capital expenditures will increase by \$899,176 (predominately due to acceleration of system expansion and the addition of enhanced data capabilities).

Fiscal Impact

The Preliminary Budget represents the total planned contribution by all member agencies for the ongoing operation, maintenance, and improvement of the TRWC radio network. Each member agency will be invoiced as actual expenditures occur on a monthly basis using the cost allocation methodology outlined in the adopted Budget.

TRWC Operating & Maintenance Budget
Summary of Labor and Non-labor

	FY 21/22 BUDGET	FY 22/23 DRAFT BUDGET	Proposed FY22/23 Budget Last year	CHANGE FY21/22 to FY22/23	
ESCALATION FACTOR			2.50%	1.90%	
Salaries and Wages (4)	\$ 354,883	\$ 366,626	\$ 361,626	\$ 11,743	
Total Labor	\$ 354,883	\$ 366,626	\$ 361,626	\$ 11,743	3.3%
			1.90%	1.90%	
ESCALATION FACTOR					
GENERAL & ADMINISTRATIVE - OTHER SERVICES					
Temp Services	\$ 6,230	6,349	6,349	\$ 119	\$ -
Prof Services - TRWC Executive Director	93,734	95,515	95,515	1,781	\$ -
Prof Services - Legal, Consulting & Other (5)	115,134	242,322	117,322	127,188	\$ 125,000
Ins. Premiums - Agencies	8,827	8,994	8,994	167	\$ -
Utilities	71,330	72,685	72,685	1,355	\$ -
Telephone	3,531	3,598	3,598	67	\$ -
Repairs & Maint	32,189	32,801	32,801	612	\$ -
Equipment Usage (Vehicles)	20,767	21,162	21,162	395	\$ -
Shaw Butte & Florence Gardens-Land	26,271	26,770	26,770	499	\$ -
Training	20,000	20,380	20,000	380	\$ 380
Travel	20,000	20,380	20,000	380	\$ 380
Networking Subscription Costs	-	12,000	-	12,000	\$ 12,000
All Other Services	-	-	-	-	\$ -
TOTAL OTHER SERVICES	\$ 418,013	\$ 562,956	\$ 425,196	\$ 144,943	34.7%
GENERAL & ADMINISTRATIVE - COMMODITIES					
Non Cap Assets	\$ 12,980	13,226	26,452	\$ 247	\$ (13,226)
Contract - Motorola (Preventative & Security Monitoring) (6)	890,824	975,000	907,750	84,176	\$ 67,250
Software Maint-Mainsaver, Juniper (7)	43,000	67,562	63,562	24,562	\$ 4,000
Materials & Repair Parts	30,475	31,054	31,054	579	\$ -
All Other Commodities	-	-	-	-	\$ -
TOTAL COMMODITIES	\$ 977,279	\$ 1,086,842	\$ 1,028,818	\$ 109,564	11.2%
OTHER BUDGET ITEMS					
PROPOSED CONTINGENCY - 1.5%	\$ 27,379	\$ 29,487	\$ 28,194	\$ 2,108	\$ 1,293
VHF OPERATIONS (special assessment)	26,165	26,663	26,663	498	\$ 0
VHF Equipment Staff Time (special assessment)	28,555	29,098	29,098	543	\$ -
SAU II Fire Line	-	25,000	25,000	25,000	\$ -
TOTAL OTHER BUDGET ITEMS	\$ 82,099	\$ 110,248	\$ 108,955	\$ 3,149	\$ 1,293
Total Operating & Maintenance	\$ 1,832,274	\$ 2,126,672	\$ 1,924,595	\$ 294,398	16.1%
O&M - AIRTIME PERCENTAGE (1)					
Mesa	67.08%	66.91%	66.91%	-0.17%	
Gilbert	19.45%	19.35%	19.35%	-0.10%	
Apache Junction	9.15%	9.40%	9.40%	0.25%	
Ft McDowell	2.21%	2.14%	2.14%	-0.07%	
Superstition Fire & Medical	0.72%	0.74%	0.74%	0.02%	
Queen Creek	0.64%	0.64%	0.64%	0.00%	
Rio Verde	0.02%	0.03%	0.03%	0.01%	
Southwest Ambulance	0.56%	0.60%	0.60%	0.04%	
American Medical Response	0.17%	0.19%	0.19%	0.02%	
Total	100.00%	100.00%	100.00%	0.00%	
VHF SPECIAL ASSESSMENT (2,3)					
Mesa Fire & Medical	68.68%	68.68%	68.68%	0.00%	
Gilbert Fire	17.16%	17.16%	17.16%	0.00%	
Superstition Fire & Medical	10.01%	10.01%	10.01%	0.00%	
Queen Creek Fire	3.22%	3.22%	3.22%	0.00%	
Rio Verde Fire	0.93%	0.93%	0.93%	0.00%	
Total	100.00%	100.00%	100.00%	0.00%	
ANNUAL ESTIMATED REVENUE: OPERATING & MAINTENANCE					
Mesa	1,229,965	1,407,216	\$ 1,272,006	177,251	
Gilbert	355,124	405,452	366,350	50,328	
Apache Junction	162,646	192,316	173,320	29,669	
Ft McDowell	39,284	43,782	39,458	4,499	
Superstition Fire & Medical	18,276	20,721	19,226	2,446	
Queen Creek	13,138	14,889	13,596	1,751	
Rio Verde	864	1,132	1,072	268	
Southwest Ambulance	9,954	12,275	11,063	2,321	
American Medical Response	3,022	3,887	3,503	865	
Total	\$ 1,832,274	\$ 2,101,672	\$ 1,899,595	\$ 269,398	\$ 202,077

(1) Normal partner assessments are allocated based on July, 2021 6-month rolling average airtime and will change based on actual monthly data.

(2) For FY 19/20 Endorsed Budget, agency cost distribution for the Fire Hazard Zone Communication (VHF) Special Assessment is based on 12 months average Airtime as of March 31, 2015.

(3) For FY 20/21 Proposed Budget, agency cost distribution for the Fire Hazard Zone Communication (VHF) Special Assessment is based on Call Volume July 1, 2018 - June 30, 2019.

(4) Standard Escalator 1.9% + Compensation .06% + Task Order OF \$5,000

(5) \$100,000 FOR Cyber Security + \$25,000 from Capital Possible increase to web site refresh-

(6) Awaiting quote from Motorola, when new sites are operational this will increase, looking at adding monitoring \$50,000 total increase of the \$67,250

(7) Original ran out-possible new warranty

Date: September 8, 2021

To: TOPAZ Regional Wireless Cooperative (TRWC) Board of Directors


Through: Dale Shaw, TRWC Executive Director

From: Denis Murphy

Subject: POLICY UPDATE

- **BACKGROUND:** Bi- Directional Amplifiers (BDA) and Distributed Antenna Systems (DAS) help to ensure that first responders entering buildings can communicate with one another during an emergency. BDA/DAS systems are an extension of the TOPAZ public safety radio system and thus must be carefully designed by an experienced and knowledgeable vendor. National Fire Protection Association (NFPA) requires 99% signal coverage in all “critical areas” of the facility and 90% coverage for general areas.
- Several BDA/DAS systems have been installed improperly and have caused issues with public safety radio systems. A recent incident happened to the Regional Wireless Cooperative (RWC). A BDA was installed and turned on without the RWC having knowledge of its existence. The BDA was accidentally turned on at near full power and interfered with the nearest towers signal for several days before the RWC could secure it. Its broadcast energy was destructive which resulted in coverage issues.

I recommend adding this section to the TRWC policy document. This section/ policy is to provide standards for the deployment of radio amplification systems to improve radio signal coverage inside of buildings and underground spaces on the TOPAZ Regional Wireless Cooperative (TRWC) system.

	Fire Code Compliance / In-Building Treatments	
Owner: See Below	Created: Nov 4, 2020	Applicability: See Below
Category: Operations & Maintenance	Revised: Nov 4, 2020	
Page: 1 of 1	Last Review:	

This section is intended to serve as a resource for building developers, contractors, and others to ensure compliance with fire codes regarding the permitting, installation, inspection, maintenance, and operation of the in-building radio amplification systems such as Bi-Directional Antenna (BDAs) and Distributed Antenna Systems (DASs).

- Contractor Policy
- Notification of Service Activities Procedure
- Radio Amplification Systems Policy
- Waiver or Exception Policy

Links:

[Safer Buildings Coalition](#)



Notification of Service Activities Procedure

Owner: See Below	Created: Nov 4, 2020	Applicability: See Below
Category: Operations & Maintenance	Revised: Nov 4, 2020	
Page: 1 of 3	Last Review: Nov 4, 2020	

1.0 Purpose

- 1.1. The purpose of this policy is to establish the requirement for notification to area managers and Members of scheduled and unscheduled service affecting TRWC maintenance activities to the physical facilities, or network infrastructure associated with TRWC that have potential operational impact.

2.0 Owner

- 2.1. Administrative Manager

3.0 Applies to

- 3.1. All personnel making modifications to the physical facilities or network infrastructure components associated with TRWC.

4.0 Background

- 4.1. The operational stability of TRWC may be affected when the configuration of a communications facility, or a TRWC radio network hardware or software component is altered. Proper notification of scheduled and unscheduled service affecting maintenance activities will allow Members and area managers time to make necessary preparations. Conversely, unauthorized disruptions in TRWC operations caused by the lack of notification will create safety issues that must be addressed by the Administrative Manager.

5.0 Policy Statement

- 5.1. The Members and area managers will be properly notified of any scheduled and unscheduled service affecting TRWC maintenance activities that have potential impact to the operational capabilities of the network.

6.0 Supporting Rules

- 6.1. Service affecting maintenance activities related to TRWC sites and facilities, SPARC, the TRWC fiber optic and microwave system backbone will be coordinated by the Administrative Manager and will require notification of the Members and area managers.
- 6.2. Service affecting maintenance activities related to TRWC infrastructure components such as zone controllers, switches, routers, servers, data gateways, site controllers, databases, repeaters, and comparators will be coordinated by the Administrative Manager and will require notification of the Members and area managers.
- 6.3. At least forty-eight (48) hours advance notice to the Members and area managers will precede any TRWC service affecting maintenance activity.

- 6.4. Any service affecting maintenance activity performed on TRWC not preceded by forty-eight (48) hour notice will be considered unscheduled maintenance.
- 6.5. Notification of unscheduled service affecting maintenance will be made to the Members and area managers as soon as practical.
- 6.6. Acceptable forms of notification would include phone, pager, email, fax, or any other method as agreed to by the Administrative Manager, area managers, and Members.
- 6.7. At a minimum, the information contained in a notification will consist of:
 - 6.7.1. A description of the planned maintenance activity.
 - 6.7.2. The affected location(s) of the maintenance and the activity anticipated operational impact.
 - 6.7.3. The scheduled start and stop time of the maintenance activity.
 - 6.7.4. The name of department or organization responsible for performing the maintenance.
- 6.8. Notification of scheduled service affecting maintenance activities believed to have a significant operational impact will require a confirmation receipt of notification from the Members and area managers within 24 hours of notification, or the Administrative Manager will escalate the notification as appropriate, or re-schedule the maintenance activity.
- 6.9. The Administrative Manager's network management function will be notified of maintenance activities that may trigger events that would be seen by the network management function.
- 6.10. Contact information for the Members, area managers, and their designated alternates to be used for notification purposes will be kept in a central location and accessible from the area manager's wide area network.
- 6.11. No service affecting maintenance activities will be conducted during agency planned special operations.

7.0 Responsibilities

- 7.1. The Administrative Manager is responsible for notifying the Members and area managers of scheduled and unscheduled service affecting maintenance activities.
- 7.2. Area managers and Members are responsible for communicating scheduled and unscheduled TRWC maintenance activities to their respective agencies and, if necessary, their respective dispatch centers.
- 7.3. The Administrative Manager is responsible for notifying the network management function prior to and at the conclusion of maintenance activities

that may trigger events that would be seen by the network management function during normal business hours.

- 7.4. After normal working hours, the on-call technician is responsible for notifying the network management function prior to and at the conclusion of maintenance activities that may trigger events that would be seen by network management function.
- 7.5. Members and area managers are responsible for notifying Administrative Manager of the scheduling of planned special operations by their participating agencies.

8.0 Conditions for Exemption or Waiver

- 8.1. Routine maintenance activities relative to TRWC infrastructure components or TRWC sites and facilities as determined by the Administrative Manager will be exempt from the notification process.

9.0 Applicable Procedures

- 9.1. None.

	Radio Amplification Systems Policy	
Owner: See Below	Created: Nov 4, 2020	Applicability: See Below
Category: Operations & Maintenance	Revised: Nov 4, 2020	
Page: 1 of 2	Last Review: Nov 4, 2020	

1.0 Purpose

- 1.1. The purpose of this policy is to provide standards for the deployment of radio amplification systems to improve radio signal coverage inside of buildings and underground spaces on the TOPAZ Regional Wireless Cooperative (TRWC) network.

2.0 Owner

- 2.1. TRWC Operations Working Group (OWG).

3.0 Applies To

- 3.1. Any entity installing radio amplification systems within the TRWC service area and on the Federal Communications Commission (FCC) frequencies licensed by a TRWC Member(s).

4.0 Background

- 4.1. Radio amplification systems are used to enhance radio signals within buildings, structures or other locations where signals would otherwise be inadequate.
- 4.2. Improperly installed or maintained amplification systems can cause interference or degrade radio performance.
- 4.3. FCC 47 CFR Part 90.219 Use of Signal Boosters and 47 CFR Part 2 FCC Certification Requirements govern use and certification of radio amplification systems.
- 4.4. Radio amplification systems may include Bi-Directional Amplifiers (BDA), Distributed Antenna Systems (DAS) or other active devices designed to amplify radio signals.

5.0 Policy Statement

5.1. Entities desiring to operate radio amplification systems on a TRWC Member's licensed frequencies and within the service area of the TRWC network must obtain written consent and approval from the licensee.

5.2. TRWC network licensed frequencies are managed by a Network Managing Member.

6.0 Supporting Rules

6.1. The TRWC will not be responsible for installation, upgrades, maintenance or replacement of radio amplification systems.

6.2. TRWC will provide minimum technical requirements and written consent, upon request.

6.3. The TRWC does not require entities to maintain any minimum coverage requirements within buildings or structures; however, individual cities may have their own rules or ordinances.

7.0 Responsibilities

7.1. Entities desiring to operate a radio amplification system must advise the TRWC Administrative Manager of the following:

7.1.1. Facility point of contact.

7.1.2. Technical/contractor point of contact.

7.1.3. Detailed location information (e.g., site address, building floor, room location).

7.1.4. Installation design.

7.1.5. Technical specifications (e.g., model number, FCC certification number, frequency band).

7.2. Any new radio amplification system (signal booster), must be Class A channelized signal booster. A signal booster designed to retransmit signals on one or more specific channels. A signal booster is deemed to be a Class A signal booster if none of its passbands exceed 75 kHz. The TRWC will work with an offending entity to resolve problems due to interference, pursuant to CFR 90.173(b).


7.3. In the event of interference or malfunction of radio amplification systems, the entity responsible for its installation and/or operation shall discontinue operation of the system until it is repaired or interference has been eliminated.

8.0 Conditions for Exemption or Waiver

8.1. As provided in the Waiver or Exception Policy.

9.0 Applicable Policies and/or Procedures

9.1. As listed at <http://topazrwc.org/>

		Waiver or Exceptions Policy	
Owner: See Below	Created: Nov 4, 2020	Applicability: See Below	
Category: Operations & Maintenance	Revised: Nov 4, 2020		
Page: 1 of 2	Last Review: Nov 4, 2020		

1.0 Purpose

- 1.1. This policy is intended to provide a process for obtaining a waiver of an approved TOPAZ Regional Wireless Cooperative (TRWC) policy, or portion thereof.

2.0 Owner

- 2.1. TRWC Operations Working Group (OWG).

3.0 Applies To

- 3.1. This applies to all entities having subscribers using the operational capabilities of the TRWC.

4.0 Background

- 4.1. The TRWC network is a wireless infrastructure used to support the delivery of public safety and public service communications. The TRWC cannot anticipate every possible situation related to operations. Policies have been developed to guide the day-to-day decisions and activities that have a potential effect on the operational capabilities of the TRWC. The TRWC Board of Directors (Board) approves all policies and the OWG is responsible for managing the development and execution of the TRWC policies.

5.0 Policy Statement

- 5.1. The OWG is responsible for recommending approval or rejection of waivers or exceptions to TRWC policies to the TRWC Board.
- 5.2. The Board approves or rejects waivers and exceptions to TRWC policies.

6.0 Supporting Rules

- 6.1. Request for waiver or exception to TRWC policies will be made in writing to the TRWC Executive Director. The request must contain sufficient information for the OWG to consider the request and develop a recommendation to the TRWC Board.
- 6.1.1. Waivers or exceptions may be granted after assessing the impact to TRWC operations.

- 6.1.2. Requestors should not assume a waiver or exception will be granted.
- 6.2. Granted waivers or exceptions are subject to periodic review.

7.0 Responsibilities

- 7.1. The TRWC Executive Director is responsible for administratively managing the documentation of requests for waiver or exception to adopted TRWC policies.

8.0 Applicable Policies and/or Procedures

- 8.1. As listed at <http://topazrwc.org/>

TOPAZ
Detail of Operating and Maintenance
Fiscal Year 2020/ 2021

Year to Date Through June 30,2021

Description	Budget	Updated Forecast	YTD Forecast*	YTD Actual	\$ Var From YTD Forecast	% Var
					Incr/(Decr)	
Personnel Services	\$ 398,266	\$ 398,266	\$ 367,630	\$ 284,732	\$ (82,898)	-23%
Insurance Premiums	8,662	8,662	8,662	-	(8,662)	-100%
Legal Services	12,703	12,703	12,703	24,898	12,195	96%
Temp Services	6,114	6,114	6,114	-	(6,114)	-100%
Leases and Rents - Land	25,781	25,781	25,781	39,775	13,994	54%
Professional Services - Consulting	91,986	91,986	91,986	99,719	7,733	8%
Professional Services - Other	37,285	37,285	37,285	8,963	(28,322)	-76%
Utilities	70,000	70,000	70,000	59,626	(10,374)	-15%
Telephone	3,465	3,465	3,465	1,091	(2,374)	-69%
Association Dues	-	-	-	-	-	0%
Repairs & Maintenance	31,589	31,589	31,589	4,321	(27,268)	-86%
Equipment Usage (Vehicles)	20,380	20,380	20,380	17,135	(3,245)	-16%
All Other Services	20,000	20,000	20,000	1,500	(18,500)	-93%
Sub-total Services	<u>327,965</u>	<u>327,965</u>	<u>327,965</u>	<u>257,029</u>	<u>(70,936)</u>	<u>-22%</u>
Motorola Contract	874,214	874,214	874,214	837,310	(36,904)	-4%
Juniper Software	-	-	-	-	-	0%
Materials & Parts	25,000	25,000	25,000	27,889	2,889	12%
Non Cap Assets	25,474	25,474	25,474	355	(25,119)	-99%
All Other Commodities	-	-	-	-	-	0%
Sub-total Commodities	<u>924,688</u>	<u>924,688</u>	<u>924,688</u>	<u>865,555</u>	<u>(59,133)</u>	<u>-6%</u>
Subtotal O&M	1,650,919	1,650,919	1,620,283	1,407,315	(212,968)	-13%
Contingency - 1.5% of total O&M	25,636	25,636	25,636	-	(25,636)	-100%
VHF Operations	<u>151,836</u>	<u>151,836</u>	<u>151,836</u>		<u>(151,836)</u>	<u>-100%</u>
Total	<u>\$ 1,828,391</u>	<u>\$ 1,828,391</u>	<u>\$ 1,797,755</u>	<u>\$ 1,407,315</u>	<u>\$ (390,440)</u>	<u>-22%</u>

*YTD Forecast represents 12 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 2020/ 2021

Year to Date Through June 30, 2021

Project	Project ID	Budgeted	YTD Forecast*	YTD Actual	\$ Var From YTD Forecast	% Var
					Incr/(Decr)	
Site Expansion #1	CP0091	-	-	-	-	0.00%
TOPAZ Voice Radio Network Upgrade	CN0022	\$ -	\$ -	\$ -	\$ -	0.00%
Upgrade Shaw Bute & Florence Gardens to P25 Phase II	CP0906	-	-	-	-	0.00%
System-of-Systems Networking	CP0438	-	-	-	-	0.00%
Fire Hazard Zone System Coverage Improvement & Expansion	CP0907	236,000	236,000	247,729	11,729	4.97%
Fire Hazard Zone System Simulcast Timing Reference Lifecycle Upgrade	LF0402POM	98,872	98,872	72,367	(26,505)	-26.81%
System-of-Systems	CP0905	-	-	-	-	0.00%
Florence Gardens ISR Site Lifecycle upgrade	LF0224	-	-	-	-	0.00%
Radio & Core Sites Battery Backup Lifecycle Upgrade	LF0266	-	-	-	-	0.00%
Radio Sites Emergency Power Upgrade	LF0226	106,200	106,200	66,375	(39,825)	-37.50%
Communications Building UPS Battery Replacement	LF0228	-	-	-	-	0.00%
Internet Protocol Network Routers & Switches Upgrade	LF0248	-	-	-	-	0.00%
Antenna & Transmission Lines Lifecycle Upgrade	LF0282	236,000	236,000	199,454	(36,546)	-15.49%
Consulting Services for VHF & 7/800 MHz Coverage Expansion		-	-	-	-	0.00%
Total Capital Projects		\$ 677,072	\$ 677,072	\$ 585,925	\$ (91,147)	-13.46%
Capital Assessment to Members						
Mesa	71.96%	1,605,952	1,605,952	520,095	(1,085,857)	-67.61%
Gilbert	16.62%	371,038	371,038	153,376	(217,662)	-58.66%
Apache Junction	8.27%	184,618	184,618	76,404	(108,214)	-58.62%
Ft McDowell	1.90%	42,327	42,327	14,850	(27,477)	-64.92%
Superstition Fire & Medical	0.76%	16,886	16,886	6,371	(10,515)	-62.27%
Queen Creek	0.46%	10,357	10,357	5,663	(4,694)	-45.32%
Rio Verde	0.03%	675	675	268	(407)	-60.30%
Total Assessment to Members	100.00%	\$ 2,231,853	\$ 2,231,853	\$ 777,027	\$ (1,454,826)	-65.18%

*YTD Forecast represents 12 months of project costs plus any contractual expenses already incurred (i.e. one time payments).

TOPAZ
Detail of Operating and Maintenance
Fiscal Year 2021/ 2022

Year to Date Through August 31,2021

Description	Budget	Updated Forecast	YTD Forecast*	YTD Actual	\$ Var	% Var
					From YTD Forecast	Incr/(Decr)
Personnel Services	\$ 354,883	\$ 354,883	\$ 54,597	\$ 43,940	\$ (10,657)	-20%
Insurance Premiums	8,827	8,827	1,471	-	(1,471)	-100%
Legal Services	-	-	-	874	874	0%
Temp Services	6,230	6,230	1,038	-	(1,038)	-100%
Leases and Rents - Land	26,271	26,271	4,379	15,688	11,309	258%
Professional Services - Consulting	93,734	93,734	15,622	15,319	(303)	-2%
Professional Services - Other-combining legal, consulting	115,134	115,134	19,189	2,912	(16,277)	-85%
Utilities	71,330	71,330	11,888	8,950	(2,938)	-25%
Telephone	3,531	3,531	589	55	(534)	-91%
Association Dues	-	-	-	-	-	0%
Repairs & Maintenance	32,189	32,189	5,365	-	(5,365)	-100%
Equipment Usage (Vehicles)	20,767	20,767	3,461	1,531	(1,930)	-56%
All Other Services	40,000	40,000	6,667	-	(6,667)	-100%
Sub-total Services	418,013	418,013	69,669	45,329	(24,340)	-35%
Motorola Contract	890,824	890,824	148,471	-	(148,471)	-100%
Juniper Software	43,000	43,000	7,167	-	(7,167)	-100%
Materials & Parts	30,475	30,475	5,079	-	(5,079)	-100%
Non Cap Assets	12,980	12,980	2,163	-	(2,163)	-100%
All Other Commodities	-	-	-	-	-	0%
Sub-total Commodities	977,279	977,279	162,880	-	(162,880)	-100%
Subtotal O&M	1,750,175	1,750,175	287,146	89,269	(197,877)	-69%
Contingency - 1.5% of total O&M	27,380	27,380	4,563	-	(4,563)	-100%
VHF Operations	54,720	54,720	9,120	-	(9,120)	-100%
Total	\$ 1,832,275	\$ 1,832,275	\$ 300,829	\$ 89,269	\$ (211,560)	-70%

*YTD Forecast represents 2 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 2021/ 2022

Year to Date Through August 31, 2021

Project	Project ID	Budgeted	YTD Forecast*	YTD Actual	\$ Var	% Var	
					From YTD Forecast	Incr/(Decr)	
Site Expansion #1	CP0091	1,350,000	225,000	-	\$ (225,000)	-100.00%	
TOPAZ Voice Radio Network Upgrade	CN0022	\$ -	-	-	\$ -	0.00%	
Upgrade Shaw Bute & Florence Gardens to P25 Phase II	CP0906	287,406	47,901	-	(47,901)	-100.00%	
System-of-Systems Networking	CP0438	-	-	-	-	0.00%	
Fire Hazard Zone System Coverage Improvement & Expansion	CP0907	-	-	5,400	5,400	0.00%	
Fire Hazard Zone System Simulcast Timing Reference Lifecycle Upgrade	LF0402POM	-	-	-	-	0.00%	
System-of-Systems	CP0905	-	-	-	-	0.00%	
Florence Gardens ISR Site Lifecycle upgrade	LF0224	-	-	-	-	0.00%	
Radio & Core Sites Battery Backup Lifecycle Upgrade	LF0266	31,910	5,318	-	(5,318)	0.00%	
Radio Sites Emergency Power Upgrade	LF0226	106,200	17,700	-	(17,700)	-100.00%	
Communications Building UPS Battery Replacement	LF0228	-	-	-	-	0.00%	
Internet Protocol Network Routers & Switches Upgrade	LF0248	-	-	-	-	0.00%	
Antenna & Transmission Lines Lifecycle Upgrade	LF0282	-	-	-	-	0.00%	
Consulting Services for VHF & 7/800 MHz Coverage Expansion		-	-	-	-	0.00%	
Total Capital Projects		\$ 1,775,516	\$ 295,919	\$ 5,400	\$ (290,519)	-98.18%	
Capital Assessment to Members							
Mesa	71.96%	1,605,952	267,659	29,437	(238,222)	-89.00%	
Gilbert	16.62%	371,038	61,840	8,527	(53,313)	-86.21%	
Apache Junction	8.27%	184,618	30,770	3,998	(26,772)	-87.01%	
Ft McDowell	1.90%	42,327	7,055	971	(6,084)	-86.24%	
Superstition Fire & Medical	0.76%	16,886	2,814	311	(2,503)	-88.95%	
Queen Creek	0.46%	10,357	1,726	282	(1,444)	-83.66%	
Rio Verde	0.03%	675	113	13	(100)	-88.50%	
Total Assessment to Members		100.00%	\$ 2,231,853	\$ 371,977	\$ 43,539	\$ (328,438)	-88.30%

*YTD Forecast represents 2 months of project costs plus any contractual expenses already incurred (i.e. one time payments).

TRWC

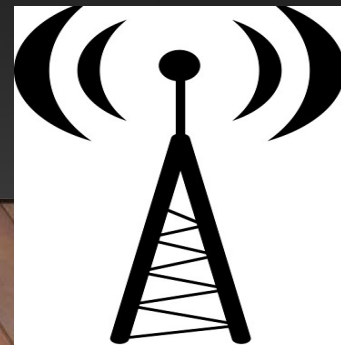
27SEP2021

ADMINISTRATOR UPDATE

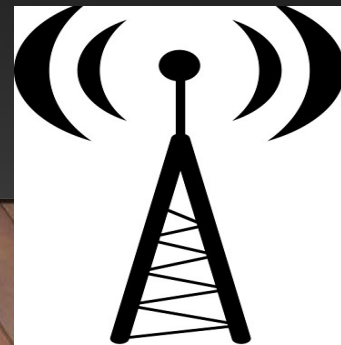


IN PROGRESS TOPAZ PROJECTS

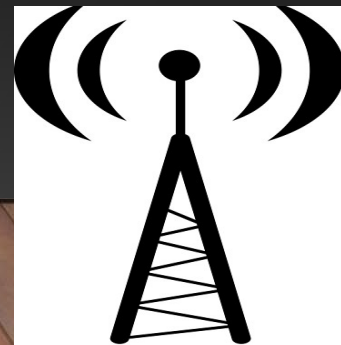
- Purchase of Land East of FS264 off RT60 for construction of a new radio tower
 - Purchase is scheduled to be completed in October
- Working with Mesa Engineering on construction of a new tower facility on that property



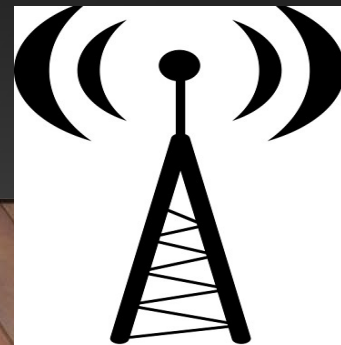
- VHF Simulcast Timing References Replacement
- First-Net PTT- P25 is installed and in the testing phase



- Upgrade Shaw Butte and Florence Gardens to P25 Phase II (TDMA), schedule to start mid January
- SUAII 2021 upgrade to the TOPAZ core equipment is underway, system load will take place the week of 1NOV2021



- Fire VHF Network Router Replacement
- Scheduled to start 2nd QTR 2022.
- Motorola has reduced this price by adding them to the SUAll plan



- VHF System Coverage improvements
 - Two more receive sites scheduled for this FY
- Radio site emergency power upgrade continues
 - Two per year until FY23/24

- TOPAZ 800 MHZ SIMULCAST - 100%
 - ONE SITE TOOK A 40sec INTERRUPTION
- TOPAZ ISR (HIGH SITES) - 99.999
 - SHA - 100%
 - FLO - 99.998
 - TPK – 100%

