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COMMUNICATIONS
DEPARTMENT

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Mesa, Arizona 85211-1466

Date: September 19, 2022

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

Through: Dale Shaw, TRWC Executive Director

From: Chuck Craig, IT Manager

Subject: POLICY UPDATE

RECOMMENDATION

I recommended that the current policy statement be revised to reflect this change of responsibility.

BACKGROUND:

Currently, as described in section 7.5 of the TRWC Maintenance and Support Policy, City of Mesa PD is the point of contact for maintenance and management of Key Maintenance Facility and encryption for subscriber units. This process has moved to the City of Mesa Department of Innovation and Technology (Communications division).

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TOPAZ REGIONAL WIRELESS COOPERATIVE	**Maintenance & Support Policy**	
Owner: See Below	Created: **Sept. 14, 2009**	Applicability: See Below
Category: **Operations & Maintenance**	Revised: **Sept. 14, 2009**	
Page: **1 of 6**	Last Review: **Sept. 14, 2009**	

1.0 Purpose

1.1. The purpose of this policy is to establish the framework:

1.1.1. Necessary to identify, resolve, and report anomalies that occur within TRWC in such a manner as to minimize the operational impact to participating agencies and their subscribers.

1.1.2. Within which all maintenance activities pertaining to TRWC sites and facilities and TRWC infrastructure devices will be tracked and reported, including notification to Area Managers and Members of scheduled and unscheduled service affecting activities.

2.0 Owner

2.1. Administrative Manager

3.0 Applies To

3.1. Area Managers, Members, Associates, Interoperability Participants and Conditional Participants.

3.2. All personnel performing operations and planned or unplanned maintenance of the TRWC network infrastructure.

4.0 Background

4.1. The TRWC infrastructure is a critical enabling technology that supports public safety and public service operations with differing operational requirements. In anticipation of operational anomalies occurring within the network, and realizing that these anomalies must be triaged as expeditiously as possible, it is necessary to have policies in place that ensure network anomalies can be identified, reported, and resolved in a manner that minimizes the impact to Area Managers, Members, Associates, Interoperability Participants, and Conditional Participants that have operational subscribers on the network.

4.2. The operational stability of TRWC may be affected when the configuration of the TRWC network 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

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7.0 Responsibilities

7.1. The management of the TRWC infrastructure is the responsibility of the Administrative Manager.
7.2. The Administrative Manager will establish on-call after-hour support for anomaly resolution.
7.3. The Administrative Manager will ensure that TRWC reporting activities for anomalies will be conducted seven (7) days a week and twenty-four (24) hours a day.
7.4. The Administrative Manager will:
7.4.1. Establish and maintain processes and procedures for operations and maintenance of the TRWC infrastructure.
7.4.2. Identify and resolve network anomalies. Field service personnel will be dispatched when problems cannot be resolved remotely.
7.4.3. Log problems and track them to closure.
7.4.4. Analyze all logged problems to ensure network performance standards are maintained.
7.4.5. Ensure that network log files are regularly reviewed and that cases are opened to resolve anomalies as necessary.
7.4.6. Provide system performance reports.
7.4.7. Maintain access to field replaceable units (FRUs) sufficient to mitigate equipment failures in a timeframe agreeable to TRWC Members.
7.4.8. Maintain current software licensing on all TRWC infrastructure components.
7.4.9. Maintain technical support necessary to operate, troubleshoot, and optimize the TRWC infrastructure.
7.4.10. Incident types, response times, and appropriate actions are defined by severity level in accordance with procedures established by the Administrative Manager.
7.4.11. Ensure that all operations and maintenance personnel, and third party support providers, are aware of this Maintenance & Support Policy; are trained in the appropriate processes, procedures, and response times; and have access to the necessary contact information to invoke various levels of support activities.
7.4.12. Perform scheduled maintenance on the TRWC infrastructure in a manner that is consistent with industry best practices and manufacturer recommendations.
7.4.13. Operate the TRWC network in accordance with the Network Security category polices.

7.4.14. Responsible for notifying the Members and Area Managers of scheduled and unscheduled service affecting maintenance activities.

7.5 City of Mesa Communication Division is the point of contact for key management and encryption. Requests for key management and encryption support are to be submitted to City of Mesa Communication Division during normal business hours if possible. After hours, the point of contact for emergency support of key management and encryption is Mesa PD dispatch.

7.6. Area Managers and Members are responsible for providing their own dispatch console maintenance.

7.6.1. Area Managers and Members are responsible for notifying the

Date: September 22, 2022

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

From: Dale Shaw, TRWC Executive Director

Rob Duggan, TRWC Executive Committee Co-chairman

Subject: Fiscal Year 2023/2024 Budget

Recommendation

The TRWC Executive Director and Executive Committee recommends the review and consideration of the Preliminary TRWC Budget (attached) in the amount of $5,914,288 for Fiscal Year 2023/2024.

Background & Discussion

The attached Preliminary Budget for Fiscal Year 2023/2024 has been under review and endorsed by the TRWC Executive Committee. When compared to the current 2022/2023 Fiscal Year Budget, the proposed Operating & Maintenance expenses will increase by $236,539 (predominately due to increases in staffing and maintenance costs). When compared to the previously presented forecast, Capital expenditures will increase by $1,289,428 (predominately due to accelerated land acquisition costs, planned carryover, and console upgrade passthrough costs).

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 22/23 BUDGET	FY 23/24 DRAFT BUDGET	CHANGE FY22/23 to FY23/24
ESCALATION FACTOR		8.00%	
Salaries and Wages **(4)**	$ 366,626	508,188	$ 141,562
Total Labor	$ 366,626	$ 508,188	$ 141,562
ESCALATION FACTOR	1.90%	8.00%	
GENERAL & ADMINISTRATIVE - OTHER SERVICES			
Temp Services	$ 6,349	6,857	$ 508
Prof Services - TRWC Executive Director	95,515	103,156	7,641
Prof Services - Legal, Consulting & Other **(5)**	242,322	186,708	(55,614)
Ins. Premiums - Agencies	8,994	9,714	720
Utilities	72,685	87,920	15,235
Telephone	3,598	3,886	288
Repairs & Maint	32,801	35,425	2,624
Equipment Usage (Vehicles)	21,162	22,855	1,693
Shaw Butte & Florence Gardens-Land	26,770	28,912	2,142
Training	20,380	22,010	1,630
Travel	20,380	22,010	1,630
Networking Subscription Costs	12,000	12,960	960
All Other Services	-	-	-
TOTAL OTHER SERVICES	$ 562,956	$ 542,413	$ (20,543)
GENERAL & ADMINISTRATIVE - COMMODITIES			
Non Cap Assets	$ 13,226	14,284	$ 1,058
Contract - Motorola (Preventative & Security Monitoring) **(6)**	975,000	1,082,910	107,910
Software Maint-Mainsaver, Juniper	67,562	72,967	5,405
Materials & Repair Parts	31,054	33,538	2,484
All Other Commodities	-	-	-
TOTAL COMMODITIES	$ 1,086,842	$ 1,203,699	$ 116,857
OTHER BUDGET ITEMS			
PROPOSED CONTINGENCY - 1.5%	$ 29,487	26,018	$ (3,469)
VHF OPERATIONS (special assessment)	26,663	28,795	2,132
VHF Equipment Staff Time (special assessment)	29,098	29,098	-
TOTAL OTHER BUDGET ITEMS	$ 85,248	$ 83,911	$ (1,337)
Total Operating & Maintenance	$ 2,101,672	$ 2,338,211	$ 236,539
O&M - AIRTIME PERCENTAGE (1)			
Mesa	67.08%	66.33%	-0.75%
Gilbert	19.45%	16.17%	-3.28%
Apache Junction	9.15%	10.20%	1.05%
Ft McDowell	2.21%	1.45%	-0.76%
Superstition Fire & Medical	0.72%	0.79%	0.07%
Queen Creek	0.64%	4.56%	3.92%
Rio Verde	0.02%	0.04%	0.02%
Southwest Ambulance	0.56%	0.38%	-0.18%
American Medical Response	0.17%	0.08%	-0.09%
Total	100.00%	100.00%	0.00%
VHF SPECIAL ASSSESSMENT (2,3)			
Mesa Fire & Medical	68.68%	68.68%	0.00%
Gilbert Fire	17.16%	17.16%	0.00%
Superstition Fire & Medical	10.01%	10.01%	0.00%
Queen Creek Fire	3.22%	3.22%	0.00%
Rio Verde Fire	0.93%	0.93%	0.00%
Total	100.00%	100.00%	0.00%
ANNUAL ESTIMATED REVENUE: OPERATING & MAINTENANCE			
Mesa	1,410,694	1,552,296	141,602
Gilbert	407,498	378,662	(28,836)
Apache Junction	187,201	232,592	45,392
Ft McDowell	45,215	33,065	(12,150)
Superstition Fire & Medical	20,312	23,810	3,497
Queen Creek	14,889	105,847	90,957
Rio Verde	928	1,451	523
Southwest Ambulance	11,457	8,665	(2,792)
American Medical Response	3,478	1,824	(1,654)
Total	$ 2,101,672	$ 2,338,211	$ 236,539

(1) Normal partner assessments are allocated based on July, 2022 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% increased to 8% plus new hire
(5) $100,000 FOR Cyber Security + $25,000 from Capital Possible increase to web site refresh-
(6) New Radio Site and Maintance

TRWC Capital Budget Plan

	PROJECT ID	Proposed new with Carry over FY 22/23	Final FY 22/23	New Draft FY 23/24	FORCAST: Proposed FY 23/24 From last year	New Proposal FY 24/25	Proposed FY 24/25 From last year	New Proposal FY 25/26	Proposed FY 25/26 From last year	New Proposal FY 26/27	Proposed FY 26/27 From last year	New Proposal FY 27/28	Proposed FY 27/28 From last year	New Proposal FY 28/29	Proposed FY 28/29 From last year	FY 29/30	TOTAL 9 Years	23/24 Difference	Project	Personnel	Overhead
ESCALATION FACTOR						7.00%		7.00%		7.00%		7.00%		7.00%		7.00%					
Site Expansion #1 H60 Includes $174,822 roll forward from 21-22	CP0091	1,764,822	1,590,000	570,640	570,640	-	560,000	-	-	-	-	-	-	-	-		$ 2,335,462	$ -	1,424,392	256,391	84,039
Site Expansion #2 WOL	CP0754	790,276	790,276	1,033,111	1,033,111	1,052,740	590,276	-	1,013,847	-	-	-	-	-	-		$ 2,876,127	$ -	637,834	114,810	37,632
Site Expansion #3 QC Land Purchase	CP0779	-	-	475,000		1,375,650	-	1,750,000	-	610,000	-	-	605,703	-	1,040,515		$ 4,210,650	$ 475,000	-	-	-
System-of-Systems Networking Expansion CP0438	CP0905	-	-	-	25,475	-	25,000	-	-	-	-	-	-	-	-		$ -	$ (25,475)	-	-	-
Upgrade Shaw Butte and Florence Gardens to P25 Phase II (TDMA) Includes $287,406 roll forward from 21-22	CP0906	574,812	287,406	-	-	-	-	-	-	-	-	-	-	-	-		$ 574,812	$ -	463,932	83,508	27,372
Radio Sites Emergency Power Upgrade $66,333 roll forward from 21-22	LF0226	172,533	106,200	-	108,218	-	106,200	-	-	-	-	-	-	-	-		$ 172,533	$ (108,218)	139,252	25,065	8,216
Communications Building UPS Battery Replacement	LF0228	17,700	17,700	-	-	-	-	-	-	18,036	-	-	17,700	-	-		$ 35,736	$ -	14,286	2,571	843
Internet Protocol Network Routers & Switches Upgrade (Work in FY25)	LF0248	-	-	-	-	400,000	-	428,000	-	256,800	-	-	-	-	-		$ 1,084,800		-	-	-
Radio & Core Sites Battery Backup Lifecycle Upgrade (CRS) Includes $31,910 roll forward from 21-22	LF0266	31,910	-	-	-	90,000	-	96,300	71,433	103,041	71,433	-	89,292	-	-		$ 321,251	$ -	25,755	4,636	1,520
Radio & Core Sites DC Power Plant Lifecycle Upgrade	LF0267	-	-	-	-			750,000	-	802,500	750,000	-	750,000	-	-		$ 1,552,500	$ -	-	-	-
Enhanced data TBD		371,000	371,000	-													$ 371,000	$ -	299,435	53,898	17,667
Antenna & Transmission Lines Lifecycle Upgrade	LF0282	-	-	-	-	-	-	-	-	-	-	-	-	-	-		$ -	$ -	-	-	-
TOPAZ P25 Voice Radio Network Lifecycle Upgrade (FY28)	New	-	-	-	-	-	-	-	-	-	-	2,038,000	-	-	-		$ 2,038,000	$ -	-	-	-
Wireless Backhaul (Microwave) Network Lifecycle Upgrade (Includes Antennas and tower work 5 microwave shots)	LF0403CAP	167,265	167,265	300,000	170,443	420,000	167,265	-	167,265	-	-	-	-	-	-	187,262	$ 887,265	$ 129,557	135,000	24,300	7,965
Consulting Services for VHF & 7/800 MHz Coverage Expansion includes $40,000 roll forward from 21-22		40,000	-	-	-	-	40,000										$ 40,000	$ -	32,284	5,811	1,905
Sub-total		3,930,318	3,329,847	2,378,751	1,907,887	3,338,390	1,488,741	3,024,300	1,252,545	1,790,377	821,433	2,038,000	1,462,695	-	1,040,515	187,262	$ 16,500,136	$ 470,864			
Fire Hazard Zone System Coverage Improvement and Expansion (Gilbert/Queen Creek) Includes $103,620 roll forward 21-22	CP0907	475,320	371,700	450,000	378,762	481,500	385,959	515,205	393,292	551,269	400,765	589,858	408,379	631,148	416,138	675,328	$ 3,694,300	$ 71,238	383,632	69,054	22,634
Fire Hazard Zone System Lifecycle Upgrade Router Refresh replacement in FY25 (Motorola qoute is $320,000. FY23+FY24 money to complete the project) includes $147,500 roll forward from 21-22	LF0465CAP	147,500	-	150,000		-	-	-	-	-	-	-	-	-	-		$ 297,500	$ 150,000	119,048	21,429	7,024
Fire Hazard Zone System Simulcast Timing Reference Lifecycle Upgrade includes $43,238 roll forward from 21-22	LF0402POM	43,238	-	-													$ 43,238	$ -	36,642	6,596	
	New	-	-	-	-	-	-	-	-	-	-	-	-	-	-		$ -	$ -	-	-	-
Sub-total VHF Special Assessment Projects		666,058	371,700	600,000	378,762	481,500	385,959	515,205	393,292	551,269	400,765	589,858	408,379	631,148	416,138	675,328	$ 4,035,038	221,238			
																	$ -				
Console Upgrade from MCC 7500 to AXS (1)	New			597,326	-	655,221	-	675,197	-	765,773	-	842,966	-	864,795	-	-	$ 4,401,278				
Sub-total AXS Console Upgrade Special Assessment Projects				597,326	-	655,221	-	675,197	-	765,773	-	842,966	-	864,795	-	-	$ 4,401,278	-			
Total Capital & Fire Special Assessment Projects		$ 4,596,376	$ 3,701,547	$ 3,576,077	$ 2,286,649	$ 4,475,111	$ 1,874,700	$ 4,214,702	$ 1,645,837	$ 3,107,419	$ 1,222,198	$ 3,470,824	$ 1,871,074	$ 1,495,943	$ 1,456,653	$ 862,590	$ 24,936,452	$ 692,102			
Capital Assessment to Members																					
Mesa	67.55%	2,654,929	2,249,311	1,606,845	1,288,778	2,255,082	1,005,645	2,042,915	846,094	1,209,400	554,878	1,376,668	988,049	-	702,868	126,496	15,829,283				
Gilbert	19.60%	770,342	652,650	466,235	373,946	654,324	291,793	592,763	245,499	350,914	161,001	399,448	286,688	-	203,941	36,703	4,592,953				
Apache Junction	9.22%	362,375	307,012	219,321	175,907	307,800	137,262	278,840	115,485	165,073	75,736	187,904	134,860	-	95,935	17,266	2,160,563				
Ft McDowell	2.23%	87,646	74,256	53,046	42,546	74,446	33,199	67,442	27,932	39,925	18,318	45,447	32,618	-	23,203	4,176	522,565				
Superstition Fire & Medical	0.72%	28,298	23,975	17,127	13,737	24,036	10,719	21,775	9,018	12,891	5,914	14,674	10,531	-	7,492	1,348	168,720				
Queen Creek	0.65%	25,547	21,644	15,462	12,401	21,700	9,677	19,658	8,142	11,637	5,339	13,247	9,508	-	6,763	1,217	152,318				
Rio Verde	0.03%	1,179	999	714	572	1,002	447	907	376	537	246	611	439	-	312	56	7,030				
Sub-total	100.00%	3,930,316	3,329,847	2,378,750	1,907,887	3,338,390	1,488,742	3,024,300	1,252,546	1,790,377	821,432	2,037,999	1,462,693	-	1,040,514	187,262	23,433,432				
VHF Special Assessment																					
Mesa Fire & Medical	68.68%	457,449	255,284	412,079	260,133	330,693	265,076	353,842	270,112	378,611	275,244	405,113	280,474	433,471	285,803	463,815	3,207,399				
Gilbert Fire	17.16%	114,296	63,784	102,960	64,996	82,625	66,231	88,409	67,489	94,598	68,771	101,220	70,078	108,305	71,409	115,886	801,386				
Superstition Fire & Medical	10.01%	66,672	37,207	60,060	37,914	48,198	38,634	51,572	39,369	55,182	40,117	59,045	40,879	63,178	41,655	67,600	467,476				
Queen Creek Fire	3.22%	21,447	11,969	19,320	12,196	15,504	12,428	16,590	12,664	17,751	12,905	18,993	13,150	20,323	13,400	21,746	150,377				
Rio Verde Fire	0.93%	6,194	3,457	5,580	3,522	4,478	3,589	4,791	3,658	5,127	3,727	5,486	3,798	5,870	3,870	6,281	43,432				
Sub-total	100.00%	666,058	371,701	599,999	378,761	481,498	385,958	515,204	393,292	551,269	400,764	589,857	408,379	631,147	416,137	675,328	4,670,070				
Special Assestment SAU																					
Mesa				458,703		472,464		486,637		571,237		635,274		650,764			3,275,079				
Gilbert ($400,000 billed directly to Gilbert upon contract signing)	400,000			77,683		120,513		124,974		129,568		134,300		139,174			1,126,211				
Apache Junction PD				17,500		17,500		17,500		17,500		17,500		17,500			105,000				
Ft McDowell				43,440		44,744		46,086		47,468		55,892		57,359			294,990				
	400,000			597,326	-	655,221	-	675,197	-	765,773	-	842,966	-	864,797	-	-	4,801,280				
Total Capital + Fire Special Assessment																					
Mesa		3,112,377	2,504,594	2,477,629	1,548,911	3,058,239	1,270,721	2,883,394	1,116,206	2,159,248	830,122	2,417,055	1,268,523	1,084,235	988,671	590,311	23,226,660				
Gilbert		884,638	716,434	646,878	438,942	857,462	358,024	806,146	312,988	575,080	229,772	634,968	356,766	247,479	275,350	152,589	6,349,142				
Apache Junction		362,375	307,012	236,821	175,907	325,300	137,262	296,340	115,485	182,573	75,736	205,404	134,860	17,500	95,935	17,266	2,265,563				
Ft McDowell		87,646	74,256	96,486	42,546	119,190	33,199	113,528	27,932	87,393	18,318	101,339	32,618	57,359	23,203	4,176	817,555				
Superstition Fire & Medical		94,970	61,182	77,187	51,651	72,234	49,353	73,347	48,387	68,073	46,031	73,719	51,410	63,178	49,147	68,948	769,540				
Queen Creek		46,994	33,613	34,782	24,597	37,204	22,105	36,248	20,806	29,388	18,244	32,240	22,658	20,323	20,163	22,963	345,589				
Rio Verde		7,373	4,456	6,294	4,094	5,480	4,036	5,698	4,034	5,664	3,973	6,097	4,237	5,870	4,182	6,337	62,850				
Total		4,596,373	3,701,547	3,576,077	2,286,648	4,475,109	1,874,700	4,214,701	1,645,838	3,107,419	1,222,196	3,470,822	1,871,072	1,495,944	1,456,651	862,590	33,836,899				

Network Administrator Updates

TOPAZ
Detail of Operating and Maintenance
Fiscal Year 2021/ 2022

	Year to Date Through June 30, 2022 13th Month					
Description	**Budget**	**Updated Forecast**	**YTD Forecast***	**YTD Actual**	**$ Var From YTD Forecast Incr/(Decr)**	**% Var Forecast**
Personnel Services	$ 354,883	$ 354,883	$ 354,883	$ 249,497	$ (105,386)	-30%
Insurance Premiums	8,827	8,827	8,827	-	(8,827)	-100%
Temp Services	6,230	6,230	6,230	127	(6,104)	-98%
Leases and Rents - Land	26,271	26,271	26,271	24,088	(2,183)	-8%
Professional Services - Consulting	93,734	93,734	93,734	115,499	21,765	23%
Professional Services - Other-combining legal, consulting	115,134	115,134	115,134	30,349	(84,786)	-74%
Utilities	71,330	71,330	71,330	83,408	12,078	17%
Telephone	3,531	3,531	3,531	2,753	(778)	-22%
Association Dues	-	-	-	-	-	0%
Repairs & Maintenance	32,189	32,189	32,189	19,122	(13,067)	-41%
Equipment Usage (Vehicles)	20,767	20,767	20,767	20,583	(184)	-1%
All Other Services	40,000	40,000	40,000	-	(40,000)	-100%
Sub-total Services	418,013	418,013	418,013	295,927	(122,086)	-29%
Motorola Contract	890,824	890,824	890,824	850,011	(40,813)	-5%
Juniper Software	43,000	43,000	43,000	100	(42,900)	-100%
Materials & Parts	30,475	30,475	30,475	4,116	(26,359)	-86%
Non Cap Assets	12,980	12,980	12,980	-	(12,980)	-100%
All Other Commodities	-	-	-	-	-	0%
Sub-total Commodities	977,279	977,279	977,279	854,227	(123,052)	-13%
Subtotal O&M	1,750,175	1,750,175	1,750,175	1,399,651	(350,524)	-20%
Contingency - 1.5% of total O&M	27,380	27,380	27,380	-	(27,380)	-100%
VHF Operations	54,720	54,720	54,720		(54,720)	-100%
Total	$ 1,832,275	$ 1,832,275	$ 1,832,275	$ 1,399,651	$ (432,624)	-24%

*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 Operating and Maintenance
Fiscal Year 2022/ 2023

	Year to Date Through August 31, 2022					
Description	**Budget**	**Updated Forecast**	**YTD Forecast***	**YTD Actual**	**$ Var From YTD Forecast Incr/(Decr)**	**% Var**
Personnel Services	$ 366,626	$ 366,626	$ 56,404	$ 45,293	$ (11,111)	-20%
Insurance Premiums	8,994	8,994	1,499	-	(1,499)	-100%
Networking Subscription Costs	12,000	12,000	2,000	-	(2,000)	-100%
Temp Services	6,349	6,349	1,058	342	(716)	-68%
Leases and Rents - Land	26,770	26,770	4,462	-	(4,462)	-100%
Professional Services - Consulting	95,515	95,515	15,919	13,762	(2,157)	-14%
Professional Services - Other-combining legal, consulting	242,322	242,322	40,387	19,558	(20,829)	-52%
Utilities	72,685	72,685	12,114	10,580	(1,534)	-13%
Telephone	3,598	3,598	600	98	(502)	-84%
Association Dues	-	-	-	-	-	0%
Repairs & Maintenance	32,801	32,801	5,467	13,659	8,192	150%
Equipment Usage (Vehicles)	21,162	21,162	3,527	1,224	(2,303)	-65%
All Other Services	40,760	40,760	6,793	-	(6,793)	-100%
Sub-total Services	562,956	562,956	93,826	59,222	(34,604)	-37%
Motorola Contract	975,000	975,000	162,500	850,011	687,511	423%
Juniper Software	67,562	67,562	11,260	-	(11,260)	-100%
Materials & Parts	31,054	31,054	5,176	2,135	(3,041)	-59%
Non Cap Assets	13,226	13,226	2,204	-	(2,204)	-100%
All Other Commodities	-	-	-	-	-	0%
Sub-total Commodities	1,086,842	1,086,842	181,140	852,146	671,006	370%
Subtotal O&M	2,016,424	2,016,424	331,370	956,660	625,290	189%
Contingency - 1.5% of total O&M	29,487	29,487	4,915	-	(4,915)	-100%
VHF Operations (special assessment)	26,663	26,663	4,444	-	(4,444)	-100%
VHF Equipment Staff Time (Special assessment)	29,098	29,098	4,850	-	(4,850)	-100%
Total	$ 2,101,672	$ 2,101,672	$ 345,579	$ 956,660	$ 611,081	177%

*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 **Year to Date Through June 30, 2022**
Fiscal Year 2021/ 2022

Project	Project ID	Budgeted	YTD Forecast*	YTD Actual	$ Var From YTD Forecast Incr/(Decr)	% Var From YTD Forecast Incr/(Decr)
Site Expansion #1	CP0091	1,350,000	1,350,000	1,175,178	$ (174,822)	-12.95%
TOPAZ Voice Radio Network Upgrade	CN0022	$ -	-	-	$ -	0.00%
Upgrade Shaw Bute & Florence Gardens to P25 Phase II	CP0906	287,406	287,406	-	(287,406)	-100.00%
System-of-Systems Networking	CP0438	-	-	-	-	0.00%
Fire Hazard Zone System Coverage Improvement & Expansion	CP0907	371,700	371,700	268,080	(103,620)	-27.88%
Fire Hazard Zone System Lifecycle Upgrade	LF0465CAP	147,500	147,500	-	(147,500)	-100.00%
Fire Hazard Zone System Simulcast Timing Reference Lifecycle Upgrade	LF0402POM	115,351	115,351	72,113	(43,238)	-37.48%
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	31,910	-	(31,910)	-100.00%
Radio Sites Emergency Power Upgrade	LF0226	106,200	106,200	39,867	(66,333)	-62.46%
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		40,000	40,000	-	(40,000)	-100.00%
Total Capital Projects		$ 2,450,067	$ 2,450,067	$ 1,555,238	$ (894,829)	-36.52%
Capital Assessment to Members						
Mesa	67.55%	1,226,380	1,226,380	1,048,148	(178,232)	-14.53%
Gilbert	19.60%	355,841	355,841	268,694	(87,147)	-24.49%
Apache Junction	9.22%	167,391	167,391	151,849	(15,542)	-9.28%
Ft McDowell	2.23%	40,486	40,486	25,235	(15,251)	-37.67%
Superstition Fire & Medical	0.72%	13,072	13,072	11,933	(1,139)	-8.71%
Queen Creek	0.65%	11,801	11,801	48,954	37,153	314.83%
Rio Verde	0.03%	545	545	424	(121)	-22.20%
Total Assessment to Members	100.00%	$ 1,815,516	$ 1,815,516	$ 1,555,237	$ (260,279)	-14.34%

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

TOPAZ
Detail of Capital Projects
Fiscal Year 2022/ 2023

Year to Date Through August 31, 2022

Project	Project ID	Budgeted	YTD Forecast*	YTD Actual	$ Var From YTD Forecast Incr/(Decr)	% Var From YTD Forecast Incr/(Decr)
Site Expansion #1	CP0091	1,590,000	265,000	6,781	$ (258,219)	-97.44%
Site Expansion #2	CP0754	790,276	131,713	-	$ (131,713)	-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	371,700	61,950	14,377	(47,573)	-76.79%
Fire Hazard Zone System Lifecycle Upgrade		-	-	-	-	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	-	-	-	-	0.00%
Radio Sites Emergency Power Upgrade	LF0226	106,200	17,700	-	(17,700)	-100.00%
Communications Building UPS Battery Replacement	LF0228	17,700	2,950	-	(2,950)	-100.00%
Enhanced data (TBD)		371,000	61,833	-	(61,833)	-100.00%
Internet Protocol Network Routers & Switches Upgrade	LF0248	-	-	-	-	0.00%
Antenna & Transmission Lines Lifecycle Upgrade	LF0282	-	-	-	-	0.00%
Wireless Backhaul (MW) Netwrok Upgrade	LF0403CAP	167,265	27,878	3,196	(24,682)	-88.53%
Consulting Services for VHF & 7/800 MHz Coverage Expansion		-	-	-	-	0.00%
Total Capital Projects		$ 3,701,547	$ 616,925	$ 24,354	$ (592,571)	-96.05%
Capital Assessment to Members						
Mesa	67.55%	1,226,380	204,397	16,178	(188,219)	-92.09%
Gilbert	19.60%	355,841	59,307	3,964	(55,343)	-93.32%
Apache Junction	9.22%	167,391	27,899	2,515	(25,384)	-90.99%
Ft McDowell	2.23%	40,486	6,748	360	(6,388)	-94.67%
Superstition Fire & Medical	0.72%	13,072	2,179	190	(1,989)	-91.28%
Queen Creek	0.65%	11,801	1,967	1,137	(830)	-42.20%
Rio Verde	0.03%	545	91	10	(81)	-89.01%
Total Assessment to Members	100.00%	$ 1,815,516	$ 302,588	$ 24,354	$ (278,234)	-91.95%

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

Date: 09/08/2022

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

Through: Dale Shaw, TRWC Executive Director

From: Chuck Craig

Subject: Administrator Update

Current projects

1) **Capital Budget**
    - **a.** Site Expansion H60, the JOC (Hunter Construction) delivered the quote to build the H60 site, total $1,524,738. This puts the project over budget by $698,493. Mesa is looking find ways to reduce the overall cost for the site, as an example David Brunk has engaged a different building manufacturer giving us a cost savings of $100,000. There are several projects we can move budget capacity from to complete the project.
        i. Fire Hazard Zone System Coverage (CP0907) $371,700
            1. These funds would cover the VHF equipment for the site
        ii. Wolverine site (CP0754) $790,276
        iii. Remaining funds from Fire Hazard Zone System Simulcast Timing Reference(LF0402) $69,743

    - **b.** We are working closely with the Town of Queen Creek for an 800Mhz ISR site. We may have located one that fits our needs.
    - **c.** Met with the Executive Committee and discussed the reallocation of equipment at Florence Gardens to a future site in the Queen Creek area. The recommendation was approved. The Federal Engineering study is included.
    - **d.** Status of takeover of the Wolverine site from the FAA, Margaret has sent paperwork to Mesa real estate to move the process forward. A packet of information will be sent soon to the Forest Service.

2) We are looking to have the FY24 budget, along with the new 6-year SUA-2 approved at the 9/22/2022 TRWC Board of Director's meeting, and have Mesa City Council approve the SUA at the 10/3/2022 meeting
3) There is a current fiscal year budget line item to perform a security audit of our P25 radio system. Randy Thompson has brought 2 different companies to our attention. We met with IPKeys and Compliance Testing. We will move the conversation forward with IPkey, with a joint meeting with them and Mesa's DoIT Security team.

Operations Summary

A. We have had minor microwave interruptions at our Florence Gardens location, we feel this is based on weather in the area. To try and remediate the situation we have

changed our frequency modulation and increased power output. This would reduce the speed of the connection but improve reliability.

B. We are continuing to work with Motorola on implementing Smart Connect. As an organization we should review all proprietary Motorola P25 features to determine if they fit with the TRWC's long range plans.
C. We should have a final solution for implementing TDMA at Shaw Buttes and Florence Gardens early in October.
D. Quarterly/monthly patching will begin On Wednesday 09-14-22. We will start with the DSR with no expected outage. On Friday 09-16-21 at 3:00 A.M. we will switch zone controllers to ZC02. This will cause Site Trunking for approximately 5-30 sec. Dispatch consoles will drop during this time and each dispatch center has been alerted that they will need to have portables ready. Bryan Waters will contact each dispatch center prior to the site trunking event.
E. We are working with Motorola on replacements for our GGM 8000 and S600 routers, as they are out of service.

Upcoming Events:

- All upcoming or in-progress events are discussed earlier in this report

Other News:

Date: September 22, 2022

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

From: Dale Shaw, TRWC Executive Director

Subject: Town of Florence Conditional Network Use Ratification

Recommendation

The TRWC Executive Director recommends the ratification of the attached Addendum with the Town of Florence, which extends conditional emergency use of the TRWC Network to facilitate temporary dispatch services provided by the City of Mesa (under separate agreement).

Background & Discussion

On March 25th 2022, the "Agreement To Provide For Emergency Network Use Between The Topaz Regional Wireless Cooperative Network And The Town Of Florence" was executed and subsequently ratified by the TRWC Board of Directors on May 19th, 2022. The attached Addendum was executed on July 26th, 2022, to extend the use of the Network due to impacts to the Town of Florence resulting from storm damage to their system infrastructure. As per section 2.1.3 of the TRWC Governance Agreement, the conditional use of the Network imposed by this agreement must be approved or disapproved by the TRWC Board of Directors at the next Board Meeting.

Fiscal Impact

No direct fiscal impacts are anticipated in conjunction with this recommendation.

ADDENDUM TO AGREEMENT TO PROVIDE EMERGENCY NETWORK USE BETWEEN THE TOPAZ REGIONAL WIRELESS COOPERATIVE NETWORK AND THE TOWN OF FLORENCE

This Addendum is effective as of July 25, 2022 and extends the term of the Addendum to Agreement to Provide Emergency Network Use between the City of Mesa and the Town of Florence until August 1, 2022.

- Section 1.1, page 1 of the Addendum will be amended to extend the term of the Agreement until August 1, 2022. Thereafter, the Agreement shall automatically terminate.
- All other requirements of the Agreement to Provide Emergency Network Use between the City of Mesa and the Town of Florence (entered on 25 March 2022), shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers and agents as of July 22, 2022.

CITY OF MESA

By _____
Dale Shaw, TRWC Director

TOWN OF FLORENCE

By _____
Lisa Garcia
Interim Town Manager