



2019 ANNUAL REPORT

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Cover Photo:

The New RWC tower on North Mountain, on the left.

EXECUTIVE DIRECTOR'S MESSAGE

RWC Members and Interested parties –

2019 was a year of transition within the RWC. After many years of leading the RWC, Mr. David Felix retired at the end of 2018. I assumed my new role as Executive Director in January, taking over a well-run, effective organization with a dedicated, highly competent group of staff members.



The RWC continues to be a highly collaborate, collegial cooperative with members who truly care about public service and public safety, notably within the area of communications. As the Administrative Manager of the system, the City of Phoenix and its hard-working, dedicated employees continue to support the RWC mission in an extremely competent, customer-focused manner.

The Communications Systems Strategic Alliance (“CSSA”) with the TOPAZ Regional Wireless Cooperative in the East Valley continues to grow, with the first three task orders created and presented to the respective Boards of Directors, which will formally allow the two cooperatives to work together in a collaborative fashion on procurement, maintenance services and software, moving into the future.

As the RWC assumed responsibility for the VHF (fire hazard-zone) radio system, billing to all RWC members began for VHF Operations and Maintenance (“O&M”) in July 2019. Additionally, two new Conditional Participants who use the VHF system were brought on board, those being the Buckeye Valley and Harquahala Fire Districts.

New projects continue to evolve and progress, including the expansion of the RWC system along the I-17 corridor as the Daisy Mountain Fire District expands northwards, necessitating two new sites in Black Canyon City and at the Sunset Point Rest Area. In the future the RWC will see more expansion to the west along the I-10 corridor, in support of the Buckeye Valley Fire District’s Burnt Mountain project getting underway. After that site is completed and the 700MHz trunked system comes online at Burnt Mountain, Buckeye Valley and Harquahala Fire Districts will both apply to become full members of the RWC.

The ongoing efforts to ensure the RWC system is kept fully up to date on a technical front were completed in 2019 with an upgrade to Motorola’s Astro 25© version 7.18. System upgrades are essential to ensure continued reliability and full use of system capabilities. This upgrade was performed on all system sites and infrastructure, as well as dispatch consoles at member agency communication centers.

EXECUTIVE DIRECTOR'S MESSAGE (continued)

We anticipate the RWC expanding its membership going into 2020 with the application of the Department of Veteran's Affairs Police Department to become the 20th member of the RWC. The V.A. Police would then become the first Federal agency to become part of the RWC. This would truly demonstrate the commitment of the Cooperative to provide services to residents and guests across all sectors of public safety and service.

On behalf of the RWC staff and the technical representatives from the City of Phoenix and all our other members, thank you for your continued support and contributions to the success of the Cooperative.

Regards,

A handwritten signature in black ink that reads "John Imig". The signature is written in a cursive, flowing style.

John Imig, Executive Director
Regional Wireless Cooperative

OVERVIEW

Background

The VHF communications system formerly used by the City of Phoenix's public safety and other departments was based on outdated technology and was no longer able to meet the operational needs of its users. After much study and several consultants' recommendations, the City replaced the existing system with an APCO Project 25, 800 MHz digital trunked radio system. In 2001, Bond Funds were approved by Phoenix residents to pursue the replacement, which was completed in 2005.

Thus, the City formed the Phoenix Regional Wireless Network (PRWN) and began transitioning Phoenix Police, Fire and municipal departments to the new system. PRWN was intended to be a regional radio system supporting the City's operations as well as the Fire Department's automatic aid partners.

In 2008, with a clear understanding of what local government entities in the valley wanted from a regional communications system, PRWN was dissolved and became the Regional Wireless Cooperative, or RWC, with all new governance, policies and procedures. The RWC now oversees the administration, operation, management, maintenance and growth of this regional communications network.

Governance

The RWC is a cooperative body formed under a series of Intergovernmental Agreements. Membership is open to all local, state, federal governmental and tribal entities and currently includes most of the communities in the Phoenix metropolitan area. Governance provides for a Board of Directors consisting of one executive representative from each Member. The Board directs the operation, maintenance, planning, design, implementation, and financing of the RWC.

The City of Phoenix serves as the "Administrative Managing Member" responsible for the administration and financial management of the RWC. Four administrative staff positions support the RWC: Executive Director, Accountant III, Management Assistant I, and Administrative Aide. RWC staff are City of Phoenix employees residing in the Government Relations office.

OVERVIEW (continued)

System Description

The RWC is a large, Public Safety radio network based on the Project 25, Phase I/II Standard. The network is an ASTRO 25™, Integrated Voice and Data, trunked radio system. It operates in the 700/800 MHz frequency bands and uses standard Simulcast, IP Simulcast, and individual site trunking. The network consists of seven (7) major simulcast subsystems and ten (10) Intelligent Site Repeaters (ISRs).

The system provides seamless, wide area coverage across the entire metropolitan area. It is data capable, but at the current time is only used in a data capacity to provide encryption services.

Some of the benefits of this large regional radio system include wide area coverage beyond what agencies could achieve individually; seamless *interoperability* (the ability for diverse public safety agencies to communicate directly, in real-time, as the need requires); shared resources, such as people, equipment and tower sites and funding and financial responsibilities shared by all members based on their relative size, measured by the number of radios on the network; and increased success in obtaining state and federal grant support.

OVERVIEW (continued)

Interoperability

The RWC system provides a platform on which to build interoperability with many other agencies. Because of the regional nature of the system, significant grant funding has been made available to increase the regional use of the system and reduce the cost of membership in the RWC. Grants have been used to link the many dispatch centers, also known as Public Safety Answering points (PSAPs), in the Valley; add the City of Tempe to the network; increase system capacity to allow greater roaming and interoperability; add several mountain sites to be used for very wide-area coverage, emergency backup and wide area interoperability; provide connectivity to Peoria's new system; and provide cache radios to be used for emergencies.

The RWC system has been effectively used to provide interoperable communications for numerous special events in the metropolitan area. The system was used during the 2004 Presidential Debate linking motorcade officers, providing interoperability for Tempe and ASU, and administrative communications for the ASU staff coordinating the debate. The system provided support for the annual Fiesta Bowl, the BCS championship, the 2008 and 2015 Super Bowls, and the 2009 NBA and 2010 MLB All Star games. The Super Bowls, in particular, have clearly demonstrated the need for a truly regional radio system and has prompted more discussions between the metropolitan cities regarding more effective use of the RWC.

Many non-members of the RWC have programmed radios to allow them to interoperate with RWC members and other agencies around the Valley. These agencies include members of federal, tribal, state, county, local, quasi-government and support agencies:

Ak-Chin Fire Department	Luke Air Force Base
Arizona Attorney General's Office	Maricopa County Adult Probation
Arizona Department of Corrections	Maricopa County Attorney's Office
Arizona Department of Game and Fish	Maricopa County Department
Arizona Department of Health Services	of Emergency Management
Arizona Department of Juvenile Corrections	Maricopa County Department of Transportation
Arizona Department	Maricopa County Judicial Branch
of Liquor Licenses and Control	Security Department
Arizona Department of Public Safety	Maricopa County Juvenile Probation Department
Arizona Department of Transportation	Maricopa County Office of Enterprise Technology
Arizona Division of Emergency Management	Maricopa County Sheriff's Office
Arizona National Guard	Pinal County
Arizona State University Police Department	Rural Metro Fire Department
BNSF Railway Police Department	Salt River Pima Maricopa Indian Community
Carefree Fire Department / Rural Metro	Union Pacific Railroad Police Department
Casa Grande Fire Department	US DOHS Investigations
Cave Creek Marshal's Office	US DOI Bureau of Land Management
Circle City / Morristown Fire District	US DOJ Bureau of Alcohol, Tobacco and Firearms
Community Bridges, Inc.	US DOJ Drug Enforcement Agency
Federal Reserve Police Department	US DOJ Federal Bureau of Investigation
Fort McDowell Yavapai Nation Fire Department	US DOJ United States Marshals Service
Gila River Indian Community	Town of Wickenburg
Grand Canyon University Police Department	Yavapai County Sheriff's Office

MISSION STATEMENT

The Mission of the Regional Wireless Cooperative (RWC) is to provide seamless operable and interoperable communications for all Members through a governance structure founded on the principle of cooperation for the mutual benefit of all Members.

In November of 2010, the newly formed staff of the RWC, as a component of the City of Phoenix's Government Relations Department, met to develop a strategic plan to assist them in serving the needs of RWC Members, Board of Directors, Executive Committee and other work groups. The following Value Statements are intended to focus staff's efforts and memorialize their commitment to support the RWC Mission:

We Are Dedicated to Serving Our Customers

We succeed by responding to and focusing our attention on the needs of our customers.

We Value and Respect Diversity

Understanding diversity helps us to work together and serve our communities.

We Work as a Team

Teamwork is the basis of our success. We use cooperation as our first tool in working with others.

We Each Do All We Can

We each have the opportunity and responsibility to develop and use our skills to the highest level.

We Learn, Change and Improve

We are open to new methods and we listen and learn from others. Training and education is the basis for our success.

We Focus on Results

Each of us knows the level of our customer satisfaction, our response time in delivering services and the cost of those services. We use information about the results we provide so we can improve.

We Work with Integrity

Whenever we make a decision, provide a service or deal with customers, we act with honesty and integrity.

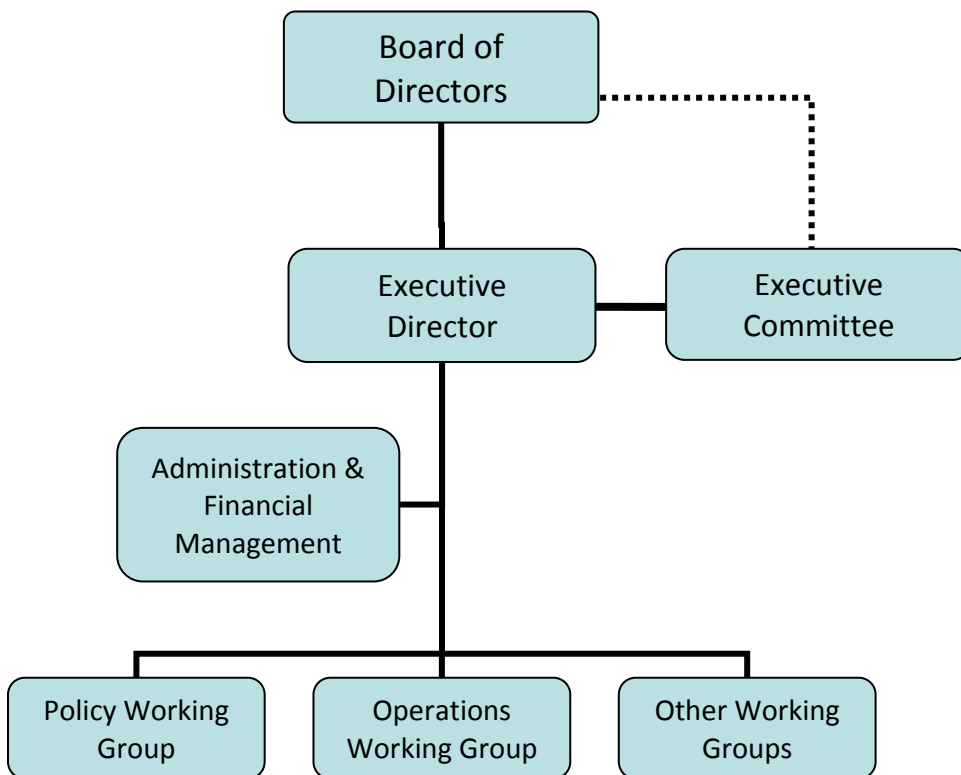
We Make the RWC Better

We work to make the RWC better. Improving the RWC is the reason we come to work each day.

ATC Buckeye Tower

ORGANIZATIONAL STRUCTURE

The RWC is governed by a Board of Directors, with all members of the RWC having a seat and a vote on the Board. The Executive Director reports to the Board of Directors and serves as a non-voting member of the Executive Committee. The Executive Director is supported by the Executive Committee, the Operations, Conventional, and other Working Groups, in addition to three staff positions who assist with the administration and financial management of the RWC. The Executive Director and staff are City of Phoenix employees residing in the Office of Government Relations.



MEMBERS



BOARD OF DIRECTORS

Chair

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Vice Chair

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EXECUTIVE COMMITTEE

The purpose of the Executive Committee is to provide high level expertise in communications and operations, advise the Board of Directors, help direct the efforts of the Executive Director and provide intermediate strategic direction for the RWC. Functions of the Executive Committee include review and approval of all proposals and recommendations, budget and financial reports, Network performance reports, and Board of Directors meeting agendas prior to submittal to the Board of Directors. The Executive Committee also identifies performance issues and recommendations for Network enhancements and construction.

The Executive Committee consists of five Representatives appointed by the Board of Directors, plus the Executive Director who is a non-voting member. Representatives, selected from the RWC Membership, consist of: one (1) Police Department executive manager; one (1) Fire Department executive manager; one (1) Municipal executive manager; one (1) Chief Information Officer (or equivalent); and one (1) executive manager from a Network Managing Member. The Executive Committee may not be comprised of Representatives from only one Member and every two years the Board of Directors reviews the Executive Committee representation. The Executive Committee Chair serves a two-year term.

The Executive Committee conducts regularly scheduled meetings at least once monthly prior to the Board of Directors meeting.

Executive Committee Members

Chair

Police Representative
Jesse Cooper
Police Administrator
City of Phoenix
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Administrative Managing Member
Representative
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Fire Services Representative
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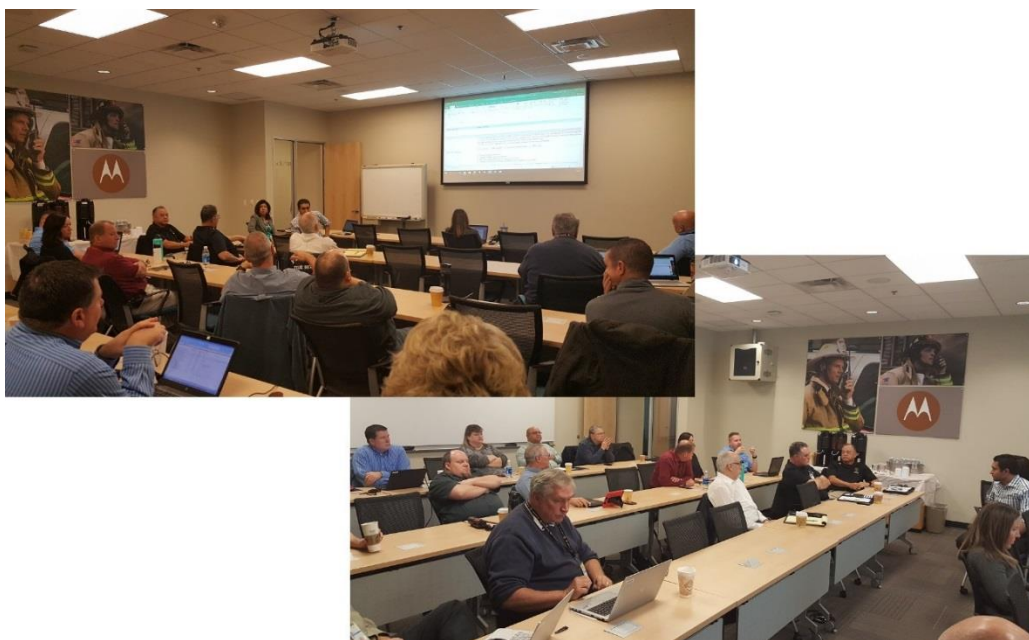
Vice-Chair

Public Works Representative
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OPERATIONS AND CONVENTIONAL WORKING GROUPS

The Operations and Conventional Working Groups are responsible for addressing Network operational issues and maintaining Board-approved comprehensive policies and procedures for the operation and maintenance of the Network. The Operations Working Group reviews the RWC policies and procedures on an as needed basis, but not less than bi-annually, and submits necessary revisions to the Executive Director for Board of Directors' approval.

Each Member may have up to three (3) representatives ("Agency Representatives"), with one (1) Agency Representative each from a Law Enforcement Agency, Fire Services Agency and Municipal Agency. However, each Member may only have an Agency Representative from each agency for which the Member has actual users on the Network. The Agency Representatives act as liaisons to their respective agencies and are responsible for promptly notifying the Operations Working Group of issues potentially affecting Network operations.



The Operations Working Group collaborating with Motorola on software upgrades.

POLICY WORKING GROUP

The Policy Working Group (PWG) is responsible for developing, reviewing and modifying RWC policies and procedures. The PWG consists of representatives from Member agencies and meets monthly or as required throughout the year. Policies and procedures completed by the PWG must be approved by the Operations Working Group, Executive Committee or Board of Directors prior to implementation.

FINANCIAL MANAGEMENT

The responsibilities and tasks of managing the financial well-being of The Regional Wireless Cooperative includes Fund Management, Budget Development, Subscriber Unit Rates and Fees, Member Billing, Procurement, Financial Reporting and Financial Audit.

RWC Budgetary Information for Fiscal Year 2017-18 and 2018-19

	FY 2018-19	FY 2019-20
Operations, Maintenance and Staffing	\$6,868,179.12	\$7,282,680.00
System Upgrade (SUAll)	\$2,772,469.98	\$2,752,269.00
700MHz Narrow Banding, TDMA, Lifecycle Upgrade	\$3,907,847.64	\$3,201,941.11
Required Minimum Balance	\$3,902.22	0.00
Total Budget	\$13,552,398.96	\$13,236,890.11
Subscriber Unit* Rate	\$30.97	\$31.71
Total Positions (Administrative Staff)	4	4

* Includes: mobile and portable radios, dispatch consoles and control stations.



Phoenix Firefighters battle a blaze.

FINANCIAL MANAGEMENT (continued)

Funding

The RWC is funded through annual membership fees and special assessments from the Members. The annual membership fees are used to pay for administrative services, network operations and maintenance services, network infrastructure replacement, and system upgrades.

Operations, Maintenance, and Staffing Costs

The operations, maintenance, and staffing portions of the budget are used to pay for the cost of maintaining and staffing the RWC Network. Operations and maintenance expenditures include labor costs related to network operations and maintenance, microwave expenses, and software subscription and service agreements contracted through Motorola. Other costs include land leases, utilities charges, insurance premiums, and maintenance managing member expenses. Staffing include costs associated with the RWC Executive Director and the support staff. Such costs include salaries for staff and an Encryption Specialist, and office expenses.

Capital Improvement Project Fund

Funds budgeted for system upgrades, infrastructure replacement and other long term capital improvement projects (CIP) are accounted for in this fund. Funds from RWC members deposited into the CIP Fund are included in determining RWC Members' equity percentages.

Operating Fund Contingency

The Operating Fund Contingency is used to provide a contingency for the cost of operating and maintaining the communications network. Member billing for the required minimum balance is accounted for in an RWC operating reserve fund.

Equity

Members of the RWC who contributed assets or funds to pay for RWC infrastructure have equity in the RWC. The total Members' equity in the RWC is equal to the Net Position of RWC.

Awards

The Government Finance Officers Association of the United States and Canada ("GFOA") awarded a Certificate of Achievement for Excellence in Financial Reporting to the RWC for its comprehensive annual financial report for the fiscal year ended June 30, 2018. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. The RWC also won this award in 2012 through 2017.

PLAN FOR THE FUTURE

RWC PROJECTS	2018/19	2019/20	2020/21
Software & Hardware Upgrades	7.18 upgrade pushed out to FY 2019/2020	7.18 upgrade begins in September	Complete 7.18 upgrade in first quarter of 2021
Paradise Valley	VHF installed at new site		
Peoria	Pyramid Peak Sim G subsite. 4th quarter 2018 completion		
Scottsdale	VHF migration to RWC discussion	VHF and 700 MHz infrastructure to RWC discussion. Microwave Replacement	VHF upgrade starting in 202
Valley Wide VHF Network	VHF migration to RWC discussion	VHF under RWC Management as of July 1, 2019	Upgrade Scottsdale and continue planning for replacement of VHF infrastructure
700 MHz Narrow-banding	Completed Phase A and B 2nd quarter 2018	Phase II C TDMA installation 3rd quarter	Phase II D TDMA installation 3rd quarter
END USER PROJECTS			
Phoenix Subscriber Replacement	Completion of purchase of new subscriber radios	Finish replacing PD mobiles - Update PFD radios with TDMA licenses	
Phoenix Microwave Replacement	Continue 5-Year Microwave Replacement	Final year of Microwave Replacement	Begin planning of RWC replacing old MW radios
Buckeye		Looking at new Simulcast J subsite	Looking at new Simulcast J subsite
Goodyear		Possible new Simulcast J subsite at Goodyear PD	Possible new Simulcast J subsite at Goodyear PD
Buckeye Valley Fire	Install 6 MCC7100 consoles in EOC	New RWC IR site at Burnt Mountain (waiting on BLM approval)	New RWC IR site at Burnt Mountain (waiting on BLM approval)

PROJECTS AND MAJOR INITIATIVES

These projects and initiatives, underway in 2018/19 and beyond, improved radio coverage and reliability and showcased the Regional Wireless Cooperative as a reliable regional public safety radio communications backup through its “Good Neighbor” policies.

North Mountain

The tower on North Mountain is a major hub for the RWC network. The location and height of the site provides microwave paths throughout entire valley. This site is also a critical RWC subsite for Simulcast A and B as well as a standalone Intelligent repeater site. The FBI and DEQ also have radio equipment at this site.

Over the past several years, new standards and requirements have been created regarding public safety communication towers. One of the towers at North Mountain was deemed 400% overloaded, which required construction of an additional tower.

The road to the site was in extremely poor condition and needed to be fixed before any large vehicles could travel to the site to construct a tower. Also, the road is the fifth most popular hiking trail in Phoenix. Hikers are often seen pushing strollers up the road.

The Phoenix City Council approved a \$7.5 million-dollar Capital Improvement Project for repairing the road and constructing a new tower. Construction began in February 2018 and is expected to be complete by the end of 2019. Retaining walls with guard rails have also been added in the areas where the hillside is very steep to add further protection for the hikers.



The tower site on North Mountain

PROJECTS AND MAJOR INITIATIVES (continued)

North Mountain (continued)

The new tower has been installed and the microwave dishes redistributed. This brings the old tower in compliance with new regulations. A connector trail has been installed from the entrance off 7th street to the sidewalk that stopped 100' from the entrance. This will allow hikers to stay off 7th street while still having access to the tower road. The project was complete within budget and no additional funds were required.

Phoenix Fire VHF Transition to RWC Management

The Phoenix Fire VHF System is an essential shared resource used by all Valley Fire Partners for fire ground and hazard zone communications. This system is completely independent from the existing RWC Trunked System. The Phoenix Fire Department worked cooperatively with their partners and the RWC to bring the VHF system under the management of the RWC. This provides more effective oversight, expansion planning, and budgeting for all parties involved.

On July 1, 2019, the RWC formally assumed management of the Valley-wide VHF Network. A total of 3,577 subscribers are operating on the Network.

Daisy Mountain Fire and Medical

The Daisy Mountain Fire and Medical is building out the VHF network in Black Canyon City and at Sunset point. Black Canyon City is complete except for a T1 connection that is provided by DPS. Sunset Point is under construction with an anticipated fourth quarter 2019 completion time.



New tower at Daisy Mountain Fire Station 143



New tower at Daisy Mountain Fire Station 143

PROJECTS AND MAJOR INITIATIVES (continued)

700 MHz Narrow Banding, TDMA Conversion

The purpose of this project is to convert five selected channels on the simulcast systems and three channels on the Intelligent Repeater (IR) sites for the RWC system to Time Division Multiple Access (TDMA) protocol. This will add five additional voice channels to the simulcast and three to the IR sites. The TDMA upgrade will be implemented in four phases – Phase II A, B, C and D. Phase II A began after the 7.16 software upgrade was completed in September 2017. Phase II A and B were completed in June 2018. Phase II C was completed in July 2019 and Phase II D is expected to begin July 2020.

7.18 Software Upgrade

The software for the RWC Network is being upgraded from 7.16 to 7.18 beginning in September 2019 as established by the terms of the System Upgrade Agreement (SUAll). This software upgrade will also require upgrades to some hardware components, which is included as part of this upgrade.

City of Buckeye

Buckeye is currently in the planning stage of adding new RWC subsite(s) to Simulcast J. Several possible locations are being evaluated for suitability.

Goodyear

Goodyear is currently in the planning stage of adding a new RWC subsite to Simulcast J at the Goodyear PD facility.

Buckeye Valley Fire Department

Buckeye Valley Fire Department has obtained funding to possibly add an RWC subsite to Burnt Mountain. Bureau of Land Management (BLM) law enforcement officers have expressed a need for interoperability with Buckeye Valley Police and other law enforcement agencies. The RWC and the City of Phoenix are working with the BLM to add a new tower and shelter to the existing agreement they have at Burnt Mountain.

SYSTEM PERFORMANCE

Radio Counts

Radio counts give a generalized picture of the size and relative volume of the system. Radios on the system include all consoles, control stations, portables and mobiles. They also include radios used by the RWC Members and those radios used by outside agencies for interoperability. Radio counts are updated quarterly and the last year’s totals are shown below:

	FY 2018-19			
	July	October	January	April
	Count	Count	Count	Count
Member Total	18,939	19,135	19,142	18,844
Interoperability	21,100	19,371	19,168	19,417
Grand Total	40,039	38,506	38,310	38,261



Typical portable radio used by Public Safety personnel on the RWC network.



The City of Phoenix and other members have replaced their municipal department portable radios with Tait radios.

SYSTEM PERFORMANCE (continued)

Overall System Statistics

The following charts provide a compilation of the overall system statistics including the number of calls, busy calls and emergency calls, including the total and average duration of each type of call. A busy signal occurs when a user tries to make a call, but all channel resources are in use and thus the user must wait to complete the call. An emergency call occurs when the user presses the emergency button on a radio. Grade of Service (GOS) for the system is also shown; GOS is explained in more detail in the next item. System statistics provide a general overview of system performance, but they cannot be used as the final guide since statistics must be viewed individually for each sub-system in order to truly see the performance from the user perspective. These statistics are not shown in this report since they are so voluminous.

FY 18/19 SYSTEM STATISTICS	
Total Number of Calls	29,785,261
Total Call Duration (Hours)	73,984
Total Call Duration (Sec)	266,340,106
Average Call Duration (Sec)	8.942010144
Average Calls per Day	81,603
Total Busies	83
Busy Duration (Hours)	0.02
Total Busy Duration (Sec)	71
Average Busy Duration (Sec)	0.9
Average Busies per Day	0.2
Total Emergency Calls	2,890
Total Emergency Duration (Hours)	24
Total Emergency Duration (Sec)	84,802
Average Emergency Duration (Sec)	29.3
Average Emergencies per Day	7.9
FY 17-18 System Reliability	99.98396%

SYSTEM PERFORMANCE (continued)

Grade of Service

Grade of Service (GOS) is a measure of how many times a user gets a “Busy” signal when a user “Pushes to Talk” (PTT) on their radio. GOS is measured in percent as the number of PTT’s where a Busy occurs divided by the total number of PTT’s. The design specifications for the RWC system is to maintain a GOS of 2% or less, which means that there will be only 2 Buses or less, out of each 100 PTT’s. GOS is measured on each Simulcast and Intelligent Site Repeater (ISR) subsystem. GOS reports are prepared weekly and the 2% GOS goal has not been exceeded on any subsystem. The following table shows the maximum GOS for the past year on each sub-system:

System Use

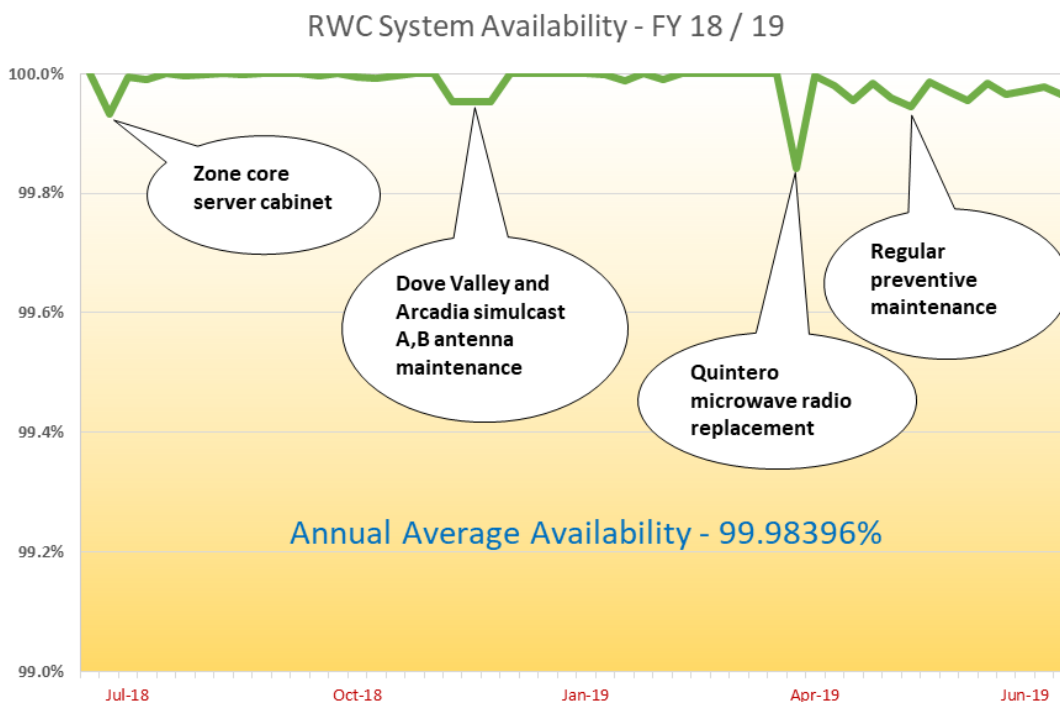
System Use shows the averages of how many of the system’s channels are used. It is shown as a percentage of the number of channels used divided by the total number of channels available for each Simulcast and Intelligent Site Repeater (ISR) subsystem.

Site Utilization / Grade of Service - FY 18 / 19			
SYSTEM	PEAK GOS	Avg Use	Max Use
Simulcast A	0.00%	24.75%	49.88%
Simulcast B	0.00%	13.97%	36.90%
Simulcast C	0.00%	16.39%	42.53%
Simulcast D	0.00%	10.17%	32.77%
Simulcast F	0.00%	8.43%	26.85%
Simulcast G	0.00%	24.73%	54.42%
Simulcast H	0.14%	14.14%	40.41%
Simulcast J	0.00%	9.47%	30.33%
Mount Gillen	0.00%	0.60%	11.27%
North Mountain	0.00%	6.00%	29.02%
Quintero	0.00%	0.03%	9.59%
Sacaton Peak	0.00%	6.89%	21.67%
Sky Harbor	0.00%	7.89%	27.08%
South Mountain	0.00%	6.77%	29.33%
Thompson Peak	0.00%	9.12%	31.46%
Towers Mountain	0.00%	4.71%	14.79%
White Tanks	0.00%	6.52%	23.22%

SYSTEM PERFORMANCE (continued)

System Availability

System Availability is a measure of the percentage of time that the system is operating normally, with no operational impact to the users. Since the system is made up of many Simulcast and ISR sub-systems, the system availability is the combined availability of all these subsystems. The goal is to keep the system operating as close to 100% available from the user’s perspective. Note that failures may occur to various components, but due to the system redundancy, there is no impact to the user. If System Availability is less than 100%, it may be due to a failure in a single subsystem, with the majority of the overall network remaining available to the users. System Availability for the RWC network for the twelve-month period of July 2018 through June 2019 is shown below:



NOTE: The industry standard and baseline for system availability of public safety radio systems is 98.5%. The performance of the RWC Network is well above this standard. The scale above has been adjusted to a baseline of 100% to more easily show performance values.

CITY OF PHOENIX RADIO SHOP



The City of Phoenix Radio Shop Staff.

The City of Phoenix is the Maintenance Managing Member for all RWC zones except Zone 3 (Simulcast H) which operates in and is managed by the City of Scottsdale.

The City of Phoenix is also the Administrative Managing Member of the Cooperative and is responsible for tracking of all subscriber radios on the RWC network. This work is done by the City of Phoenix Radio Shop, which provides quarterly reporting of subscriber activity for Operations and Maintenance billing.

CONTACT INFORMATION

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Management Assistant I
This position is currently vacant

David Clarke
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FAX: 602.534.1799
7-1-1 Friendly

www.rwcaz.org



RWC Administrative Staff members, left to right;
John Imig, Almira Santos, David Clarke



Regional Wireless Cooperative

An Arizona Joint Venture
Comprehensive Annual Financial Report
For Fiscal Year Ended June 30, 2019



Prepared by:
Regional Wireless Cooperative
&
City of Phoenix Finance Department

Regional Wireless Cooperative
Comprehensive Annual Financial Report
For the Fiscal Year Ended June 30, 2019

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INTRODUCTORY SECTION



December 9, 2019

To the Board of Directors of the Regional Wireless Cooperative:

In accordance with the governance of the Regional Wireless Cooperative (RWC), I am pleased to submit the RWC Comprehensive Annual Financial Report for the fiscal year ended June 30, 2019. These financial statements are prepared and presented in conformity with accounting principles generally accepted in the United States of America (GAAP) as prescribed in pronouncements of the Governmental Accounting Standards Board (GASB). To the best of our knowledge and belief, this report is accurate in all material respects and is reported in a manner designed to fairly present the financial position, results of operations and cash flows of the RWC. All disclosures necessary to enable the reader to gain an understanding of the RWC's net position and changes in net position have been included. Management assumes full responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, including all disclosures.

To the best of our knowledge and belief, this report is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of RWC. Management assumes full responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures.

CliftonLarsonAllen, LLP has issued an unmodified ("clean") opinion on the RWC financial statements as of and for the year ended June 30, 2019. The independent auditors' report is located at the front of the financial section of this report. Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview, and analysis of the basic financial statements. The MD&A complements this letter of transmittal and should be read in conjunction with it.

PROFILE OF THE REGIONAL WIRELESS COOPERATIVE

This report summarizes the activities of the RWC. The RWC was formed in 2008 to oversee the administration, operation, management, and maintenance of an expanding regional communications network. The RWC was formed through a governance structure founded on the principles of cooperation for the mutual benefit of all members, and has expanded to serve a still-growing list of cities, towns, and fire districts, along with many other area entities who serve public safety needs.

The RWC is an independent, multi-jurisdictional organization throughout the Phoenix Metropolitan Region which currently consists of the following 19 members: City of Avondale, City of Buckeye, City of Chandler, Daisy Mountain Fire District, City of El Mirage, City of Glendale, City of Goodyear, Town of Guadalupe, City of Maricopa, Maricopa County Community College District, Town of Paradise Valley, City of Peoria, City of Phoenix, City of Scottsdale, Sun City Fire District, Arizona Fire & Medical Authority, City of Surprise, City of Tempe, and City of Tolleson.

The RWC is a large, Public Safety radio network based on the Project 25, Phase I Standard. The network is a Motorola ASTRO 25™, digital trunked radio system that operates in the 700MHz frequency band. The network consists of five (5) major simulcast subsystems and ten (10) Intelligent Site Repeaters (ISR's).

This regional radio communications network was built to serve the interoperable communication needs of first responders and other municipal radio users in and around the Greater Phoenix Metropolitan Area. This system provides wide area coverage beyond what individual entities could achieve alone; seamless interoperability (the ability for diverse public safety agencies to communicate directly, in real-time, as the need requires); shared resources (i.e. people, equipment, and tower sites); shared funding; and increased success in obtaining state and federal grant support. Financial responsibilities are distributed amongst all members based on their number of subscriber units (radios) used on the network.

LOCAL ECONOMY

According to the United States Department of Commerce, the estimated population in the State of Arizona as of 2018 was 7.2 million. This represents a population growth of 11.9% from 2010. The Phoenix metropolitan area has been one of the most rapidly growing metropolitan areas in the country in recent decades in terms of population, employment and personal income growth. From 2010 to 2018, population growth was 15.5% in Maricopa County compared to 6.0% for the United States.

Metro Phoenix, also known as the Valley of the Sun, is home to a strong and growing transportation system including one of the nation's 10 busiest airports, Sky Harbor International Airport. The airport provides service to more than 124,000 passengers with approximately 1,200 aircraft arriving and departing every day. Flights at Phoenix Sky Harbor International Airport serve more than 100 domestic and 22 international destinations. Other features of the area transportation system are two major railways and excellent interstate highways and local freeways connecting the Valley to major markets and ports in western states and Mexico. The Metro Light Rail System currently covers 28 miles linking Mesa, Tempe, and Phoenix. Expansion plans will include service to additional cities in the region.

The Valley has access to a labor pool of several million diverse workers, and has a wealth of educational resources to educate new and existing talent. All three Arizona public universities have a presence in the Valley, along with many other public and private academic institutions offering undergraduate and graduate degrees.

Major employers range from hospitals and banks, to universities and aerospace manufacturers. Emerging industries include renewable energy, biotechnology, and data centers. Arizona has a well-managed water and power supply including an abundant supply of electricity from various sources, including the largest U.S. nuclear plant, dams, coal and gas burning plants as well as wind and solar plants. The water supply to the Valley via canals from local reservoirs and the Colorado River is adequate to meet projected population growth for at least the next 100 years.

LONG TERM FINANCIAL PLANNING

RWC began a major system software upgrade to version 7.18 in 2019. This upgrade has been included in the RWC Five-Year Plan and budget that was submitted to the RWC Board of Directors. In addition, there are many product changes that occur as part of the life of the system. Motorola annually briefs the RWC on the product roadmap for the next five years. The roadmap includes key product changes where support for certain products will be ending, thus necessitating upgrades and/or changes in these products. The critical product changes that must be considered are those affecting base stations, consoles, and subscriber units.

The RWC is continuing the system-wide conversion to the TDMA protocol, enhancing coverage abilities through doubling of capacity, all while maintaining the current number of frequencies in use. Phase I was completed in 2016 and Phase II is underway with conversion to TDMA throughout the system. The implementation of this phase began in Fiscal Year 2018. This phase is estimated to cost \$10.0 million.

Fire VHF System Billing

Fire agencies across the Phoenix Metropolitan Region utilize a VHF simplex (radio-to-radio) network for all hazardous and "fire zone" operations. The VHF network operates on similar, but totally separate infrastructure as the 700 MHz trunk system. After RWC Board approval in 2018, the RWC assumed oversight and billing responsibilities for the VHF network. Considerable work was done in coordinating accurate radio counts with all members, two new Conditional Participants (the Buckeye Valley and Harquahala Fire Districts) were officially accepted by the Board and their subscriber counts added to the VHF inventory for billing purposes. In July 2019, billing began for approximately 3,000 VHF-capable radios across the RWC. Additionally, a new working group called the Conventional Working Group (CWG) was commissioned to directly support operations of the VHF network, in coordination with the Operations Working Group (OWG).

MAJOR INITIATIVES

Membership of the RWC continues to increase; therefore, the RWC has embarked on several projects focused on expanding the regional radio network and fortifying its coverage, resiliency and reliability. The projects include the following:

City of Peoria’s “Pyramid Peak” Site

The City of Peoria received funding to construct a new subsite at the Pyramid Peak Water Treatment plant. The RWC contributed the 18 RF base stations for this site. These base stations were utilized for the Simulcast “A” and “B” upgrade and are not utilized now that both systems are fully operational. The new site provides improved coverage for a residential region bordering Phoenix and Peoria that required enhanced radio coverage. This site became operational in October 2018.

Daisy Mountain Fire Sites

With the expansion northwards of the Daisy Mountain Fire District, two new sites are currently under construction. The Fire Station 143 site in Black Canyon City and the Sunset Point Rest Area site on I-17 at Sunset Point are currently under construction and should be completed within 2019. These two sites will greatly enhance communications for first responders to the north of the Valley, along an extremely busy and sometimes dangerous stretch of Interstate-17.

Buckeye Valley Fire District

Buckeye Valley Fire District (BVFD) received public safety improvement bond funding to expand an existing site on Burnt Mountain along Interstate-10 in the Far West Valley. The improved site will include both 700 MHz trunked and Fire VHF equipment. Once completed, the site will provide significant improvement in coverage for responders along the busy stretch of Interstate-10 west of the Metropolitan area.

West Valley Sites

The Cities of Goodyear and Buckeye are currently in the planning stages for new sites to improve coverage in support of growing development in their areas. Budgeting for and planning of these sites is currently underway. Additionally, the City of Surprise is investigating potential future sites to enhance coverage within their growing city in the Northwest Valley. The City of Tolleson recently approved a new 150-foot tower project within their City that will support both municipal and RWC operations. The RWC and Tolleson will work on an agreement to allow the RWC to assume space on the tower in exchange for assistance with costs. This project will benefit both entities by reducing costs for separate towers and should allow the RWC to eventually eliminate a costly tower lease that expires in 2022.

RELEVANT FINANCIAL POLICIES

General

The City of Phoenix serves as the Administrative Managing Member, responsible for the administration and financial management of the RWC. As such, the RWC follows all administrative and financial management policies and procedures of the City of Phoenix. RWC has four full-time staff who are employed by the City of Phoenix.

Budgeting Systems and Controls

The RWC maintains budgetary controls, which are designed to ensure compliance with the provisions of the annual budget adopted by the RWC Board of Directors. The RWC budget process provides for input from the RWC Members and the Executive Committee in developing revenue and expenditure projections and determines RWC programs and services for the coming year.

Accounting and Administrative Controls

Internal controls are procedures that are designed to protect assets from loss, theft, or misuse; check the accuracy and reliability of accounting data; promote operational efficiency; and encourage compliance with managerial policies at a cost that does not exceed the benefits to be derived. Management of the RWC has established a system of integral internal controls designed to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements and that these objectives are met.

Federal and State financial assistance programs require recipients to comply with many laws and regulations. Administrative controls are procedures designed to ensure compliance with these requirements. The RWC has established a system of administrative controls to ensure compliance with the requirements of the programs under which it receives financial assistance. As with other internal controls, this system is subject to a periodic review and evaluation by management. As part of the annual audit process, internal controls are considered in order to determine the nature, timing, and extent of auditing procedures.

AWARDS AND ACKNOWLEDGEMENTS

The Government Finance Officers Association of the United States and Canada (“GFOA”) awarded a Certificate of Achievement for Excellence in Financial Reporting to the RWC for its comprehensive annual financial report for the fiscal year ended June 30, 2018. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, the RWC published an easily readable and efficiently organized comprehensive annual financial report. This report satisfied both generally accepted accounting principles and the applicable legal requirements.

I believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program’s requirements and are submitting it to the GFOA to determine its eligibility for another certificate.

I want to thank all the members of the RWC Board of Directors, the RWC Executive Committee, the City of Phoenix (City) Information Technology and Services Department, and City Budget and Research Department for their assistance throughout the past year. Special thanks to the City Finance Department for their assistance and support over the past year and in the preparation of this comprehensive financial report.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John Imig". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Imig".

John Imig
RWC Executive Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Regional Wireless Cooperative
Arizona**

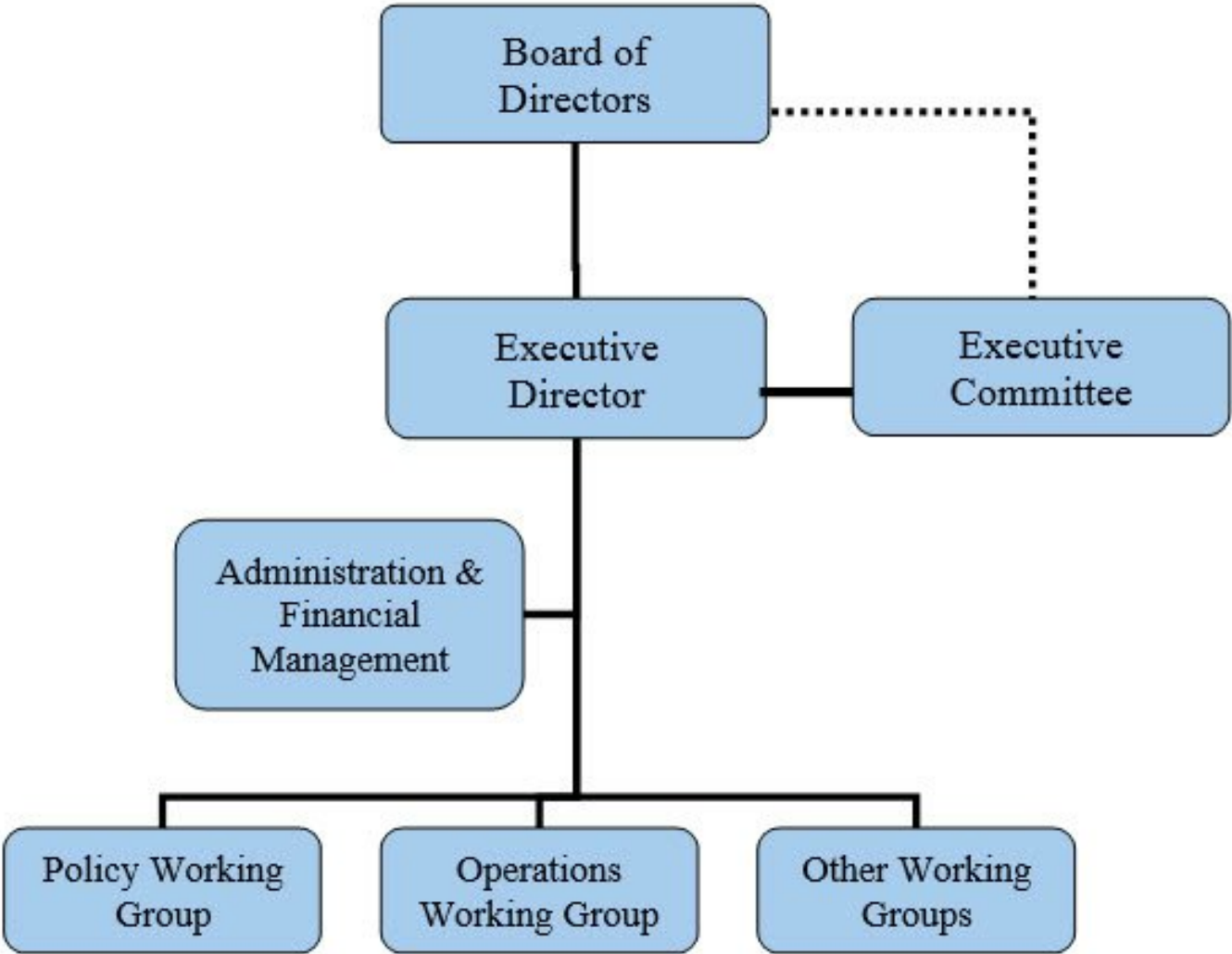
For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO

Regional Wireless Cooperative Organizational Chart



MEMBERS



**Regional Wireless Cooperative
Comprehensive Annual Financial Report
For the Fiscal Year Ended June 30, 2019**

RWC BOARD OF DIRECTORS

Chair
Paul Luizzi
Fire Chief
City of Goodyear

Vice Chair
Bob Costello
Fire Chief
City of Buckeye

Tim Van Scoter
Assistant Fire Chief
American Fire & Medical Authority

Wayne Clement
Fire Chief
Town of Guadalupe

Milton Dohoney, Jr.
Assistant City Manager
City of Phoenix

Jeff Scheetz
Chief Information Office
City of Avondale

James Hughes
Police Commander
City of Maricopa

Brad Hartig
CIO/Executive Director IT
City of Scottsdale

Val Gale
Assistant Fire Chief
City of Chandler

Roy Stanifer
Communications & Records Manager
Maricopa Community Colleges

Ron Deadman
Interim Fire Chief
Sun City Fire District

Alan Zangle
Deputy Fire Chief
Daisy Mountain Fire Department

Freeman Carney
Police Lieutenant
Town of Paradise Valley

Terry Young
Police Chief
City of Surprise

Paul Marzocca
Police Chief
City of El Mirage

Kris Dalmolin
Information Technology Director
City of Peoria

Brenda Buren
Assistant Police Chief
City of Tempe

Rick St. John
Interim Deputy City Manager
City of Glendale

Ginger Sanabria
Police Support Services Manager
City of Tolleson

FINANCIAL SECTION



INDEPENDENT AUDITORS' REPORT

Board of Directors
Regional Wireless Cooperative
Phoenix, Arizona

Report on the Financial Statements

We have audited the accompanying financial statements of the Regional Wireless Cooperative, which comprise the statement of net position as of June 30, 2019, and the related statements of revenues, expenses, and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements, which collectively comprise the entity's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Regional Wireless Cooperative as of June 30, 2019, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management discussion and analysis on pages 3 through 7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Regional Wireless Cooperative's basic financial statements. The accompanying supplementary information, introductory and statistical sections, as referenced in the table of contents, are presented for purposes of additional analysis, and are not a required part of the basic financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.



CliftonLarsonAllen LLP

Phoenix, Arizona
December 9, 2019

**REGIONAL WIRELESS COOPERATIVE
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

The following Management Discussion and Analysis (MD&A) of the Regional Wireless Cooperative's (RWC) activities and financial performance provides an introduction to RWC's financial statements as of and for fiscal year ended June 30, 2019. The information in this MD&A should be considered in conjunction with the information contained in the Letter of Transmittal included in the Introductory Section of this report.

FINANCIAL AND OPERATIONAL HIGHLIGHTS

- Net position for the RWC totaled \$70.9 million at June 30, 2019 and decreased by \$4.3 million compared to fiscal year 2018. The decrease in 2019 is primarily due to the continued depreciation of capital assets.
- Operating revenues were \$13.5 million for fiscal year 2019 and increased by \$2.8 million compared to fiscal year 2018. The increase in 2019 was due to \$2.8 million higher special assessment revenues due to project billings to system upgrades.
- The operating expenses increased by \$0.8 million to \$18.1 million in fiscal year 2019. This increase was due to an increase in the current year depreciation expense after capitalizing Narrow-Banding Phase I and System Upgrade Agreement II 7.16 for a full year.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the RWC's basic financial statements. The RWC's basic financial statements include the statement of net position, statement of revenues, expenses, and changes in net position, statement of cash flows, and notes to the financial statements. The RWC's financial statements are prepared on an accrual basis in accordance with generally accepted accounting principles applicable to a governmental entity.

Enterprise Operations

The RWC is structured as a joint venture, governed by a Board of Directors, with all members of the RWC having a seat and a vote on the Board. The Executive Director reports to the Board of Directors and serves as a non-voting member of the Board-appointed Executive Committee.

The Executive Director is supported by the Executive Committee, Operations Working Group, and other Working Groups, in addition to three staff positions who assist with the administration and financial management of the RWC. The Executive Director and staff are City of Phoenix employees residing in the Office of Government Relations.

RWC'S FINANCIAL ANALYSIS

Net position may serve over time as a useful indicator of the joint venture's financial position. The net position of the RWC decreased by \$4.3 million for the year ended June 30, 2019 as compared to June 30, 2018.

**REGIONAL WIRELESS COOPERATIVE
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

RWC'S FINANCIAL ANALYSIS (CONTINUED)

**RWC's Condensed Statements of Net Position
as of June 30, 2019 and 2018**

(in thousands)

	June 30,	
	2019	2018
Current Assets	\$ 5,521	\$ 5,634
Capital Assets, Net	69,091	73,867
Total Assets	<u>74,612</u>	<u>79,501</u>
Deferred Outflows of Resources	<u>—</u>	<u>—</u>
Current Liabilities	1,860	1,199
Noncurrent Liabilities	1,854	3,090
Total Liabilities	<u>3,714</u>	<u>4,289</u>
Deferred Inflows of Resources	<u>—</u>	<u>—</u>
Investment in Capital Assets	68,866	73,867
Unrestricted	2,032	1,345
Total Net Position	<u>\$ 70,898</u>	<u>\$ 75,212</u>

During fiscal year 2019, current assets remained steady and decreased by only \$0.1 million from fiscal year 2018.

Capital assets, net decreased by \$4.8 million from fiscal year 2018 primarily due to current year depreciation expense of \$11.4 million, \$8.3 million of additions, and \$1.0 million of retirements.

Liabilities decreased in 2019 by \$0.6 million from fiscal year 2018. The decrease in 2019 was due to a decrease in unearned revenue of \$1.2 million for adjustments to recognize amounts as current year operating revenues.

Net position decreased by \$4.3 million to \$70.9 million in fiscal year 2019. This overall decrease is primarily related to the decrease in capital assets, net based on current year depreciation expense.

**REGIONAL WIRELESS COOPERATIVE
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

RWC'S FINANCIAL ANALYSIS (CONTINUED)

**RWC's Condensed Statements of Revenues,
Expenses, and Changes in Net Position
For the Years Ended June 30, 2019 and 2018
(in thousands)**

	June 30,	
	2019	2018
Operating Revenues	\$ 13,541	\$ 10,790
Non-Operating Revenues	249	38
Total Revenues	13,790	10,828
Operating Expenses		
Staff and Administrative Allocation	541	654
Operations and Maintenance	6,133	5,994
Special Assessments	—	151
Depreciation	11,430	10,495
Total Operating Expenses	18,104	17,294
Non-Operating Expenses	—	—
Total Expenses	18,104	17,294
Changes in Net Positions	(4,314)	(6,466)
Net Position, July 1	75,212	81,678
Net Position, June 30	\$ 70,898	\$ 75,212

Operating revenues increased by \$2.8 million during 2019 primarily due to higher special assessments with a major systems upgrade project now underway.

During fiscal year 2019, total operating expenses increased by \$0.8 million, when compared to fiscal year 2018. This increase was primarily due to a higher depreciation expense on capital assets.

OPERATING REVENUES

The RWC's revenue is primarily generated by charges to the joint venture members for operations and maintenance costs, special assessments, and an operating reserve. For fiscal year 2019, revenues amounted to \$13.5 million of which \$6.8 million is revenue from operations and maintenance and \$6.7 million is from special assessments.

**REGIONAL WIRELESS COOPERATIVE
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

OPERATING REVENUES (CONTINUED)

The following chart depicts the RWC's operating revenues by category for the year ended June 30, 2019:

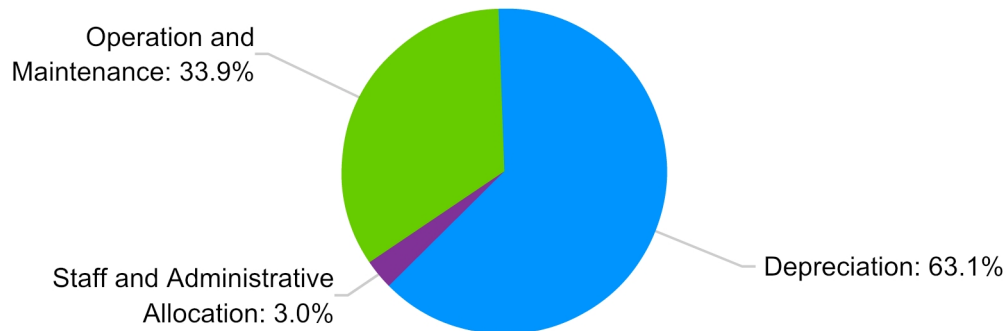
**Operating Revenues
Total = \$13,541
(in thousands)**



OPERATING EXPENSES

The following chart depicts the RWC's operating expenses by category for the year ended June 30, 2019:

**Operating Expenses
Total = \$18,104
(in thousands)**



**REGIONAL WIRELESS COOPERATIVE
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

CAPITAL ASSETS

The RWC's investment in capital assets as of June 30, 2019 amounts to \$68.9 million (net of accumulated depreciation) and \$73.9 million as of June 30, 2018. Net capital assets decreased by \$5.0 million during fiscal year 2019. For additional information on RWC's capital assets, please refer to the Notes to the Financial Statements, Organization and Summary of Significant Accounting Policies, Note 1, page 12 and Capital Assets, Note 3, page 17.

**RWC's Capital Assets
(in thousands)**

	June 30	
	2019	2018
Buildings	\$ 28,842	\$ 28,842
Improvements other than Buildings	4,830	4,830
Equipment	118,480	113,941
Intangible Assets	9,372	9,371
Construction in Progress	5,332	4,265
Accumulated Depreciation	(97,765)	(87,382)
Capital Assets, Net	\$ 69,091	\$ 73,867

REQUEST FOR FINANCIAL INFORMATION

This financial report is designed to provide a general overview of RWC'S finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Regional Wireless Cooperative, 200 West Washington Street, 7th Floor, Phoenix, Arizona, 85003-1611.

BASIC FINANCIAL STATEMENTS

Regional Wireless Cooperative
Statement of Net Position
June 30, 2019
(in thousands)

<u>ASSETS</u>	
Current Assets	
Unrestricted Assets	
Equity in Pooled Cash and Investments	\$ 1,994
Equity in Pooled Cash and Investments - Operating Reserve	1,209
Equity in Pooled Cash and Investments - Capital	2,318
Total Unrestricted Assets	5,521
Total Current Assets	5,521
Noncurrent Assets	
Capital Assets	
Buildings	28,842
Improvements other than Buildings	4,830
Equipment	118,480
Intangible Assets	9,372
Construction in Progress	5,332
Less: Accumulated Depreciation	(97,765)
Capital Assets, Net	69,091
Total Assets	74,612
<u>DEFERRED OUTFLOWS OF RESOURCES</u>	
Total Deferred Outflows of Resources	—
<u>LIABILITIES</u>	
Current Liabilities	
Accounts Payable	1,573
Members' Payable	272
Accrued Expenses	15
Total Current Liabilities	1,860
Noncurrent Liabilities	
Accrued Expenses	93
Unearned Revenue	1,761
Total Noncurrent Liabilities	1,854
Total Liabilities	3,714
<u>DEFERRED INFLOWS OF RESOURCES</u>	
Total Deferred Inflows of Resources	—
<u>NET POSITION</u>	
Investment in Capital Assets	68,866
Unrestricted	2,032
Net Position	\$ 70,898

The accompanying notes are an integral part of these financial statements.

Regional Wireless Cooperative
Statement of Revenues, Expenses, and
Changes in Net Position
For the Fiscal Year Ended June 30, 2019
(in thousands)

Operating Revenues	
Operations and Maintenance Charges	\$ 6,798
Special Assessments	6,743
Total Operating Revenues	13,541
Operating Expenses	
Staff and Administrative Allocation	541
Operation and Maintenance	6,133
Depreciation	11,430
Total Operating Expenses	18,104
Operating Loss	(4,563)
Non-Operating Revenues (Expenses)	
Investment Income	
Net Decrease in Fair Value of Investments	111
Interest	138
Total Non-Operating Revenues (Expenses)	249
Changes in Net Position	(4,314)
Net Position, July 1	75,212
Net Position, June 30	70,898

The accompanying notes are an integral part of these financial statements.

Regional Wireless Cooperative
Statement of Cash Flows
For the Fiscal Year Ended June 30, 2019
(in thousands)

Cash Flows from Operating Activities	
Cash Received from Members	\$ 13,541
Cash Paid to Suppliers	(6,707)
Cash Paid for Staff and Administration Allocation	(543)
Net Cash Provided by Operating Activities	6,291
Cash Flows from Capital and Related Financing Activities	
Acquisition and Construction of Capital Assets	(6,654)
Net Cash Used by Capital and Related Financing Activities	(6,654)
Cash Flows from Investing Activities	
Interest on Investments	250
Net Cash Provided by Investing Activities	250
Net Decrease in Cash and Cash Equivalents	(113)
Cash and Cash Equivalents, July 1	5,634
Cash and Cash Equivalents, June 30	\$ 5,521
Reconciliation of Operating Loss to Net Cash	
Provided by Operating Activities	
Operating Loss	\$ (4,563)
Adjustments	
Depreciation	11,430
Increase (Decrease) in Liabilities	
Accounts Payable	565
Members' Payable	94
Accrued Expenses	(2)
Unearned Revenue	(1,233)
Net Cash Provided by Operating Activities	\$ 6,291

The accompanying notes are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

The Notes to the Financial Statements include a summary of significant accounting policies and other disclosures necessary for a clear understanding of the accompanying financial statements.

An index to the notes follows:

<u>NOTE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
1	Organization and Summary of Significant Accounting Policies	12
2	Cash and Pooled Investments	15
3	Capital Assets	17
4	Risk Management	17
5	Members' Equity	18
6	Related Party Transactions	18
7	Commitments and Contingencies	19

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

The Regional Wireless Cooperative (RWC) was formed in 2008 to oversee the administration, operation, management and maintenance of the expanding regional communication network. The RWC is an Arizona joint venture, multi-jurisdictional organization throughout the Phoenix Metropolitan Region which currently consists of 19 members. The RWC is a large, Public Safety radio network based on the Project 25, Phase I Standard. The network is an ASTRO 25™, integrated voice and data, trunked radio system that it operates in the 700/800 MHz frequency bands and uses standard Simulcast, IP Simulcast, and individual site trunking. The network consists of seven major simulcast subsystems and ten Intelligent Site Repeaters (ISR's).

The system provides seamless, wide area coverage in and around Central Arizona's Valley of the Sun. The system is data capable, but at the current time is only used in a data capacity to provide encryption services.

Some of the benefits of this large regional radio system include wide area coverage beyond what cities could achieve individually; seamless interoperability (the ability for diverse public safety agencies to communicate directly, in real-time, as the need requires); shared resources; such as people, equipment, and tower sites and funding; and increased success in obtaining state and federal grant support. Financial responsibilities are shared by all members based on their relative size, and is measured by the number of subscriber units on the network.

1. Organization and Summary of Significant Accounting Policies

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The RWC is a special purpose governmental entity, engaged only in business-type activities. It is required to present the financial statements required for enterprise funds, which include a statement of net position, a statement of revenues, expenses and changes in net position, and a statement of cash flows. It also requires a Management's Discussion and Analysis as required supplementary information.

The RWC's other significant accounting and financial policies are described as follows:

Reporting Entity

The RWC is structured and reported as a joint venture between the members. Each member includes their equity in the joint venture in their respective basic financial statements. The accompanying financial statements present the financial position of the RWC only. The RWC does not have any component units.

Basis of Accounting

The RWC is accounted for using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, liabilities, net position, revenues, and expenses are accounted for through an enterprise fund. Revenues are recorded when earned and expenses recorded at the time the liabilities are incurred.

The Statement of Net Position present the reporting entity's assets and liabilities, with the difference reported as net position. Net position is reported in three components:

Investment in capital assets consists of capital assets, net of accumulated depreciation and is reduced by outstanding balances for bonds, notes, and other debt that are attributed to the acquisition, construction, or improvement of those assets.

Restricted results when constraints placed on asset use are either externally imposed by creditors, grantor, contributors, and the like, or imposed by law through constitutional provisions or enabling legislation.

Unrestricted consist of those assets which do not meet the definition of the two preceding categories. Unrestricted often are designated to indicate that management does not consider them to be available for general operations. The unrestricted component often has constraints on resources which are imposed by management, but can be removed or modified by the RWC Board of Directors.

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

1. Organization and Summary of Significant Accounting Policies (continued)

Basis of Accounting (continued)

The Statement of Revenues, Expenses, and Changes in Net Position demonstrates the degree to which the expenses are offset by revenues. Operating revenues are members' charges and other miscellaneous revenues that are received based on the ongoing activities of the RWC. Operating expenses are those incurred for network operations, maintenance, administration and depreciation of capital assets. Non-operating revenues and expenses are items that are not a result of the direct operations of the network, including interest.

Cash and Pooled Investments

Equity in pooled cash and investments on the Statement of Net Position and cash and cash equivalents on the Statement of Cash Flows consists only of pooled investments. Pooled investments are cash equivalents and are held in the investment pool of the City of Phoenix, Arizona (City). The City's cash resources are combined to form a cash and investment pool managed by the City Treasurer. Interest earned by the pool is distributed monthly to the RWC based on daily equity in the pool.

The RWC's pooled investments are stated at fair value, except for re-purchase agreements with original maturities of one year or less which are valued at cost that approximates fair value. Fair value is based on quoted market prices as of the valuation date.

Receivables

Management analyzes receivables periodically to determine whether an allowance for doubtful accounts should be recorded. There is no current provision required for possible bad debts.

Capital Assets

Capital assets are recorded at historical cost plus capitalized interest on assets constructed. Donated capital assets are recorded at the estimated acquisition value at the date of donation. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets as follows:

Land	Not depreciated
Buildings	10 - 40 years
Improvements other than buildings	10 - 50 years
Equipment	5 - 30 years
Intangible assets	5 - 40 years
Construction in progress	Not depreciated

A gain or loss on disposal of capital assets is recognized when assets are retired from service or are otherwise sold or removed. The minimum capitalization policy is \$5,000 or more with an estimated useful life exceeding two years.

Members' Payable

The RWC reports members' payable in connection with revenues from billings to members. Members' payable at June 30, 2019 was \$272,021.

Operating Revenues

Operating revenues include members' charges and other revenues. Members' charges are contributions received from the members for costs of operation and maintenance, administration, and the construction of capital assets. All operating revenues are recognized when earned. Members' charges for operating costs are earned ratably throughout the year.

Operating Expenses

Operating expenses include operation and maintenance expenses, depreciation and administrative expenses. Administrative expenses include direct administrative costs for RWC assigned staff. Operating, maintenance, and administrative costs are allocated to the members based on the number of operable subscribers on the network.

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

1. Organization and Summary of Significant Accounting Policies (continued)

Application of Restricted or Unrestricted Resources

In cases where an expense is incurred for purposes for which both restricted and unrestricted resources are available, the expense is first applied to the restricted resources.

Budget

The RWC assigned staff prepares and presents the operating and capital budget to the Executive Committee. The budget includes operations and maintenance, administration costs as well as planned capital costs. The budget is forwarded to the RWC Board of Directors for approval and adoption. It is the responsibility of each RWC member to take appropriate steps in conformity with the state and local laws to ensure that it appropriates sufficient funds to cover its obligation. The budget is prepared in sufficient detail to facilitate its use by management in monitoring operations.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make a number of estimates and assumptions that affect the reported amount of assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

New Accounting Pronouncements Adopted in 2019:

GASB Statement No. 83, ***Certain Asset Retirement Obligations***, requires the measurement of an asset retirement obligation (ARO) to be based on the best estimate of the current value of outlays expected to be incurred. The best estimate should include probability weighting of all potential outcomes, when such information is available or can be obtained at reasonable cost. If probability weighting is not feasible at reasonable cost, the most likely amount should be used. This Statement requires that a deferred outflow of resources associated with an ARO be measured at the amount of the corresponding liability upon initial measurement. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. RWC has determined there is no impact to the financial statements as a result of this Statement.

GASB Statement No. 88, ***Certain Disclosures Related to Debt, including Borrowings and Direct Placements***, requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. Also, this Statement requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. RWC has determined there is no impact to the financial statements as a result of this Statement.

Pronouncements Issued But Not Yet Effective:

GASB has issued the following pronouncements that may affect future financial position, results of operations, cash flows, or financial presentation of RWC upon implementation. RWC has not fully determined the effect these pronouncements will have on the RWC's financial statements:

GASB Statement No.	GASB Accounting Standard	Effective Fiscal Year
84	<i>Fiduciary Activities</i>	2020
87	<i>Leases</i>	2021
90	<i>Majority Equity Interests - an amendment of GASB Statements No. 14 and No. 61</i>	2020
91	<i>Conduit Debt Obligations</i>	2021

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

2. Cash and Pooled Investments

The RWC did not have cash on hand at June 30, 2019. Pooled investments are maintained in the cash and investment pool of the City. RWC does not have a formal investment policy. The investment policy is maintained with the City.

Pooled Investments

The RWC investments are included in the City's pooled investments. The City Charter and ordinances authorize the City to invest in U.S. Treasury securities, securities guaranteed, insured or backed by the full faith and credit of the U.S. Government, U.S. Government agency securities, repurchase agreements, commercial paper, money market accounts, certificates of deposit, the State Treasurer's Local Government Investment Pool "LGIP", highly rated securities issued or guaranteed by any state or political subdivision thereof rated in the highest short-term or second highest long-term category, and investment grade corporate bonds, debentures, notes and other evidence of indebtedness issued or guaranteed by a solvent U.S. corporation which are not in default as to principal or interest. Investments are carried at fair value. It is the City's policy generally to hold investments until maturity. A detailed listing of City investments can be found in the City CAFR in Note 5 in the Notes to the Financial Statements.

RWC maintains a portion of its unrestricted cash and investments in the City's cash and investment pool. Total investments for RWC at June 30, 2019 stated at fair value, was \$5,521,179.

Fair Value Hierarchy

The City categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. The three levels of the fair value hierarchy are as follows:

- Level 1 inputs are quoted prices in an active market for identical assets;
- Level 2 inputs are significant other observable inputs;
- Level 3 inputs are significant unobservable inputs.

The following is a summary of the fair value hierarchy of the fair value of City pooled investments as of June 30, 2019 (in thousands):

Investments by Fair Value Level	Fair Value Measurement Using			
	6/30/2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury securities	\$ 1,693,000	\$ 15,994	\$ 1,677,006	\$ —
U.S. Government agency obligations	805,788	—	805,788	—
U.S. Government agency MBS/CMO	101,665	—	101,665	—
Municipal bonds	122,769	—	122,769	—
Commercial paper	36,465	—	36,465	—
Investment in land	872	—	—	872
Total investments, including those classified as, cash equivalents by fair value level	<u>\$ 2,760,559</u>	<u>\$ 15,994</u>	<u>\$ 2,743,693</u>	<u>\$ 872</u>

U.S. Government securities totaling \$16.0 million in fiscal year 2019 are classified in Level 1 of the fair value hierarchy and are valued using quoted prices in active markets.

U.S. Government securities totaling \$1.7 billion, U.S. government agency obligations totaling \$805.8 million, U.S. government agency MBS/CMO totaling \$101.7 million, municipal bonds totaling \$122.8 million and commercial paper totaling \$36.5 million in fiscal year 2019 are classified in Level 2 of the fair value hierarchy and are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fair value is defined as the price that would be received

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

2. Cash and Pooled Investments (continued)

to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. These prices are obtained from a pricing source.

Investment in Land totaling \$872 thousand in fiscal year 2019, classified in Level 3 of the fair value hierarchy is valued by appraisal using valuation techniques in which one or more significant inputs or significant value drivers are unobservable, such as pricing models, discounted cash flow model and similar techniques not on market, exchange, dealer or broker-traded transactions.

Interest Rate Risk

In order to limit interest rate risk, the City's investment policy limits maturities as follows:

U.S. Treasury Securities	5 year final maturity
Securities guaranteed, insured, or backed by the full faith and credit of the U.S. Government	5 year final maturity
U.S. Government Agency Securities	5 year final maturity
Repurchase Agreements	60 days
Municipal Obligations	5 years for long-term issues
Money Market Mutual Funds	90 days
Commercial Paper	270 days

For Mortgage Backed Securities (MBS) and Collateralized Mortgage Obligations (CMO), the maximum weighted average life using current Public Securities Association (PSA) prepayment assumption shall be twelve years at the time of purchase for MBS and five years at the time of purchase for CMO.

Credit Risk

The City's investment policy limits its purchase of investments to the top ratings issued by nationally recognized statistical rating organizations such as Standard & Poor's "S&P" and Moody's Investors Service "Moody's". The portfolio is primarily invested in securities issued by the U.S. Treasury or by U.S. Government Agency Securities which are rated Aaa by Moody's and AA+ by S&P. Repurchase agreements are generally collateralized by U.S. Treasuries and U.S. Government Agency Securities at 102%. In addition, the portfolio is invested in pre-refunded or escrowed to maturity municipal securities for which the payment of interest, and ultimately the repayment of the principal, is backed by U.S. Treasury Securities. Municipal securities must have a short-term minimum rating of A1 by S&P and P1 by Moody's and a long-term uninsured rating of A+ by S&P and A1 by Moody's. Money market mutual funds must have a current minimum money market rating of AAAM by S&P and Aaa-mf by Moody's. For commercial paper, an Issuer's program must have a minimum rating of "A1" by S&P and "P1" by Moody's. The issuing corporation must be organized and operating in the United States and have a minimum long-term debt rating of "A+" by S&P and "A1" by Moody's. Programs rated by only one of the agencies are ineligible.

Concentration of Credit Risk

Investments in any one issuer that represent 5% or more of total City investment are as follows (in thousands):

<u>Issuer</u>	<u>Fair Value</u>
FHLB	282,167
FFCB	238,158

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

3. Capital Assets

Capital asset activity for the fiscal year ended June 30, 2019 was as follows (in thousands):

	Beginning Balance	Increases	Decreases	Ending Balance
Non-depreciable Assets				
Construction in Progress	\$ 4,265	\$ 2,676	\$ (1,609)	\$ 5,332
Total Non-depreciable Assets	4,265	2,676	(1,609)	5,332
Depreciable Assets				
Buildings	28,842	—	—	28,842
Improvements other than Buildings	4,830	—	—	4,830
Equipment	113,941	5,587	(1,048)	118,480
Intangible Assets	9,372	—	—	9,372
Total Depreciable Assets	156,985	5,587	(1,048)	161,524
Accumulated Depreciation				
Buildings	(6,801)	(793)	—	(7,594)
Improvements other than Buildings	(1,853)	(237)	—	(2,090)
Equipment	(76,455)	(8,476)	1,048	(83,883)
Intangible Assets	(2,274)	(1,924)	—	(4,198)
Total Accumulated Depreciation	(87,383)	(11,430)	1,048	(97,765)
Total Depreciable Assets, Net	69,602	(5,843)	—	63,759
Total Capital Assets, Net	\$ 73,867	\$ (3,167)	\$ (1,609)	\$ 69,091

4. Risk Management

RWC's insurance program is administered by the City of Phoenix Risk Management Division of the Finance Department. RWC is charged annually for its share of insurance coverage. For fiscal year 2019, RWC was charged \$43,731 for insurance premiums. The members proportionately share the costs of the insurance program according to the provisions of the intergovernmental agreement. The City of Phoenix maintains a \$7.5 million self-insured retention for third-party liability claims. Losses which exceed the retention levels are covered by commercial insurance purchased through the City. Self-insured claims are reported as liabilities in the City of Phoenix's basic financial statements when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. This determination is based on an independent actuarial analysis of reported claims and estimated claims incurred but not reported. For the year ended June 30, 2019, there were no reductions in insurance coverage from the prior year and settled claims have not exceeded insurance coverage for the past three years. In the opinion of management, no provision for claims is required in the accompanying financial statements.

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

5. Members' Equity

A summary of the joint venture members' equity as of June 30, 2019 is as follows:

Arizona Fire & Medical Authority	\$	347,293
City of Avondale		585,079
City of Buckeye		328,523
City of Chandler		1,884,653
Daisy Mountain Fire District		91,381
City of El Mirage		285,578
City of Glendale		2,861,326
City of Goodyear		323,732
Town of Guadalupe		83,721
City of Maricopa		201,564
Maricopa County Community College District		236,943
Town of Paradise Valley		12,049
City of Peoria		1,900,539
City of Phoenix		49,138,717
City of Scottsdale		1,899,286
Sun City Fire District		623,701
City of Surprise		1,061,275
City of Tempe		8,896,342
City of Tolleson		136,732
Total Members' Equity	<u>\$</u>	<u>70,898,434</u>

6. Related Party Transactions

Staff and administrative costs allocated by the City to RWC was \$540,673 for the year ended June 30, 2019. These costs include: salaries, radio operator charges, photocopy equipment, office supplies, computer software, computer components, motor pool, and security charges. The City subsidizes central services costs for the RWC. These costs include: building maintenance, custodial services, electrical maintenance, money management, accounts payable, various financial services, materials management, human resources, safety, fringe benefit administration, labor relations, training, network services, communication services, and general management services.

As RWC has no employees, the City assigned four full-time staff to RWC as of June 30, 2019 and compensation totaled \$517,529 for the year ended June 30, 2019.

RWC's full-time staff are employed by the City of Phoenix, Arizona and participate in the City of Phoenix Employees' Retirement Plan (COPERS). In addition to normal retirement benefits, COPERS also provides for disability and survivor benefits, as well as deferred pensions for former employees. Pension benefits vest after five years for general City employees.

The City provides certain post-employment health care benefits for its retired employees. Retirees meeting certain qualifications are eligible to participate in the City's health insurance program along with the City's active employees.

**Regional Wireless Cooperative
Notes to the Financial Statements
For the Fiscal Year Ended June 30, 2019**

7. Commitments and Contingencies

The RWC has entered into contractual agreements with Motorola to provide services related to maintenance, operations, and upgrades of the RWC Network. The percentages of the total RWC budget for these agreements were 68% for the year ended June 30, 2019.

At this point in time, RWC is not involved in any litigation and claims arising in the normal course of operations. In the opinion of management based on consultation with legal counsel, losses, if any, from pending litigation and claims are covered by insurance or are immaterial; therefore, no provision has been made in the accompanying financial statements for losses, if any, that might arise from the ultimate outcome of these matters.

SUPPLEMENTARY INFORMATION

**Regional Wireless Cooperative
Members' Operating Fund Reserve
For the Fiscal Year Ended June 30, 2019**

RWC members maintain an operating fund reserve to provide cash flow for cost of operating and maintenance of the Network. Each member's obligation to fund the balance reserve is proportionate to its subscriber units in use on the Network at the time the fee is assessed.

Member	Beginning Balance July 1, 2018	Contributions	Adjustments*	Interest	Expenditures	Ending Balance June 30, 2019
Arizona Fire & Medical Authority	\$ 4,238	\$ —	\$ (6)	\$ 82	\$ —	\$ 4,314
City of Avondale	18,580	—	(32)	357	—	18,905
City of Buckeye	17,966	—	70	347	—	18,383
City of Chandler	54,148	—	(82)	1,041	—	55,107
Daisy Mountain Fire District	1,114	—	(6)	21	—	1,129
City of El Mirage	9,125	—	11	176	—	9,312
City of Glendale	76,328	—	(295)	1,464	—	77,497
City of Goodyear	23,098	—	(164)	442	—	23,376
Town of Guadalupe	587	—	—	11	—	598
City of Maricopa	9,724	—	(38)	187	—	9,873
Maricopa County Community College District	13,447	—	44	260	—	13,751
Town of Paradise Valley	—	3,902	—	75	—	3,977
City of Peoria	51,963	—	218	1,005	—	53,186
City of Phoenix	566,580	—	104,072	12,915	—	683,567
Rural Metro	6,498	—	(46)	124	—	6,576
City of Scottsdale	89,019	—	(112)	1,712	—	90,619
Sun City Fire District	2,646	—	(2)	51	—	2,695
City of Surprise	24,076	—	94	465	—	24,635
City of Tempe	103,212	—	417	1,996	—	105,625
City of Tolleson	1,821	—	3,813	108	—	5,742
	<u>\$ 1,074,170</u>	<u>\$ 3,902</u>	<u>\$ 107,956</u>	<u>\$ 22,839</u>	<u>\$ —</u>	<u>\$ 1,208,867</u>

*Based on an inception-to-date analysis of contributions by members

Regional Wireless Cooperative
Members' Infrastructure Replacement and Enhancement Activity
For the Fiscal Year Ended June 30, 2019

RWC Members fund the Infrastructure Replacement and Enhancement Fund through RWC Board of Directors formal resolution stating the purpose of the project, term of project, total cost of project, and each RWC Member's fixed share of the project cost programmed across the specified term. Funds are used to pay for network upgrades and system enhancements.

Member	Beginning Balance July 1, 2018	Contributions	Interest	Expenditures	Ending Balance June 30, 2019
Arizona Fire & Medical Authority	\$ 14,075	\$ 17,570	\$ 401	\$ (17,577)	\$ 14,469
City of Avondale	54,810	68,544	1,562	(68,571)	56,345
City of Buckeye	40,034	68,327	1,140	(68,347)	41,154
City of Chandler	200,099	216,042	5,700	(216,144)	205,697
Daisy Mountain Fire District	1,052	4,555	30	(4,556)	1,081
City of El Mirage	17,007	22,776	484	(22,785)	17,482
City of Glendale	141,068	276,560	4,018	(276,632)	145,014
City of Goodyear	9,064	86,764	258	(86,769)	9,317
Town of Guadalupe	2,279	2,169	65	(2,170)	2,343
City of Maricopa	28,546	39,261	813	(39,276)	29,344
Maricopa County Community College District	41,191	51,191	1,173	(51,212)	42,343
Town of Paradise Valley	—	18,004	—	(18,004)	—
City of Peoria	186,314	185,675	5,308	(185,770)	191,527
City of Phoenix	989,089	2,075,610	28,174	(2,076,114)	1,016,759
City of Scottsdale	288,333	338,596	8,213	(338,743)	296,399
Sun City Fire District	8,692	10,412	248	(10,416)	8,936
City of Surprise	83,121	89,801	2,368	(89,843)	85,447
City of Tempe	143,981	329,052	4,101	(329,125)	148,009
City of Tolleson	5,997	6,941	171	(6,944)	6,165
	<u>\$ 2,254,752</u>	<u>\$ 3,907,850</u>	<u>\$ 64,227</u>	<u>\$ (3,908,998)</u>	<u>\$ 2,317,831</u>

**Regional Wireless Cooperative
Members' Net Operating and Maintenance Expenditures
For the Fiscal Year Ended June 30, 2019**

Member	Amount Billed	2019 Charge (Credit) Per User Settlement (1)	Net Operating Expenditures
Arizona Fire & Medical Authority	\$ 33,917	\$ (1,119)	\$ 32,798
City of Avondale	149,686	(6,186)	143,500
City of Buckeye	133,158	(5,162)	127,996
City of Chandler	380,653	(14,744)	365,909
Daisy Mountain Fire District	29,174	(1,118)	28,056
City of El Mirage	42,832	(1,656)	41,176
City of Glendale	432,124	(16,823)	415,301
City of Goodyear	111,120	(4,299)	106,821
Town of Guadalupe	3,995	(155)	3,840
City of Maricopa	93,281	(3,161)	90,120
Maricopa County Community College District	85,942	(3,321)	82,621
Town of Paradise Valley	35,027	(1,207)	33,820
City of Peoria	350,736	(13,598)	337,138
City of Phoenix	3,862,918	(149,891)	3,713,027
City of Scottsdale	564,521	(21,869)	542,652
Sun City Fire District	23,413	(908)	22,505
City of Surprise	195,111	(7,540)	187,571
City of Tempe	449,034	(17,396)	431,638
City of Tolleson	47,941	(1,868)	46,073
Non-Members	45,753	—	45,753
	<u>\$7,070,336</u>	<u>\$ (272,021)</u>	<u>\$ 6,798,315</u>

(1) These amounts represent the settlement of operating and maintenance expenditures.

STATISTICAL SECTION

**Regional Wireless Cooperative
Statistical Section
For the fiscal year ended June 30, 2019**

This section of the RWC's comprehensive annual financial report presents detailed information as context for understanding of the information in the financial statements, note disclosures, required supplementary information, and the joint venture's overall financial condition. The RWC began operation in FY 2010; therefore, 10 years of data is not available for presentation in this section.

Financial Trends

These schedules contain trend information to help the reader understand how the RWC's financial performance and well-being have changed over time:

	<u>Page</u>
Statements of Net Position	24
Statements of Revenues, Expenses, and Changes in Net Position	24
Members' Operation and Maintenance Expenses	25

Demographic and Economic Information

These schedules offer demographic and economic indicators to show the environment within which the RWC's financial activities take place:

	<u>Page</u>
Major Employers Metropolitan Phoenix	29

Operating Information

These schedules contain service data to show how the RWC's financial information relates to the services the RWC provides and the activity it performs:

	<u>Page</u>
Subscriber Units	29
System Statistics	30

**Regional Wireless Cooperative
Statements of Net Position
Last Ten Fiscal Years
(in thousands)**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Investment in Capital Assets	\$ 68,866	\$ 73,867	\$ 80,098	\$ 86,472	\$ 83,376	\$ 83,280	\$ 87,125	\$ 95,643	\$ 99,481	\$ 96,350
Restricted										
Capital Projects	—	—	—	243	121	—	88	—	—	—
Unrestricted	2,032	1,345	1,580	1,937	12,386	4,250	498	706	534	514
Net Position	\$ 70,898	\$ 75,212	\$ 81,678	\$ 88,652	\$ 95,883	\$ 87,530	\$ 87,711	\$ 96,349	\$ 100,015	\$ 96,864

**Statements of Revenues, Expenses, and Changes in Net Position
Last Ten Fiscal Years
(in thousands)**

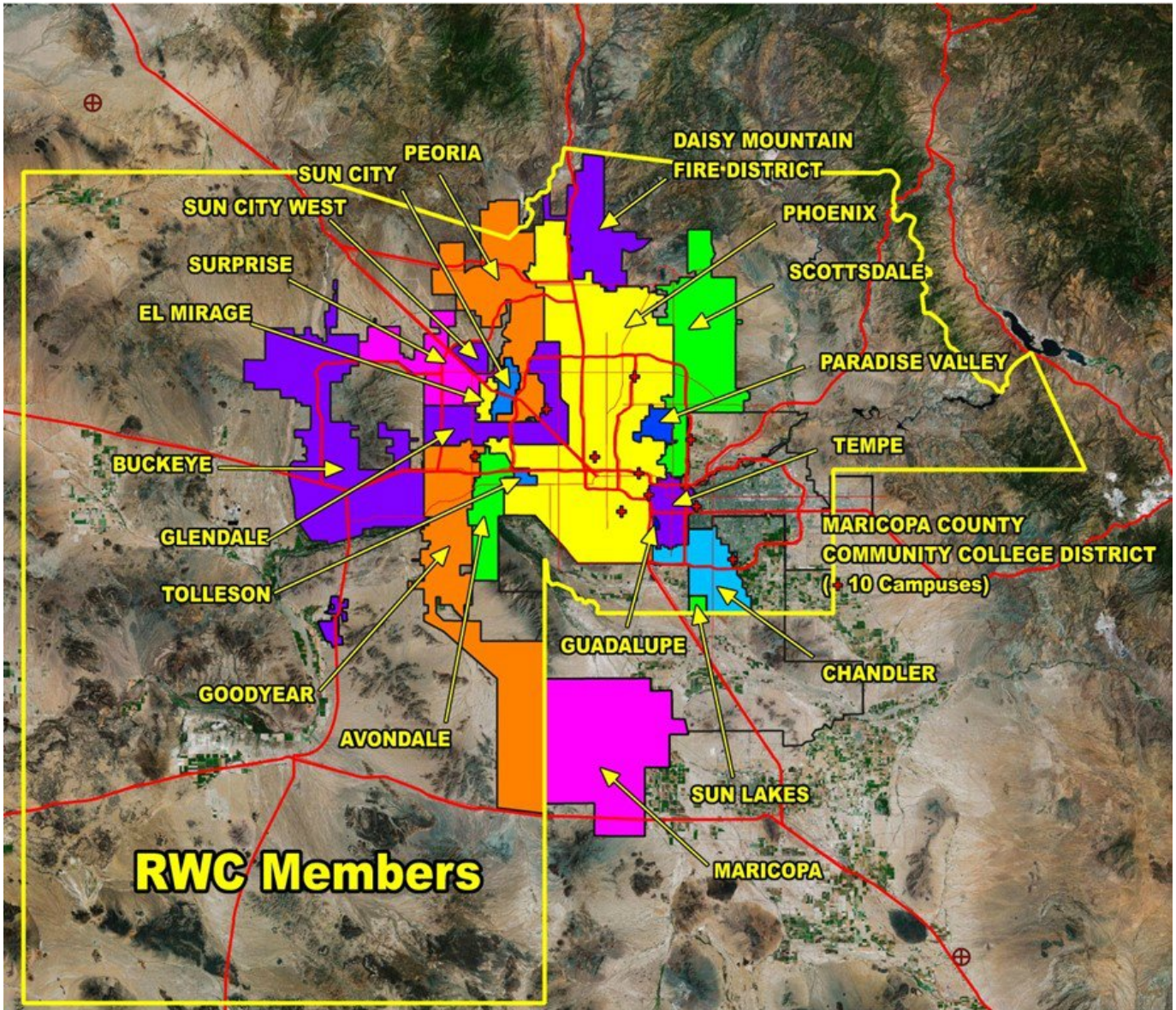
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Operating Revenues										
Operation and Maintenance Charges	\$ 6,798	\$ 6,871	\$ 7,320	\$ 6,592	\$ 7,209	\$ 7,201	\$ 6,746	\$ 8,305	\$ 6,389	\$ 5,964
Special Assessments	6,743	3,919	1,989	16,646	16,170	11,143	2,390	48	93	—
Other	—	—	—	121	121	88	88	60	445	—
Total Operating Revenues	13,541	10,790	9,309	23,359	23,500	18,432	9,224	8,413	6,927	5,964
Operating Expenses										
Staff and Administrative Allocation	541	654	538	691	582	617	597	499	527	30
Operation and Maintenance	6,133	5,994	6,048	3,925	6,174	6,541	6,048	7,602	5,853	5,420
Special Assessments	—	151	245	2,429	5	3	—	48	93	—
Depreciation	11,430	10,495	9,476	8,299	8,509	11,546	10,444	9,999	10,181	9,926
Total Operating Expenses	18,104	17,294	16,307	15,344	15,270	18,707	17,089	18,148	16,654	15,376
Operating Income (Loss)	(4,563)	(6,504)	(6,998)	8,015	8,230	(275)	(7,865)	(9,735)	(9,727)	(9,412)
Non-Operating Revenues (Expenses)										
Investment Income										
Net Increase (Decrease) in Fair Value of										
Investments	111	(72)	(86)	25	(109)	(109)	(77)	(53)	(18)	—
Interest	138	110	110	262	232	203	81	78	30	—
Loss on Disposal of Capital Assets	—	—	—	(1,190)	—	—	(777)	—	—	—
Distribution to Members	—	—	—	(14,343)	—	—	—	—	—	—
Total Non-Operating Revenues (Expenses)	249	38	24	(15,246)	123	94	(773)	25	12	—
Income (Loss) Before Contributions	(4,314)	(6,466)	(6,974)	(7,231)	8,353	(181)	(8,638)	(9,710)	(9,715)	(9,412)
Capital Contributions	—	—	—	—	—	—	—	6,044	12,866	106,276
Changes in Net Position	\$ (4,314)	\$ (6,466)	\$ (6,974)	\$ (7,231)	\$ 8,353	\$ (181)	\$ (8,638)	\$ (3,666)	\$ 3,151	\$ 96,864

**Regional Wireless Cooperative
Members' Operations and Maintenance Expenses
Last Eight Fiscal Years**

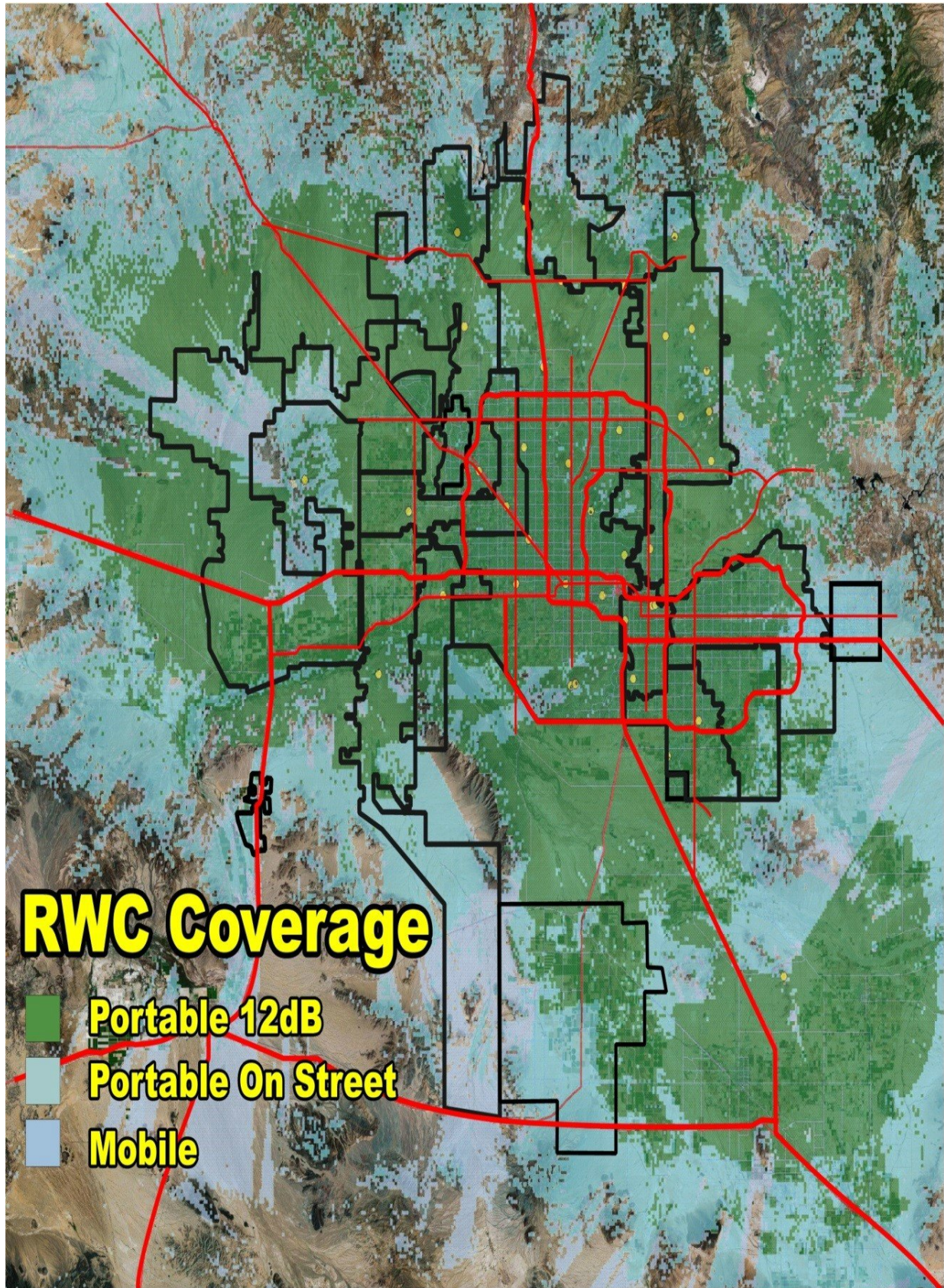
	2019	2018	2017	2016	2015	2014	2013	2012	2011
Arizona Fire & Medical Authority	\$ 32,798	\$ 29,301	\$ 28,847	\$ 28,275	\$ 27,847	\$ 28,059	\$ 24,952	\$ 31,029	\$ 8,899
City of Avondale	143,500	138,819	127,170	96,672	121,150	123,697	108,885	39,787	10,297
City of Buckeye	127,996	115,986	114,114	113,819	123,292	105,746	77,987	91,438	81,737
City of Chandler	365,909	354,689	356,585	345,177	362,723	378,692	340,153	455,420	54,459
Daisy Mountain Fire District	28,056	8,854	8,209	7,443	8,239	3,819	2,111	3,314	1,830
City of El Mirage	41,176	38,515	38,041	45,293	39,139	38,067	31,944	38,635	34,353
City of Glendale	415,301	443,057	455,537	487,326	513,312	535,581	583,921	248,367	5,604
City of Goodyear	106,821	148,559	219,021	144,228	170,265	41,573	36,693	46,518	12,539
Town of Guadalupe	3,840	3,542	3,574	3,631	4,217	4,126	4,036	2,417	382
City of Maricopa	90,120	75,794	67,041	64,285	64,588	63,551	39,943	8,707	6,099
Maricopa County Community College	82,621	84,183	84,036	84,503	79,523	—	—	—	—
Town of Paradise Valley	33,820	17,004	—	—	—	—	—	—	—
City of Peoria	337,138	326,318	312,071	321,022	354,495	369,820	330,061	430,102	411,673
City of Phoenix	3,713,027	3,515,191	3,448,585	3,470,070	3,758,471	3,999,612	3,878,073	5,289,117	4,937,469
City of Scottsdale	542,652	535,893	553,558	558,223	596,642	568,508	503,669	717,469	48,494
Sun City Fire District	22,505	20,538	17,945	17,246	18,166	18,260	15,411	18,971	6,807
City of Surprise	187,571	187,541	171,780	152,212	170,233	167,321	147,314	144,535	123,972
City of Tempe	431,638	729,287	1,231,481	571,819	711,487	675,808	573,249	710,090	630,029
City of Tolleson	46,073	43,120	19,424	11,618	12,887	12,174	10,454	12,498	—
Non Members (1)	45,753	54,540	62,555	68,926	72,710	66,432	37,498	16,506	14,537
Total	\$6,798,315	\$6,870,731	\$7,319,574	\$6,591,788	\$7,209,386	\$7,200,846	\$6,746,354	\$8,304,920	\$6,389,180

(1) Non RWC Member's fee for use of the RWC Network.

Regional Wireless Cooperative Jurisdictions Map



Regional Wireless Cooperative Coverage Map



Regional Wireless Cooperative Cities' and Towns' Population Growth Last Ten Calendar Years

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
City of Avondale	85,835	84,025	82,881	80,684	78,090	78,822	77,511	76,870	76,392	76,238
City of Buckeye	74,370	68,453	64,629	62,138	58,795	56,683	56,460	54,102	52,334	50,876
City of Chandler	257,165	253,458	247,477	260,828	249,423	245,588	246,197	241,214	238,381	236,326
City of El Mirage	35,670	35,216	35,043	33,935	32,857	32,998	32,472	32,067	31,862	31,797
City of Glendale	250,702	246,709	245,895	240,126	232,680	234,632	231,109	229,008	227,446	226,721
City of Goodyear	82,835	79,858	77,258	79,003	74,743	72,864	72,275	69,018	67,337	65,275
Town of Guadalupe	6,597	6,225	6,336	6,177	6,084	6,072	6,019	5,943	5,895	5,523
City of Maricopa	50,024	48,007	46,903	48,602	47,442	45,508	44,946	44,396	43,598	43,482
Town of Paradise Valley	14,502	14,293	14,355	13,922	13,457	13,387	13,282	13,154	13,035	12,820
City of Peoria	172,259	168,181	164,173	171,237	163,832	162,592	160,545	157,653	155,754	154,058
City of Phoenix	1,660,272	1,626,078	1,615,017	1,563,025	1,506,439	1,505,070	1,485,751	1,465,901	1,453,462	1,447,128
City of Scottsdale	255,310	249,950	246,645	236,839	225,698	226,918	222,213	219,713	217,965	217,385
City of Surprise	138,161	134,085	132,677	128,422	123,797	123,546	121,629	119,530	118,349	117,517
City of Tempe	192,364	185,038	182,498	175,826	169,529	168,228	165,158	164,659	162,503	161,719
City of Tolleson	7,299	7,205	7,178	7,008	6,777	6,756	6,632	6,579	6,541	6,545

Source: US Census Bureau

**Regional Wireless Cooperative
Major Employers Metropolitan Phoenix
Current Year and Nine Years Ago**

Employer	2019			2010		
	Employees	Rank	Percentage of Total City Employment	Employees	Rank	Percentage of Total City Employment
State of Arizona	37,655	1	1.97%	52,420	1	2.49%
Banner Health	36,213	2	1.89%	27,431	3	1.30%
Wal-Mart Stores Inc.	33,814	3	1.77%	31,280	2	1.49%
Wells Fargo	15,062	4	0.79%	14,000	5	0.67%
City of Phoenix	13,894	5	0.73%	16,375	4	0.78%
Arizona State University	13,480	6	0.70%	12,043	8	0.57%
Raytheon Missile Systems	12,000	7	0.63%			
HonorHealth	11,308	8	0.59%			
Dignity Health Arizona	11,206	9	0.59%			
University of Arizona	10,659	10	0.56%			
Maricopa County				12,996	6	0.62%
Apollo Group				12,299	7	0.58%
Honeywell Aerospace				10,145	9	0.48%
Bank of America				10,000	10	0.48%
Intel Corporation				10,000	10	0.48%

Source: Phoenix Business Journal Book of Lists, Arizona Department of Commerce, Workforce Development

Note: Top employers in Maricopa County. Employee counts noted above include total Arizona employees.

**Subscriber Units
Last Ten Fiscal Years**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Subscriber Units										
Member Total	18,844	18,504	18,522	18,046	18,242	17,371	17,695	18,213	17,996	14,049
Interoperability	19,417	22,537	22,576	18,976	17,574	10,143	11,682	8,390	5,727	6,639
Grand Total	38,261	41,041	41,098	37,022	35,816	27,514	29,377	26,603	23,723	20,688

System Statistics Last Five Fiscal Years

	2019	2018	2017	2016	2015
Total # of Calls	29.8 million	28.2 million	30.3 million	28.1 million	28.5 million
Total Call Duration (hours)	73,984	73,560	76,635	81,535	80,399
Total Call Duration (sec)	266 million	265 million	276 million	294 million	289 million
Average Call Duration (sec)	8.9	9.4	9.1	10.6	10.2
Average Call Per Day	81,603	77,271	82,913	76,001	77,968
Total Busies	83	131	261	530	740
Busy Duration (hours)	0.02	0.02	0.05	0.13	0.11
Total Busy Duration	71	68	177	478	700
Average Busy Duration (sec)	0.9	0.5	0.7	0.9	1.1
Average Busy per Day	0.2	0.4	0.7	1.5	2.0
Total Emergency Calls	2,890	3,473	3,415	3,519	3,854
Total Emergency Duration (hours)	24.0	31.0	27.4	29.6	9.1
Total Emergency Duration (sec)	84,802	112,483	98,640	106,156	33,173
Average Emergency Duration (sec)	29.3	32.4	28.9	30.2	8.6
Average Emergency Calls per Day	7.9	9.5	9.4	9.6	10.6
System Reliability	99.984%	99.975%	99.978%	99.968%	99.990%

Note: System Statistics for 2010 through 2014 were not available.