Attachment A



# 2019 – 2023 Capital Improvement Program

# Utilities Project Summary by Fund

### 2019 – 2023 Capital Improvement Program

### **Utilities Project Summary**

### **Table of Contents**

### Electric

Electric Distribution Overhead (CP0458)	8
Electric Distribution Underground (CP0459)	8
Electric Generation (CP0082)	8
Electric Metering (CP0435)	8
Electric Smart Grid (CP0081)	8
Electric Substation Improvements (CP0461)	9
Electric Systems Retirements (CP0591)	9
New Electric Services (CP0534)	9

### Natural Gas Aging Infrastructure

Gas Aging Infrastructure Replacement (CP0483)	10
Gas Line Retirements (CP0563)	10
Gas Main Replacements - Magma Service Area (CP0482)	10
Gas Meters New and Replacement (CP0711)	10
Gas Meters: New and Replacement (CP0496)	10
High Pressure Gas Main Installations (CP0442)	10
McKellips Road Gas Line; Lindsay to Val Vista (C10374)	11
McKellips Road Natural Gas Line; Country Club to Loop 202 (CP0221)	11
Replace Aging Utility Infrastructure (CP0649)8	11
Rio Salado Parkway Utility Line Replacement (C10385)	11
SCADA System for the Natural Gas Distribution System (C01886)	11
Stapley Road Utility Line; University to McKellips (CP0219)8	12
University Drive Utility Line; Alma School to Country Club (CP0220)	12

### Natural Gas Aging Infrastructure

Utility Line Replacement in Quarter Sections 12B & 12D (C10584)	12
Utility Line Replacement in Quarter Sections 14A & 14C (C10585)	12
Utility Line Replacement in Quarter Sections 20A & 20B (C10381)	12
Utility Line Replacement Quarter Section 21D, Clark, Pepper (C10382)	12
Utility Line Replacement Quarter Sections 13C, 21A, & 20D (C10380)	12
Warner Road Utility Infrastructure; Power to Sossaman (C10562)	13

### Natural Gas Growth

Arizona Farms Road High Pressure Main & Gate Station (CP0517)	13
EVIT CNG Fueling Station (CP0677)	13
Gas New Mains (CP0481)	13
Gas New Services (CP0480)	13
Higley Regulator Station; McDowell to Thomas (CP0181)	13
Magma Utility Service Center (CP0071)	14

### Natural Gas System Reinforcement

Regulator Station Security (C10388)14
---------------------------------------

### Streets

1st Avenue Improvements (CP0279)	15
Arterial Reconstruction (CP0861)	15
Broadway Road; Country Club to Mesa Drive (CP0029)	15
Broadway Road; Mesa Drive to Stapley (CP0666)	15
Country Club and Main Improvements (CP0856)	16
Economic Development (CP0342)	16
Ellsworth Road & University Drive Intersection (C10164)	16
Mesa Drive Phase II (C01400)	16
Southern Avenue and Stapley Drive Intersection (CP0800)	16
Southern Avenue & Country Club Drive Roadways (CP0844)	17
Southern Avenue; Gilbert Road to Val Vista Drive (CP0061)	17

### Streets

Stapley Drive and University Drive Intersection (C05041)	17
Val Vista Drive; Pueblo to US 60 (CP0062)	17

### Wastewater Contractual Obligations

91st Avenue Wastewater Treatment Plant (CN0027)18	
Wastewater Main Oversize & Extensions City Share (CN0063)18	

### Wastewater Customer Demand - Citywide

New Lift Stations (CP0617)	19
New Sewer Lines - Other Areas (CP0619)	19
Odor Control Master Plan (CP0349)	19
Sewer Line Extensions to Unsewered Areas (CP0624)	19

### Wastewater Customer Demand - Southeast Mesa

Greenfield Water Reclamation Plant Expansion (CP0067)	20
Greenfield Water Reclamation Plant Expansion - Mesa Share (CN0015)	20
New Sewer Lines - Phx Mesa Gateway Development Plan (CP0620)	20
New Sewer Lines - Southeast Mesa (CP0618)	20
Water and Wastewater Improvements at ASU Polytechnic (CP0805)	20
Williams Field Road Sewer; Ellsworth to Mountain (C10425)	20

### Wastewater Lifecycle

Diversion Structure Rehabilitation	.21
Greenfield Water Reclamation Plant Headworks/Solids Upgrade (CP0263)	.21
Greenfield Water Reclamation Plant Headworks/Solids Upgrade - CP0263 Mesa Share (CN0014)	.21
Greenfield Water Reclamation Plant Major Plant Improvements (CP0625)	.21
Greenfield Water Reclamation Plant Major Plant Improvements - CP0625 Mesa Share (CN0035)	.21
Greenfield Water Reclamation Plant Miscellaneous Plant Improvements (CP0626)	.21

### Wastewater Lifecycle

Greenfield Water Reclamation Plant Miscellaneous Plant Improvements - CP0626 Mesa Share (CN0036
Greenfield Water Reclamation Plant Equipment - CP0798 Mesa Share (CN0058)
Greenfield Water Reclamation Plant Equipment Replacement (CP0798)22
Greenfield Water Reclamation Plant Rehabilitation and Equipment - CP0797 Mesa Share (CN0057)22
Greenfield Water Reclamation Plant Rehabilitation and Equipment Replacement (CP0797)22
Greenfield Water Reclamation Plant Sludge Line Replacement (CP0590)22
Greenfield Water Reclamation Plant Sludge Line Replacement - CP0590 Mesa Share (CN0026)23
Lift Station Rehabilitation (CP0599)23
Manhole Rehabilitation (CP0600)23
Metering Station Rehabilitation (CP0616)23
Northwest Water Reclamation Plant Equipment Replacement (CP0811)23
Northwest Water Reclamation Plant Major Plant Improvements (CP0627)23
Northwest Water Reclamation Plant Miscellaneous Plant Improvements (CP0628)24
Odor Control Station Rehabilitation (CP0621)24
Sewer Line Condition Assessment (CP0622)24
Sewer Line Rehabilitation (CP0623)24
Southeast Water Reclamation Plant Equipment Replacement (CP0631)24
Southeast Water Reclamation Plant Major Plant Improvements (CP0629)25
Southeast Water Reclamation Plant Miscellaneous Plant Improvements (CP0630)

### Water Contractual Obligations

Val Vista Water Treatment Plant - Mesa Share (CN0010)26	6
White Mountain Apache Water Settlement Water Rights (CN0028)	6

### Water Customer Demand - Citywide

Desert Wells Groundwater Well; Crismon and Pecos (CP0833)27
Desert Wells Groundwater Well; Crismon and State Route 24 (CP0834)27
Desert Wells Groundwater Well; Ellsworth and Pecos (CP0832)27

### Water Customer Demand - Citywide

Desert Wells Groundwater Well; Germann and Crismon (CP0831)	27
Desert Wells Groundwater Well; Signal Butte and Pecos (CP0836)	27
Transmission Main - Other Areas (CP0646)	27
Water Extensions and Oversized Mains - City Share (CN0064)	28
Waterline Replacement (CP0814)	28
Williams Gateway Well #5; Power and Williams Field (CP0830)	28

### Water Customer Demand - Southeast Mesa

Desert Wells Groundwater Well - Crismon & Williams Field (CP0835)	29
Desert Wells Groundwater Well - Warner & Elliot (CP0829)	29
Desert Wells Groundwater Well - Warner & Ellsworth (CP0828)	29
Drill and Equip Non-Potable Well for Southeast Mesa (CP0826)	29
Future Well 1 on Crismon (between Elliott and Warner) (CP0824)	30
Future Well 2 on Crismon (at Warner) (CP0825)	30
New Groundwater Wells (CP0365)	30
New Pump Station (CP0639)	30
Signal Butte Water Treatment Plant (C01600)	30
Signal Butte Water Treatment Plant Expansion (CP0372)	30
Transmission Mains - Southeast Mesa (CP0645)	31
Well Collection Lines (CP0648)	31
Well Site Acquisition (C04048)	31

## Water Lifecycle

Aging Water Main Repairs (CP0821)	32
Aging Water Main Replacement and Rehabilitation (CP0822)	32
Brown Road Water Treatment Plant - Major Plant Improvements (CP0634)	32
Brown Road Water Treatment Plant - Miscellaneous Plant Improvements (CP0635)	32
Compliance Equipment at Water Facilities (CP0638)	32
Desert Well 6 and 7 Connection to Falcon Field Zone (CP0021)	33

## Water Lifecycle

Desert Well Zone Well Site Acquisition (CP0823)	33
Fire Hydrant Meters (CP0320)	33
Fire Hydrant Replacement (CP0636)	33
Groundwater Treatment-Arsenic (CP0827)	33
Horne Waterline Replacement; Marilyn Ave to Southern Ave (CP0366)	34
Pump Station Rehabilitation (CP0640)	34
Radio Communication Upgrade at Remote Water Facilities (CP0360)	34
Re-drill Groundwater Wells (CP0642)	34
Reservoir Rehabilitation (CP0641)	34
Signal Butte Water Treatment Plant Equipment Replacement (CP0643)	35
Val Vista Major Plant Improvements (CP0647)	35
Water Meter Vault Rehabilitation (CP0860)	35
Water Services Extension & Replacement (CP0650)	35
Water Valve Replacement (CP0651)	35

### Electric

### **Electric Distribution Overhead (CP0458)**

### CITYWIDE

Install system enhancements to ensure electric system reliability. Improvements may include replacement of electrical overhead conductors, transformers, distribution poles and devices to increase reliability and reduce operating costs.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$1,253,080	\$577,475	\$416,026	-	-	-	-	\$2,246,581
	2020 Electric Bond	-	-	-	\$630,326	\$646,800	\$663,812	\$681,305	\$2,622,243
	Sum:	\$1,253,080	\$577,475	\$416,026	\$630,326	\$646,800	\$663,812	\$681,305	\$4,868,824

### Electric Distribution Underground (CP0459)

### CITYWIDE

Provide various system improvements to include underground conductor installation, cable replacement, vault lid replacement and replacement of miscellaneous devices. These improvements are planned over several fiscal years.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$600,908	\$536,614	\$549,806	-	-	-	· -	\$1,687,328
	2020 Electric Bond	-	-	-	\$2,596,466	\$2,664,327	\$2,701,965	\$2,773,166	\$10,735,924
	Sum:	\$600,908	\$536,614	\$549,806	\$2,596,466	\$2,664,327	\$2,701,965	\$2,773,166	\$12,423,252

### **Electric Generation (CP0082)**

### CITYWIDE

Identify power supply resources, including solar power, that can be owned in whole or in part by the City of Mesa. Alternatives are being explored to improve the reliability and/or efficiency of the electric utility service.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	-	\$292,793	\$299,615	-	-	-	-	\$592,408
	2020 Electric Bond	-	-	-	\$308,077	\$316,129	\$324,444	\$332,993	\$1,281,643
	Sum:	-	\$292,793	\$299,615	\$308,077	\$316,129	\$324,444	\$332,993	\$1,874,051

### **Electric Metering (CP0435)**

### CITYWIDE

Replace electric service meters based on 20-year lifecycle criteria. In addition, replace meters based on known issues, such as potential coils that improperly register energy consumption.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
	Utility Replacement								
Capital	Extension and Renewal -								
	ELC	\$369,750	\$456,353	\$466,016	\$505,362	\$504,588	\$507,445	\$1,602,568	\$4,412,082
	Sum:	\$369,750	\$456,353	\$466,016	\$505,362	\$504,588	\$507,445	\$1,602,568	\$4,412,082

### **Electric Smart Grid (CP0081)**

### CITYWIDE

Replace obsolete technology to improve system reliability and improve the ability to identify problems quickly and respond

efficient	ly.	Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	-	\$275,225	\$119,845	-	-	-	-	\$395,070
	2020 Electric Bond	-	-	-	\$123,230	-	-	-	\$123,230
	Sum:	-	\$275,225	\$119,845	\$123,230	-	-	-	\$518,300

### Electric

### **Electric Substation Improvements (CP0461)**

### CITYWIDE

Construct improvements at electric substations to ensure long-term system reliability. These improvements will meet safety standards and improve security at the facilities.

standards and improve security at the facilities.

	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$1,042,880	\$2,568,962	-	-	-			\$3,611,842
	Sum:	\$1,042,880	\$2,568,962	-	-	-			\$3,611,842

### **Electric Systems Retirements (CP0591)**

### CITYWIDE

Replace electric system infrastructure to ensure reliability.

	_		Estimated Exp			<b>/</b>				
	Fu	ind	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	Electric		\$1,864	\$117,117	\$119,845	\$123,230	\$126,451	\$129,778	\$409,852	\$1,028,137
	Sum:		\$1,864	\$117,117	\$119,845	\$123,230	\$126,451	\$129,778	\$409,852	\$1,028,137

### **New Electric Services (CP0534)**

#### CITYWIDE

Install new electrical service wires for new customers and provide for system expansion. It will also replace existing electrical service wires to increase reliability. These improvements are planned over several fiscal years.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$806,202	\$392,761	\$394,330	-	-	-	-	\$1,593,293
	2020 Electric Bond	-	-	-	\$1,232,305	\$1,264,513	\$1,297,773	\$1,331,971	\$5,126,562
	Sum:	\$806,202	\$392,761	\$394,330	\$1,232,305	\$1,264,513	\$1,297,773	\$1,331,971	\$6,719,855

### Natural Gas Aging Infrastructure

### Gas Aging Infrastructure Replacement (CP0483)

### CITYWIDE

Replace necessary gas system infrastructure identified during the annual survey

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$2,673,847	\$2,183,598	\$2,053,141	-		··· <b>,_</b>		\$6,910,586
	2020 Gas Bond	-	-	-	\$3,721,836	\$3,764,189	\$3,992,152	\$4,167,824	\$15,646,001
	Sum:	\$2,673,847	\$2,183,598	\$2,053,141	\$3,721,836	\$3,764,189	\$3,992,152	\$4,167,824	\$22,556,587

### **Gas Line Retirements (CP0563)**

### CITYWIDE

Remove gas mains and services that are no longer needed to support the natural gas system. Inclusion of this project will ensure operational integrity of the natural gas pipeline system and the reliability of a safe energy resource to our customers.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	Natural Gas	\$276,508	\$119,119	\$121,894	\$125,337	\$128,613	\$131,996	\$416,858	\$1,320,325
	Sum:	\$276,508	\$119,119	\$121,894	\$125,337	\$128,613	\$131,996	\$416,858	\$1,320,325

### Gas Main Replacements - Magma Service Area (CP0482)

### CITYWIDE

Upgrade the existing Magma system to reduce maintenance problems and ensure operational integrity of the natural gas pipeline system.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$115	\$587,853	\$640,655	-	-	-	-	\$1,228,623
	2020 Gas Bond	-	-	-	\$702,815	\$770,898	\$844,100	\$924,296	\$3,242,109
	Sum:	\$115	\$587,853	\$640,655	\$702,815	\$770,898	\$844,100	\$924,296	\$4,470,732

### Gas Meters New and Replacement (CP0711)

#### CITYWIDE

Install gas meters citywide

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$1,008,263	\$446,023	\$454,502	-	-	-	-	\$1,908,788
	2020 Gas Bond	-	-	-	\$493,932	\$492,621	\$505,578	\$518,901	\$2,011,032
	Sum:	\$1,008,263	\$446,023	\$454,502	\$493,932	\$492,621	\$505,578	\$518,901	\$3,919,820

### Gas Meters: New and Replacement (CP0496)

#### CITYWIDE

Install gas meters citywide

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
	Utility Replacement								
Capital	Extension and Renewal -								
	GAS	\$1,216,724	\$446,023	\$454,502	\$493,932	\$492,621	\$505,578	\$1,596,672	\$5,206,052
	Sum:	\$1,216,724	\$446,023	\$454,502	\$493,932	\$492,621	\$505,578	\$1,596,672	\$5,206,052

### High Pressure Gas Main Installations (CP0442)

### CITYWIDE

Install high pressure gas main to meet anticipated growth of the City.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$152,163	\$839,108	\$901,593	-	-	-	-	\$1,892,864
	2020 Gas Bond	-	-	-	\$973,409	\$1,048,792	\$1,130,198	\$1,217,979	\$4,370,378
	Sum:	\$152,163	\$839,108	\$901,593	\$973,409	\$1,048,792	\$1,130,198	\$1,217,979	\$6,263,242

Streets bond funding is not included pending City Council direction.

### Natural Gas Aging Infrastructure

### McKellips Road Gas Line; Lindsay to Val Vista (C10374)

### COUNCIL DISTRICT 1

Install high and intermediate pressure gas main to ensure operational integrity of the natural gas system.

#### Estimated Exp

	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	-	\$126,857	\$1,549,102	-	\$1,675,959
	Sum:	-	-	-	-	\$126,857	\$1,549,102	-	\$1,675,959

### McKellips Road Natural Gas Line; Country Club to Loop 202 (CP0221)

### **COUNCIL DISTRICT 1**

Purchase and install intermediate pressure gas main for service along McKellips Road.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$29,297	\$354,746			\$384,043
	Sum:	-	-	-	\$29,297	\$354,746			\$384,043

### **Replace Aging Utility Infrastructure (CP0649)**

### CITYWIDE

Replace less efficient utility lines or lines that are beyond their support lifecycle. Timely replacement will help avoid service disruptions

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		Estimated Exp								
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years	(3)	Totals
Capital	2020 Gas Bond	-	-	-	\$1,996,134	-		-	-	\$1,996,134
	2020 Wastewater Bond	-	-	-	\$581,673	\$6,565,860		-	-	\$7,147,533
	2020 Water Bond	-	-	-	\$558,445	\$5,902,321		-	-	\$6,460,766
	Sum:	-	-	-	\$3,136,252	\$12,468,181		-	-	\$15,604,433

### **Rio Salado Parkway Utility Line Replacement (C10385)**

### **COUNCIL DISTRICT 1**

Replace intermediate pressure gas main to ensure operational integrity of the natural gas system in Mesa.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$81,545	-			\$81,545
	2020 Water Bond	-	-	-	\$461,859	-			\$461,859
	Sum:	-	-	-	\$543,404	-			\$543,404

### SCADA System for the Natural Gas Distribution System (C01886)

#### CITYWIDE

Install a Supervisory Control & Data Acquisition (SCADA) system to control and monitor all natural gas remote facilities. Natural gas remote facilities are currently monitored manually, which leads to inefficiencies and safety hazards.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	\$100	-	-	-	-			\$100
	2014 Gas Bond	\$100,247	\$142,943	-	-	-			\$243,190
	Sum:	\$100,347	\$142,943	-	-	-			\$243,290

### Stapley Road Utility Line; University to McKellips (CP0219)

### CITYWIDE

Replace gas line along Stapley Drive to ensure operational reliability of the natural gas system.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$97,897	\$2,324,800			\$2,422,697
	Sum:	-	-	-	\$97,897	\$2,324,800			\$2,422,697

### Natural Gas Aging Infrastructure

### University Drive Utility Line; Alma School to Country Club (CP0220)

### CITYWIDE

Construct system improvements along University Drive to ensure operational reliability of the natural gas system.

#### Estimated Exp Through FY 17/18 FY 18/19 Fund FY 19/20 FY 20/21 FY 21/22 FY 22/23 Future Years (3) Totals Capital 2010 Gas Bond \$35,718 \$35,718 \_ \_ ----2020 Gas Bond \$902,876 \$902,876 Sum: \_ \$35,718 \$902,876 \_ \_ \$938,594 \_ \_

### Utility Line Replacement in Quarter Sections 12B & 12D (C10584)

### **COUNCIL DISTRICT 3**

Replace aging main and service lines in plat quarter section 12B and 12D.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	-	\$290,079	-	-	-	-	\$290,079
	2020 Gas Bond	-	-	-	\$5,248,717	-	-	-	\$5,248,717
	2020 Wastewater Bond	-	-	-	-	-	\$614,666	\$7,008,878	\$7,623,544
	Sum:	-	-	\$290,079	\$5,248,717	-	\$614,666	\$7,008,878	\$13,162,340

### Utility Line Replacement in Quarter Sections 14A & 14C (C10585)

### CITYWIDE

Replace aging main and service lines in plat quarter section 14A and 14C.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	-	\$396,685	-	-			\$396,685
	2020 Gas Bond	-	-	-	\$6,318,681	-			\$6,318,681
	Sum:	-	-	\$396,685	\$6,318,681	-			\$6,715,366

#### Utility Line Replacement in Quarter Sections 20A & 20B (C10381)

### COUNCIL DISTRICT 1

Replace aging main and service lines in plat quarter section 20A and 20B.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$79,910	\$1,344,079			\$1,423,989
	2020 Water Bond	-	-	-	\$710,796	\$7,512,544			\$8,223,340
	Sum:	-	-	-	\$790,706	\$8,856,623			\$9,647,329

### Utility Line Replacement Quarter Section 21D, Clark, Pepper (C10382)

### **COUNCIL DISTRICT 4**

Replace aging main and service lines in plat quarter section 21D.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$996,892	-			\$996,892
	2020 Water Bond	-	-	-	\$477,590	\$5,047,747			\$5,525,337
	Sum:	-	-	-	\$1,474,482	\$5,047,747			\$6,522,229

### Utility Line Replacement Quarter Sections 13C, 21A, & 20D (C10380)

### CITYWIDE

Replace aging main and service lines in plat quarter section 13C, 21A and 20D.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	\$1,546,434	-	-	-	-	-	\$1,546,434
	2014 Water Bond	-	\$3,113,442	-	-	-	-	-	\$3,113,442
	Sum:	-	\$4,659,876	-	-	-	-	-	\$4,659,876

Streets bond funding is not included pending City Council direction.

### Natural Gas Aging Infrastructure

### Warner Road Utility Infrastructure; Power to Sossaman (C10562)

### **COUNCIL DISTRICT 6**

Replace aging infrastructure to avoid service disruption in the area.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$187,027	\$2,169,652			\$2,356,679
	2020 Water Bond	-	-	-	\$95,684	\$991,664			\$1,087,348
	Sum:	-	-	-	\$282,711	\$3,161,316			\$3,444,027

### Natural Gas Growth

#### Arizona Farms Road High Pressure Main & Gate Station (CP0517)

#### MAGMA

Replace aging high pressure steel main along Arizona Farms Road to increase the effective capacity of the Clausen gate station in the Magma service area. This will allow Clausen gate station to be a more effective supply point.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	-	-	\$857,973	\$8,805,812	\$9,663,785
	Sum:	-	-	-	-	-	\$857,973	\$8,805,812	\$9,663,785

### **EVIT CNG Fueling Station (CP0677)**

### **COUNCIL DISTRICT 4**

Construct a Compressed Natural Gas (CNG) fueling facility to serve the community. The construction of this facility is in cooperation

with the East Valley Institute of Technology campus on Main Street, west of Alma School Road.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$2,506,740	-			\$2,506,740
	Sum:	-	-	-	\$2,506,740	-			\$2,506,740

### Gas New Mains (CP0481)

#### CITYWIDE

Extend gas mains and services to new subdivisions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$1,934,073	\$2,982,045	\$3,356,472	-	-	-		\$8,272,590
	2020 Gas Bond	-	-	-	\$4,702,979	\$5,067,191	\$5,460,499	\$5,884,610	\$21,115,279
	Sum:	\$1,934,073	\$2,982,045	\$3,356,472	\$4,702,979	\$5,067,191	\$5,460,499	\$5,884,610	\$29,387,869

### Gas New Services (CP0480)

#### CITYWIDE

Install gas lines in new subdivision developments throughout the City and Magma Service Area.

- - - - -

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$2,354,175	\$2,751,006	\$2,955,861	-	-	-	-	\$8,061,042
	2020 Gas Bond	-	-	-	\$3,191,306	\$3,438,448	\$3,705,335	\$3,993,128	\$14,328,217
	Sum:	\$2,354,175	\$2,751,006	\$2,955,861	\$3,191,306	\$3,438,448	\$3,705,335	\$3,993,128	\$22,389,259

### **Higley Regulator Station; McDowell to Thomas (CP0181)**

#### **COUNCIL DISTRICT 5**

Construct a regulator station and other system improvements to ensure operational reliability and expansion of the natural gas

pipeline to customers in northeast Mesa. n at a start of n

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Gas Bond	\$1,122	-	\$1,777,921	-	-			\$1,779,043
	Sum:	\$1,122	-	\$1,777,921	-	-			\$1,779,043

Streets bond funding is not included pending City Council direction.

13 of 35

### Natural Gas Growth

### Magma Utility Service Center (CP0071)

### MAGMA

Construct a satellite service center for employees, vehicles, materials, tools and equipment from the Natural Gas Division, the Utility Services Section and Gas Marketing to provide service and support to the gas system and customers in the area.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$564,017	-			\$564,017
	Sum:	-	-	-	\$564,017	-			\$564,017

### Natural Gas System Reinforcement

### **Regulator Station Security (C10388)**

### CITYWIDE

Install on-site security systems to monitor and deter theft and sabotage of regulator station equipment.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	\$5,835	-	-	-	-			\$5,835
	2014 Gas Bond	-	\$65,392	\$68,065	-	-			\$133,457
	2020 Gas Bond	-	-	-	\$71,193	\$74,311	\$77,575	5 \$80,989	\$304,068
	Sum:	\$5,835	\$65,392	\$68,065	\$71,193	\$74,311	\$77,57	5 \$80,989	\$443,360

### Streets

### **1st Avenue Improvements (CP0279)**

### **COUNCIL DISTRICT 4**

Install landscaping and street improvements in areas along downtown at both 1st Avenue and Hibbert.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$905	-	-	-	-			\$905
	2014 Gas Bond	\$1,208	-	-	-	-			\$1,208
	2014 Wastewater Bond	\$4	-	-	-	-			\$4
	2014 Water Bond	\$186	-	-	-	-			\$186
	2020 Electric Bond	-	-	-	\$2,287,204	-			\$2,287,204
	2020 Gas Bond	-	-	-	\$2,166,177	-			\$2,166,177
	2020 Wastewater Bond	-	-	-	\$521,700	-			\$521,700
	2020 Water Bond	-	-	-	\$1,990,692	-			\$1,990,692
	Sum:	\$2,303	-	-	\$6,965,773	-			\$6,968,076

### **Arterial Reconstruction (CP0861)**

### CITYWIDE

Reconstruct arterial street segments that are at the end of their life cycle and can no longer be maintained by conventional means. Concurrent work will include upgrades to any concrete ramps, driveways and sidewalks to current ADA standards.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	\$540,485	-	-	-			\$540,485
	2020 Water Bond	-	-	-	\$923,718	-			\$923,718
	Sum:	-	\$540,485	-	\$923,718	-			\$1,464,203

### Broadway Road; Country Club to Mesa Drive (CP0029)

### **COUNCIL DISTRICT 4**

Construct lane extensions around the intersections and various roadway improvements from Country Club to Mesa Drive.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	-	\$480,030	-	-	-			\$480,030
	2014 Gas Bond	-	\$110,849	-	-	-			\$110,849
	2014 Water Bond	-	\$191,375	-	-	-			\$191,375
	2020 Electric Bond	-	-	-	-	\$9,191,436			\$9,191,436
	2020 Gas Bond	-	-	-	-	\$1,628,292			\$1,628,292
	2020 Water Bond	-	-	-	-	\$1,750,336			\$1,750,336
	Sum:	-	\$782,254	-	-	\$12,570,064			\$13,352,318

### **Broadway Road; Mesa Drive to Stapley (CP0666)**

#### **COUNCIL DISTRICT 4**

Address safety and capacity needs along the Broadway Road corridor from Mesa Drive to east of Stapley Road.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	-	\$156,644	-	-	-			\$156,644
	2014 Gas Bond	-	\$135,482	-	-	-			\$135,482
	2014 Water Bond	-	\$527,774	-	-	-			\$527,774
	2020 Electric Bond	-	-	-	\$2,922,965	-			\$2,922,965
	2020 Gas Bond	-	-	-	\$1,939,446	-			\$1,939,446
	2020 Water Bond	-	-	-	\$4,704,160	-			\$4,704,160
	Sum:	-	\$819,900	-	\$9,566,571	-			\$10,386,471

### Streets

### **Country Club and Main Improvements (CP0856)**

### **COUNCIL DISTRICT 4**

Construct raised median and replace utility lines in Country Club Road north of Main Street.

#### Estimated Exp Through FY 17/18 Fund FY 18/19 FY 19/20 FY 20/21 FY 21/22 FY 22/23 Future Years (3) Totals Capital 2014 Wastewater Bond -\$200,000 \$200,000 ---Sum: \$200,000 \$200,000

### **Economic Development (CP0342)**

#### CITYWIDE

Provide discretionary funding for required street improvements associated with significant economic development projects.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$388,800	\$397,859	\$409,095	-			\$1,195,754
	2014 Water Bond	-	\$713,733	\$730,362	\$750,993	-			\$2,195,088
	Sum:	-	\$1,102,533	\$1,128,221	\$1,160,088	-			\$3,390,842

### Ellsworth Road & University Drive Intersection (C10164)

### **COUNCIL DISTRICT 5**

Replace water valves that have reached the end of their support lifecycle. This work will prevent service disruptions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	-	-	-			-
	2020 Water Bond	-	-	-	-	-		- \$1,552,598	\$1,552,598
	Sum:	-	-	-	-	-		- \$1,552,598	\$1,552,598

### Mesa Drive Phase II (C01400)

### **COUNCIL DISTRICT 4**

Construct an additional through lane in all directions as well as fully-protected dual left turn lanes. Construct bus pullouts at all corners connected by detached sidewalks and new street lighting to help mitigate traffic congestion and enhance safety.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Electric Bond	\$183,132	-	-	-	-			\$183,132
	2010 Gas Bond	\$6,258	-	-	-	-			\$6,258
	2010 Water Bond	\$58,152	-	-	-	-			\$58,152
	2014 Electric Bond	-	\$1,972,250	-	-	-			\$1,972,250
	2014 Wastewater Bond	\$582	\$159,067	-	-	-			\$159,649
	2014 Water Bond	-	\$1,842,810	-	-	-			\$1,842,810
	Sum:	\$248,124	\$3,974,127	-	-	-			\$4,222,251

### Southern Avenue and Stapley Drive Intersection (CP0800)

#### **COUNCIL DISTRICT 4**

Construct dual left turn lanes, and additional through lanes and existing gas and storm sewer infrastructure.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	\$439	\$228,956	\$2,903,409	-	-			\$3,132,804
	2014 Water Bond	\$276	\$276,866	-	-	-			\$277,142
	Sum:	\$715	\$505,822	\$2,903,409	-	-			\$3,409,946

### Streets

### Southern Avenue & Country Club Drive Roadways (CP0844)

### **COUNCIL DISTRICT 4**

Reconstruct two major arterials where pavement is failing. The two segments are Southern; Alma School to Center and Country Club; US 60 to 1st Ave

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	-	\$79,657	\$1,956,022	-	-	-	\$2,035,679
	2014 Electric Bond	-	-	\$28,392	\$361,303	-	-	-	\$389,695
	2020 Wastewater Bond	-	-	-	-	-	\$653,475	-	\$653,475
	2020 Water Bond	-	-	-	\$4,108,883	-	-	-	\$4,108,883
	Sum:	-	-	\$108,049	\$6,426,208	-	\$653,475	-	\$7,187,732

### Southern Avenue; Gilbert Road to Val Vista Dr (CP0061)

### **COUNCIL DISTRICT 4**

Improve Southern Avenue including intersection at Lindsay Road, right-of-way acquisition, pedestrian ramps, street light relocation, and pavement reconstruction.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	\$151,858	-	-			\$151,858
	2020 Wastewater Bond	-	-	-	\$25,091	\$259,916			\$285,007
	2020 Water Bond	-	-	-	\$1,577,080	-			\$1,577,080
	Sum:	-	-	\$151,858	\$1,602,171	\$259,916			\$2,013,945

### Stapley Drive and University Drive Intersection (C05041)

### **COUNCIL DISTRICT 4**

Construct an additional left turn lane and right turn lane in all directions to reduce traffic congestion at this intersection. This project has been identified as a Regional Transportation Plan project.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	-	-	\$19,684	-	-			\$19,684
	2014 Water Bond	-	-	\$93,056	-	-			\$93,056
	2020 Gas Bond	-	-	-	\$489,347	-			\$489,347
	2020 Water Bond	-	-	-	\$957,226	-			\$957,226
	Sum:	-	-	\$112,740	\$1,446,573	-			\$1,559,313

### Val Vista Drive; Pueblo to US 60 (CP0062)

#### COUNCIL DISTRICT 2

Improve Val Vista Drive between Pueblo and US 60. Construction work will mitigate traffic delays and congestion and enhance safety.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Gas Bond	-	-	-	\$130,476	\$2,234,569			\$2,365,045
	2020 Water Bond	-	-	-	\$183,394	\$1,900,690			\$2,084,084
	Sum:	-	-	-	\$313,870	\$4,135,259			\$4,449,129

### Wastewater Contractual Obligations

### 91st Avenue Wastewater Treatment Plant (CN0027)

### CITYWIDE

Fund the City of Mesa's portion of operational and facility upgrades to the 91st Avenue Plant. Mesa is a member of the Sub-Regional Operating Group (SROG). Per an Intergovernmental Agreement with SROG, Mesa shares in the cost of improvements.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$2,100,000	-	-	-	-	-	\$2,100,000
	2014 Wastewater Bond	\$4,157,233	\$5,213,723	\$5,035,438	\$2,478,729	-	-	-	\$16,885,123
	2020 Wastewater Bond	-	-	-	\$1,812,970	\$3,817,775	\$5,928,335	\$12,324,260	\$23,883,340
	Sum:	\$4,157,233	\$7,313,723	\$5,035,438	\$4,291,699	\$3,817,775	\$5,928,335	\$12,324,260	\$42,868,463

### Wastewater Main Oversize & Extensions City Share (CN0063)

### CITYWIDE

Fund reimbursements to developers for construction of new wastewater extensions and oversized mains to meet the City's need and provide service to new development.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$162,000	\$165,775	-	-	-		\$327,775
	2020 Wastewater Bond	-	-	-	\$170,456	\$174,911	\$179,512	\$184,243	\$709,122
	Sum:	-	\$162,000	\$165,775	\$170,456	\$174,911	\$179,512	\$184,243	\$1,036,897

### Wastewater Customer Demand - Citywide

New Lift Stations (CP0617)

### COUNCIL DISTRICT 2

Construct new wastewater lift stations to serve projected growth in currently undeveloped areas that can not be totally served by a

gravity sewer system.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	\$1,254,628	\$6,634,381	\$10,752,248	-	\$18,641,257
	Sum:	-	-	-	\$1,254,628	\$6,634,381	\$10,752,248	-	\$18,641,257

### **New Sewer Lines - Other Areas (CP0619)**

#### **COUNCIL DISTRICT 6**

Construct new sewer lines in undeveloped areas other than southeast Mesa to serve projected growth and areas currently served by on-site septic systems.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	\$1,953,440	\$2,945,815	\$2,903,668	-	\$7,802,923
	Sum:	-	-	-	\$1,953,440	\$2,945,815	\$2,903,668	-	\$7,802,923

### **Odor Control Master Plan (CP0349)**

#### CITYWIDE

Identify and correct major odor-causing compounds at the Northwest Water Reclamation Plant and in the vicinity of Baseline/Loop 101. Odor control is a sensitive issue and closely tied to public relations.

Estimated Exp Through FY 17/18 FY 18/19 FY 19/20 FY 21/22 Fund FY 20/21 FY 22/23 Future Years (3) Totals Capital 2010 Wastewater Bond \$59,005 \$372,374 \$431,379 ---2020 Wastewater Bond \$2,430,940 \$681,826 \$1,749,114 --\$2,862,319 \$59,005 \$372,374 -\$681,826 \$1,749,114 Sum: --

### Sewer Line Extensions to Unsewered Areas (CP0624)

### CITYWIDE

Install trunk and lateral sewers to serve residential areas currently served by failing on-site septic systems.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$1,454,121	-	-	-	-	-	-	\$1,454,121
	2020 Wastewater Bond	-	-	-	\$568,396	\$2,003,166	\$2,285,168	\$2,126,908	\$6,983,638
	Sum:	\$1,454,121	-	-	\$568,396	\$2,003,166	\$2,285,168	\$2,126,908	\$8,437,759

### Wastewater Customer Demand - Southeast Mesa

**Greenfield Water Reclamation Plant Expansion (CP0067)** 

### CITYWIDE

Construct additional treatment capacity to meet the increasing wastewater flows to the Greenfield Water Reclamation Plant. The towns of Gilbert and Queen Creek are sharing in the cost of the plant expansion.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Caraital	Greenfield WRP Joint								
Capital	Venture Greenfield WRP Joint	\$14,725,759	\$131,335,490	\$50,056,300	\$242,672	-	-	-	\$196,360,221
0&M	Venture	-	-	\$1,880,173	\$2,012,393	\$2,065,376	\$2,116,612	-	\$8,074,554
	Sum:	\$14,725,759	\$131,335,490	\$51,936,473	\$2,255,065	\$2,065,376	\$2,116,612	-	\$204,434,775

### **Greenfield Water Reclamation Plant Expansion - Mesa Share (CN0015)**

#### CITYWIDE

Construct additional treatment capacity to meet the increasing wastewater flows to the Greenfield Water Reclamation Plant. The towns of Gilbert and Queen Creek will share in the cost of the plant expansion.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	\$538,059	-	-	-	-			\$538,059
	2014 Wastewater Bond	\$7,782,265	\$79,195,300	\$30,183,949	\$146,332	-			\$117,307,846
	Sum:	\$8,320,324	\$79,195,300	\$30,183,949	\$146,332	-			\$117,845,905

### New Sewer Lines - Phx Mesa Gateway Development Plan (CP0620)

#### **COUNCIL DISTRICT 6**

Construct new sewer lines to serve development in the Phoenix Mesa Gateway Airport Northeast Development Area.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	-	\$260,049	\$1,413,126	\$243,912	\$1,348,726			\$3,265,813
	2014 Water Bond	-	-	-	\$733,533	\$6,002,912			\$6,736,445
	Sum:	-	\$260,049	\$1,413,126	\$977,445	\$7,351,638			\$10,002,258

### **New Sewer Lines - Southeast Mesa (CP0618)**

#### **COUNCIL DISTRICT 6**

Construct new sewer lines in the area bounded by Elliot, Power, Germann, and Meridian Roads to serve development in southeast Mesa.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	\$364,025	\$3,644,647	\$6,548,541	\$5,557,242	\$16,114,455
	Sum:	-	-	-	\$364,025	\$3,644,647	\$6,548,541	\$5,557,242	\$16,114,455

### Water and Wastewater Improvements at ASU Polytechnic (CP0805)

### **COUNCIL DISTRICT 6**

Provide necessary water and wastewater infrastructure improvements to handle project flows from the ASU Polytechnic Campus and to maintain service reliability in the area.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$212,644	\$2,159,864	-	-			\$2,372,508
	Sum:	-	\$212,644	\$2,159,864	-	-			\$2,372,508

### Williams Field Road Sewer; Ellsworth to Mountain (C10425)

### **COUNCIL DISTRICT 6**

Install sewer line along State Route 24 and Williams Field Road from Mountain to Ellsworth to serve future development.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$113,847	\$1,226,465	-	-			\$1,340,312
	Sum:	-	\$113,847	\$1,226,465	-	-			\$1,340,312

### Wastewater Lifecycle

#### **Diversion Structure Rehabilitation (CP0598)**

### CITYWIDE

Rehabilitate wastewater diversion structures that have deteriorated due to age and corrosion to extend the life and operability of the structures. Work will include repair and recoating of deteriorated concrete and control gates.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	-	-	\$122,673	-	-	-	-	\$122,673
	2020 Wastewater Bond	-	-	-	\$134,093	\$137,597	\$141,216	\$144,937	\$557,843
	Sum:	-	-	\$122,673	\$134,093	\$137,597	\$141,216	\$144,937	\$680,516

### Greenfield Water Reclamation Plant Headworks/Solids Upgrade (CP0263)

### CITYWIDE

Replace the bus duct systems at both the solids and headworks buildings with conduit and wire systems to eliminate the possibility of future failures due to water intrusion.

Estimated Exp

	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2006 Wastewater Bond	\$7,916	-	-	-	-			\$7,916
	Sum:	\$7,916	-	-	-	-			\$7,916

### Greenfield Water Reclamation Plant Headworks/Solids Upgrade - CP0263 Mesa Share (CN0014)

### CITYWIDE

Replace the bus duct systems at both the solids and headworks buildings with conduit and wire systems to eliminate the possibility of future failures due to water intrusion.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2006 Wastewater Bond	\$9	-	-	-	-			\$9
	2014 Wastewater Bond	\$20,798	\$319,154	-	-	-			\$339,952
	Sum:	\$20,807	\$319,154	-	-	-			\$339,961

### **Greenfield Water Reclamation Plant Major Plant Improvements (CP0625)**

#### CITYWIDE

Replace and/or modify major equipment or systems to improve plant performance and ensure compliance with regulatory

require	ments.								
		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Constrat	Greenfield WRP Joint								
Capital	Venture	-	-	-	-	\$1,865,722	\$12,565,854	\$1,033,258	\$15,464,834
	Sum:	-	-	-	-	\$1,865,722	\$12,565,854	\$1,033,258	\$15,464,834

### Greenfield Water Reclamation Plant Major Plant Improvements - CP0625 Mesa Share (CN0035)

### CITYWIDE

Replace and/or modify major equipment or systems to improve plant performance and ensure compliance with regulatory

requirements.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	-	\$1,125,030	\$7,577,210	) -	\$8,702,240
	Sum:	-	-	-	-	\$1,125,030	\$7,577,210	) -	\$8,702,240

### Greenfield Water Reclamation Plant Miscellaneous Plant Improvements (CP0626)

#### CITYWIDE

Modify and/or rehabilitate existing systems, install new systems, and replace equipment that has reached it's useful life at the Greenfield Water Reclamation Plant. This work will improve plant operations and reliability.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Canital	Greenfield WRP Joint								
Capital	Venture	\$2,663,631	\$249,998	\$255,822	\$860,805	\$1,999,821	\$2,115,252	\$7,388,786	\$15,534,115
	Sum:	\$2,663,631	\$249,998	\$255,822	\$860,805	\$1,999,821	\$2,115,252	\$7,388,786	\$15,534,115

Streets bond funding is not included pending City Council direction.

21 of 35

### Wastewater Lifecycle

### Greenfield Water Reclamation Plant Miscellaneous Plant Improvements - CP0626 Mesa Share (CN0036) CITYWIDE

Modify and/or rehabilitate existing systems, install new systems, and replace equipment that has reached its useful life at the Greenfield Water Reclamation Plant. Improve plant operations and reliability.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$763,696	-	-	-	-	-	· -	\$763,696
	2020 Wastewater Bond	-	-	-	\$519,065	\$1,205,892	\$1,275,497	\$1,309,108	\$4,309,562
	Sum:	\$763,696	-	-	\$519,065	\$1,205,892	\$1,275,497	\$1,309,108	\$5,073,258

#### Greenfield Water Reclamation Plant Plant Equipment - CP0798 Mesa Share (CN0058)

### CITYWIDE

Fund Mesa's cost share to replace the primary Bulgear and Level transmitters at the plant.

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		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$31,260	-	-	-	-	-	· -	\$31,260
	2020 Wastewater Bond	-	-	-	-	\$386,167	\$306,083	-	\$692,250
	Sum:	\$31,260	-	-	-	\$386,167	\$306,083	-	\$723,510

### **Greenfield Water Reclamation Plant Plant Equipment Replacement (CP0798)**

### CITYWIDE

Replace the primary Bulgear and Level transmitters at the plant.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Constrat	Greenfield WRP Joint								
Capital	Venture	-	-	-	-	\$640,409	\$507,601	-	\$1,148,010
	Sum:	-	-	-	-	\$640,409	\$507,601	-	\$1,148,010

### Greenfield Water Reclamation Plant Plant Rehabilitation and Equipment - CP0797 Mesa Share (CN0057)

### CITYWIDE

Fund Mesa's cost share to rebuild/replace equipment to minimize system downtime and ensure efficient operation at the plant.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	\$3,135	\$125,484	-	-	-	-	-	\$128,619
	2020 Wastewater Bond	-	-	-	\$102,785	\$725,279	\$133,637	-	\$961,701
	Sum:	\$3,135	\$125,484	-	\$102,785	\$725,279	\$133,637	-	\$1,090,320

#### Greenfield Water Reclamation Plant Plant Rehabilitation and Equipment Replacement (CP0797)

### CITYWIDE

Rebuild/Replace equipment to minimize system downtime and ensure efficient operation at the plant.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
	Greenfield WRP Joint	<b>U</b> .	•	•	•	•	•		
Capital	Venture	\$12,367	\$300,202	-	\$170,456	\$1,202,785	\$221,621	-	\$1,907,431
	Sum:	\$12,367	\$300,202	-	\$170,456	\$1,202,785	\$221,621	-	\$1,907,431

### **Greenfield Water Reclamation Plant Sludge Line Replacement (CP0590)**

### CITYWIDE

Replace piping in the solids handling building that has deteriorated due to corrosion and is subject to failure.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Canital	Greenfield WRP Joint								
Capital	Venture	\$45,875	\$582,304	-	-	\$2,159,572	\$2,216,377	\$6,999,561	\$12,003,689
	Sum:	\$45,875	\$582,304	-	-	\$2,159,572	\$2,216,377	\$6,999,561	\$12,003,689

Streets bond funding is not included pending City Council direction.

### Wastewater Lifecycle

## Greenfield Water Reclamation Plant Sludge Line Replacement - CP0590 Mesa Share (CN0026)

Replace piping in the solids handling building that has deteriorated due to corrosion and is subject to failure.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	\$19,348	\$243,403	-	-	-	-	-	\$262,751
	2020 Wastewater Bond	-	-	-	-	\$1,302,222	\$1,336,475	\$1,371,693	\$4,010,390
	Sum:	\$19,348	\$243,403	-	-	\$1,302,222	\$1,336,475	\$1,371,693	\$4,273,141

### Lift Station Rehabilitation (CP0599)

#### CITYWIDE

Replace existing equipment that is no longer functional or has reached it's useful life to maintain adequate levels of service and bring the facilities into conformance with current design standards and specifications.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$497	\$16,330	\$29,840	-	-	-	· -	\$46,667
	2020 Wastewater Bond	-	-	-	\$359,095	\$3,120,420	\$105,913	\$299,089	\$3,884,517
	Sum:	\$497	\$16,330	\$29,840	\$359,095	\$3,120,420	\$105,913	\$299,089	\$3,931,184

### Manhole Rehabilitation (CP0600)

### CITYWIDE

Rehabilitate manholes that have deteriorated due to the corrosive environment of the wastewater system. Rehabbing the manholes

will extend their useful life and prevent structural failures.

		Estimated Exp							
_	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$1,486,102	-	-	-			\$1,486,102
	Sum:	-	\$1,486,102	-	-	-			\$1,486,102

### **Metering Station Rehabilitation (CP0616)**

### CITYWIDE

Rehabilitate deteriorated structures and replace equipment that is no longer functional to maintain adequate levels of service and bring the facilities into conformance with current design standards and specifications.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	-	\$22,086	\$22,601	-	-	-	-	\$44,687
	2020 Wastewater Bond	-	-	-	\$30,682	\$31,484	\$32,312	\$33,165	\$127,643
	Sum:	-	\$22,086	\$22,601	\$30,682	\$31,484	\$32,312	\$33,165	\$172,330

### Northwest Water Reclamation Plant Equipment Replacement (CP0811)

### COUNCIL DISTRICT 1

Replace process equipment at the Northwest Water Reclamation Plant that has reached the end of its useful life.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	\$857,964	\$880,388	\$903,545	\$927,355	\$3,569,252
	Sum:	-	-	-	\$857,964	\$880,388	\$903,545	\$927,355	\$3,569,252

### Northwest Water Reclamation Plant Major Plant Improvements (CP0627)

### COUNCIL DISTRICT 1

Replace and/or modify major equipment or systems to improve plant performance and ensure compliance with regulatory requirements.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$35,213	-	-	-	-	-	-	\$35,213
	2020 Wastewater Bond	-	-	-	\$909,101	\$7,696,102	\$8,377,236	-	\$16,982,439
	Sum:	\$35,213	-	-	\$909,101	\$7,696,102	\$8,377,236	-	\$17,017,652

### Wastewater Lifecycle

### Northwest Water Reclamation Plant Miscellaneous Plant Improvements (CP0628)

### **COUNCIL DISTRICT 1**

Modify and/or rehabilitate existing systems, install new systems, and replace equipment at the Northwest Water Reclamation Plant.

This work will improve plant operations and reliability.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	-	\$1,116,200	-	-	-	-	-	\$1,116,200
	2014 Wastewater Bond	\$8,163	-	-	-	-	-	-	\$8,163
	2020 Wastewater Bond	-	-	-	\$863,646	\$932,861	\$4,786,992	\$3,684,852	\$10,268,351
	Sum:	\$8,163	\$1,116,200	-	\$863,646	\$932,861	\$4,786,992	\$3,684,852	\$11,392,714

### Odor Control Station Rehabilitation (CP0621)

### CITYWIDE

Replace existing equipment that is no longer reliable to maintain adequate levels of service and bring the facilities into conformance with current design standards and specifications.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$8,567	\$317,723	\$48,834	-	-	-	-	\$375,124
	2020 Wastewater Bond	-	-	-	\$210,798	\$1,876,217	\$2,417,432	\$62,030	\$4,566,477
	Sum:	\$8,567	\$317,723	\$48,834	\$210,798	\$1,876,217	\$2,417,432	\$62,030	\$4,941,601

### Sewer Line Condition Assessment (CP0622)

### CITYWIDE

CCTV inspection and evaluation to determine condition of lines and what rehabilitation is needed.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$600,918	\$433,620	\$439,303	-	-	-	-	\$1,473,841
	2020 Wastewater Bond	-	-	-	\$456,255	\$468,180	\$480,494	\$493,156	\$1,898,085
	Sum:	\$600,918	\$433,620	\$439,303	\$456,255	\$468,180	\$480,494	\$493,156	\$3,371,926

### Sewer Line Rehabilitation (CP0623)

#### CITYWIDE

Rehabilitate and/or replace defective pipe in the wastewater collection system to prevent catastrophic failures and maintain a high level of service. These defective lines were identified through the wastewater asset management program.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Wastewater Bond	\$238,649	\$197,261	\$201,857	-	-	-	-	\$637,767
	2020 Wastewater Bond	-	-	-	\$3,035,497	\$17,905,747	\$9,000,874	\$2,525,799	\$32,467,917
	Sum:	\$238,649	\$197,261	\$201,857	\$3,035,497	\$17,905,747	\$9,000,874	\$2,525,799	\$33,105,684

### Southeast Water Reclamation Plant Equipment Replacement (CP0631)

### COUNCIL DISTRICT 6

Replace existing equipment at Southeast Water Reclamation Plant on an as needed basis.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	- -	-		\$430,403	\$700,520	\$453,268	\$465,213	\$2,049,404
	Sum:	-	-	-	\$430,403	\$700,520	\$453,268	\$465,213	\$2,049,404

### Wastewater Lifecycle

### Southeast Water Reclamation Plant Major Plant Improvements (CP0629)

### COUNCIL DISTRICT 6

Replace and/or modify major equipment or systems to improve plant performance and ensure compliance with regulatory requirements.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Wastewater Bond	-	-	-	-	\$1,166,076	\$6,043,577	-	\$7,209,653
	Sum:	-	-	-	-	\$1,166,076	\$6,043,577	-	\$7,209,653

### Southeast Water Reclamation Plant Miscellaneous Plant Improvements (CP0630)

### **COUNCIL DISTRICT 6**

Modify and/or rehabilitate existing systems, install new systems, and replace equipment at the Southeast Water Reclamation Plant.

This work will improve plant operations and reliability.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Wastewater Bond	\$408	-	-	-	-	-	-	\$408
	2014 Wastewater Bond	\$207,160	\$55,000	-	-	-	-	-	\$262,160
	2020 Wastewater Bond	-	-	-	\$2,614,564	\$2,397,182	\$1,195,551	\$1,227,056	\$7,434,353
	Sum:	\$207,568	\$55,000	-	\$2,614,564	\$2,397,182	\$1,195,551	\$1,227,056	\$7,696,921

### Water Contractual Obligations

### Val Vista Water Treatment Plant - Mesa Share (CN0010)

### CITYWIDE

Fund the City's portion of the operations and maintenance cost of the Val Vista Water Treatment Plant per the Intergovernmental Agreement with the City of Phoenix.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$8,854,710	\$3,385,302	\$10,446,264	\$5,614,927	-	-	-	\$28,301,203
	2020 Water Bond	-	-	-	\$760,829	\$1,382,539	\$3,878,350	\$8,062,600	\$14,084,318
	Sum:	\$8,854,710	\$3,385,302	\$10,446,264	\$6,375,756	\$1,382,539	\$3,878,350	\$8,062,600	\$42,385,521

### White Mountain Apache Water Settlement Water Rights (CN0028)

#### CITYWIDE

Lease Central Arizona Project (CAP) canal water rights from the White Mountain Apache Tribe for 100 years. Long-term leasing of the water rights will help ensure the City's water supply.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$3,700,000	\$3,786,210	-	-			\$7,486,210
	Sum:	-	\$3,700,000	\$3,786,210	-	-			\$7,486,210

### Water Customer Demand Citywide

### Desert Wells Groundwater Well; Crismon and Pecos (CP0833)

### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in Southeast Mesa near Crismon and Pecos to provide water during CAP dryups.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$278,833	-			\$278,833
	Sum:	-	-	-	\$278,833	-			\$278,833

### Desert Wells Groundwater Well; Crismon and State Route 24 (CP0834)

### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in Southeast Mesa near Crismon and State Route 24 to provide water during CAP dryups.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-			-	\$293,647	-	\$293,647
	Sum:	-	-	-	-	-	\$293,647	-	\$293,647

### Desert Wells Groundwater Well; Ellsworth and Pecos (CP0832)

#### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in Southeast Mesa near Ellsworth and Pecos to provide water during CAP dryups.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$451,709	\$2,009,710	\$1,623,278	-	\$4,084,697
	Sum:	-	-	-	\$451,709	\$2,009,710	\$1,623,278	-	\$4,084,697

#### Desert Wells Groundwater Well; Germann and Crismon (CP0831)

### COUNCIL DISTRICT 6

Drill and equip a new groundwater well in southeast Mesa near Germann and Crismon to provide water during CAP canal dryups.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$278,833	-			\$278,833
	Sum:	-	-	-	\$278,833	-			\$278,833

### **Desert Wells Groundwater Well; Signal Butte and Pecos (CP0836)**

### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in Southeast Mesa near Signal Butte and Pecos to provide water during CAP dryups.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$451,709	\$2,009,710	\$1,623,278	-	\$4,084,697
	Sum:	-	-	-	\$451,709	\$2,009,710	\$1,623,278	-	\$4,084,697

### Transmission Main - Other Areas (CP0646)

### CITYWIDE

Construct various large diameter water mains throughout the City as identified in the water master plan. These improvements are needed to keep pace with demand.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$1,420,376	\$1,457,498	\$15,556,864	\$15,966,809	\$34,401,547
	Sum:	-	-	-	\$1,420,376	\$1,457,498	\$15,556,864	\$15,966,809	\$34,401,547

### Water Customer Demand Citywide

### Water Extensions and Oversized Mains - City Share (CN0064)

### CITYWIDE

City Share for developer constructed waterlines that are larger than 16-inch diameter.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$200,000	\$204,660	-	-	-	· -	\$404,660
	2020 Water Bond	-	-	-	\$210,440	\$215,940	\$221,620	\$227,460	\$875,460
	Sum:	-	\$200,000	\$204,660	\$210,440	\$215,940	\$221,620	\$227,460	\$1,280,120

### Waterline Replacement (CP0814)

#### CITYWIDE

Replace waterline with highest breakage risk. Waterlines will be inspected and prioritized for replacement based on risk of breakage.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$12,833	\$756,948	\$921,364	-	-	-		\$1,691,145
	2020 Water Bond	-	-	-	\$1,603,763	\$1,739,607	\$1,362,681	\$1,675,663	\$6,381,714
	Sum:	\$12,833	\$756,948	\$921,364	\$1,603,763	\$1,739,607	\$1,362,681	\$1,675,663	\$8,072,859

### Williams Gateway Well #5; Power and Williams Field (CP0830)

### **COUNCIL DISTRICT 6**

Re-drill and equip Williams Gateway Well #5 to provide water during CAP dryups.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864
	Sum:	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864

### Water Customer Demand - Southeast Mesa

### Desert Wells Groundwater Well - Crismon & Williams Field (CP0835)

### **COUNCIL DISTRICT 6**

Replace water valves that have reached the end of their support lifecycle. This work will prevent service disruptions.

#### Estimated Exp

	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	-	-	-			-
	2020 Water Bond	-	-	-	-	-		- \$301,385	\$301,385
	Sum:	-	-	-	-	-		- \$301,385	\$301,385

### **Desert Wells Groundwater Well - Warner & Elliot (CP0829)**

### **COUNCIL DISTRICT 6**

Replace water valves that have reached the end of their support lifecycle. This work will prevent service disruptions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	-	-	-			-
	2020 Water Bond	-	-	-	-	-		- \$4,109,661	\$4,109,661
	Sum:	-	-	-	-	-		- \$4,109,661	\$4,109,661

### Desert Wells Groundwater Well - Warner & Ellsworth (CP0828)

### **COUNCIL DISTRICT 6**

Replace water services that have reached the end of their support lifecycle. Timely replacement will prevent service disruptions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	-	-	-			-
	2020 Water Bond	-	-	-	-	-		- \$4,109,661	\$4,109,661
	Sum:	-	-	-	-	-		- \$4,109,661	\$4,109,661

### Drill and Equip Non-Potable Well for Southeast Mesa (CP0826)

### COUNCIL DISTRICT 6

Drill and equip a new non-potable groundwater well in the DMB Development to provide water during CAP dryups.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$1,351,576	\$1,262,685			\$2,614,261
	Sum:	-	-	-	\$1,351,576	\$1,262,685			\$2,614,261

### Water Customer Demand - Southeast Mesa

### Future Well 1 on Crismon (between Elliott and Warner) (CP0824)

### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in southeast Mesa to provide water during CAP canal dryups.

#### Estimated Exp

	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23 Future	e Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864
	Sum:	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864

### Future Well 2 on Crismon (at Warner) (CP0825)

### **COUNCIL DISTRICT 6**

Drill and equip a new groundwater well in the DMB Development to provide water during CAP dryups.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864
	Sum:	-	-	-	\$172,876	\$2,009,710	\$1,623,278	-	\$3,805,864

### **New Groundwater Wells (CP0365)**

### **COUNCIL DISTRICT 6**

Drill new groundwater wells to meet growing service demands. The need for new wells was identified in the Water Master Plan.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$47,805	-	-	-	-			\$47,805
	Sum:	\$47,805	-	-	-	-			\$47,805

### **New Pump Station (CP0639)**

#### **COUNCIL DISTRICT 6**

Construct new pump stations to meet the growing water demand. The Water Master Plan identified the need for additional pumping capacity.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$376,870	\$3,970,094	\$855,099	\$10,074,462	\$15,276,525
	Sum:	-	-	-	\$376,870	\$3,970,094	\$855,099	\$10,074,462	\$15,276,525

### Signal Butte Water Treatment Plant (C01600)

### COUNCIL DISTRICT 6

Construct the first phase of a plant with a water treatment capacity of 24 million gallons per day to serve Southeast Mesa. Treated

water will flow into an existing finished water reservoir and pump station.

Fature de la Francia

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Water Bond	\$33,483	-	-	-	-	-	-	\$33,483
	2014 Water Bond	\$121,450,000	-	-	-	-	-	-	\$121,450,000
0&M	Water	-	\$691,740	\$1,467,996	\$1,509,216	\$1,548,447	\$1,588,956	\$5,016,778	\$11,823,133
	Sum:	\$121,483,483	\$691,740	\$1,467,996	\$1,509,216	\$1,548,447	\$1,588,956	\$5,016,778	\$133,306,616

### Signal Butte Water Treatment Plant Expansion (CP0372)

### **COUNCIL DISTRICT 6**

Construct additional treatment capacity at the plant to meet growth demands in southeast Mesa.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$557,666	\$5,722,410	\$42,696,201	\$43,821,306	\$92,797,583
	Sum:	-	-	-	\$557,666	\$5,722,410	\$42,696,201	\$43,821,306	\$92,797,583

### Water Customer Demand - Southeast Mesa

**Transmission Mains - Southeast Mesa (CP0645)** 

### **COUNCIL DISTRICT 6**

Construct various large diameter water mains in southeast Mesa. The Water Master Plan identified the need for water transmission mains to meet water demand.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$265,000	-	-	-	-		\$265,000
	2020 Water Bond	-	-	-	\$2,129,999	\$23,073,707	\$164,442	\$4,784,669	\$30,152,817
	Sum:	-	\$265,000	-	\$2,129,999	\$23,073,707	\$164,442	\$4,784,669	\$30,417,817

### Well Collection Lines (CP0648)

### **COUNCIL DISTRICT 6**

Construct the waterlines that convey groundwater from new wells to the City's reservoirs, where the water is pumped into the

distribution system. The Water Master Plan has identified new groundwater wells that need to be installed to meet water demands.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	-	\$315,877	\$3,356,967	\$23,124,485	\$26,797,329
	Sum:	-	-	-	-	\$315,877	\$3,356,967	\$23,124,485	\$26,797,329

### Well Site Acquisition (C04048)

### COUNCIL DISTRICT 6

Acquire land for additional well sites needed in the Desert Wells service zone.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital 20	014 Water Bond	\$5,222	\$265,000	\$271,175	-	-			\$541,397
S	um:	\$5,222	\$265,000	\$271,175	-	-			\$541,397

### Water Lifecycle

### Aging Water Main Repairs (CP0821)

### CITYWIDE

Make needed emergency repairs to pipe breaks on aging waterlines.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$583,000	\$596,584	\$613,433	\$629,465	\$646,022	\$663,046	\$3,731,550
	Sum:	-	\$583,000	\$596,584	\$613,433	\$629,465	\$646,022	\$663,046	\$3,731,550

### Aging Water Main Replacement and Rehabilitation (CP0822)

#### CITYWIDE

Identify and replace or rehabilitate aging waterlines based on risk analysis priority.

_	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$56,869	-	-	-	-	-		\$56,869
	2020 Water Bond	-	-	-	\$1,330,972	\$10,433,899	\$10,419,166	\$10,271,787	\$32,455,824
	Sum:	\$56,869	-	-	\$1,330,972	\$10,433,899	\$10,419,166	\$10,271,787	\$32,512,693

### Brown Road Water Treatment Plant - Major Plant Improvements (CP0634)

### **COUNCIL DISTRICT 5**

Rehabilitate/replace major equipment & materials at the Brown Road Water Treatment Plant. Work includes possible replacement of the following: leaking valves actuators & controls, filter underdrains, reservoir liner, and the electric SES Service.

	Fund	Estimated Exp Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$297,421	\$3,387,665	\$3,476,775	\$3,246,915	\$10,408,776
	Sum:	-	-	-	\$297,421	\$3,387,665	\$3,476,775	\$3,246,915	\$10,408,776

### Brown Road Water Treatment Plant - Miscellaneous Plant Improvements (CP0635)

### **COUNCIL DISTRICT 5**

Rehabilitate/replace equipment & materials at the plant. Work includes some of the following: bulk chemical tanks, pump & piping, sledge pumps & valves, chlorine & chemical feed systems, etc.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$453,680	-	-	-	-	-	\$453,680
	2020 Water Bond	-	-	-	\$2,539,614	\$8,534,015	\$8,084,089	\$5,849,874	\$25,007,592
	Sum:	-	\$453,680	-	\$2,539,614	\$8,534,015	\$8,084,089	\$5,849,874	\$25,461,272

### **Compliance Equipment at Water Facilities (CP0638)**

### CITYWIDE

Replace lab compliance equipment prior to failure so that the City can remain in compliance with federal regulation. The lab is responsible for regulatory compliance analysis samples at the water plant and other water facilities.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$128,131	-	-	-	-			\$128,131
	2020 Wastewater Bond	-	-	-	-	\$362,796			\$362,796
	2020 Water Bond	-	-	-	\$557,666	\$1,518,013			\$2,075,679
	Sum:	\$128,131	-	-	\$557,666	\$1,880,809			\$2,566,606

### Water Lifecycle

### Desert Well 6 and 7 Connection to Falcon Field Zone (CP0021)

### **COUNCIL DISTRICT 6**

Connect groundwater wells Desert Wells 6 and 7 directly to the Falcon Field Zone. This will increase groundwater well production, by reducing total dynamic head requirements and will add more flexibility to the system.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Water Bond	\$11,810	-	-	-	-			\$11,810
	2020 Water Bond	-	-	-	\$446,133	-			\$446,133
	Sum:	\$11,810	-	-	\$446,133	-			\$457,943

### **Desert Well Zone Well Site Acquisition (CP0823)**

#### **COUNCIL DISTRICT 6**

Purchase land for two future wells sites in the DMB development.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$278,833	\$286,121			\$564,954
	Sum:	-	-	-	\$278,833	\$286,121			\$564,954

### Fire Hydrant Meters (CP0320)

### CITYWIDE

Purchase fire hydrant meters to ensure accurate measurement of construction water usage is captured to maintain water revenues.

These improvements are planned over several fiscal years. This funds the purchase of meters only.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$26,540	\$15,900	\$16,271	-	-	-	-	\$58,711
	2020 Water Bond	-	-	-	\$22,307	\$22,890	\$23,492	\$24,111	\$92,800
	Sum:	\$26,540	\$15,900	\$16,271	\$22,307	\$22,890	\$23,492	\$24,111	\$151,511

### Fire Hydrant Replacement (CP0636)

#### CITYWIDE

Replace fire hydrants that are beyond their useful life to ensure hydrants are operational when needed. These improvements are planned over several fiscal years.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$414,502	\$374,710	\$383,441	-	-	-	-	\$1,172,653
	2020 Water Bond	-	-	-	\$481,823	\$494,416	\$507,421	\$520,793	\$2,004,453
	Sum:	\$414,502	\$374,710	\$383,441	\$481,823	\$494,416	\$507,421	\$520,793	\$3,177,106

### Groundwater Treatment-Arsenic (CP0827)

### COUNCIL DISTRICT 6

Provide water treatment facility for future groundwater wells based on water quality results at the time of drilling.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$538,706	\$5,583,127		- \$3,531,021	\$9,652,854
	Sum:	-	-	-	\$538,706	\$5,583,127		- \$3,531,021	\$9,652,854

### Water Lifecycle

### Horne Waterline Replacement; Marilyn Ave to Southern Ave (CP0366)

### **COUNCIL DISTRICT 4**

Install new water mains, and abandon aging water line. New water mains will extend along Horne Road between Marilyn Avenue to Southern Avenue. Work includes related equipment such as valves, hydrants and service lines.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Electric Bond	\$28,366	\$1,676,812	-	-	-			\$1,705,178
	2014 Gas Bond	\$79,648	-	-	-	-			\$79,648
	2014 Wastewater Bond	\$22,141	-	-	-	-			\$22,141
	2014 Water Bond	\$157,702	-	-	-	-			\$157,702
	Sum:	\$287,858	\$1,676,812	-	-	-			\$1,964,670

### **Pump Station Rehabilitation (CP0640)**

### CITYWIDE

Rehabilitate/replace equipment and material at existing pump stations. Work includes replacing some of the followings: vertical turbine pumps, motors, chlorine equipment, electric switch gear, instrumentation & controls.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$1,427,630	\$169,494	-	-	-	-	-	\$1,597,124
	2020 Water Bond	-	-	-	\$1,713,150	\$2,490,507	\$646,022	\$663,046	\$5,512,725
	Sum:	\$1,427,630	\$169,494	-	\$1,713,150	\$2,490,507	\$646,022	\$663,046	\$7,109,849

### Radio Communication Upgrade at Remote Water Facilities (CP0360)

#### CITYWIDE

Replace aging radio communication facilities at Remote Water Facilities. Pumps, motors, and VFD's found to be failing or performing

at substandard levels of efficiency must be repaired or replaced.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2010 Gas Bond	\$2,677	-	-	-	-			\$2,677
	2014 Wastewater Bond	\$816	-	-	-	-			\$816
	2014 Water Bond	\$121,162	-	-	\$920,149	-			\$1,041,311
	Sum:	\$124,655	-	-	\$920,149	-			\$1,044,804

### **Re-drill Groundwater Wells (CP0642)**

#### CITYWIDE

Re-drill wells and replace old equipment at wells identified in the Water Master Plan to meet water demand. Work will include redrilling the well and installing new equipment - new electric service, electrical & instrument components, pump & motor.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	-	-	\$687,044	-			\$687,044
	2020 Water Bond	-	-	-	\$745,222	\$7,473,800	\$5,645,065	5 \$14,289,531	\$28,153,618
	Sum:	-	-	-	\$1,432,266	\$7,473,800	\$5,645,065	5 \$14,289,531	\$28,840,662

### **Reservoir Rehabilitation (CP0641)**

### CITYWIDE

Replace failing equipment at City reservoirs in the water system. Equipment planned for replacement include cathodic protection equipment, liners, interior & exterior coatings & mixer equipment.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$200,459	\$1,429,092	\$106,518	-	-	-	· -	\$1,736,069
	2020 Water Bond	-	-	-	\$872,101	\$7,761,187	\$140,950	\$144,665	\$8,918,903
	Sum:	\$200,459	\$1,429,092	\$106,518	\$872,101	\$7,761,187	\$140,950	\$144,665	\$10,654,972

### Water Lifecycle

### Signal Butte Water Treatment Plant Equipment Replacement

### **COUNCIL DISTRICT 6**

Design and construct plant improvements and equipment replacement that will provide increased reliability and cost effective operation of the SBWTP. This includes rehab or replacement of bulk chemical tanks, pump and piping, sludge pumps and valves, etc.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$5,576,660	-			\$5,576,660
	Sum:	-	-	-	\$5,576,660	-			\$5,576,660

### Val Vista Major Plant Improvements (CP0647)

#### **COUNCIL DISTRICT 1**

Replace the liner at Reservoir 1 at the Val Vista Water Treatment Plant. The City assumed full ownership of Reservoir 1 as part of the 2012 Inter-Governmental Agreement with the City of Phoenix.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2020 Water Bond	-	-	-	\$223,066	\$2,311,854			\$2,534,920
	Sum:	-	-	-	\$223,066	\$2,311,854			\$2,534,920

### Water Meter Vault Rehabilitation (CP0860)

### CITYWIDE

Perform upgrades necessary for OSHA compliance & to reduce safety hazards. Improvements are planned over several fiscal years.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	-	\$958,770	\$981,109	-	-	-	-	\$1,939,879
	2020 Water Bond	-	-	-	\$1,065,142	\$1,092,981	\$1,121,730	\$1,151,289	\$4,431,142
	Sum:	-	\$958,770	\$981,109	\$1,065,142	\$1,092,981	\$1,121,730	\$1,151,289	\$6,371,021

### Water Services Extension & Replacement (CP0650)

#### CITYWIDE

Replace water services that have reached the end of their support lifecycle. Timely replacement will prevent service disruptions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$3,982	\$214,120	\$219,109	-	-			\$437,211
	2020 Water Bond	-	-	-	\$296,678	\$304,432	\$312,440	\$320,673	\$1,234,223
	Sum:	\$3,982	\$214,120	\$219,109	\$296,678	\$304,432	\$312,440	\$320,673	\$1,671,434

### Water Valve Replacement (CP0651)

### CITYWIDE

Replace water valves that have reached the end of their support lifecycle. This work will prevent service disruptions.

		Estimated Exp							
	Fund	Through FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Future Years (3)	Totals
Capital	2014 Water Bond	\$422,257	\$381,600	\$390,491	-	-	-	-	\$1,194,348
	2020 Water Bond	-	-	-	\$474,016	\$486,405	\$499,200	\$512,354	\$1,971,975
	Sum:	\$422,257	\$381,600	\$390,491	\$474,016	\$486,405	\$499,200	\$512,354	\$3,166,323