

BROKEN ARROW MUNICIPAL AUTHORITY

PUBLIC UTILITY INFRASTRUCTURE CAPITAL IMPROVEMENTS PROGRAM

5-YEAR CAPITAL IMPROVEMENTS PLAN PLUS 2-YEAR PLANNING HORIZON

FY2018 PLAN – REV. 0

PREPARED BY:

**BROKEN ARROW MUNICIPAL AUTHORITY
ENGINEERING AND CONSTRUCTION DEPARTMENT
AND UTILITIES DEPARTMENT**

October 10, 2017

ISSUANCE SUMMARY

Issuance

FY2017 Plan, Rev. 0

FY2017 Plan, Rev. 1

FY2018 Plan, Rev. 0

Date

July 5, 2016

December 6, 2016

October 10, 2017

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INTEROFFICE MEMO

To: Mr. Michael Spurgeon, City Manager

From: Mr. Kenneth D. Schwab, P.E., CFM, Assistant City Manager – Operations

Copied: Mr. Anthony Daniel, P.E., Utilities Director,
Mr. Alex Mills, P.E., CFM, Engineering and Construction Director

Date: October 10, 2017

Re: PUBLIC UTILITIES - CAPITAL IMPROVEMENTS PROGRAM
FY2018 CAPITAL IMPROVEMENTS PLAN, REV. 0

KDS
10-10-17

The Utilities Department in concert with the Engineering and Construction Department have completed an extensive and comprehensive evaluation of Broken Arrow Municipal Authority's (BAMA's) public infrastructure assets. The team has programmed selected capital improvements for all of BAMA's public utilities, including its water system, wastewater system and stormwater system. These programmed improvements consider all aspects of anticipated capital costs including land acquisition, engineering and design, and construction costs. The improvements are categorized according to the system's specific function and allocated to a specific fiscal year. Staff will re-examine the Program every six (6) months in order to determine if any revisions are necessary.

The attached document provides a summary of the previous year's efforts for each public utility system and is only intended to be a reference point. The next five (5) year period of improvements is intended to serve as BAMA's Five (5) Year Capital Improvements Plan. Staff also included an additional two (2) years of probable improvements simply to serve as an additional planning horizon. Both the Five (5) Year Capital Improvements Plan and the Seven (7) Year Capital Improvements Plan are represented in bar charts in order to provide a clearer picture of the effort and annual costs associated with each individual fiscal year.

Lastly, the individually programmed projects are identified in the specific public utility system section. Comments are included for many projects to help identify current or proposed funding sources.

Funding for this Program is ultimately through the revenue generated by the Authority's utility rates for the individual public utility. Although many of the projects are paid for through the Federal Assistance Program (FAP) or Oklahoma Water Resources Board Oklahoma Revolving Loan Program (ORF), these low-interest rate loans are eventually paid back in full according to the individual term through the Authority's utility rates. With that noted, most of the stormwater improvements are paid for through the City of Broken Arrow's General Obligation (GO) Bond programs.

PROJECTED UTILITY IMPROVEMENTS

CITY OF BROKEN ARROW
PROJECTED ULILITY IMPROVMENTS
CAPITAL BUDGET OUTLAY - FY2018 REV. 0
 UPDATED: 10-06-17 (KDS)

Water System Summary	Projected Costs	
System Component	5-Year	7-year
Water Plant Improvements	\$12,105,000	\$15,605,000
Water Master Connection Improvements	\$7,520,000	\$11,770,000
Water Distribution System Improvements	\$6,550,000	\$9,200,000
Water Storage System Improvements	\$9,715,000	\$10,410,000
System Total	\$35,890,000	\$46,985,000

Wastewater System Summary	Projected Costs	
System Component	5-Year	7-year
Haikey Creek Plant Improvements	\$45,377,000	\$50,550,000
Haikey Creek Basin Improvements	\$4,150,000	\$6,650,000
Lynn Lane Plant Improvements	\$23,250,000	\$23,250,000
Lynn Lane Basin Improvements	\$38,670,000	\$40,910,000
System Total	\$111,447,000	\$121,360,000

Stormwater System Summary	Projected Costs	
System Component	5-Year	7-year
Covenyance System Improvements	\$6,375,000	\$7,115,000
Detention Facility Improvements	\$5,225,000	\$5,475,000
Dam Facility Improvements	\$322,500	\$428,500
Master Drainage Plans	\$575,000	\$675,000
System Total	\$12,497,500	\$13,693,500

CITY OF BROKEN ARROW
PROJECTED ULILITY IMPROVMENTS
CAPITAL BUDGET OUTLAY - FY2018 REV. 0
 UPDATED: 10-06-17 (KDS)

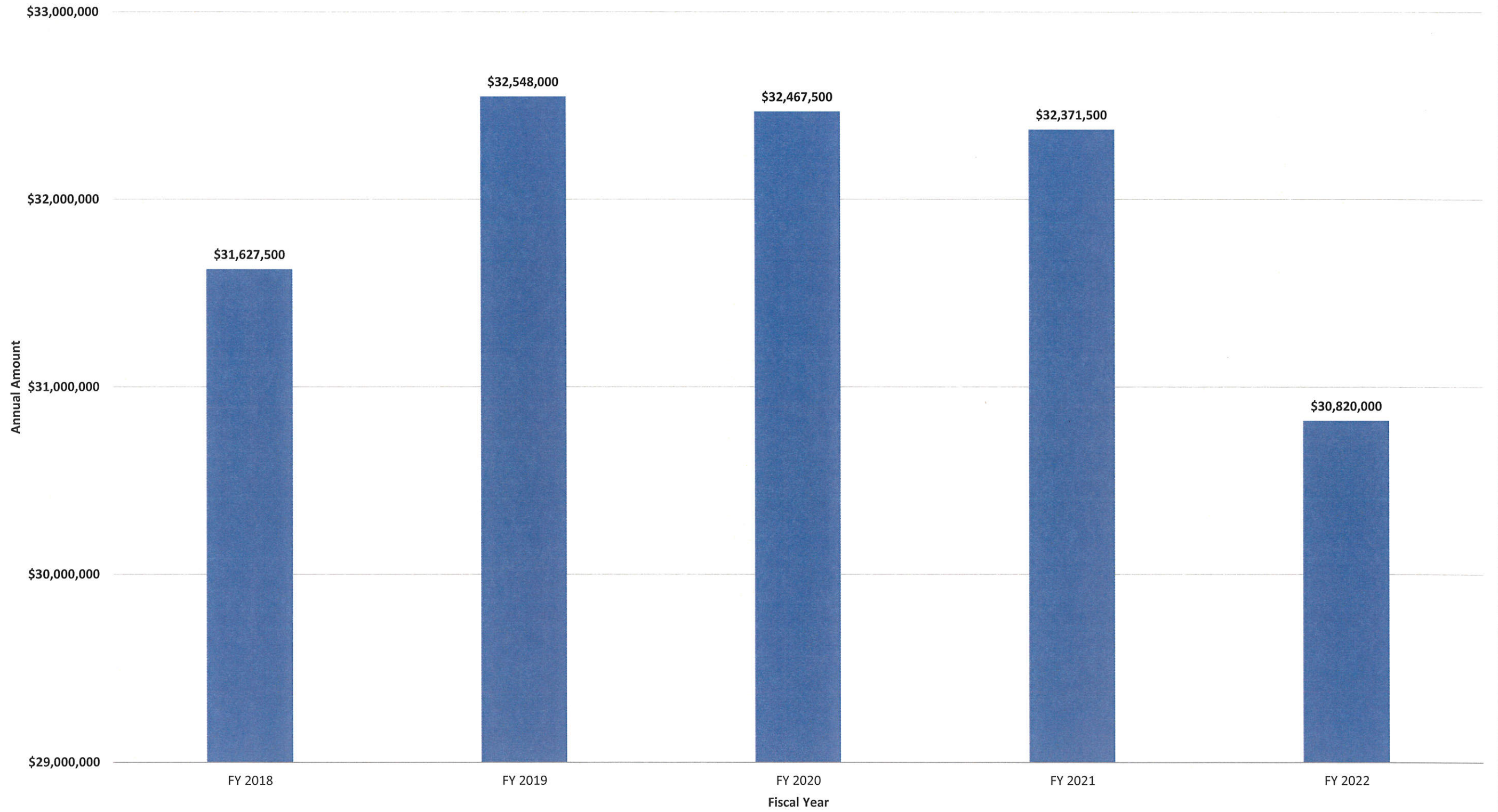
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Water System Improvement	\$6,077,250	\$5,445,000	\$2,355,000	\$11,800,000	\$8,650,000	\$7,540,000	\$7,220,000	\$3,875,000	\$52,962,250
Wastewater System Improvements	\$11,710,000	\$24,140,000	\$28,043,000	\$17,385,000	\$21,034,000	\$20,845,000	\$6,893,000	\$3,020,000	\$133,070,000
Stormwater System Improvements	\$360,000	\$1,942,500	\$2,150,000	\$3,282,500	\$2,687,500	\$2,435,000	\$1,013,000	\$183,000	\$14,053,500
	\$18,147,250	\$31,527,500	\$32,548,000	\$32,467,500	\$32,371,500	\$30,820,000	\$15,126,000	\$7,078,000	\$200,085,750

Five Year Utilities Budget Plan Total = \$159,734,500
Five Year Utilities Budget Plan Average = \$31,946,900

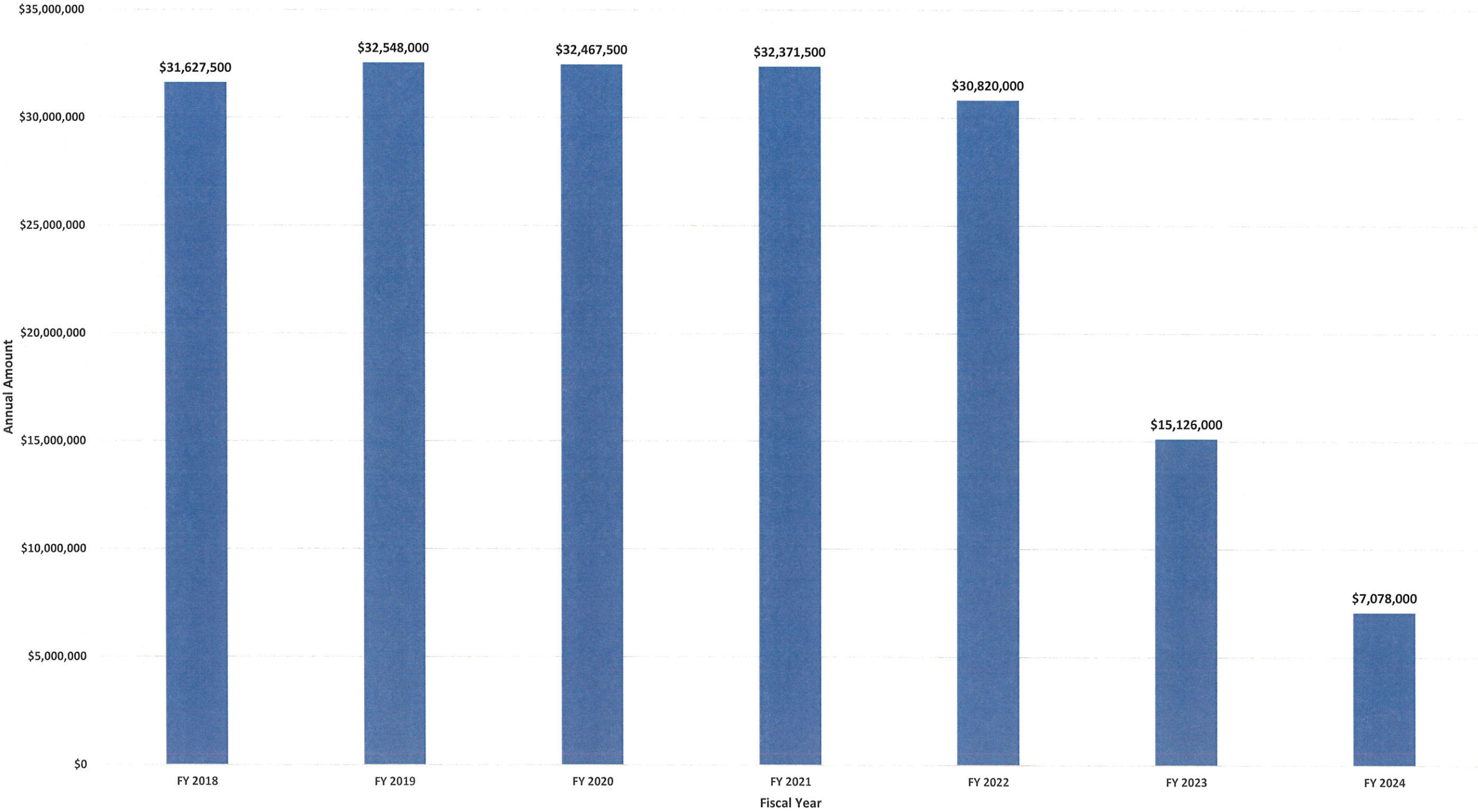
Eight Year Utilities Budget Plan Total = \$200,085,750
Eight Year Utilities Budget Plan Average = \$25,010,719

CAPITAL IMPROVEMENT PLAN
ANNUAL PROJECTION

PUBLIC UTILITIES 5-YEAR CIP



PUBLIC UTILITIES CIP



WATER PROGRAM SUMMARY

WATER SYSTEM IMPROVEMENTS

Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals	Comments
Water Plant Projects (BAMA)										
Water Treatment Plant - Sludge Removal Phase I										
Design									\$0	Remove sludge accumulation from Lagon Nos. 1&2; Rates
Construction		\$200,000							\$200,000	
Inspection		\$0							\$0	
Water Treatment Plant - Sludge Removal Phase II										
Design			\$10,000						\$10,000	Remove sludge accumulation from Lagon Nos. 1&3; Rates
Construction			\$300,000						\$300,000	
Inspection			\$0						\$0	
Water Treatment Plant - Sludge Removal Phase III										
Design				\$10,000					\$10,000	Remove sludge accumulation from Lagon Nos. 2&3; Rates
Construction				\$300,000					\$300,000	
Inspection				\$0					\$0	
Water Treatment Plant - Sludge Removal Phase IV										
Design					\$10,000				\$10,000	Remove sludge accumulation from Lagon Nos. 1&2; Rates
Construction					\$300,000				\$300,000	
Inspection					\$0				\$0	
Water Treatment Plant - Copper Sulfate Feed										
Design		\$30,000							\$30,000	Install automated copper sulfate feed system to pre-sedimentation basins
Construction		\$200,000							\$200,000	
Inspection		\$0							\$0	
Water Treatment Plant - Plate Settler Extension										
Design		\$520,000							\$520,000	Install automated copper sulfate feed system to pre-sedimentation basins
Construction		\$0		\$8,000,000					\$8,000,000	
Inspection		\$0		\$400,000					\$400,000	
Water Treatment Plant - Maintenance Building										
Design						\$60,000			\$60,000	O&M Funding
Construction						\$600,000			\$600,000	
Inspection						\$0			\$0	
Water Treatment Plant - WIMMS Software										
Design			\$10,000						\$10,000	
Construction			\$100,000						\$100,000	
Inspection			\$0						\$0	
Water Treatment Plant - Flow Meter Modifications										
Design				\$30,000					\$30,000	
Construction				\$400,000					\$400,000	
Inspection				\$0					\$0	
Water Treatment Plant - FRP Tank Replacement										
Design					\$25,000				\$25,000	
Construction					\$300,000				\$300,000	
Inspection					\$0				\$0	
Water Treatment Plant - Filter Press										
Design								\$500,000	\$500,000	
Construction									\$0	
Inspection									\$0	
OOWA/Grand River Line Connection										
Design						\$300,000			\$300,000	Not Funded
Construction						\$3,000,000			\$3,000,000	
Inspection						\$0			\$0	
Water Plant Sub-Totals	\$0	\$950,000	\$420,000	\$9,140,000	\$635,000	\$960,000	\$3,000,000	\$500,000	\$15,605,000	

Water Master Connection Projects

Primary Tulsa Water Connection - Phase II										Addition of new flow meter and control system
Property Acquisition									\$0	
Design			\$20,000						\$20,000	
Construction				\$100,000					\$100,000	
Inspection									\$0	
Secondary Tulsa Water Connection - Phase I										Pressure Feed System at Albany and Olive
Property Acquisition									\$0	
Design (Modeling)									\$0	Complete
Construction	\$800,000								\$800,000	Pressure Feed System from TMUA - O&M Funding
Inspection										
Secondary Tulsa Water Connection - Phase II										Booster Pump Station at Albany and Olive
Property Acquisition			\$400,000						\$400,000	
Design					\$100,000				\$100,000	
Construction						\$2,000,000			\$2,000,000	Booster Pump Station
Inspection										
OOWA/Grand River Transmission Line Rehab										Proposed course of action not determined yet; under evaluation
Property Acquisition				\$100,000					\$100,000	
Design				\$600,000		\$200,000			\$800,000	
Construction						\$6,000,000	\$2,000,000		\$8,000,000	
Inspection						\$200,000	\$50,000		\$250,000	
Water Mater Connection Sub-Totals	\$800,000	\$0	\$420,000	\$800,000	\$100,000	\$6,200,000	\$2,200,000	\$2,050,000	\$12,570,000	

Water Distribution System Projects

Kenwood Hills System Improvements										OWRB Loan
Property Acquisition									\$0	
Design	\$40,000								\$40,000	Consultant prepared report; In-House Design in progress
Construction		\$700,000							\$700,000	
Inspection		\$0							\$0	
24" Transmission Line - South Loop Ph. II (Waco-Elm)										
Property Acquisition			\$0						\$0	
Design			\$0						\$0	In-House
Construction			\$400,000						\$400,000	Force Labor
Inspection			\$0						\$0	
24" Transimission Line - South Loop Ph. III (96th-101st)										
Property Acquisition				\$50,000					\$50,000	
Design	\$60,000								\$60,000	In-House
Construction			\$600,000						\$600,000	Force Labor
Inspection									\$0	
24" Waterline - Connect 5 MG GST to System										Enhance capability to take water from TMUA
Property Acquisition	\$750,000								\$750,000	
Design	\$150,000								\$150,000	Consultant
Construction									\$0	
Inspection									\$0	
12" Waterline - Jasper from Gardenia to Olive										Funded through O&M
Property Acquisition		\$15,000							\$15,000	
Design			\$0						\$0	
Construction			\$75,000						\$75,000	Anticipated Force Labor for Construction
Inspection			\$0						\$0	
6" Waterline - Washington from Date to Main										2015 OWRB Loan
Property Acquisition									\$0	
Design	\$25,000								\$25,000	Consultant
Construction	\$50,000								\$50,000	Force Labor
Inspection									\$0	

Miscellaneous Waterlines - Old Town											
Property Acquisition										\$0	
Design			\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$150,000	In-House
Construction		\$100,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,900,000	Force Labor
Inspection										\$0	
16" Waterline - Olive from Tucson to New Orleans											
Property Acquisition	\$700,000									\$700,000	2015 OWRB Loan
Design	\$120,000									\$120,000	In progress
Construction					\$1,310,000					\$1,310,000	Consultant
Inspection										\$0	2015 OWRB Loan/In-House
Automatic Meter Reading											
Installment	\$2,000,000	\$2,000,000						\$1,000,000	\$1,000,000	\$6,000,000	OWRB Loan
Water Distribution System Sub-Totals	\$3,895,000	\$2,815,000	\$800,000	\$975,000	\$1,635,000	\$325,000	\$1,325,000	\$1,325,000	\$1,325,000	\$13,095,000	
Water Storage System Projects											
2-3 MG Water Storage Tank											
Property Acquisition	\$700,000									\$700,000	2015 OWRB Loan (FAP)
Design		\$400,000								\$400,000	Property acquired
Construction					\$4,630,000					\$4,630,000	Consultant
Inspection					\$100,000					\$100,000	
1 MG Elevated Water Tank Restoration (101st)											
Design	\$22,250									\$22,250	Only budgeted \$570,00 in FY 2016
Construction	\$525,000									\$525,000	Consultant
Inspection	\$65,000									\$65,000	Public Construction Contract
4 MG GST Restoration - Phase I (Tiger Hill)											
Design	\$70,000									\$70,000	Not funded
Construction		\$785,000								\$785,000	
Inspection		\$45,000								\$45,000	
4 MG GST Restoration - Phase II (Tiger Hill)											
Design		\$50,000								\$50,000	Not funded
Construction			\$610,000							\$610,000	
Inspection			\$40,000							\$40,000	
4 MG GST Restoration - Phase III (Tiger Hill)											
Design			\$65,000							\$65,000	Not funded
Construction				\$700,000						\$700,000	
Inspection				\$35,000						\$35,000	
1 MG Elevated Water Tank Restoration (FBC)											
Design						\$55,000				\$55,000	Not funded
Construction							\$650,000			\$650,000	
Inspection							\$45,000			\$45,000	
5 MG GST System Improvements (Battle Creek)											
Design		\$75,000									
Construction		\$425,000									
Inspection		\$0									
5 MG GST Restoration (Battle Creek)											
Design				\$150,000						\$150,000	Not funded
Construction					\$1,500,000					\$1,500,000	
Inspection					\$50,000					\$50,000	
Water Storage System Sub-Total	\$1,382,250	\$1,780,000	\$715,000	\$885,000	\$6,280,000	\$55,000	\$695,000	\$0	\$0	\$11,292,250	
Water System Totals	\$6,077,250	\$5,545,000	\$2,355,000	\$11,800,000	\$8,650,000	\$7,540,000	\$7,220,000	\$3,875,000	\$52,562,250		

Five Year CIP Total
Planning Period Total

\$35,890,000
\$53,062,250

WASTEWATER PROGRAM SUMMARY

WASTEWATER SYSTEM IMPROVEMENTS

Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals	Comments
Haikey Creek Plant Projects (RMUA)										
<i>Haikey Creek Plant - SCBA/Samp/Clar/Pumps</i>										
Design									\$0	
Construction		\$800,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$3,200,000	Operational
Inspection									\$0	
<i>Haikey Creek Plant - FEB Addition</i>										
Design									\$0	2013 OWRB Loan Complete
Construction	\$5,300,000								\$5,300,000	BAMA's Share/Construction in progress
Inspection									\$0	
<i>Haikey Creek Plant - Maintenance Building</i>										
Design	\$40,000								\$40,000	Funding Source Unidentified BAMA's Share
Construction		\$400,000							\$400,000	
Inspection									\$0	
<i>Haikey Creek Plant - Activated Sludge Aeration</i>										
Design	\$800,000								\$800,000	BAMA's Share
Construction			\$8,129,000						\$8,129,000	
Inspection									\$0	
<i>Haikey Creek Plant - Grit Removal Facility Rehab</i>										
Design		\$150,000							\$150,000	Funding Source Unidentified
Construction			\$1,514,000						\$1,514,000	
Inspection									\$0	
<i>Haikey Creek Plant - Electrical Systems Imp</i>										
Design				\$100,000					\$100,000	Funding Source Unidentified BAMA's Share
Construction				\$350,000					\$350,000	BAMA's Share
Inspection									\$0	
<i>Haikey Creek Plant - Elec. Switrch Gear & Trans.</i>										
Design				\$50,000					\$50,000	Funding Source Unidentified BAMA's Share
Construction				\$450,000					\$450,000	BAMA's Share
Inspection									\$0	
<i>Haikey Creek Plant - Primary Clarifiers</i>										
Design				\$825,000					\$825,000	Funding Source Unidentified BAMA's Share
Construction					\$8,034,000				\$8,034,000	
Inspection									\$0	
<i>Haikey Creek Plant - Anaerobic Digestors</i>										
Design					\$1,400,000				\$1,400,000	Funding Source Unidentified BAMA's Share
Construction						\$14,500,000			\$14,500,000	
Inspection									\$0	
<i>Haikey Creek Plant - Sludge Dewatering Facility</i>										
Design						\$258,000			\$258,000	Funding Source Unidentified BAMA's Share
Construction							\$2,807,000		\$2,807,000	
Inspection									\$0	
<i>Haikey Creek Plant - Main Lift Station FM Imp</i>										
Property Acquisition	\$300,000								\$300,000	2013 OWRB Loan ROW in progress
Design	\$150,000								\$150,000	Design complete
Construction		\$6,500,000							\$6,500,000	BAMA's Share Bid Fall 2017
Inspection									\$0	
<i>Haikey Creek Plant - Main Lift Station Phase IV</i>										
Property Acquisition									\$0	Funding Source Unidentified
Design						\$317,000			\$317,000	BAMA's Share
Construction							\$1,566,000		\$1,566,000	
Inspection									\$0	
Haikey Creek Plant Sub-Totals	\$6,590,000	\$7,850,000	\$10,043,000	\$2,175,000	\$9,834,000	\$15,475,000	\$4,773,000	\$400,000	\$57,140,000	

Haikey Creek Basin Projects (BAMA)										
HC Basin - SSES Program										
Trunk Line Sanitary Sewer Study										\$0
Wolf Creek Line Sanitary Sewer Study					\$300,000					\$300,000
HC Basin - Haikey Creek Trunk Sewer Phase I										
Property Acquisition										\$0
Design	\$360,000									\$360,000
Construction					\$3,600,000					\$3,600,000
Inspection										\$0
HC Basin - Haikey Creek Trunk Sewer Phase II										
Property Acquisition										\$0
Design						\$250,000				\$250,000
Construction								\$2,500,000		\$2,500,000
Inspection										\$0
Haikey Creek Basin Sub-Totals	\$360,000	\$0	\$0	\$0	\$3,900,000	\$250,000	\$0	\$2,500,000	\$7,010,000	
Lynn Lane Plant Projects (BAMA)										
Lynn Lane Plant - Belt Filter Press Bldg Add.										
Design										\$0
Construction				\$50,000						\$50,000
Inspection				\$450,000						\$450,000
Lynn Lane Plant - Headworks/Grit Removal										
Design	\$900,000									\$900,000
Construction		\$10,600,000								\$10,600,000
Inspection		\$600,000								\$600,000
Lynn Lane Plant - Sludge Digestion Imp										
Design	\$70,000									\$70,000
Construction		\$1,050,000								\$1,050,000
Inspection		\$50,000								\$50,000
Lynn Lane Plant - Rehab of West Clar/Digestors										
Design	\$200,000									\$200,000
Construction			\$3,300,000							\$3,300,000
Inspection										\$0
Lynn Lane Plant - Disinfection System										
Design			\$250,000							\$250,000
Construction				\$2,000,000						\$2,000,000
Inspection										\$0
Lynn Lane Plant - Rehab of East Clarifier										
Design				\$100,000						\$100,000
Construction					\$2,000,000					\$2,000,000
Inspection					\$50,000					\$50,000
Lynn Lane Plant - Indian Springs Lift Station Imp.										
Property Acquisition										\$0
Design				\$250,000						\$250,000
Construction					\$1,000,000	\$1,500,000				\$2,500,000
Inspection										\$0
Lynn Lane Plant Sub-Total	\$1,170,000	\$12,300,000	\$3,550,000	\$2,850,000	\$3,050,000	\$1,500,000	\$0	\$0	\$24,420,000	
Lynn Lane Basin Projects (BAMA)										
LL Basin - Lynn Lane Trunk Sewer Replace.										
Property Acquisition		\$150,000								\$150,000
Design		\$15,000								\$15,000
Construction			\$4,000,000							\$4,000,000
Inspection			\$200,000							\$200,000
LL Basin - County Line Trunk Sewer Replace.										
Property Acquisition		\$425,000								\$425,000
Design	\$680,000									\$680,000
Construction			\$7,500,000	\$8,500,000	\$4,000,000					\$20,000,000

Inspection			\$300,000	\$400,000	\$250,000				\$950,000	
LL Basin - Elm Creek Trunk Sewer Replace. Ph I										Phase I - Indian Springs to Turnpike
Property Acquisition			\$300,000						\$300,000	
Design			\$50,000						\$50,000	Complete/revisions
Construction			\$2,000,000	\$2,300,000					\$4,300,000	
Inspection			\$100,000	\$120,000					\$220,000	
LL Basin - Aspen Creek Trunk Sewer (New)										New line from Tucson to Florence
Property Acquisition									\$0	Obtained Property/Loan
Design									\$0	Complete
Construction	\$950,000								\$950,000	Vision 2025/Excess Capacity
Inspection									\$0	
LL Basin - Oak Crest Addition Imp										OWRB Loan (Must Reallocate)
Property Acquisition									\$0	
Design					\$50,000				\$50,000	Complete/Revisions
Construction					\$3,300,000				\$3,300,000	
Inspection					\$150,000				\$150,000	
LL Basin - East Haskell Addition Imp										OWRB Loan (Must Reallocate)
Property Acquisition									\$0	
Design							\$50,000		\$50,000	Complete/Revisions
Construction							\$1,850,000		\$1,850,000	
Inspection							\$100,000		\$100,000	
LL Basin - Lift Station (5) Screening Imp										OWRB Loan
Property Acquisition									\$0	
Design	\$150,000								\$150,000	
Construction		\$1,500,000							\$1,500,000	
Inspection									\$0	
LL Basin - Lift Station SCADA Imp										OWRB Loan
Property Acquisition									\$0	
Design									\$0	
Construction		\$1,900,000							\$1,900,000	
Inspection									\$0	
LL Basin - Oneta Rd Lift Station Imp (CO)										
Property Acquisition	\$30,000								\$30,000	
Design									\$0	
Construction	\$670,000								\$670,000	
Inspection									\$0	
LL Basin - 209th LS Force Main Imp.										Contractual assistance
Property Acquisition	\$10,000								\$10,000	
Design									\$0	
Construction	\$1,100,000								\$1,100,000	
Inspection									\$0	
LL Basin - Misc. LS Imp.(3 Stations)										Elimination of Westwind LS/Conversion to Submersible
Property Acquisition									\$0	
Design				\$40,000					\$40,000	
Construction						\$120,000	\$120,000	\$120,000	\$360,000	
Inspection									\$0	
LL Basin - Expressway LS Improvements										
Design				\$100,000					\$100,000	
Construction				\$900,000					\$900,000	
Inspection									\$0	
Lynn Lane Basin Sub-Totals	\$3,590,000	\$3,990,000	\$14,450,000	\$12,360,000	\$4,250,000	\$3,620,000	\$2,120,000	\$120,000	\$44,500,000	
Sub-Totals	\$11,710,000	\$24,140,000	\$28,043,000	\$17,385,000	\$21,034,000	\$20,845,000	\$6,893,000	\$3,020,000	\$133,070,000	

Five Year CIP Total
Planning Period Total

\$111,447,000
\$133,070,000

STORMWATER PROGRAM SUMMARY

STORMWATER SYSTEM IMPROVEMENTS

Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals	Comments
Stormwater System Improvements										
Stone Ridge Towne Center - Diversion (HC)										
Land Acquisition	\$155,000								\$155,000	2014 Bond Settlement
Design									\$0	Complete
Construction		\$430,000							\$430,000	
Inspection									\$0	
37th Street Detention (AC)										
Design									\$0	Complete
Construction		\$1,100,000							\$1,100,000	Pending Agreement with Property Owner
Inspection									\$0	
Eagle Creek Improvements (AC)										
Design									\$0	2011 Bond Design nearing completion
Construction		\$150,000	\$100,000						\$250,000	
Inspection									\$0	
Turnberry Detention Pond Improvements (AC)										
Design									\$0	2011 Bond Design nearing completion
Construction		\$100,000							\$100,000	
Inspection									\$0	
Glade Crossing (HC)										
Design			\$10,000						\$10,000	2008 Bond saving per Council
Construction				\$125,000					\$125,000	
Inspection									\$0	
Battle Creek Irrigation System (HC)										
Design					\$50,000				\$50,000	Not Identified
Construction						\$500,000	\$500,000		\$1,000,000	
Inspection									\$0	
Stone Ridge Towne Center - Highway Crossing (HC)										
Land Acquisition									\$0	Unidentified Funding Source
Design				\$50,000					\$50,000	
Construction				\$2,000,000					\$2,000,000	
Inspection				\$100,000					\$100,000	
Stone Ridge Towne Center - Site Imp. (HC)										
Land Acquisition									\$0	Unidentified Funding Source
Design	\$50,000								\$50,000	
Construction					\$100,000				\$100,000	
Inspection									\$0	
Charleston-Westwind Drainage Improvements (AC)										
Land Acquisition	\$5,000								\$5,000	Excess Bond Proceeds
Design									\$0	Easements
Construction	\$75,000								\$75,000	
Inspection									\$0	
Village Square Drainage Imp. - Phase II (HC)										
Land Acquisition			\$25,000						\$25,000	Proposed 2018 GO Bond Easements
Design			\$50,000						\$50,000	
Construction			\$300,000						\$300,000	
Inspection									\$0	
Vander Acres 6th Drainage Improvements (HC)										
Land Acquisition									\$0	Unidentified Funding Source
Design			\$25,000						\$25,000	
Construction				\$100,000					\$100,000	
Inspection									\$0	

Home Gardens Storm Sewer Improvements											
Land Acquisition										\$0	Unidentified Funding Source
Design				\$15,000						\$15,000	
Construction					\$50,000					\$50,000	
Inspection										\$0	
Wedgewood II Storm Sewer Improvements (HC)											
Land Acquisition										\$0	Unidentified Funding Source
Design				\$35,000						\$35,000	
Construction					\$400,000					\$400,000	
Inspection										\$0	
General Haikey Creek Watershed Imp. (HC)											
Land Acquisition		\$10,000		\$10,000		\$10,000		\$10,000		\$40,000	
Design		\$20,000		\$20,000		\$20,000		\$20,000		\$80,000	
Construction		\$50,000		\$50,000		\$50,000		\$50,000		\$200,000	
Inspection										\$0	
General Adams Creek Watershed Imp. (AC)											
Land Acquisition			\$10,000		\$10,000		\$10,000		\$10,000	\$30,000	Unidentified Funding Source
Design			\$20,000		\$20,000		\$20,000		\$20,000	\$60,000	
Construction			\$50,000		\$50,000		\$50,000		\$50,000	\$150,000	
Inspection										\$0	
General Broken Arrow Creek Watershed Imp. (BAC)											
Land Acquisition			\$10,000		\$10,000		\$10,000		\$10,000	\$30,000	Unidentified Funding Source
Design			\$20,000		\$20,000		\$20,000		\$20,000	\$60,000	
Construction			\$50,000		\$50,000		\$50,000		\$50,000	\$150,000	
Inspection										\$0	
Stormwater System Sub-Totals	\$285,000	\$1,860,000	\$670,000	\$2,505,000	\$760,000	\$580,000	\$660,000	\$80,000	\$7,400,000		
Detention Facility Improvements											
Events Park Detention Pond Imp (BAC)											
Design		\$50,000								\$50,000	
Construction			\$200,000							\$200,000	
Inspection										\$0	
Needa Detention Facility Repairs (HC)											
Design			\$25,000							\$25,000	
Construction				\$150,000						\$150,000	
Washington Lane Detention Pond (BAC)											
Design										\$0	
Construction				\$50,000						\$50,000	
Inspection					\$250,000					\$250,000	
Fairway Park Detention Improvements II (AC)											
Design										\$0	
Construction			\$25,000	\$25,000	\$25,000	\$25,000				\$100,000	Fee In-Lieu-Of
The Park at Adams Creek Detention Facility (AC)											
Design										\$0	
Construction			\$200,000							\$200,000	BAMA
Stone Ridge Towne Center - Upper Pond (HC)											
Land Acquisition										\$0	Unidentified Funding Source
Design			\$25,000							\$25,000	Complete/Revisions
Construction			\$300,000							\$300,000	
Inspection										\$0	
Stone Ridge Towne Center - Lower Pond (HC)											
Land Acquisition				\$150,000						\$150,000	Unidentified Funding Source
Design				\$25,000						\$25,000	Complete/Revisions
Construction				\$350,000						\$350,000	

Inspection										\$0	
Stone Ridge Towne Center - Regional Detention (HC)											Unidentified Funding Source
Land Acquisition	\$0									\$0	
Design	\$50,000									\$50,000	
Construction					\$1,500,000	\$1,000,000				\$2,500,000	
Inspection										\$0	
Lancaster Park Detention Pond Improvements (HC)											Unidentified Funding Source
Land Acquisition										\$0	
Design					\$100,000					\$100,000	
Construction						\$750,000	\$250,000			\$1,000,000	
Inspection										\$0	
Detention Facility Sub-Totals	\$50,000	\$50,000	\$775,000	\$750,000	\$1,875,000	\$1,775,000	\$250,000	\$0	\$5,525,000		
Dam Facility Improvements											
Carousel Concourse Dam Improvements (AC)											Unidentified Funding Source
Land Acquisition										\$0	
Design		\$30,000								\$30,000	
Construction			\$200,000							\$200,000	
Inspection		\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$3,000	\$3,000		\$18,500	Annual Inspections
Aspen Pond Dam Improvements (HC)											Unidentified Funding Source
Land Acquisition										\$0	
Design					\$25,000					\$25,000	
Construction						\$50,000	\$50,000	\$50,000		\$150,000	
Inspection			\$2,500			\$2,500				\$5,000	Dam Inspection
Dam Facility Sub-Totals	\$0	\$32,500	\$205,000	\$2,500	\$27,500	\$55,000	\$53,000	\$53,000	\$428,500		
Master Drainage Plans											
Broken Arrow Creek Master Drainage Plan (BAC)											
Design	\$25,000									\$0	Update for full urbanization
Broken Arrow Regulatory Floodplain											
Design				\$25,000	\$25,000	\$25,000				\$75,000	Development of criteria
Hailey Creek Master Drainage Plan (HC)											
Design			\$500,000				\$50,000	\$50,000		\$600,000	
Master Drainage Plan Sub-Totals	\$25,000	\$0	\$500,000	\$25,000	\$25,000	\$25,000	\$50,000	\$50,000	\$675,000		
Totals	\$360,000	\$1,942,500	\$2,150,000	\$3,282,500	\$2,687,500	\$2,435,000	\$1,013,000	\$183,000	\$14,028,500		

Five Year CIP Total
 Planning Period Total

\$12,497,500
 \$14,053,500