

**City of Colorado Springs
Water Resources Engineering Division**

**Stormwater Control Program
Inter-Governmental Agreement (IGA)
Annual Report of Preliminary Expenditures
Calendar Year 2017**

Prepared for:

Pueblo County

Submitted by:

City of Colorado Springs

Colorado Springs Utilities



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Definitions and Acronyms

BMPs	Best Management Practices
Capital Project	A project for the construction of facilities and infrastructure undertaken primarily to provide stormwater control (e.g., stormwater detention ponds, or channel preservation, restoration, or stabilization), with a monetary value of at least \$50,000 and long life (at least five years), and which results in the creation of a fixed asset or a significant revitalization that upgrades and extends the useful life of a fixed asset.
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
City	City of Colorado Springs
CIP	Capital Improvements Program
CIP List	Capital Improvements Project List
CMP	Corrugated Metal Pipe
Construction	Activities including studying, land acquisition, planning, engineering, bidding, permitting, construction, construction management, project management, testing and commissioning.
DBPS	Drainage Basin Planning Study
DCM	City of Colorado Springs Drainage Criteria Manual
DDM	Fountain Creek Watershed Flood Control and Greenway District Design Manual
Drainage Operations Program	City of Colorado Springs Public Works Operations and Maintenance Division, Drainage Operations Program
Encumbered Funds	Monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction.
Expenditures	Both actual expenditures and encumbered funds.
FCWFCGD	Fountain Creek Watershed Flood Control and Greenway District
HBA	Home Builders Association
IGA	Intergovernmental Agreement between Pueblo County and the City of Colorado Springs and its Utility Enterprise (entered as of April 27th, 2016)
MDBPS	Master Drainage Basin Planning Study

MMFAC	FCWFCGD Monetary Mitigation Fund Advisory Committee
MS4	Municipal Separate Storm Sewer System
MS4 Permit	Authorization under the Colorado Discharge Permit System to discharge stormwater and from emergency firefighting activities from the municipal separate storm sewer system (MS4) owned and operated by the City of Colorado Springs
NOAA	National Oceanic and Atmospheric Administration
O&M	Operations and Maintenance
Parties	Parties to the IGA to include Pueblo County and the City of Colorado Springs and its utility enterprise, Colorado Springs Utilities.
PPRTA	Pikes Peak Rural Transportation Authority
SCM	City of Colorado Springs Stormwater Construction Manual
SIMP	Stormwater Infrastructure Master Plan
Stormwater Capital Improvements Program (CIP)	An annually updated plan of expenditures for Capital Projects for stormwater control with estimated costs, sources of funding, and schedule of work over a five-year period, including those Capital Projects required by the IGA.
Stormwater Control Program	City and Utilities' program to control and mitigate the rate, volume, and quality of stormwater flows and associated erosion and sedimentation in or near the City, and includes a CIP, provisions for operation and maintenance of the City's stormwater facilities, compliance with the City's MS4 Permit, and protection of Utilities infrastructure from stormwater.
SSCC	Colorado Springs Utilities Sanitary Sewer Creek Crossing Program
TAC	Fountain Creek Watershed Flood Control and Greenway District, Technical Advisory Committee
TMDL	Total Maximum Daily Load
UDFCD	Urban Drainage Flood Control District
USACE	United States Army Corps of Engineers
USEPA/EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
Utilities	Colorado Springs Utilities
WWE	Wright Water Engineers

Executive Summary

The City of Colorado Springs (City), Colorado Springs Utilities (Utilities), and Pueblo County (together referred to as the Parties) entered into an Inter-Governmental Agreement (IGA) on April 27, 2016. Pursuant to the terms of the IGA, the City and Utilities agreed to invest \$460 million dollars on the City's Stormwater Control Program over the next two decades. The IGA describes the responsibilities of the City and Utilities associated with these stormwater management and control efforts.

The purpose of this annual report is to provide appropriate details concerning the timing, amount, and nature of expenditures made by the City and Utilities during the prior year (2017) for Capital Projects included as part of the IGA, stormwater-related operations and maintenance activities, Municipal Separate Storm Sewer System (MS4) Permit compliance, and protection of waterways adjacent to Utilities infrastructure.

Reporting Requirements

Each year the City has committed to file with Pueblo County a report containing an estimate of expenditures on or before January 31 of the year following the expenditures, followed by the filing of a preliminary report on or before March 31, and with a final report to be filed on or before June 30 of that year based on audited financial information.

The following contains a summary of Stormwater Control Program activities and a report of preliminary expenditures for the 2017 calendar year. Per the IGA, for the purpose of this report, "...expenditures mean both actual expenditures and encumbered funds. 'Encumbered funds' shall mean monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction."

Summary of Preliminary Expenditures for the 2017 Calendar Year

The City and Utilities are required collectively to invest a minimum of \$16.5 million per year on the City's Stormwater Control Program. The minimum expenditure requirement (actual and encumbered) has been met for the 2017 Calendar Year reporting period as outlined below. As of December 31, 2017 the City and Utilities have invested (through either expenditures or encumbrances) a total of \$23.6 million dollars on the City's Stormwater Control Program. This includes actual expenditures and/or annual encumbrances of:

- \$ 7.16 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
- \$ 13.1 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
- \$ 3.34 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)

Expenditures for the 2017 Calendar Year

IGA Requirement	Minimum Total Expenditures	Average Annual Expenditures	Minimum Annual Expenditures
First Five Years (2016-2020)	\$100 Million	\$20 Million	\$16.5 M/yr.

Claimed Expenditures (Actual Expenditures and Encumbered Funds)	2016	2017 Amended*	Total (2016-2017)
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$12,994,368
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$28,082,145
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$8,053,107
Total	\$25,528,981	\$23,600,639	\$49,129,620

*2017 Amended Budget Includes \$6 million in TABOR Funding from 2017 Ballot Issue 2.

Summary of Stormwater Control Program Activities Undertaken

Below is a summary of actual expended dollars during the 2016 and 2017 calendar years:

Program Dollars Spent	2016	2017	Total (2016-2017)
Drainage O&M	\$2,225,302	\$3,566,698	\$5,792,000
Stormwater MS4 Program	\$2,772,986	\$3,953,567	\$6,726,553
Stormwater Capital Projects	\$8,743,880	\$7,847,522	\$16,591,402
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$8,053,107
Total	\$18,455,192	\$18,707,870	\$37,163,062

Capital Projects Undertaken During the Reporting Period

- IGA Projects - A total of thirteen (13) IGA projects were scheduled to continue or commence in 2017. This included a continuation of Emergency Projects, Grant Projects, seven (7) 2016 IGA projects, and commencement of four (4) 2017 IGA projects as outlined below. At the completion of the reporting period, the scheduled 2017 IGA projects were in the engineering phase of the projects, while the ongoing 2016 IGA projects were either completed, under construction, or continuing through the engineering phase.

Of the \$7,847,522 expended, a total of \$5,643,898 was spent on 20 identified IGA projects during the reporting period (13 associated with 2016 and 2017 IGA projects, 5 associated with 2018 IGA projects, one associated with a 2019 IGA project, and one associated with a 2020 IGA project), with an additional \$2,203,624 invested on other Stormwater related projects during the period. The table below details project expenditures related to the IGA projects.

IGA CAPITAL PROJECTS		
IGA Project No.	Project Name	Actual Spent (\$)
65	Cottonwood Creek Detention Basins (2017)	640,144
31	Rangewood Tributary Detention Pond (2017)	14,010
52	Scarborough Drive Sub-Regional Detention Facility (2017)	69,306
1	Emergency Stormwater Projects	1,561,558
0	FEMA Grant Projects (City Funds)	1,794,836
5	Downtown Drainage Imps (Pikes Peak Avenue) (2016)	798,659
7	Fairfax Tributary Detention Pond (2016)	3,817
8	King Street Detention Pond (2016)	413,798
2	Sand Creek Detention Pond #3 (2016)	6,185
26	Sand Creek S. of Platte (CS-018) Grant Match (2016)	3,191
6	USAFA Drainages (Monument Branch) (2016)	100,840
13	Water Quality Project (America the Beautiful Park) (2016)	87,110
13	Water Quality Project (Sierra Madre Pond) (2017)	17,663
Various	Project Scoping and Definition (2017-2020 IGA Projects)	132,781
	(IGA-09) Pine Creek Drainage Corridor Detention Pond (2018)	
	(IGA-15) Citadel Mall Neighborhood Improvements (2018)	
	(IGA-11) Camp Creek Phase I (2018)	
	(IGA-41) Storage Wagner Park (2018)	
	(IGA-23) North Chelton Road Drainage Improvements (2018)	
	(IGA-34) Storage Sand Creek Detention Pond 2 (2019)	
	(IGA-24) Park Vista (Siferd Low Water Crossing) (2020)	
	Total IGA Projects	\$5,643,898
Other Stormwater Capital Projects		
	Total Non-IGA Stormwater Capital Projects	\$2,203,624
Total Stormwater Capital Projects Expenditures		
	Total 2017 Stormwater Capital Projects Expenditures	\$7,847,522

- **Engineering Studies** - The Water Resources Engineering Division continued to work on several significant and important engineering studies during the course of 2017, including the Cottonwood Creek Drainage Basin Planning Study (DBPS), the Falcon Estates and Rustic Hills drainage studies, the Little Shooks Run outfall system plan, the Sand Creek Pond 2 and 31st Street Channel analysis studies, and the City's Stormwater Infrastructure Master Plan (SIMP). These studies will be used to further develop capital project lists, plan future maintenance and capital improvements, and manage stormwater related infrastructure.
- **Grant Applications** - During the reporting period the Water Resources Engineering Division submitted several grant applications for proposed projects located along Pine Creek and Monument Creek.

Utilities Sanitary Sewer Creek Crossing Program Activities

In parallel with the City's stormwater capital program efforts, Utilities has an ongoing effort to construct stormwater projects to protect stream channels and floodplains adjacent to Utilities' infrastructure crossings. Utilities' Sanitary Sewer Creek Crossing (SSCC) Program implements capital projects that are specifically targeted to protect waterways near facilities which are in danger of failing due to stormwater related events or other impacts.

The Utilities SSCC Program was established to systematically inspect, evaluate, prioritize, repair and/or replace Utilities infrastructure that cross or extend adjacent to minor and major drainages, and to provide long-term creek stabilization for crossings and adjacent longitudinal sewer systems. Utilities and City staff closely coordinate their efforts to provide maximum benefits to meet the overall Water Resources Engineering Program objectives.

In 2017, the SSCC Program included repair or rehabilitation of 11 creek crossings, at a preliminary cost of \$3,340,083.

Drainage Operations and Maintenance Activities Undertaken During the Reporting Period

During the 2017 calendar year, the Drainage Operations and Maintenance (O&M) Program completed the following activities:

- Completed inspections of all 100 publicly maintained regional and sub-regional detention ponds/facilities.
- Performed identified maintenance activities within 71 publicly maintained regional and sub-regional detention facilities (including debris removal, mowing, tree trimming, sedimentation removal and minor structure maintenance).
- Inspected 51.9 miles of concrete-lined and natural channels.
- Conducted maintenance activities through 19.31 miles of concrete-lined and natural channels along Templeton Gap floodway, Pine Creek, Cottonwood Creek, Camp Creek, and Douglas Creek (including concrete repairs, vegetation and debris removal, and minor sedimentation removal).
- Completed 7,180 separate storm sewer maintenance/vacuum-truck operations (including water quality vault cleaning, storm sewer pipe cleaning and storm sewer blockage removal).
- Repaired or replaced 2,537 linear feet of stormwater conveyance pipe.
- Dedicated six (6) members of the Public Works Operations and Maintenance Division to the Water Resources Engineering Division's Drainage Operations and Maintenance Program to conduct concrete repairs and installation on existing city drainage infrastructure. This effort included 77 activities encompassing 459 cubic yards of concrete materials.

2017 MS4 Permit Compliance Activities

The City's MS4 Permit requires the implementation and operation of several specific programs and program components, including public outreach activities, commercial/residential management, illicit discharge management, construction site management, yearly reporting and compliance tracking, wet and dry weather monitoring, and the municipal facilities runoff control program. Several highlights of program compliance are described below, with additional information located in Section 4 of this report:

- Illicit Discharge Detection – Response to 125 suspected Illicit Discharge calls.
- Public education activities to promote proper management and disposal of potential pollutants conducted during the reporting period included:
 - Presentations provided (i.e., schools, community events): 86
 - Number of students and citizens reached (i.e., schools, community events): 6,014
 - Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions: 3,414,288 impressions (visual and audial)

- Educational distributions: 5,423 brochures and 31,409 school related items
- Social media posts related to Education and Outreach Program: 13
- Industrial facilities program education and outreach activities during the reporting period included:
 - Distribution of over 2,873 brochures promoting proper management of industrial sites regarding stormwater quality and industrial best management practices to local auto body and repair facilities, oil recycling facilities, carwash locations, carpet cleaning operations, and concrete contractors.
- Construction Site Inspections:
 - Total inspections: 6,649 associated with 290 active sites.
- Development and Erosion Control/Development Review:
 - Completed reviews of over 2,700 drainage related development submittals
 - Completed internal training on the following topics:
 - Overall City Drainage Criteria Manual (DCM) & MS4 requirements
 - City DCM Four-Step Process and Water Quality requirements
 - USACE Hydraulic Engineering Center's River Analysis System (HEC-RAS) 2D modeling software and outputs
 - Low-Impact Development (LID) practices
 - Geohazard conditions
 - USEPA Waters of the U.S. rulemaking webinar
 - Participated in the following professional events:
 - Colorado Association of Stormwater and Floodplain Managers (CASFM) Annual Conference
 - USEPA Waters of the US Webinar
 - City of Colorado Springs Grading and Erosion Control BMP Field Academy
 - Colorado Riparian Association (CRA) Stream Academy
 - Urban Drainage Flood Control District annual seminar

Other Relevant Activities Undertaken During the Reporting Period

- Stormwater Ballot Issue 2 - In April 2017, Colorado Springs voters approved Ballot Issue 2, which asked voters whether the City may retain and spend up to \$6 million of revenues each year which may exceed amounts otherwise authorized for retention in 2016 and 2017 under TABOR. These funds may only be used for stormwater projects located within the City limits. A total of 26 proposed stormwater projects have been identified using the Ballot Issue 2 funds. Work on these projects commenced during the second half of the reporting period.
- Stormwater University - In September 2017, the City's Water Resources Engineering Division held its inaugural Stormwater University classroom training session on "Permanent Water Quality and the Four Step Process - Requirements and Regulations" related to requirements outlined in the City's DCM. The intent of the Stormwater University is to provide clarification of the City's requirements and regulations related to the conditions of the City's MS4 Permit and DCM. The Stormwater University is also designed to promote interaction and engagement with the City's regulated community and its representatives (developers, engineers, consultants), as well as community members and residents for improved compliance and understanding of

stormwater-related issues. The second University classroom training session will be held during the first quarter of 2018.

- Stormwater Best Management Practices (BMP) Field Academy – In September 2017, the City of Colorado Springs opened a stormwater BMP field training site that allows attendees in the stormwater construction industry to receive hands on, real time BMP installation and maintenance experience. The first class was held on September 12, with approximately 30 participants. This initial field class was provided as an introduction to local governmental agencies which may elect to participate in the program. A second class for outside engineers and contractors was held on October 27. The Colorado Springs Stormwater BMP Field Academy is one of only two stormwater BMP installation and maintenance training facilities in the state of Colorado, and the first of its kind in the region.
- Stormwater Ballot Issue 2A – In November 2017, Colorado Springs voters approved Ballot Issue 2A which authorized the collection of stormwater service fees beginning July 1, 2018 and ending July 1, 2038, for the sole purpose of funding through a City enterprise, the construction, improvement, and operation and maintenance of public stormwater facilities and infrastructure.
- City-Specific Drainage Criteria Design Spreadsheets – The City is developing City-specific design spreadsheets similar to design spreadsheets developed and used by Urban Drainage Flood Control District (UDFCD) for use in the design of stormwater related infrastructure and facilities in accordance with the City’s DCM.
- City Stormwater Construction Manual (SCM) – The City is in the process of drafting a Stormwater Construction Manual intended to set forth the minimum requirements and processes for obtaining a permit authorizing the discharge of stormwater from a construction site within the limits of the City. The City Grading and Erosion Control Permit is the permit which allows the discharge of stormwater from a construction site within the City in accordance with the City’s MS4 permit. This manual explains the types of construction activities requiring such a permit, who obtains the permit, and how the permit is obtained, including project design phase requirements. In addition, this manual describes the requirements and process for complying with the permit during construction, as well as the City’s inspection and enforcement procedures, and the process for closeout of the permit.
- Fountain Creek Watershed Flood Control and Greenway District (FCWFCGD) Participation – The City and Utilities have continued participation in the FCWFCGD District Board, Technical Advisory Committee, Monetary Mitigation Fund Advisory Committee (MMFAC), and Citizens Advisory Group.
- District Design Manual (DDM) - The City and Utilities supported the FCWFCGD in the development and adoption of a District Design Manual (DDM) and project submittal checklist to support the land use review authority of the District. The intent of the DDM is to provide owners, developers, engineers and other agencies information they will need to comply with stormwater quality and drainage design for development activities within the District.
- District Capital Improvement Plan - The City supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan.

1.0 Introduction

The City of Colorado Springs (City), Colorado Springs Utilities (Utilities), and Pueblo County (together referred to as the Parties) entered into an Inter-Governmental Agreement (IGA) on April 27, 2016 committing the City and Utilities to invest \$460 million dollars over the next two decades on stormwater management and control activities. The IGA describes the City's responsibilities relative to the provision of stormwater services, including a commitment to construct certain identified capital projects.

The purpose of this annual report is to provide appropriate details concerning the timing, amount, and nature of expenditures made by the City and Utilities during the prior year (2017) for Capital Projects included as part of the IGA, stormwater-related operations and maintenance activities, Municipal Separate Storm Sewer System (MS4) Permit compliance, and protection of waterways adjacent to Utilities infrastructure.

1.1 Reporting Requirements

The IGA requires the City to file with Pueblo County, on or before March 31 of the year following the expenditures, a report containing preliminary audited expenditures on the City's and Utilities' Stormwater Control Programs. The IGA also specifies the minimum annual, average annual, and minimum total expenditures, which must be met or exceeded each year. This Preliminary Expenditures report serves as an update to the Annual Report of Estimated Expenditures for the 2017 Calendar Year, submitted on January 30, 2018. This report is to be followed by the filing of a Final Expenditure report on or before June 30, 2018. The Final Expenditures report will be based on the completed audited financial information.

The following contains a summary of Stormwater Control Program activities and report of preliminary expenditures for the 2017 calendar year. Per the IGA, for the purpose of this report, "...expenditures mean both actual expenditures and encumbered funds. 'Encumbered funds' shall mean monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction."

1.2 Background

The City of Colorado Springs is located in El Paso County and the Fountain Creek watershed. The boundaries of the City cover 195 square miles, making Colorado Springs the largest municipality in Colorado by area. With this extensive area, and the significant elevation changes found therein, comes a significant stormwater challenge as the City oversees runoff from 32 different subwatersheds within the city limits.

City Water Resources Program

In 2016, the City created a separate dedicated Water Resources Engineering Division within the City's Public Works Department. As part of this effort, City staff dedicated to stormwater work, as expressed in full time equivalents (FTEs), increased from 28 FTEs present at the end of 2015

to 52.25 FTEs at the end of 2016. In 2017, City staff dedicated to stormwater work further increased to a total of 66.25 FTEs. Most significantly, included in the staff added in 2017 were two additional dedicated stormwater project engineers, a stormwater capital projects review engineer, and increased numbers of inspectors and maintenance and operations personnel.

The overall Water Resources Engineering Division Program consists of three primary functions:

- Operation and Maintenance (O&M) of current drainage and water quality infrastructure;
- Engineering and construction of new stormwater capital projects to address flooding; erosion, and water quality concerns;
- Management of activities required by the MS4 permit.

Delivery of large stormwater capital projects continue to be the responsibility of the City Engineering Division's Capital Improvement Program (CIP), although a stormwater capital projects team has been created for capital projects delivery within the CIP Program and all stormwater projects are coordinated through the Water Resources Engineering Divisions Stormwater Projects Delivery group.

MS4 permit compliance activities are organized under three groups:

- Water Quality
- Development and Erosion Control Review (Stormwater Review Program)
- Stormwater Projects Delivery

The Water Quality group is responsible for implementing the municipal, residential, commercial/industrial, illicit discharge, monitoring, construction site inspection, and public education Best Management Practices (BMP) activities. The Development and Erosion Control Review group is responsible for implementing the development and construction review program, including development submittal review, drainage basin planning, and erosion control-related construction site inspections. The Stormwater Projects Delivery group is responsible for coordinating O&M, community and local projects, capital project delivery being performed within the Water Resources Engineering Division and other divisions, and for stormwater management planning.

The organizational chart below illustrates the Water Resources Engineering Division and coordination with other divisions within Public Works.

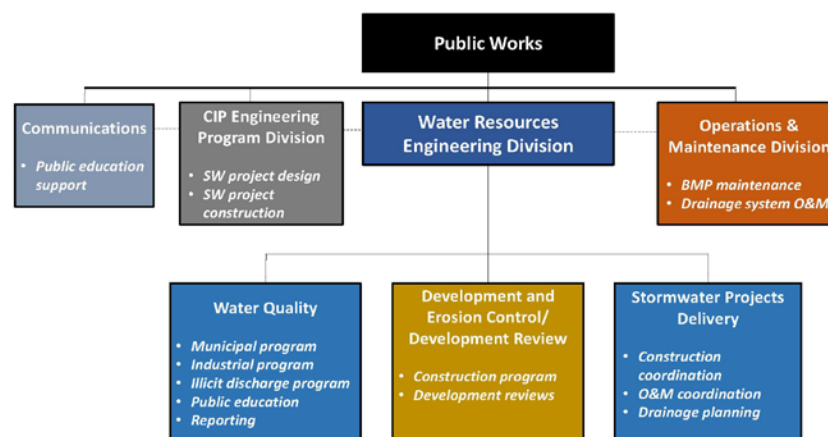


Figure 1: Water Resources Engineering Division Organizational Chart

City Stormwater Capital Improvement Projects Program

The City's Capital Improvement Program (CIP) consists of the staff, budget, and project control systems to plan, engineer, and construct stormwater infrastructure projects. As stated above, the City's Stormwater Projects Delivery Program consists of large capital projects (delivered through the CIP Program), smaller community and local projects (delivered through the Stormwater Projects Delivery Group), grant projects, and others.

The IGA calls out specific projects to be completed over the next 20 years (2016-2035). This list is referred to as the IGA Capital Improvements Project List (IGA CIP List). The projects in the IGA CIP List are delivered through the CIP Program, as well as the Stormwater Projects Delivery Group. The City has worked closely with Wright Water Engineers (WWE), representing Pueblo County, in prioritizing a significant portion of the IGA CIP List.

Paragraph III.B(2)a of the IGA states that beginning with the 2016 calendar year and extending through the term of the IGA, the Engineering Representatives of the Parties shall meet on or before March 31 of each year in order to prepare, review, discuss and update, as necessary, a five-year CIP for the City and a three-year CIP for Utilities, which shall include a list of Capital Projects, the construction of which will commence in the upcoming years. Staff members from the City, Utilities, the City's consultant team, and WWE met on March 16, 2017 and again on September 14, 2017 to review, discuss and update the five-year CIP for the City and the three-year CIP for Utilities' Sanitary Sewer Creek Crossing (SSCC) Program. A copy of the updated five-year City CIP project list is included in Attachment A.

In parallel with the City's stormwater capital program efforts, Utilities has an ongoing effort to construct stormwater projects to protect stream channels and floodplains adjacent to infrastructure crossings. Utilities' SSCC Program implements capital projects with a total average expenditure of approximately \$3 million annually. These are projects that are specifically targeted to protect waterways near facilities that are in danger of failing due to stormwater related events or other impacts (e.g., buried sanitary sewers that cross creeks that have eroded, exposing the sanitary sewers to potential failure). Utilities' stream crossing projects often have significant stormwater protection features.

The Utilities SSCC Program was established to systematically inspect, evaluate, prioritize, repair and/or replace Utilities infrastructure that cross or extend adjacent to minor and major drainages, and to provide long-term creek stabilization for crossings and adjacent longitudinal sewer systems. The objective of the SSCC Program is to provide the benefits of stream stability, reduced erosion and sedimentation, and floodplain reconnection, resulting in improved water quality and storm flow attenuation while simultaneously providing protection of utility infrastructure. Utilities and City staff closely coordinate their efforts to provide maximum benefits to meet the overall Water Resources Engineering Program objectives.

City Stormwater Program Budget

As outlined in the IGA, the City and Utilities have committed to invest an average of \$20 million per year on the stormwater program (core MS4 requirements, Drainage O&M, and stormwater capital projects) for the first 5 years beginning in 2016. City and Utilities budgets will be escalated according to the IGA with a total commitment of \$460 million to be spent between 2016 and 2035.

City Stormwater Ballot Issue 2 and 2A

In April 2017, Colorado Springs voters approved Ballot Issue 2, which asked voters whether, without any increase in taxes, the City may retain and spend up to \$6 million of revenues each year which may exceed amounts otherwise authorized for retention in 2016 and 2017 under TABOR. These funds may only be used for stormwater projects located within the city limits. A total of 26 proposed stormwater projects have been identified using the Ballot Issue 2 funds. Work on these projects commenced during the second half of the reporting period.

In November 2017, Colorado Springs voters approved Ballot Issue 2A which authorized the collection of stormwater service fees beginning July 1, 2018 and ending July 1, 2038, for the sole purpose of funding through a City enterprise, the construction, improvement, and operation and maintenance of public stormwater facilities and infrastructure.

City Stormwater University and Best Management Practices (BMP) Field Academy

In September 2017, the City's Water Resources Engineering Division held its inaugural Stormwater University classroom training session on "Permanent Water Quality and the Four Step Process - Requirements and Regulations" related to requirements outlined in the City's Drainage Criteria Manual (DCM). The intent of the Stormwater University is to provide clarification of the City's requirements and regulations related to the conditions of the City's MS4 Permit and DCM. The Stormwater University is also designed to promote interaction and engagement with the City's regulated community and its representatives (developers, engineers, consultants), as well as community members and residents for improved compliance and understanding of stormwater-related issues. The second University classroom training session will be held during the first quarter of 2018 related to Construction BMPs.

Concurrently in September 2017, the City of Colorado Springs opened a stormwater BMP field training site that allows attendees in the stormwater construction industry to receive hands on, real time BMP installation and maintenance experience. The first class was held on September 12 with approximately 30 participants. This initial field class was provided as an introduction to local governmental agencies which may elect to participate in the program. A second class for outside engineers and contractors was held on October 27. The Colorado Springs Stormwater BMP Field Academy is one of only two stormwater BMP installation and maintenance training facilities in the state of Colorado.

City-Specific Drainage Criteria Design Spreadsheets and Stormwater Construction Manual

The City is in the process of developing City-specific design spreadsheets similar to design spreadsheets developed and used by Urban Drainage Flood Control District (UDFCD) for use in the design of stormwater related infrastructure and facilities in accordance with the City's Drainage Criteria Manual (DCM). Additionally, the City is in the process of drafting a Stormwater Construction Manual intended to set forth the minimum requirements and processes for obtaining a permit authorizing the discharge of stormwater from a construction site within the limits of the City. The City Grading and Erosion Control Permit is the permit which allows the discharge of stormwater from a construction site within the City in accordance with the City's MS4 permit. This manual explains the types of construction activities requiring such a permit, who obtains the permit, and how the permit is obtained, including project design phase requirements. In addition, this manual describes the requirements and process for complying with the permit during construction, as well as the City's inspection and enforcement procedures, and the process for closeout of the permit.

2.0 IGA Compliance Activities Undertaken During the Reporting Period

Section III of the IGA outlines special provisions agreed to by the IGA Parties. The following provides a summary of compliance activities taken by the City and Utilities during this reporting period related to Section III of the IGA.

Paragraph III.A - Stormwater Expenditures

Paragraph III.A(1) - Expenditures by the City and Utilities

For the 2017 calendar year, the City and Utilities were required to expend a minimum of \$16.5 million dollars on its Stormwater Control Program.

- As of December 31, 2017, the City and Utilities have invested (through either expenditures or encumbrances) a total of \$23.6 million dollars on the City's Stormwater Control Program. This includes expenditures and encumbrances of:
 - \$ 7.16 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
 - \$ 13.1 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
 - \$ 3.34 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)
- A more detailed summary of preliminary expenditures for the 2017 calendar year is provided in Section 3.0 of this report.

Paragraph III.A(2) - Annual Report of Expenditures

The IGA requires that in order to verify whether the City's and Utilities' expenditures on the Stormwater Control Program meet or exceed the requirements of paragraph III.A(1), each year the City and Utilities shall file with Pueblo County a report containing an estimate of expenditures on or before January 31 of the year following the expenditures, followed by the filing of a preliminary report on or before March 31, and with a final report to be filed on or before June 30 of that year based on audited financials. These reports are to provide appropriate details concerning the timing, amount and nature of all such expenditures made by the City and Utilities during the prior year for Capital Projects, O&M, MS4 Permit compliance, protection of Utilities infrastructure from stormwater, and any other relevant categories.

- This report serves to document the preliminary expenditures for the 2017 calendar year and provide a summary of the associated Stormwater Control Program activities.
- This Preliminary Expenditures report serves as an update to the Annual Report of Estimated Expenditures for the 2017 Calendar Year, submitted on January 30, 2018. A subsequent final expenditures report will be filed on or before June 30, 2018 based on audited financials.

Paragraph III.A(5)d - City and Utilities Funding Sources

Paragraph III.A(5)d. states in part that the City may include up to \$1.75 million dollars in actual third-party grants included in the proposed 2017 budget in fulfillment of its financial obligations provided that the City shall expend an additional amount equivalent to such grant funding within the first ten years.

- As detailed further in Section 3.0 of this report, the City was able to meet the minimum and average annual expenditure for the 2017 reporting year required in the IGA without the inclusion of the \$1.75 million dollars provided by third-party grants as originally included in the City's 2017 budget.
- Based on this, the City will not be required to expend an additional amount in future years related to the contemplated 2017 grant funding for fulfillment of its financial obligations.

Paragraph III.B - Stormwater Capital Improvement ProgramParagraph III.B(2) - Identification of Capital Projects

Paragraph III.B(2)a. states that beginning with the 2016 calendar year and extending through the Term of the IGA Agreement, the Engineering Representatives of the Parties shall meet on or before March 31 of each year in order to prepare, review, discuss and update, as necessary, a five-year CIP for the City and a three-year CIP for Utilities, which shall include a list of Capital Projects, the construction of which will commence in the upcoming years.

- Staff from the City, Utilities, the City's consultant team, and WWE met on March 16, 2017 and again on September 14, 2017 to review, discuss and update the five-year CIP for the City and the three-year CIP for Utilities' SSCC Program. A copy of the updated five-year City CIP project list is included in Attachment A.

At the completion of the March 16, 2017 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Cottonwood Creek Detention Basins (IGA Project #65) – Replacement of PR-6 and PR-9 with YellowWood Regional Pond in the same general area; removal of PR-11 due to limited benefit to overall system; and movement of PR-2 slightly to the west and an increase in size to provide additional benefit to the system
- South Pine Creek Detention Pond (IGA Project #9) – Replaced with Pine Creek Drainage Corridor Detention Pond due to the original South Pine Creek Detention Pond site being located on private land under development. Alternate location chose within the same basin with added benefit to Pine Creek.
- Water Quality Project (IGA Project #13) – Agreed to location of 2017 water quality project near the intersection of Sierra Madre Street and Vermijo Avenue in the western downtown area of Colorado Springs.

At the completion of the September 14, 2017 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Storage Bridle Pass Drive Detention Facility (IGA Project #52) – Replaced with the Scarborough Drive Sub-Regional Detention Facility located slightly upstream from the original proposed location due to original site being located on private

owned land. A conceptual design report related to the Scarborough Drive Sub-Regional Detention Facility was provided to WWE for review prior to acceptance of the replacement project.

- Storage Wagner Park Detention Facility (IGA Project #41) – Discussed possible future relocation of this facility to another agreed upon location due to the site constraints.

Paragraph III.B(2)c. states that Utilities shall reimburse Pueblo County up to \$10,000 each year (commencing in 2016) to defray the actual cost incurred by Pueblo County of using any outside engineering consultants to conduct these yearly reviews and any associated inspections, payable within 30 days of Utilities' receipt of a statement from Pueblo County evidencing such costs.

- For 2017, a statement from Pueblo County evidencing such costs for reimbursement was not received by Utilities.

Paragraph III.B(4) – Contingency for Stormwater Emergencies

Paragraph III.B(4) states that should an unanticipated emergency stormwater event occur, such as a flood, which event causes or threatens to cause property damage or create a threat to human health or safety which must be addressed in an immediate manner utilizing funds previously allocated for the listed Capital Projects, the City and Utilities shall promptly notify Pueblo County of such situation, and the Engineering Representatives of the Parties shall confer and reach agreement promptly on any required postponement and modification to the stormwater construction priorities in the CIP.

- No unanticipated emergency stormwater events as outlined in the above paragraph occurred during the reporting period.

Paragraph III.C – Regional Cooperation on Fountain Creek

Paragraph III.C states in part that the Parties are to coordinate and cooperate in regional initiatives designed to address such concerns, including:

- (1) *By coordinated support of the initiatives undertaken by the Fountain Creek Watershed, Flood Control and Greenway District ("FCWFCD") to obtain federal and state assistance for stormwater, flood control and water quality projects within the Fountain Creek basin, including federal and state grants;*

- The City and Utilities have worked with, and gained the support of, the FCWFCD for the following grant opportunities:

- US-24/Colorado Ave. Basins – Colorado Department of Transportation (CDOT) Water Quality Mitigation Pool Grant Application: \$3,300,000

The project involves the installation of a proposed extended detention basin to be located adjacent to the south bank of Fountain Creek on the current Timber Lodge cabins property, just north of Ridge Road. The basin will provide water quality treatment and detention for significant areas of CDOT right-of-way and previously developed property within the City of Manitou Springs, City of Colorado Springs, and El Paso County. The project is consistent with the *Upper Fountain Creek and Cheyenne Creek Flood Restoration Master Plan, June 26, 2015* and

the US24 West Environmental Assessment and Section 4(f) Evaluation, May 2012. The grant application was approved and awarded on August 15, 2016.

- Colorado Water Conservation Board, Water Supply Reserve Account funding – Utilities continued to provide support to the FCWFCGD in association with two studies on Fountain Creek, both of which were approved to receive state and regional funding through the Water Supply Reserve Account program. These studies include the Watershed Assessment of River Stability and Sediment Supply (WARSSS) study for the main stem of Fountain Creek, and the Evaluation of Fountain Creek Flood Control Alternatives. Additionally, Utilities provided in-kind contributions in the implementation of both studies through staff technical support.

(2) *By regional land use planning efforts where feasible and practicable;*

- The City and Utilities are active participants in the FCWFCGD Board of Directors, the FCWFCGD Technical Advisory Committee (TAC), and Monetary Mitigation Fund Advisory Committee (MMFAC). Respectively, the TAC and MMFAC provide input to the Board of Directors regarding technical matters including land use policies, land use project applications, and funding priorities for project work on Fountain Creek.
- The City supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan.

(3) *By regional water quality improvement and water quality regulatory initiatives, as determined appropriate and subject to each Party's reservation of its regulatory authority.*

During the reporting period:

- The City supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan for the purpose of ensuring that the Monetary Mitigation Funds provided through Condition 6 of the Pueblo County SDS 1041 Permit are allocated in congruence with the terms outlined in the SDS 1041 Permit.
- The City and Utilities supported the FCWFCGD in the development and adoption of a District Design Manual (DDM) and project submittal checklist to support the land use review authority of the District. The intent of the DDM is to provide owners, developers, engineers and other agencies information they will need to comply with stormwater quality and drainage design for development activities within the District.
- The City and Utilities continued to participate through the Arkansas and Fountain Coalition for Urban River Evaluation (AF CURE) to develop United States Environmental Protection Agency (USEPA) Watershed Based Plan (WBP) to address E. coli concentrations in the Fountain Creek stream segments listed as “impaired” in the CDPHE Regulation #93 (303 d list). Participation has included cash match and in-kind technical support in the form of data collection, analysis, stakeholder coordination, and plan development. This effort will result in a Fountain Creek WBP that presents solutions for reducing both point source and nonpoint source pollutant loadings that contribute to E. coli water quality impairments and outline how these solutions can be implemented. It is anticipated that this WBP will inform CDPHE’s future development

of a Total Maximum Daily Load, which will serve as a regulatory approach to reduce point source and nonpoint source contributions of E. coli in the Fountain Creek watershed. Additionally, though AF CURE, Colorado Springs Utilities is participating in regional water quality efforts including nutrient sampling and modelling, PFC-related groundwater issues, and the revision of the regulatory classification of Fountain Creek tributaries.

- The City completed engineering and construction of Phase I of the Monument Creek Channel Stabilization project, and began design of Phases II and III of the project. The project is located on Monument Branch, a tributary of Monument Creek, between North Gate Boulevard and Interquest Parkway. This project will restore and stabilize the creek by constructing drop structures and installing flood mitigation measures. The project was identified as a high priority project within the *Monument Creek Watershed Restoration Master Plan, October 3, 2016* and is a joint effort between the City, Utilities, the United States Air Force Academy, CDOT, and the FCWFCDG.
- (4) *By coordinated support of acquisition of land or conservation easements by the FCWFCDG or other entities to preserve or enhance the Fountain Creek corridor below the City and through the City of Pueblo.*
- No known activities were conducted by the FCWFCDG or other entities during the reporting year.
- (5) *By exploring opportunities for such coordination and cooperation on these Fountain Creek initiatives beyond the term of the IGA Agreement.*
- The City is in the process of developing a Stormwater Infrastructure Master Plan (SIMP) which will incorporate information from the *Upper Fountain Creek and Cheyenne Creek Flood Restoration Master Plans* and the *Monument Creek Watershed Restoration Master Plan*, which were prepared in a joint effort with the FCWFCDG.

Paragraph III.D - Payments to FCWFCDG

Paragraph III.D(2) - Commencement of Payments under Condition 6 of the SDS 1041 Permit

Paragraph III.D(2) states that within 30 days of the execution of the IGA Agreement, Utilities shall, on behalf of the SDS Participants, make the first annual payment (together with the additional annual indexing amounts) due under Condition 6 of the SDS 1041 Permit for the purposes stated therein to the FCWFCDG or its Enterprise in the amount of \$9,578,817.00. The remaining annual payments shall be made on or before January 15 of the years 2017, 2018, 2019 and 2020 respectively.

- Prior to the Bureau of Labor Statistics November 2016 Producer Price Index (PPI) data for Finished Goods (WPUFD49207) being “Finalized” in April 2017, two initial payments were made by Utilities to the Fountain Creek Watershed Water Activity Enterprise totaling \$10,159,839. This included a payment of \$10,052,192 delivered on January 13, 2017, and a second payment of \$107,647 delivered on February 6, 2017 associated with an annual indexing adjustment. These payments were made in accordance with Condition 6 of the Southern Delivery System (SDS) 1041 Permit and as outlined in Resolution No. P&D 14-15 (confirming the commencement date for the

annual indexing and approving the annual indexing methodology for purposes of calculating monetary mitigation).

As outlined in Resolution No. P&D 14-15 and the associated attachment, “*On or before March 31 of each year, CSU staff shall meet with Pueblo County Staff for purposes of confirming the PPIs for each of the November to November twelve month periods used in the calculation and reaching agreement upon the index-based amount to be paid by CSU utilizing the calculation methodology (described)....*” This meeting was postponed until April 2017 when the previously reported “Preliminary” November 2016 PPI value of 192.6 for Finished Goods (WPUFD49207) was updated to a “Finalized” published value of 192.4 (0.2 points less than the original published “Preliminary” value).

Based on this reduction in the index value, the Total Annual Payment Amount with Indexing for 2017 should have been \$10,149,289. However, based on the “Preliminary” value of 192.6 used for the initial 2017 payment, a total payment of \$10,159,839 was issued to the Fountain Creek Watershed Water Activity Enterprise. This in turn resulted in an overpayment of \$10,550 in 2017 by Utilities as it relates to payments associated with Condition 6 of the SDS 1041 Permit.

As the overpayment resulted in a credit of \$10,550 to Utilities in 2017 as it relates to payments associated with Condition 6 of the SDS 1041 Permit, Utilities notified Pueblo County that Utilities intends to deduct this credited amount from the January 2018 Condition 6 Monetary Mitigation payment to the Fountain Creek Watershed Flood Control and Greenway District’s Fountain Creek Watershed Water Activity Enterprise.

Paragraph III.D(3) – Cooperation on Future Funding

Paragraph III.D(3) states that to ensure long-term funding of FCWFCDG's annual operating budget, the City, Utilities and Pueblo County will work cooperatively and in good faith to establish a proportional formula by which each of the Parties and the other participating stakeholders in the FCWFCDG, will agree to contribute funds to ensure the long-term funding of FCWFCDG's operating budget.

- On August 15, 2016, a resolution was passed by the FCWFCDG Board of Directors (FCWFCDG Resolution #2016-04-General) which established a proportional formula by which each of the Parties and the other participating stakeholders in the FCWFCDG agreed to contribute funds for the FCWFCDG's operating budget. Representatives of the City, Utilities and Pueblo County took part in the resolution through participation on the FCWFCDG Board of Directors and TAC. As such, the City issued a check in the amount of \$100,904 payable to the FCWFCDG on March 29, 2017.

Paragraph III.E – Contributions to Protection of Pueblo Levees

Paragraph III.E(1)

Paragraph III.E(1) states in part that Utilities shall contribute to the City of Pueblo or its Stormwater Enterprise funds not to exceed \$1 million a year for 3 years (\$3 million total). The first payment shall be made within 30 days of the execution of the IGA Agreement. Subject to paragraph III.E.2, the second payment shall be made on January 1, 2017; and the third payment on January 1, 2018.

- A check dated January 3, 2017 in the amount of \$1,000,000 payable to the City of Pueblo was delivered by Utilities to the City of Pueblo Finance Department on January 3, 2017. (It should be noted that January 1, 2017 occurred on a Sunday and the New Year's Day holiday was observed on Monday, January 2, 2017.)

Paragraph III.E(2)

Paragraph III.E(2) states in part that the provision of the second and third payments (January 1, 2017 and January 1, 2018) shall be contingent upon the production by the City of Pueblo of documentation evidencing that a substantial portion of the combined prior year's funding has been expended for the allowed purposes.

- Utilities has received documentation from the City of Pueblo evidencing that a substantial portion of the combined 2017 funding has been expended for the allowed purposes.

Paragraph III.F - Grant of DCM Variances

Paragraph III.F states in part that to the extent the granting of DCM variances is not precluded by the EPA or CDPHE, the City shall provide Pueblo County with notice of, and an opportunity to comment upon, any DCM variance request before a decision is made on the variance request.

- Twenty (20) minor DCM variance requests were received by the City during the reporting period. The requests were submitted to the Pueblo County Engineering Department following review and acceptance by the City to allow the County the opportunity to review and comment on the requests. None of the variance requests resulted in an adverse impact to water quality or an increase of peak flows into Fountain Creek. Pueblo County representatives did not provide objection to any of the requests following their review. The City took the Pueblo County responses under advisement and requested and responded to any questions Pueblo County representatives had.

3.0 Preliminary Expenditures for the 2017 Calendar Year

The following contains a report of preliminary audited expenditures for the 2017 calendar year. Per the IGA, for the purpose of this report, "...expenditures mean both actual expenditures and encumbered funds. 'Encumbered funds' shall mean monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction." Further, the IGA states: The City and Utilities combined expenditures shall comply with the minimum total expenditures and minimum average annual expenditure during each five-year period. For the first five-year period (2016-2020), the minimum annual expenditure requirement is \$16.5 million, and the average annual expenditure requirement is \$20 million for an overall expenditure of \$100 million for the period between 2016 and 2020. In addition, the city has committed to complete at least the projects included in the Capital Projects list identified per the agreement by December, 31, 2035.

The minimum expenditure requirement (actual and encumbered) has been met for the 2017 calendar year reporting period. As of December 31, 2017, the City and Utilities have invested (through either expenditures or encumbrances) a total of \$23.6 million dollars on the City's Stormwater Control Program.

Expenditures for the 2017 Calendar Year

IGA Requirement	Minimum Total Expenditures	Average Annual Expenditures	Minimum Annual Expenditures
First Five Years (2016-2020)	\$100 Million	\$20 Million	\$16.5 M/yr.

Claimed Expenditures (Actual Expenditures and Encumbered Funds)	2016	2017 Amended*	Total (2016-2017)
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$12,994,368
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$28,082,145
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$8,053,107
Total	\$25,528,981	\$23,600,639	\$49,129,620

*2017 Amended Budget Includes \$6 million in TABOR Funding from 2017 Ballot Issue 2.

Actual Expenditures Only	2016	2017	Total (2016-2017)
Drainage O&M	\$2,225,302	\$3,566,698	\$5,792,000
Stormwater MS4 Program	\$2,772,986	\$3,953,567	\$6,726,553
Stormwater Capital Projects	\$8,743,880	\$7,847,522	\$16,591,402
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$8,053,107
Total	\$18,455,192	\$18,707,870	\$37,163,062

Additional Unclaimed Stormwater Expenditures

Other Capital Project Stormwater/Channel Related Work (Excluded expenditures related to PPRTA and roadway/bridge construction or maintenance projects per IGA paragraph III.A(5)b.)	\$1,249,432
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Capital Project Summary of Expenditures

Of the actual expended total listed above, \$7,847,522 has been invested in Capital Projects, of which \$5,643,898 has been invested on thirteen (13) 2016 and 2017 IGA projects, five (5) 2018 IGA projects, one (1) 2019 IGA project, and one (1) 2020 IGA project, with an additional \$2,203,624 invested on other stormwater related projects.

IGA CAPITAL PROJECTS		
IGA Project No.	Project Name	Actual Spent (\$)
65	Cottonwood Creek Detention Basins (2017)	640,144
31	Rangewood Tributary Detention Pond (2017)	14,010
52	Scarborough Drive Sub-Regional Detention Facility (2017)	69,306
1	Emergency Stormwater Projects	1,561,558
0	FEMA Grant Projects (City Funds)	-----
	FEMA DR 4229	510,622
	2015 May Storm-Monument Branch	285,843
	2015 May Storm-Pebblewood	114,975
	2015 May Storm-Additional Projects	2,655
	HMGP 4145 Camp Creek Flood Mitigation	397,830
	NRCS 4145 North Douglas Design	127,435
	NRCS 4145 Chuckwagon Design	52,471
	NRCS 4145 Chuckwagon Ph II	303,005
5	Downtown Drainage Imps (Pikes Peak Avenue) (2016)	798,659
7	Fairfax Tributary Detention Pond (2016)	3,817
8	King Street Detention Pond (2016)	413,798
2	Sand Creek Detention Pond #3 (2016)	6,185
26	Sand Creek S. of Platte (CS-018) Grant Match (2016)	3,191
6	USAFA Drainages (Monument Branch) (2016)	100,840
13	Water Quality Project (America the Beautiful Park) (2016)	87,110
13	Water Quality Project (Sierra Madre Pond) (2017)	17,663
Various	Project Scoping and Definition (IGA Projects)	132,781
	(IGA-09) Pine Creek Drainage Corridor Detention Pond (2018)	
	(IGA-15) Citadel Mall Neighborhood Improvements (2018)	
	(IGA-11) Camp Creek Phase I (2018)	
	(IGA-41) Storage Wagner Park (2018)	
	(IGA-23) North Chelton Road Drainage Improvements (2018)	
	(IGA-34) Storage Sand Creek Detention Pond 2 (2019)	
	(IGA-24) Park Vista (Siferd Low Water Crossing (2020)	
Total 2017 Stormwater IGA Project Expenditures		\$5,643,898

Other Stormwater Capital Projects

Project Name	Actual Spent (\$)
Comprehensive Drainage Master Plan	286,086
Dam Repairs	121,665
Drainage Criteria Manual Updates	136,003
Drainage Studies (Cottonwood Crk & Little Shooks Run Outfall)	241,591
Emergency Drain Repair High Priority (Bear Creek Design)	1,038
High Priority CIP Projects and Grant Match-Chuckwagon GM	107,415
Miscellaneous Studies	178,657
Regional Wastershed Collaboration	100,904
Stormwater Improvements	16,153
TABOR16 001-Falcon Estates	186,468
TABOR16 006-Doherty Hs Channel	83,228
TABOR16 014-Pitkin Street Drainage	33,180
TABOR16 023-Arcadia Street	266,023
TABOR16 084-Nichols/El Paso St	52,619
TABOR16 112-Golden Barrel Ct	11,112
TABOR16 117-Centennial/Rising Moon	22,182
TABOR16 119-Galley Rd/N Murray	117,558
TABOR16 169-E Monument/N Cedar	121,440
TABOR16 355-10th and 11th St	81,495
TABOR16 381-Little Shooks Run	38,807
Total 2017 Non-IGA Stormwater Capital Projects Expenditures	\$2,203,624

Total Stormwater Capital Projects Expenditures

Total 2017 Stormwater Capital Projects Expenditures	\$7,847,522
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Colorado Springs Utilities SSCC Program Activities		
Work Order No.	Project Name	Actual Spent (\$)
3073340	Monument Branch Channel Restoration Phase-II	\$500,000
2973997	Sand Creek Stabilization at West Fork Confluence - Karr Phase II	\$457,871
3055412	Sand Creek Stabilization between Hancock and Academy	\$624,565
3077805	Fountain Creek at Tejon & Nevada Steam Stabilization	\$25,744
2973829	Monument Creek Stream Stabilization Upstream of Pikeview Intake	\$1,208,998
3137630	Monument Branch Stream Stabilization at Middle Monument Force Main	\$52,883
2785897	CSR Bank Stabilization, Design, Easement Acquisition	\$106,482
3129020	Dry Creek Downstream of Dawson Drive, Design	\$172,124
2972334	West Fork Sand Creek Stream Stabilization 2016, Design	\$68,634
3129720	Cottonwood Creek Upstream of Academy Blvd Stream Stabilization, Design	\$94,923
2899031	Little Fountain Creek Project (Multi Service Capital)	\$27,859
Total Utilities SSCC Program 2017 Project Costs to Date:		\$3,340,083

4.0 Stormwater Control Program Activities Undertaken in 2017 Calendar Year

2016 Capital Projects Carried Over Into the 2017 Reporting Period

2016 FEMA/ GRANT PROJECTS (IGA PROJECT #0)

Projects arising from the 2013 and 2015 flooding

31st Street Channel

Location: 31st Street at Westmoor Drive

Description: Storm damage caused undermining underneath and behind several concrete armoring panels in the channel between opposing lanes of traffic on 31st Street. Work accomplished: repaired trapezoidal channel section including side slopes and bottom in order to reduce possibility of undermining or erosion in a future event.

Engineer/Contractor: PRC Engineering/Tasmarr
Status: 100% Complete

Garden of the Gods Detention Pond - Camp Creek 2013 Flood Mitigation

Location: Garden of the Gods, just west of 30th Street and south of Glen Eyrie

Description: Flash floods following the Waldo Canyon Fire caused increased flood flows, massive erosion and sediment deposition onto Garden of the Gods. The Hazard Mitigation Grants Program funded the construction of this large detention basin to contain sediment and slow flows into Garden of the Gods.

Engineer/Contractor: Wilson and Company/TBD
Status: Engineering 100% Complete; Construction Planned for 2018

Flying W Ranch/Chuckwagon - Phase 1

Location: Chuckwagon Road

Description: Flash floods following the Waldo Canyon fire caused massive erosion and damage to private property on the Wolfe Ranch/Chuckwagon. The NRCS grant program funded the stabilization of 3,600 feet of drainage channels throughout the property.

Engineer/Contractor: Terra Nova/BMH Development
Status: 100% Complete

North Douglas Channel Stabilization

Location: North Douglas Creek upstream of Wolfe Ranch Road

Description: Flash floods following the Waldo Canyon fire caused massive erosion and damage to private property on the Wolfe Ranch/North Douglas Creek which caused thousands of tons of material to choke City drainage systems. The NRCS grant program funded the stabilization of this drainage channel throughout the property.

Engineer/Contractor: Matrix Engineering/Sun Construction
Status: 100% Complete

2016 FEMA/ GRANT PROJECTS (IGA PROJECT #0) - Continued

Projects arising from the 2013 and 2015 flooding

Autism Center Channel Stabilization (2015)

Location: Upstream of 2760 Fieldstone Road

Description: The South Douglas Creek natural channel through this area was heavily eroded due to post wildfire flooding from the Waldo Canyon fire, bringing heavy debris that clogged a detention pond and subsequently caused severe downstream neighborhood flooding in 2015. This project provided an improved grate system for the detention pond outlet structure to prevent future clogging of the drainage system.

Engineer/Contractor: HDR Engineering/BMH Development
Status: 100% Complete

2016 EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1)

Projects arising from 2016 prioritized needs

Chapel Hills Drainage

Location: Northwest corner of Chapel Hills Drive and Mulligan Drive

Description: Groundwater seeping from the hillside west of Chapel Hills was flowing over the sidewalk causing hazardous conditions. An underdrain was placed behind the sidewalk and tied into the adjacent inlet to capture flows before daylighting.

Contractor: DRX
Status: 100% Complete

SAND CREEK DETENTION POND 3 (IGA PROJECT #2)

Location: Pond located along Sand Creek on the north side of Woodmen Rd and west of Marksheffel Road

Description: This project involved the engineering and construction of new full spectrum water quality and detention pond that was substantially completed this summer. The remaining work included plantings completed in the spring of 2017.

Engineer/Contractor: Kiowa/Tezak Construction
Status: 100% Complete

DOWNTOWN DRAINAGE IMPROVEMENTS (IGA PROJECT #5)

Location: Pikes Peak Avenue - Nevada to Shooks Run

Description: This project combined the reconstruction and upgrade of an existing stormwater pipeline and a potable water main that run along Pikes Peak Avenue from Nevada Avenue to Shooks Run. The project was engineered in-house in 2016 and constructed in 2017.

Engineer/Contractor: City Engineering/Swerdfegger
Status: 100% Complete

USAFA DRAINAGE-MONUMENT BRANCH - PHASE I (IGA PROJECT #6)

Location: The project is located on Monument Branch, a tributary of Monument Creek, between North Gate Blvd and Interquest Parkway and starts at Voyager Parkway (just north of The Classical Academy school) and continues west past I-25 to the confluence with Monument Creek on the United States Air Force Academy (USAFA).

Description: The Monument Branch tributary of Monument Creek has become highly eroded. This project was constructed to restore and stabilize the creek by constructing drop structures and installing flood mitigation measures. The project has been broken up into 3 phases. Phase 1 (completed in 2016 and 2017) is a small section of highly eroded channel between Voyager Parkway and I-25. Phase 2 consists of the remaining section outside of Phase 1 between Voyager parkway and I-25. Phase 3 will be the section of Monument Branch from the confluence with Monument Creek to the Santa Fe Regional Trail on the west side of I-25. The project is identified as a high priority project within the Monument Creek Watershed Restoration Master Plan, October 3, 2016 and is a joint effort between the City, Utilities, the United States Air Force Academy, CDOT, and the FCWFCD.

Engineer/Contractor: Matrix/SEMA Construction (Phase 1)
Status: Phase 1 - 100% Complete

Phase II and III:

Engineer/Contractor: Matrix/TBD
Status: Phase II Engineering - 90% Complete
Phase III Engineering - 30% Complete

FAIRFAX TRIBUTARY DETENTION POND (IGA PROJECT #7)

Location: Proposed pond to be located on the northwest corner of Powers Boulevard and Research Parkway.

Description: This project will construct a new full spectrum detention facility. The initial budget identified was not enough to cover the anticipated project costs. Therefore, a \$2,863,472 grant application through the CDOT Water Quality Mitigation Fund was applied for and awarded to the City. The City is currently working on an IGA with CDOT for the project. Design will begin by an engineering company after CDOT has finished selecting a design alternative for the proposed interchange at Research Parkway and Powers Boulevard. The configuration of the interchange will impact the property in which the basin will be located. In addition, Matrix Design Group completed a 10% design for the installation of a stand-alone facility, independent of the CDOT grant, as part of the Cottonwood DBPS Project.

Engineer/Contractor: FHU - Grant Application/TBD
Status: Grant Application 100% Complete
(Waiting on Completion of IGA Between CDOT and City Before Advertising RFP for Design Engineering)

KING STREET DETENTION POND (IGA PROJECT #8)

Location: King Street Detention pond is located on the south side of King Street at 25th Street.

Description: This project included providing water quality for the area and flood control by retrofitting the existing detention basin into a full spectrum basin meeting current engineering standards.

Engineer/Contractor: Kiowa/Langston
Status: 95% Complete

WATER QUALITY PROJECTS-ATB PARK BASIN (IGA PROJECT #13)

Location: America the Beautiful (ATB) Park is located southwest of downtown between Colorado Ave. to the north, Cimarron Ave. to the south, and Monument Creek to the west.

Description: This project will provide water quality and flood control to the southwest downtown redevelopment area. The current area does not have any regional water quality before discharging into Monument Creek. The project will address existing pipe size capacity and water quality before entering Monument Creek just upstream of Fountain Creek by the retrofitting of an existing basin.

Engineer/Contractor: AECOM/TBD
 Status: Engineering 90% Complete
 Construction to be Completed in 2018

SAND CREEK STABILIZATION SOUTH OF PLATTE (IGA PROJECT #26)

Location: The project is located in Sand Creek immediately downstream of Platte Avenue Bridge and ends half a mile downstream at the confluence with the West Fork Drainage channel.

Description: The project will stabilize this section of Sand Creek utilizing funding from a grant through the FEMA Hazard Mitigation Grant Program (HMGP). This section of channel has been eroding at a very high rate and is now threatening a very large drop structure below Platte Avenue that was constructed in 2008 after a large storm compromised the bridge pier supports. The proposed channel improvements will include several channel stabilization structures, bank stabilization measures, and restoration of riparian habitat.

Engineer/Contractor: RESPEC/Tezak Construction
 Status: Engineering 100% Complete, Construction Contract Awarded
 Construction to Begin January 2018

DAM IMPROVEMENTS/ MAINTENANCE PROJECTS

Projects arising from 2015 dam inspections

Quail Lake Dam

Location: East Cheyenne Mountain Boulevard and Quail Lake Road

Description: Seepage was identified along the southern toe of the dam near the outlet structure. A new weighted filter buttress will be designed and constructed to slow down flows from the seepage and provide a better monitoring point.

Engineer/Contractor: JDS-Hydro/Tezak Construction
 Status: Engineering 100% Complete
 Construction to be Completed in 2018

ENGINEERING STUDIES

10% Conceptual Design

Location: Various locations around the City.

Description: This project is looking at several of the planned IGA projects over the next 3 years (2017-2019). The planned projects will be designed to a 10% level and a cost estimate developed to better scope and budget the projects.

Engineer: CH2M
 Status: Engineering 100% Complete

ENGINEERING STUDIES - Continued

Cottonwood Creek Drainage Basin Planning Study (DBPS)

Location: Cottonwood Creek Drainage Basin (northeast section of the City)

Description: The Cottonwood Creek DBPS has started to be revised several times over the past few years; however, was not completed and finalized. This project reassesses the previous revision and will provide updates as needed. The DBPS will be finished and finalized in 2018. Many of the 2017/2018 IGA projects are in this basin and will use this updated information.

Engineer: Matrix
Status: Engineering 50% Complete

Falcon Estates Drainage

Location: The lower Falcon Estates Neighborhood is located between I-25 and Academy Blvd and north of Woodmen Road.

Description: The neighborhood was developed as a county development and was later annexed into the City. The neighborhood is more rural with paved roads with roadside ditches and no underground storm sewer system. Areas of the neighborhood are prone to flooding during rainstorms. The assessment project identifies drainage-related issues and provides suggestions for solutions. The assessment does not produce a shovel ready project, but rather identifies the needs for future improvements and possible maintenance needs.

Engineer: CH2M
Status: Engineering 100% Complete

Rustic Hills Master DBPS

Location: Rustic Hills Subdivisions #1 and #2

Description: The purpose of the study was to perform a comprehensive analysis and assessment of the area with respect to hydrology and channel hydraulics in order to provide recommendations for improvements to roadway cross sections, overall area drainage design and multi-use trails in accordance with current Low Impact Development (LID) practices and the City of Colorado Springs Drainage Criteria Manual.

Engineer: Wilson & Company
Status: Engineering 100% Complete

Stormwater Infrastructure Master Plan (SIMP)

Location: City Wide

Description: The purpose of the SIMP is to collect, standardize, and integrate information on stormwater capital and operations and maintenance (O&M) projects needed to address current and future stormwater conditions in the City. The City has numerous sources of information on existing and proposed stormwater capital projects to address stormwater, flood control, channel stability, and water quality conditions in the City's drainage ways and urban area. The initial working version of the SIMP is anticipated to be completed by the end of 2018.

Engineer: Matrix/Wilson & Company/HDR
Status: Engineering 20% Complete

Capital Projects Undertaken During the 2017 Reporting Period

FEMA/ GRANT PROJECTS (IGA PROJECT #0)

Projects arising from the 2013 and 2015 flooding

East Fork Sand Creek Erosion - Site 1

Location: South of Airport Road and west of Powers Boulevard

Description: Flooding during FEMA declared disaster has incised the channel and caused side slop damage. Project will repair approximately 900ft of channel. Beginning approximately 1000 feet west of Powers, design and install new drop structures and raise the Channel bottom approximately 5 feet.

Engineer/Contractor: Respec/TBD
Status: Design 90% Complete

Flying W Ranch/ Chuckwagon-Phase II

Location: Chuckwagon Road

Description: Flash floods following the Waldo Canyon fire caused massive erosion and damage to private property on the Wolfe Ranch/Chuckwagon. The NRCS grant program funds additional stabilization of about 1,500 feet of drainage channels throughout the property.

Engineer/Contractor: Matrix/BMH Development
Status: Engineering 75% Complete
Construction 30% Complete

Monument Creek at Mark Dabling

Location: Monument Creek along Mark Dabling Boulevard about 3,000 feet south of East Rockrimmon Boulevard crossing

Description: Erosion from FEMA declared disaster caused significant damage to creek banks and removal of a maintenance access road leading from Mark Dabling to the creek. Work to be accomplished: restore access road and creek banks and armor creek banks with grouted rip-rap while incorporating bio-engineering concepts in design per FEMA Directive 108-1.

Engineer/Contractor: PRC Engineering/Pioneer Sand
Status: 100% Complete

Pikes Peak Greenway

Location: Fountain Creek near South Circle Drive

Description: Storm damage from FEMA declared disaster caused erosion of creek banks and damage to existing pedestrian trails. Work to be accomplished: restore and stabilize creek banks and rebuild trail sections.

Engineer/Contractor: Wilson/Tezak Construction
Status: 100% Complete

East Fork Sand Creek Cut Bank Revetment

Location: East Fork Sand Creek east of Powers Boulevard

Description: Construction of a new revetment to stabilize the East Fork channel bank through the Colorado Springs Airport property.

Engineer/Contractor: Unknown/Unknown
Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1)

Projects arising from 2017 prioritized needs

Chuckwagon Debris Ponds

Location: Chuckwagon Road

Description: Removed sediment from post Waldo Canyon Fire debris ponds and stockpiles at Chuckwagon Project Site in accordance with the City's 3-year post-fire maintenance agreement with the landowner.

Contractor: BMH Development

Status: 100% Complete

Oro Blanco Channel

Location: Oro Blanco and Barnes Road

Description: Repaired concrete trapezoidal channel.

Contractor: DRX

Status: 100% Complete

East Fork Sand Creek

Location: East Fork Sand Creek, about 1,000 feet west of Powers Boulevard

Description: Restored eroded creek bank that was damaged after 2015 FEMA declared flood event. This bank failure and repair was excluded from FEMA grant project in the same area.

Contractor: Ability

Status: 100% Complete

Turquoise Channel

Location: Behind residences on east side of 4700 Block Turquoise Circle

Description: Repaired concrete trapezoidal channel.

Contractor: ECC

Status: 100% Complete

Van Buren Channel

Location: Just upstream of Cascade Avenue crossing

Description: Repair and restore concrete trapezoidal channel and associated embankment above the north side of the channel.

Contractor: Ability

Status: 100% Complete

Spectra and Pecan

Location: Immediately south of the Spectra Drive and Pecan Street intersection.

Description: Installed a stormwater catch basin at end of Pecan uphill from this intersection, regraded the hillside and installed a pipe to convey water below ground from the hillside to the Spectra and Pecan storm system.

Contractor: CMS

Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2017 prioritized needs

Mt. Washington

Location: 1832 Mt Washington Street

Description: Removed below ground septic system and placed construction fencing around newly acquired City Park property to protect general public from temporary safety hazard along Cheyenne Creek.

Contractor: Tasmarr
 Status: 100% Complete

Heatherdale

Location: Parks Trail behind residences on the north side of 2100 Block of Heatherdale

Description: Replaced sidewalks that were damaged during pipeline repairs made in 2016.

Contractor: DRX
 Status: 100% Complete

Fredrick Drive

Location: 6643 Fredrick Drive

Description: Removed and replaced curb, gutter and sidewalk that had settled and were causing stormwater pooling.

Contractor: Jerry Johnson
 Status: 100% Complete

Chapel Hills Mall Channel

Location: Concrete Channel between mall Loop Road and Briargate Boulevard.

Description: Repaired damaged concrete trapezoidal channel.

Contractor: DRX
 Status: 100% Complete

Sand Creek South of Platte Avenue

Location: Private property access on east side of Sand Creek just south of Platte Avenue

Description: Purchased temporary construction easement so that materials could be stockpiled in advance of the FEMA grant project for Sand Creek.

Owner: Randy Cloud
 Status: 100% Complete

CSPD Impound Lot

Location: East Las Vegas Street

Description: Added curb, gutter and asphalt pavement to act as stormwater catch basin; added spill containment area; removed sediment from water quality pond and made improvements for easier maintenance of the pond.

Contractor: DRX
 Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2017 prioritized needs

Chelton Loop Channel

Location: Concrete Channel to the east side of commercial properties on Chelton Loop

Description: Repaired damaged concrete trapezoidal channel.

Contractor: ECC
 Status: 100% Complete

Sand Creek South of Platte Fence

Location: Private property access on east side of Sand Creek just south of Platte Avenue

Description: Installed property fence along access road to facilitate early stockpiling of materials in advance of the FEMA grant project for Sand Creek.

Contractor: Mod Squad
 Status: 100% Complete

North Gate Estates Extended Detention Basin

Location: Northwest corner of North Gate Estates Drive and North Gate Boulevard

Description: Constructed rundown from adjacent filter basin overflow and eastern inlet into EDB.

Contractor: DRX
 Status: 100% Complete

Chapel Hills Drive Seepage

Location: West side of Chapel Hills Drive just north of Willow Glen Circle

Description: Added a French drain behind concrete retaining wall and neighborhood sound walls to capture groundwater and redirect into adjacent inlet box.

Contractor: DRX
 Status: 100% Complete

Vista Villas Erosion and Sediment Control

Location: Vista Villages Subdivision Development

Description: Installed interim erosion and sediment control within subdivision that has had a stop work order imposed on developer in order to prevent sediment from entering City storm system.

Contractor: Bailey Land Solutions
 Status: 100% Complete

Twin Oaks Channel

Location: North side of Twin Oaks Drive

Description: Repaired damaged concrete trapezoidal channel.

Contractor: Global Underground
 Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2017 prioritized needs

Perfect View

Location: Northeast side of residences in 2300 Block of Perfect View

Description: Capture residence downspouts and piped down to bottom of hillside to prevent erosion and sediment transport downstream.

Contractor: Ability
 Status: 100% Complete

917 East Yampa

Location: 917 East Yampa Street

Description: Improved curb and gutter in area to prevent street conveyance flows from overtopping into residence lots.

Contractor: CMS
 Status: 100% Complete

Monument Creek at Mark Dabling

Location: Monument Creek along Mark Dabling Boulevard about 3,000 feet south of East Rockrimmon Boulevard crossing

Description: QA materials testing during construction of FEMA grant project.

Consultant: Kumar & Associates
 Status: 100% Complete

Mount View and Mallow Street

Location: Southwest of Mount View and Mallow Street intersection

Description: Concrete curb, gutter and cross pans to improve area drainage and prevent flooding of commercial businesses.

Contractor: Ability
 Status: 100% Complete

Chelton South of Airport

Location: Southeast of Chelton Road and Airport Road intersection

Description: Installed large inlet to capture street conveyed stormwater flows into adjacent pipeline and prevent downstream flooding of residence in La Serena community.

Contractor: Global Underground
 Status: 100% Complete

West Cheyenne Boulevard

Location: West Cheyenne Boulevard at Willow Circle

Description: Install new Curb and Gutter to prevent stormwater from flooding area residences.

Contractor: ECC
 Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2017 prioritized needs

Pebblewood Access Road

Location: Property located behind 545 Popes Valley Drive

Description: Install new concrete curb and drainage swale to convey surface flows into adjacent pipe system.

Contractor: DRX
 Status: 100% Complete

2300 Block of East Platte

Location: North side of Platte Avenue in 2300 Block

Description: Install new concrete swale and inlet access to prevent stormwater flows from parking lots from entering Platte Avenue.

Contractor: CMS
 Status: 100% Complete

Hancock Depository (BMP Training Site)

Location: City Owned, Former Hancock Depository

Description: Perform aerial survey of property in advance of designing and constructing the BMP field Academy training Site.

Contractor: NV5
 Status: 100% Complete

USAFA DRAINAGE-MONUMENT BRANCH - PHASE II AND III (IGA PROJECT #6)

Location: The project is located on Monument Branch a tributary of Monument Creek, between North Gate Boulevard and Interquest Parkway and starts at Voyager Parkway (just north of The Classical Academy school) and continues west past I-25 to the confluence with Monument Creek on the United States Air Force Academy (USAFA).

Description: Phase I was completed in early 2017 and consisted of a small section of highly eroded channel between Voyager Parkway and I-25. Phase II will restore and stabilize the creek both upstream and downstream of Phase I, between Voyager Parkway and I-25, by constructing drop structures and installing flood mitigation measures. Phase III includes the 30% design of Monument Branch from the confluence with Monument Creek to the Santa Fe Regional Trail on the west side of I-25. This section is located on the United States Air Force Academy property and will be completed by the Academy.

Engineer/Contractor: Matrix/TBD
 Status: Engineering Phase II - 100% Complete
 Engineering Phase III - 30% Complete

WATER QUALITY PROJECTS-SIERRA MADRE POND (IGA PROJECT #13)

Location: West side of South Sierra Madre Street near intersection with West Cucharras Street.
 Description: This project will provide water quality to the southwest downtown redevelopment area. The current area does not have any regional water quality before discharging into Monument Creek. The project will address water quality before entering Monument Creek just upstream of Fountain Creek by installing a regional underground water quality facility at Sierra Madre and Cucharras Streets.

Engineer/Contractor: AECOM/TBD
 Status: Engineering 90% Complete
 Construction to be Completed in 2018

RANGEWOOD TRIBUTARY DETENTION POND (IGA PROJECT #31)

Location: The project is located in a tributary of Cottonwood Creek immediately upstream of the Dublin Boulevard crossing between Rangewood Drive and Austin Bluffs Parkway.
 Description: The project will create an inline detention pond within the city owned property in order to attenuate flows downstream in Cottonwood Creek. The pond will also eliminate a deep incised channel in the area of the pond.

Engineer/Contractor: RESPEC/TBD
 Status: Engineering 30% Complete
 Construction to be Completed in 2018

SCARBOROUGH DRIVE SUB-REGIONAL DETENTION FACILITY (IGA PROJECT #52)

Location: The project is located off line on the north side of the main stem of Cottonwood Creek, south of the intersection of Scarborough Drive and Potomac Drive
 Description: The project will install a full spectrum detention pond capturing off line flows from the neighborhoods to the north before discharging into Cottonwood Creek. This project is a replacement for the Storage at Bridle Pass Drive detention project

Engineer/Contractor: Merrick/TBD
 Status: Engineering 30% Complete
 Construction to be Completed in 2018

COTTONWOOD CREEK DETENTION BASINS (IGA PROJECT #65)

Pond Projects arising from preliminary 2017 Cottonwood Creek DBPS

Yellowwood Pond (replaced PR-9 and PR-6)

Location: East of Rangewood Drive and west of Yellowwood Drive along the Woodmen Trail
 Description: Installation of a sub-regional full spectrum detention pond capturing flows from the neighborhoods to the north before ultimately discharging into Cottonwood Creek.

Contractor: T-Bone Construction
 Status: 100% Complete

COTTONWOOD CREEK DETENTION BASINS (IGA PROJECT #65) - Continued

Pond Projects arising from preliminary 2017 Cottonwood Creek DBPS

Tutt Pond (PR-2)

Location: Cottonwood Creek upstream of Tutt Boulevard

Description: Design and construction of a regional in-line detention pond to attenuate flows in the upper reaches of Cottonwood Creek.

Engineer/Contractor: Kiowa/TBD
 Status: Engineering 30% Complete

Rangewood & Vickers (PR-14)

Location: On a tributary to Cottonwood Creek upstream of the intersection of Vickers Drive and Rangewood Drive

Description: Design and construction of a sub-regional in-line detention pond to attenuate flows entering Cottonwood Creek:

Engineer/Contractor: Merrick/TBD
 Status: Engineering 10% Complete

Austin Bluffs (PR-7)

Location: Cottonwood Creek upstream of the intersection of Woodmen Road & Austin Bluffs Parkway

Description: Design and construction of an in-line detention pond upstream of the Austin Bluffs Parkway bridge over Cottonwood Creek.

Engineer: Matrix
 Status: Engineering 5% Complete

ENGINEERING STUDIES**Little Shooks Run Outfall System Plan**

Location: Little Shooks Run Drainage Basin, Sub-Basin of Shooks Run.

Description: This Outfall System Plan (OSP) was a drainage study of the sub-basin to determine if the system was appropriately sized to handle large storm events. The results of the study produced a prioritization of improvements for the system that could be implemented utilizing excess TABOR funding in 2017 and 2018.

Engineer: CH2M
 Status: Engineering 100% Complete

Sand Creek Pond 2

Location: Southeast of Barnes Road and Tutt Boulevard, and directly south of Skysox Stadium.

Description: Analyzation of the as-built condition of Sand Creek Pond 2 and preparation of recommendations to complete the pond to the original design intent. The Sand Creek Pond 2 is listed as a 2019 IGA project to increase the capacity of the regional detention facility from 50% capacity as initially constructed to 100% capacity.

Engineer: Kiowa
 Status: 100% Complete

ENGINEERING STUDIES - Continued

31st Street Channel

Location: North 31st Street from Chambers Way to Waters Street.

Description: Definition of a segment of the 31st Street/Camp Creek channel that can be constructed with the 2018 IGA project budget.

Engineer: Wilson
Status: 100% Complete

GRANT APPLICATIONS

Pine Creek CDBG-DR Grant Application

Location: Pine Creek Natural Channel between Chapel Hills Drive and the Main Pine Creek Golf Course pond.

Description: An application was submitted in an effort to acquire funding to stabilize this stretch of Pine Creek in conjunction with the design and construction of the Pine Creek detention pond. The funding was ultimately denied.

Engineer: HDR
Status: 100% Complete

2017 PDM Grant Applications

Location: Three separate project areas including two future IGA projects.

Description: Applications were submitted in an effort to acquire funding for the design and construction of two future IGA projects and the Pine Creek natural channel stabilization project in conjunction with the design and construction of the Pine Creek detention pond. The funding determination will be made later in 2018.

Engineer: HDR
Status: 100% Complete

TABOR PROJECTS (2016-2017)

Projects arising from April 2017 "Voter Approved Retention of TABOR funds" (Ballot Issue 2)

Little Shooks Run

Location: Various Locations within Little Shooks Run Sub-Basin.

Description: In 2017 we improved one inlet on Logan Street between Platte Avenue and Bijou Street and installed a large manhole access near the alley entrance on Hancock Avenue between Platte Avenue and Bijou Street in advance of performing pipe repairs in this area.

Contractor: CMS
Status: 20% Complete

TABOR PROJECTS (2016-2017) - Continued

Projects arising from April 2017 "Voter Approved Retention of TABOR funds" (Ballot Issue 2)

Falcon Estates

Location: (Old Annexation Neighborhood) West Falcon Estates, alignment of Shrider Road and at intersections of Vincent Drive with Shrider Road and East Venhorst Road.

Description: Drainage improvements in neighborhood following recommendation from the 2016 study recommendations.

Engineer/Contractor: CH2M/ECC
 Status: Design 100% Complete
 Construction 10% Complete

East Monument and North Cedar Street

Location: Intersection of East Monument and North Cedar Street

Description: Area drainage improvements included removing CMP culverts and replacing with concrete cross pans.

Contractor: ECC
 Status: 100% Complete

Nichols and El Paso Street

Location: Intersection of Nichols and El Paso Streets

Description: Area drainage improvements included improving area inlets and adding curb, gutter and cross pans to improve stormwater conveyance to inlets and prevent flooding of private properties.

Contractor: Lucky Dog
 Status: 100% Complete

Doherty High School Channel

Location: Hybrid concrete/natural channel along east side of Doherty High School

Description: The purpose of this project is to design and construct channel improvements as well as repair the degraded channel.

Engineer/Contractor: AECOM/TBD
 Status: Design 30% Complete

Galley Road and North Murray Boulevard

Location: Intersection of Galley Road and Murray Boulevard

Description: Design and construct a below ground storm water system to convey flows to the adjacent Sand Creek tributary.

Engineer/Contractor: SEH/TBD
 Status: Design 90% Complete

TABOR PROJECTS (2016-2017) - Continued

Projects arising from April 2017 "Voter Approved Retention of TABOR funds" (Ballot Issue 2)

Arcadia Street

Location: North Arcadia Street from East San Miguel Street to about ½ block north of intersection.

Description: Reconstruct entire street with new curb, gutter and inlets to prevent flooding of local residences and convey flow into Shooks Run before flooding San Miguel.

Contractor: Even-Preisser
Status: 100% Complete

10th & 11th Streets - Fountain Creek to Kiowa Street

Location: Area bounded by 10th, 12th, Kiowa Street and Fountain Creek.

Description: Various area drainage improvements including concrete cross pans, curb, gutter and below ground conveyance to prevent future flooding of private properties.

Engineer/Contractor: HDR/TBD
Status: Design 90% Complete

Rustic Hills

Location: (Old Annexation Neighborhood) Bounded by Constitution Avenue, Murray Boulevard and the Rock island.

Description: Design of roadway drainage improvements (to be constructed by the City Streets Division in 2018) and design of new water quality pond (to be constructed by Water Resources Engineering Division) at southeast edge of site.

Engineer/Contractor: Drexell Barrell/TBD
Status: 10% Complete

Pitkin Street - Platte to Boulder

Location: Pitkin Street from Platte Avenue to Boulder Street

Description: Construct new inlets and below ground conveyance to prevent flooding of area private properties.

Contractor: DRX
Status: 100% Complete

Centennial Boulevard and Rising Moon Drive

Location: North side of Centennial Boulevard just east of Centennial Glen Drive.

Description: Design and construct a sedimentation basin to capture sediment coming off of the hillside north of Centennial.

Engineer/Contractor: HDR/TBD
Status: 30% Complete

TABOR PROJECTS (2016-2017) - Continued

Projects arising from April 2017 “Voter Approved Retention of TABOR funds” (Ballot Issue 2)

Golden Barrel Court

Location: East end of Golden Barrel Court

Description: Improved inlet in Cul-de-sac to prevent flooding of area properties.

Contractor: CMS

Status: 100% Complete

Utilities Sanitary Sewer Creek Crossing Program Activities

In 2017, Utilities SSCC Program included repair or rehabilitation of 11 creek crossings, at a preliminary cost of \$3,340,083.

The following is a summary of Utilities SSCC Program projects undertaken during the reporting period.

Monument Branch Channel Restoration Phase II (USAFA Drainage)

Phase II of the Monument Branch Channel Restoration project is to stabilize the drainage between Interstate 25 and Voyager Parkway. Utilities portion of Phase I of the project was completed in 2016, stabilizing approximately 1,200 linear feet of the middle section of the project reach, burying a 12-inch aerial sewer crossing and protecting the adjacent longitudinal section of pipe.

Phase II will include installing additional sculpted concrete drop structures, riffle rundowns, boulder cross vanes, and substantial grading to fill the highly incised channel. The lower section of Phase II includes protecting a threatened 16-inch sanitary force main and 4-inch high pressure steel gas main crossing along the United States Air Force Academy boundary. Phase II will also prevent channel incision from damaging Phase I improvements. Colorado Springs Utilities and the City of Colorado Springs are partnering to complete the improvements.

Engineer/Contractor:	Matrix/TBD
Status:	Phase II Engineering - 90% Complete

Monument Creek Stream Stabilization Upstream of Pikeview Intake

The Monument Creek Stream Stabilization Upstream of the Pikeview Intake project began construction in Fall 2017. Project design was initiated in 2016 and completed in 2017. The project will reduce risk to infrastructure by stabilizing a 4,450 foot reach of Monument Creek where a 54-inch sewer interceptor parallels the creek, a 36-inch main crosses Monument Creek, and an upstream drop structure is threatened by channel erosion. Stabilization will be achieved by reconnecting Monument Creek to its historic floodplain through the installation of sculpted concrete drop structures, rock riffles, W-weirs, and channel fill.

Engineer/Contractor:	Matrix/Wildcat Construction
Notice to Proceed:	May 2016/August 2017
Completion date:	April 2018
Status:	Construction 40% Complete

West Fork Sand Creek Stream Stabilization - Design

This project will stabilize a portion of the West Fork Sand Creek located upstream of its confluence with the main stem of Sand Creek. In 2005, Utilities installed a drop structure to address a threatened 18-inch sanitary sewer main crossing the West Fork of Sand Creek. Since that time, the channel has eroded and now threatens the drop structure protecting the crossing. Additionally, the 18-inch main runs parallel to the West Fork of Sand Creek and is threatened by the ongoing erosion. Design and permitting were initiated in 2016 and were completed in 2017. The project design consists of four grouted boulder drop structures and riprap bank stabilization. Project construction is anticipated to begin in Fall 2019.

Engineer:	WSP (formerly Parsons Brinkerhoff)
Notice to Proceed:	May 2016
Design Completion:	December 2017
Status:	100% Complete

Utilities SSCC Program Activities (Continued)

Little Fountain Creek Project (Multi Service Capital)

Little Fountain Creek (LFC) was a project reported in 2016 and is located west of Interstate 25 on Utilities' Clear Spring Ranch (CSR) facilities site. LFC meanders through CSR from west to east crosses under Interstate 25 and end at the confluence with Fountain Creek. The project site is located completely on CSR.

Since 2013 rain events caused LFC to degrade and become unstable, therefore placing Utilities facilities (Nixon and Front Range Power Plants, Zero Discharge Water Treatment Plant and Solids Facilities Handling and Disposal) at risk. Utilities awarded a Design/Build contract to provide near-term repairs to protect further loss of property and long-term stabilization channel restoration of the entire reach of LFC.

This project was completed in April 2017 and construction was reimbursed 75% by EWP Grant administered by the Natural Resources Conservation Service (NRCS). The total cost for the project was \$5,395,199 with \$1,315,090 of Utilities matching contribution costs reported in 2016.

Contractor:	Tezak Construction
Notice to Proceed:	July 2016
Completion date:	April 2017
Status:	100% Complete

Sand Creek Stabilization at West Fork Confluence - Karr Phase II

The West Fork Sand Creek project stabilized a degrading reach of Sand Creek near the confluence of the West Fork and the Main Stem of Sand Creek protecting wastewater and water mains crossing Sand Creek. Stabilization was accomplished through the installation of a grouted boulder drop structure and bank protection. The project area is 657 feet long and extends from bank to bank, roughly 130 feet wide, with the beginning near the confluence.

Contractor:	Tezak Construction
Notice to Proceed:	September 2016
Completion date:	March 2017
Status:	100% Complete

Sand Creek Stabilization between Hancock and Academy

This project stabilized a reach of Sand Creek between Hancock Expressway and Academy Boulevard, to protect wastewater pipelines crossing and paralleling the creek. The stabilization was accomplished through the installation of two grouted boulder drop structures.

Contractor:	Wildcat Construction
Notice to Proceed:	December 2016
Completion date:	April 2017
Status:	100% Complete

Utilities SSCC Program Activities (Continued)

Fountain Creek at Tejon & Nevada Stream Stabilization

The project stabilized a reach of Fountain Creek between Tejon Street & Nevada Avenue to provide protection for a wastewater manhole and sanitary sewer pipeline. The stabilization was accomplished through the installation of a boulder riffle and riprap revetment.

Contractor:	Schanel Construction
Notice to Proceed:	March 2017
Completion date:	March 2017
Status:	100% Complete

Monument Branch Stream Stabilization at Middle Monument Force Main

The project installation consisted of a sheet pile drop structure and boulder stilling basin to arrest channel erosion downstream of the Middle Monument Force Main. The project is intended to act as a temporary, emergency repair to stabilize the channel until the permanent solution can be installed as part of Monument Branch Phase II. The improvements installed in this project will be incorporated into a rock riffle as part of the Monument Branch Phase II project

Contractor:	Tezak Construction
Notice to Proceed:	June 2017
Completion date:	July 2017
Status:	100% Complete

Clear Spring Ranch Bank Stabilization - Design

The Clear Spring Ranch Sludge Line Bank Protection Project will protect the sanitary sewer sludge line that runs longitudinally to Fountain Creek. The project site is located approximately 1,000 feet upstream of the Utilities' Owen Hall Diversion on the north end of Clear Spring Ranch property. Fountain Creek has meandered towards the outside of the bend with the erosion creating a large vertical bank. The erosion of the bank is putting Utilities' infrastructure at risk. During 2017, easements have been acquired and the design of the stabilization project was completed. The project design consists of grouted boulder bank protection with vertical sheet pile walls. Construction of this project is planned to begin in Fall 2018.

Engineer:	Matrix
Notice to Proceed:	May 2016
Completion date:	December 2017
Status:	100% Complete

Dry Creek Downstream of Dawson Drive Stream Stabilization - Design

This project will reduce risk to infrastructure by stabilizing a reach of Dry Creek. A 12 inch sanitary sewer main runs down the Dry Creek drainage, crossing Dry Creek itself at several places. The crossings of Dry Creek are encased in concrete, but the encasements are exposed due to ongoing channel degradation. The project is currently under design. The project design consists of several small sculpted concrete drop structures that reconnect Dry Creek to its floodplain and prevent future channel degradation. The permitting process is ongoing. Project construction is anticipated to begin in Fall 2019.

Engineer:	CH2M
Notice to Proceed:	June 2017
Design Completion:	April 2018
Status:	60% Complete

Utilities SSCC Program Activities (Continued)

Cottonwood Creek Upstream of Academy Boulevard Stream Stabilization - Design

Three vertical concrete walls were constructed in series on Cottonwood Creek upstream of Academy Boulevard. In 2015, the lowermost drop failed and was replaced with a grouted boulder drop structure. The Cottonwood Creek sanitary sewer interceptor runs parallel to Cottonwood Creek on the left (south) bank through this reach. This sewer is at risk from drop structure failure and the expected stream degradation that would follow. This project will convert the remaining two vertical concrete walls to more robust grouted boulder drop structures and reduce the risk to Utilities' infrastructure.

Engineer:	CP&Y
Notice to Proceed:	May 2017
Design Completion:	April 2018
Status:	95% Complete

Drainage Operations and Maintenance Activities Undertaken During the Reporting Period

The essential functions of the Public Works Operations and Maintenance Division, Drainage Operations and Maintenance Program are critical to maintaining the City's drainage infrastructure. These functions primarily include:

- Permanent Public BMP Inspections
- Permanent Public BMP Maintenance
- Open Channel Inspections
- Open Channel Maintenance
- Storm Sewer Maintenance/Vacuum-Truck Operations
- Stormwater Pipe Repair/Replacement
- Street Sweeping Operations
- Illicit Discharge Responses

To assist with consistent performance of these activities, Standard Operating Procedures (SOPs) for each of the above functions have been developed. The SOPs define, among other things, the purpose of the activity, scope, number and type of equipment required, minimum number of personnel required, training requirements, responsibilities and the standard procedures to be followed.

During the 2017 calendar year, the Drainage O&M Program completed the following activities:

- Completed inspections of all 100 publicly maintained regional and sub-regional detention ponds/facilities.
- Performed identified maintenance activities within 71 publicly maintained regional and sub-regional detention facilities (including debris removal, mowing, tree trimming, sedimentation removal and minor structure maintenance).
- Inspected 51.9 miles of concrete-lined and natural channels.
- Conducted maintenance activities through 19.31 miles of concrete-lined and natural channels along Templeton Gap floodway, Pine Creek, Cottonwood Creek, Camp Creek, and Douglas Creek (including concrete repairs, vegetation and debris removal, and minor sedimentation removal).
- Completed 7,180 separate storm sewer maintenance/vacuum-truck operations (including water quality vault cleaning, storm sewer pipe cleaning and storm sewer blockage removal).
- Repaired or replaced 2,537 linear feet of stormwater conveyance pipe.
- Dedicated six (6) members of the Public Works Operations and Maintenance Division to the Water Resources Engineering Division's Drainage Operations and Maintenance Program to conduct concrete repairs and installation on existing city drainage infrastructure. This effort included 77 activities encompassing 459 cubic yards of concrete materials.

2017 MS4 Permit Compliance Summary

Public Outreach Activities

The City's MS4 Permit requires public education and outreach activities related to the following:

Educational activities to promote public reporting of illicit discharges and improper disposal activities conducted during the reporting period included:

- Illicit Discharge Detection
 - 125 City represented suspected Illicit Discharge calls
 - Materials distributed: 200 spill-related educational brochures

Public education activities to promote proper management and disposal of potential pollutants conducted during the reporting period included:

- Presentations provided (i.e., schools, community events): 86
 - Number of students and citizens reached (i.e., schools, community events): 6,014
 - Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions, including advertising on public buses, benches, and radio spots (i.e., pet waste, used oil, and illicit discharge related advertising on billboards and other signs):
3,281,388 estimated sign impressions; 132,900 estimated radio impressions
- Educational materials distributed:
 - Brochures: 5,423
(i.e., schools, auto body and repair shops, oil recycling facilities, carwash locations, carpet cleaners, concrete contractors, landscaping companies, veterinarians, pet grooming facilities)
 - School Items: 31,409
(i.e., droplet figurines, pencils, magnets, activity guides and crayons, tattoos, post cards, bracelets)

Household chemical waste collection program education and outreach activities during the reporting period included:

- The City continued to participate in the El Paso County Household Hazardous Waste Collection Program in a continued commitment to make reasonably available to residents the means to recycle or properly dispose of the more common household chemical wastes.
- Distributed brochures related to the participation in the El Paso County Household Hazardous Waste Collection Program to local oil recycling facilities.

Industrial facilities program education and outreach activities during the reporting period included:

- Distribution of over 2,873 brochures promoting proper management of industrial sites regarding stormwater quality and industrial best management practices to local auto body and repair facilities, oil recycling facilities, carwash locations, carpet cleaning operations, and concrete contractors.

Training and education for construction site operators during the reporting period included:

- The City hosted classes for the construction program and construction-related community in the spring and fall of 2017. The classes included: Stormwater

Management and Erosion Control During Construction (GEC), Developing and Implementing Stormwater Management Plans (SWMP), Stormwater Compliance Inspections Training, and a Permanent BMP Inspection and Maintenance Workshop.

- The City developed our region's first field training site and in the Fall of 2017 conducted two Stormwater Best Management Practices (BMP) Field Academies for hands-on training of in-house staff as well as the construction community on proper installation and maintenance of construction BMPs
- In the summer of 2017, City staff attended an Introduction to Green Infrastructure and Low Impact Development Workshop hosted by Colorado Stormwater Center in partnership with Wright Water Engineers.
- The City participated in "Wet Wednesdays" stakeholder meetings held at the area Home Builder's Association (HBA) offices. The City prepared a number of stormwater related presentations at these meetings detailed for the construction industry in the City of Colorado Springs and El Paso County.

Private BMP Inspection and Tracking

City inspectors conduct inspections at various points of construction projects for conformance with construction specifications and compliance with MS4 related stormwater regulations. Additionally, the City completes required annual inspections of existing private permanent BMPs in accordance with issued private maintenance agreements. The constructed permanent private BMPs (i.e., extended detention basins, porous landscape detention basins) are tracked in a database maintained by the City to ensure private BMPs are inspected and maintained appropriately. Approximately 300 inspections of private BMPs were conducted by the City in 2017, either during construction phases or associated with annual compliance requirements.

Construction Site Inspections

In 2017, six full-time MS4 inspectors were dedicated to the MS4 Program. During the 2017 reporting year, the City MS4 Program construction inspection team completed the following:

- Total inspections: 6,649
- Active construction sites through the year: 290
- Initial Inspections: 64
- Final Inspections: 136
- Routine Inspections: 4,515
- Complaint Inspections: 9
- Follow-up Inspections, reconnaissance/indicator, storm event inspections: 1,539
- Operations and Maintenance Inspections: 350

Construction Site Enforcement:

- Notice and Order: 0
- Letter of Non-compliance: 31
- Stop Work Orders: 5

Illicit Discharge Detection and Elimination (IDDE) Program

In 2017 the City hired a full-time employee to manage the Illicit Discharge Detection and Elimination Program. In prior years the work was accomplished by existing employees. The addition of a dedicated IDDE Program employee allowed better management of calls, tracking, and follow-ups concerning suspected illicit discharges. The dedicated staff member improved tracking of all reported incidents in a way that allows the City to proactively manage the

program by mapping out each occurrence, highlighting areas that may require increased education, and by calculating labor and resources needed for the program, which allows the City to better understand future requirements. Furthermore, due to increased education and the addition of an emergency spill phone, citizens were encouraged to report activities and appreciated the effective response times and communication the dedicated personnel was able to provide. Due to this, the City witnessed an increase in reported suspected illicit discharges; and although 125 reported incidents were investigated, only 29 were found to be actual discharges to the City's MS4 and wherein enforcement action took place.

Development and Erosion Control/Development Review:

In 2017, the Development Erosion Control / Development Review team completed reviews of over 2,700 drainage related development submittals (e.g., drainage reports, grading and erosion control plans, drainage related design plans) and completed internal training on the following topics:

- Overall City Drainage Criteria Manual (DCM) & MS4 requirements
- City DCM Four-Step Process and Water Quality requirements
- USACE Hydraulic Engineering Center's River Analysis System (HEC-RAS) 2D modeling software and outputs
- Low-Impact Development (LID) practices
- Geohazard conditions
- USEPA Waters of the U.S. rulemaking webinar

In addition, the team participated in the following professional events during the reporting period:

- Colorado Association of Stormwater and Floodplain Managers (CASFM) Annual Conference
- USEPA Waters of the US Webinar
- City of Colorado Springs Grading and Erosion Control BMP Field Academy
- Colorado Riparian Association (CRA) Stream Academy
- Urban Drainage Flood Control District annual seminar

Yearly Reporting and Compliance Tracking

Annual reporting related to the City's MS4 Permit is required to be submitted in April of each year. The report is created from data and tracking of that data throughout the year. A copy of the 2016 annual report was submitted to the Colorado Department of Health and Environment (CDPHE) on March 30, 2017.

Wet Weather Monitoring

The Wet Weather Monitoring report is an additional requirement of the City's MS4 Permit that is required to be submitted in June of each year. The majority of this data comes from monitoring and testing conducted throughout the City by the United States Geological Survey (USGS) under a joint funding agreement with USGS and Utilities. A copy of the 2017 annual report was submitted to the CDPHE on May 31, 2017.

Municipal Facilities Runoff Control Program (MFRCP)

The MFRCP program is administered by the City's Stormwater Quality Coordinator along with various representatives from the City vehicle maintenance group (SERCO), City Public Works Operations and Maintenance Division, City Parks and Recreation Department, City Fire

Department and the City Police Department. There are currently 42 MFRCP sites within the City's MS4 jurisdiction. Each year site plans for each MFRCP site are updated, inspections of the facilities are conducted and MFRCP related training is administered.

E. Coli TMDL

In 2017, the City continued to work with other local area governmental agencies on the development of a Regional Watershed Plan to address E. coli in preparation of the anticipated implementation of a Total Maximum Daily Load (TMDL) standard for E. coli in 2019 by the CDPHE. As part of USEPA's new national vision for the Clean Water Act (CWA) 303(d) program (Impaired Water Listing and TMDL Program), States are required to identify priority areas for TMDL development through 2022. The purpose of the regional watershed planning group efforts are to preemptively prepare a plan in preparation for this anticipated 2019 requirement. To date, the City has dedicated \$25,000 to the Arkansas and Fountain Coalition for Urban River Evaluation (AF CURE) for these efforts.

5.0 Planned 2018 IGA Related Activities

Section III of the IGA outlines special provisions agreed to in the agreement by the IGA Parties. The following provides a summary of planned compliance activities by the City and Utilities for the upcoming reporting period related to Section III of the IGA.

Paragraph III.A - Stormwater Expenditures

Paragraph III.A(1) - Expenditures by the City and Utilities

For the 2018 calendar year, the City and Utilities are required to invest a minimum of \$16.5 million dollars on the City's Stormwater Control Program.

- The approved 2018 City of Colorado Springs budget titled *Annual Budget, 2018*, describes the 2018 Stormwater Program Division budget beginning on page 23. The document can be downloaded at:

<https://www.coloradosprings.gov/budget/page/city-budget-office>

- The 2018 Utilities budget allocates \$3,000,000 as part of Utilities' SSCC Program.
- Planned IGA related activities in 2018 include, but are not limited to:
 - 10% conceptual engineering for IGA capital projects (2019-2020);
 - Coordination and delivery of 2016-2018 IGA capital projects;
 - Completion of 2017 engineering studies;
 - Implementation of a Program Management Plan for the purposes of capital project delivery;
 - Further development of a City of Colorado Springs Stormwater Construction Manual and design spreadsheets;
 - Further development of the Stormwater Infrastructure Master Plan;

Paragraph III.A(2) - Annual Report of Expenditures

The IGA requires that in order to verify whether the City's and Utilities' expenditures on the Stormwater Control Program meet or exceed the requirements of paragraph III.A(1), each year the City and Utilities shall file with Pueblo County a report containing an estimate of expenditures on or before January 31 of the year following the expenditures, followed by the filing of a preliminary report on or before March 31, and with a final report to be filed on or before June 30 of that year based on audited financials. These reports are to provide appropriate details concerning the timing, amount and nature of all such expenditures made by the City and Utilities during the prior year for Capital Projects, O&M, MS4 Permit compliance, protection of Utilities infrastructure from stormwater, and any other relevant categories.

- The City and Utilities will prepare and file a report to document the expenditures for the 2018 calendar year and provide a summary of the associated Stormwater Control Program activities accordingly.

Paragraph III.B - Stormwater Capital Improvement Program

Paragraph III.B(2) - Identification of Capital Projects

Paragraph III.B(2)a. states that beginning with the 2016 calendar year and extending through the Term of the IGA Agreement, the Engineering Representatives of the Parties shall meet on or before March 31 of each year in order to prepare, review, discuss and update, as necessary, a five-year CIP for the City and a three-year CIP for Utilities, which shall include a list of Capital Projects, the construction of which will commence in the upcoming years.

- Staff members from the City, Utilities, and WWE met on March 9, 2018.

Paragraph III.B(2)c. states that Utilities shall reimburse Pueblo County up to \$10,000 each year (commencing in 2016) to defray the actual cost incurred by Pueblo County of using any outside engineering consultants to conduct these yearly reviews and any associated inspections, payable within 30 days of Utilities' receipt of a statement from Pueblo County evidencing such costs.

- Utilities plans to meet the obligation accordingly.

Attachment 1

City of Colorado Springs Stormwater Program 5-Year Project List (2017-2021)

City Capital Project Prioritization (2017-2021) - Revised

Project Name	Total Estimated Capital Cost (2016\$) ⁴⁾	City Capital Contribution (2016\$)	Additional Funding (Grants) (2016\$)	Total Funding (2016\$)	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates	
					Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking			
1. Emergency Stormwater Projects ¹⁾	\$1,500,000	\$1,500,000	\$0	\$1,500,000	X	X	X							0	Yes		6	On-going annual budget.	2017
13. Water Quality Project--Sierra Madre Water Quality Pond ²⁾	\$500,000	\$500,000	\$0	\$500,000			X		X		X	X		3	Yes	9	4	See Footnote No. 2 below.	2017
65. Cottonwood Creek Detention Basins (PR-2,PR-7,PR-14, YellowWood)	\$2,740,000	\$2,740,000	\$0	\$2,740,000					X	X	X	X		4		2	10	Modified from original IGA list of sites. Replaced PR-6 and PR-9 with YellowWood Regional Pond in same general area; PR-11 removed with PR-2 moved slightly to the west and increased in size.	2017-2019
31. Rangewood Tributary Detention Pond (WWE CS-333)	\$1,250,000	\$1,250,000	\$0	\$1,250,000			X	X	X	X	X	X		4		3	11	Cottonwood Creek. Bundle with Project 20 if able (located next to each other). Original IGA estimate \$750,000.	2017-2019
52. Storage Bridle Pass Drive Construct new pond to improve 2-yr flows (CS-332)	\$1,591,000	\$1,591,000	\$0	\$1,591,000			X	X	X	X	X	X		4		4	12	Include channel improvements.	2017-2019
Scarborough Drive Sub-Regional Detention Pond	\$1,500,000	\$1,500,000	\$0	\$1,500,000			X	X	X	X	X	X		4		4	12	Located northeast of original Storage Bridle Pass Drive location, on the north side of Cottonwood Creek. Replacement project for Storage Bridle Pass Drive.	2017-2019
9. South Pine Creek Detention Pond (WWE CS-335)	\$461,000	\$461,000	\$0	\$461,000			X	X			X	X		2		14	13	Located on private land. Replaced with Pine Creek Drainage Corridor Detention Pond.	2018-2019
Pine Creek Drainage Corridor Detention Pond	\$500,000	\$500,000	\$0	\$500,000			X	X	X	X	X	X		4			13	Located in the Pine Creek Drainage Basin. Replacement project for South Pine Creek.	2018-2019
15. Citadel Mall Neighborhood Improvements (CS-374)	\$1,053,000	\$1,053,000	\$0	\$1,053,000	X	X	X							0	Yes		14	Localized flooding. Design to evaluate detention retrofit.	2018-2019
23. North Chelton Road (CS-057)	\$1,370,000	\$1,370,000	\$0	\$1,370,000		X	X	X						0	Yes		15	Localized flooding.	2018-2019
11. Camp Creek--Phase 1 (WWE CS-002 and CS-003) (Redefined) ³⁾	\$4,356,000	\$4,356,000	\$0	\$4,356,000	X	X	X				X			1	Yes	18	16	Readiness for Implementation. Channel improvements. Cost shown is for downstream structure and channel restoration/lining removal.	2018-2019
41. Storage Wagner Park Detention - downstream of Bijou Detention Storage Required (CS-360)	\$704,000	\$704,000	\$0	\$704,000			X	X	X		X	X		3		8	17	Spring Creek drainage	2018-2019
38. Storage Austin Bluffs Parkway upstream of Research (CS-331)	\$754,000	\$754,000	\$0	\$754,000			X	X	X		X	X		3		10	18	Cottonwood Creek drainage	2019-2020
51. Storage Cottonwood Park (west side) (CS-334)	\$3,768,000	\$3,768,000	\$0	\$3,768,000			X	X	X		X	X		3		11	19	Cottonwood Creek drainage	2019-2021
34. Storage Sand Creek Detention Pond 2 Complete Detention Pond 2 on Sand Creek south of Barnes (CS-105)	\$1,025,000	\$1,025,000	\$0	\$1,025,000					X		X	X		3		12	20	Currently have 50 year protection. Build out to 100-year capacity.	2019-2021

Project Name	Total Estimated Capital Cost (2016\$) ⁴⁾	City Capital Contribution (2016\$)	Additional Funding (Grants) (2016\$)	Total Funding (2016\$)	Prioritization Criteria (see notes below)								Priority Ranking			Comments	Projected Project Dates		
					Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking			City Priority Ranking	
24. Park Vista (Siferd Low Water Crossing) (CS-232)	\$3,750,000	\$3,750,000	\$0	\$3,750,000	X		X							0	Yes		21	Localized flooding. Evaluate property acquisition and detention storage.	2020-2022
70. CS-239 Grade Control Upper Hancock Channel - Hancock to Academy, 78+33 to	\$1,236,000	\$1,236,000	\$0	\$1,236,000					X	X				2		13	22	Desire for provision for regular sediment removal.	2020-2022
16. North Douglas Natural Channel	\$3,500,000	\$3,500,000	\$0	\$3,500,000	X	X				X	X			2	Yes	15	23	Redefine project to address reach between I-25 and railroad to east. City has conceptual design for channel stabilization project.	2020-2021
19. Galley Road Channel (WWE CS-258) Sand Creek between Galley and Platte Avenue	\$2,000,000	\$2,000,000	\$0	\$2,000,000	X		X			X				1		19	24	Portions of original scope have been completed by CSU. Additional reach to be improved.	2020-2022
21. Monument Creek at Talemine (CS-011)	\$1,778,000	\$1,778,000	\$0	\$1,778,000	X		X			X				1		17	25		2020-2021
35. Side Channel Sand Creek - segment 107, reach SC-5 1700lf channel stabilization (CS-261)	\$1,242,000	\$1,242,000	\$0	\$1,242,000	X		X			X				1		20	26		2021-2023
39. Grade Control Palmer Park Channel - Galley Rd. to Palmer Park, 300+00 to (CS-259)	\$6,594,000	\$6,594,000	\$0	\$6,594,000	X		X			X				1		21	27	On Sand Creek drainage.	2021-2024
28. Shooks Run Channel - Cache La Poudre St. to Patty Jewett Golf Course (CS-326)	\$3,500,000	\$3,500,000	\$0	\$3,500,000	X	X	X				X			1		23	28	Bundled and phased with other Shooks Run.	2021-2023

Prioritization Criteria:

1. Protect local property and public safety
2. Repair/replace failing infrastructure
3. Improve appearance and/or enhance community
4. Distribute projects within the City

Downstream benefits:

5. Enhance sediment/debris capture and control (e.g., debris basins)
6. Reduce sediment generation/Enhance soil stewardship (e.g., bank stabilization, channel stabilization, channel grade control, floodplain preservation/enhancement)
7. Improve water quality
8. Provide detention (i.e., reduce downstream flows)

Footnotes:

- 1) Emergency Stormwater Projects budgeted at \$1.5 Million per year ongoing.
- 2) Total Capital Cost includes 5 detention ponds, one per year at \$500,000 each between 2016-2020. First pond to be initiated with America the Beautiful Park detention basin in 2016. Second pond to be initiated with Sierra Madre water quality pond in 2017.
- 3) Additional channel lining removal projects along Camp Creek channel may be done as funding becomes available.
- 4) Total estimated project capital cost is shown for each project. Total Stormwater Control Program yearly capital expenditures depend on the number of projects underway and the project phase(s) performed in a given year. Total yearly capital expenditures will be presented in the annual reporting of the City's Stormwater Control Program performance.