

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

**Stormwater Control Program
Inter-Governmental Agreement (IGA)
Annual Report of Estimated Expenditures
Calendar Year 2018**

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
DM	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
FEMA	Federal Emergency Management Agency
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.
PDM	FEMA Pre-Disaster Mitigation Grant Program
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 a 20-year period. 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 (2018) 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 estimated expenditures for the 2018 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 Estimated Expenditures for the 2018 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 2018 Calendar Year reporting period as outlined below. As of December 31, 2018 the City and Utilities have invested (through either expenditures or encumbrances) a total of **\$25.9 million dollars** on the City's Stormwater Control Program in 2018. This includes actual expenditures and/or annual encumbrances of:

- \$ 9.4 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
- \$ 12.8 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
- \$ 3.7 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)

Expenditures for the 2018 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	2018	Total (2016-2018)
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$9,408,626	\$22,402,994
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$12,819,206	\$40,901,351
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,659,441	\$11,712,548
Total	\$25,528,981	\$23,600,639	\$25,887,273	\$75,016,893

Summary of Stormwater Control Program Activities Undertaken

Below is a summary of actual expended dollars between the 2016 and 2018 calendar years:

Program Dollars Spent	2016	2017	2018	Total (2016-2018)
Drainage O&M	\$2,225,302	\$3,766,691	\$3,597,678	\$9,541,149
Stormwater MS4 Program	\$2,772,986	\$3,753,575	\$4,295,106	\$11,821,667
Stormwater Capital Projects	\$8,743,880	\$7,878,724	\$8,662,100	\$25,284,704
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,659,441	\$11,712,548
Total	\$18,455,192	\$18,739,073	\$20,214,325	\$57,360,068

Capital Projects Undertaken During the Reporting Period

- IGA Projects – A total of sixteen (16) IGA projects were scheduled to continue, be completed, or commence in 2018. This included a continuation of Emergency Projects, Grant Projects, Water Quality Projects, four (4) 2016 IGA projects, three (3) 2017 IGA projects, and commencement of six (6) 2018 IGA projects as outlined below. At the completion of the reporting period, the scheduled 2018 IGA projects were in the engineering phase of the projects, while the ongoing 2016 and 2017 IGA projects had been completed, were under construction, or were continuing through the engineering phase.

Of the \$8,662,100 expended, a total of \$4,770,831 was spent on IGA projects during the reporting period, with an additional \$3,891,269 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 (\$)
11	Camp Creek Phase I (2018)	105,856
15	Citadel Mall Neighborhood Improvements (2018)	98,716
65	Cottonwood Creek Detention Basins (2017)	143,952
5	Downtown Drainage Imps (Pikes Peak Avenue) (2016)	218
1	Emergency Stormwater Projects (2018)	1,397,456
0	FEMA Grant Projects (City Funds)	1,057,261
8	King Street Detention Pond (2016)	151,436
23	North Chelton Road (2018)	91,302
31	Rangewood Tributary Detention Pond (2017)	118,385
9	Pine Creek Drainage Corridor Detention Pond (2018)	62,164
35	Pine Creek Channel Phase I (2018)	164,671
26	Sand Creek South of Platte Grant Match (2016)	11,585
52	Scarborough Drive Detention Facility (2017)	66,085
6	USAFA Drainages (Monument Branch) (2016)	25,407
13	Water Quality Projects	999,810
Various*	Project Scoping and Definition	276,529
	(IGA-38) Flying Horse Pond 1 Retrofit (2019)	
	(IGA-09) Pine Creek Drainage Corridor Detention Pond (2018)	
	(IGA-25) Pine Creek I-25 Downstream to Monument Creek (2026)	
	(IGA-31) Rangewood Tributary Detention Pond (2017)	
	(IGA-34) Storage Sand Creek Detention Pond 2 (2019)	
	(IGA 19 & 39) Sand Creek - Palmer Park and Platte (2020, 2021)	
	(IGA-61) Sand Creek - Karr to W. Fork Confluence (2022)	
	(IGA-28) Shooks Run Phase I (2021)	
	TABOR16 199-Asbury Place Drainage System	
	Total IGA Projects	4,770,831

Other Stormwater Capital Projects

Total Non-IGA Stormwater Capital Projects	3,891,269
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Total Stormwater Capital Projects Expenditures

Total 2018 Stormwater Capital Projects Expenditures	8,662,100
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- **Engineering Studies** - The Water Resources Engineering Division continued to work on several significant and important engineering studies during the course of 2018, including the Cottonwood Creek Drainage Basin Planning Study (DBPS), the City's Stormwater Infrastructure Master Plan (SIMP), and the Sand Creek DBPS. These studies will be used to further develop capital lists, plan future maintenance and capital projects, and manage stormwater related infrastructure.
- **Grant Applications** - During the reporting period the Water Resources Engineering Division submitted two grant applications for proposed IGA list projects located along both Pine Creek and Cottonwood 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 2018, the SSCC Program included repair or rehabilitation of 9 creek crossings, at a preliminary cost of \$3,659,441.

Drainage Operations and Maintenance Activities Undertaken During the Reporting Period

During the 2018 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
- Completed identified maintenance activities within 75 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 3,703 cubic yards of sediment and debris
- Performed maintenance activities through 20.74 miles of concrete-lined and natural channels, including removal of 1,828 cubic yards of sediment, vegetation, and debris
- Completed 9,179 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 852.25 cubic yards of debris
- Repaired, replaced, or installed 2,696 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 33,715 lane miles of city streets, removing 30,718 cubic yards of debris

2018 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 – Responded to 186 suspected Illicit Discharge calls, of which only 31 incidents were confirmed as illicit discharges.
- 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): 166

- Number of students and citizens reached (i.e., schools, community events): 4,244
 - Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions: 2,914,616 impressions (visual and audial)
 - Storm Drain Art Project: 32 direct impressions and over 300,000 estimated indirect impressions
 - Educational distributions: 5,423 brochures and 25,080 school related items
- Industrial facilities program education and outreach activities during the reporting period included:
 - Distribution of over 1,715 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, concrete contractors, directional drilling contractors, and painting contractors.
 - Identification of 96 new businesses to receive education and outreach material.
 - Collaboration with Utilities Industrial Pretreatment staff for distribution of Common Discharges From Industrial Facilities brochures.
 - Inspection of 23 industrial facilities related to stormwater compliance.
- Construction Site Inspection:
 - Total inspections: 6,438 associated with 357 active sites
 - Participated in the following professional events:
 - Certified Inspector of Sediment and Erosion Control (CISEC) Training and Certification
- Private Permanent BMP Structure Inspections: 584 associated with 264 sites
- Stormwater Development Review:
 - Completed reviews of over 2,700 drainage related development submittals
 - Participated in the following professional events:
 - Certified Inspector of Sediment and Erosion Control (CISEC) Training
 - Colorado Association of Stormwater and Floodplain Managers (CASFM) Annual Conference
 - Colorado Riparian Association (CRA) Stream Academy
 - Colorado State University BMP Design and Design Review Workshop
 - 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. A total of 26 proposed stormwater projects were identified within the City limits using the Ballot Issue 2 funds. Work on these projects continued through the reporting period, with 18 completed between 2017 and 2018, and the remainder scheduled to be completed in 2019.
- 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. The fees are assessed on all developed real property within the City limits at an amount of \$5.00 per residential dwelling unit/month, and \$30.00 per acre/month for non-residential properties. The City conducts a thorough review and uses strict criteria to evaluate all non-residential parcels to ensure fees are calculated accurately in accordance with the Stormwater Enterprise Ordinance (Ordinance No. 17-69). The City partnered with Utilities to administer the monthly residential fee on individually metered residential customer Utility bills on behalf of the City. For non-residential properties and for multi-metered or non-Utility-metered residential properties, the City partnered with a third-party company to assist with the billing and collection of the monthly fees. Collection of the stormwater service fees by the Stormwater Enterprise began on July 1, 2018. Prior the July 1, 2018, the City's Stormwater Program was funded through the City's general fund as a division of Public Works.

- Stormwater Advisory Committee – In accordance with City Ordinance No. 17-69, the Colorado Springs City Council appointed seven (7) community members to form a Stormwater Advisory Committee in February 2018. The Stormwater Advisory Committee provides City Council with citizen input on the stormwater system and operation of the Stormwater Enterprise, along with advice and recommendations on the projects to be undertaken. The committee meets quarterly, with the first meeting held on May 17, 2018.
- Stormwater University – In September 2017, the City's Water Resources Engineering Division held its inaugural Stormwater University classroom training session. The intent of the Stormwater University is to provide clarification to developers, engineers, contractors, and consultants on 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, as well as community members and residents for improved compliance and understanding of stormwater-related issues. Two Stormwater University classroom training sessions were held in 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. Four training sessions were held in 2018. 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.
- City-Specific Drainage Criteria Design Spreadsheets – The City is in the process of finalizing 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. The design spreadsheets are scheduled to be finalized and published in 2019.
- City Stormwater Construction Manual (SCM) – The City finalized an internal draft 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. The SCM is scheduled to be finalized and published in 2019.

- 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 Project Design Review Checklist - The City and Utilities supported the FCWFCGD in the development of a project design submittal checklist to support the land use review authority of the District. The intent of the checklist is to provide owners, developers, engineers and other agencies information regarding the level of project design required for project design review activities within the District.
- District Capital Improvement Plan - Utilities supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan in 2017 and in 2018 participated in the Plan update for recommended projects to commence in 2019.

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 a 20-year period 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 (2018) 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 January 31 of the year following the expenditures, a report containing an estimate of the 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 Estimated Expenditures report is to be followed by the filing of a Preliminary Expenditures report on or before March 31, with a Final Expenditure report to be filed on or before June 30 of that year. The Final Expenditures report will be based on audited financial information.

The following contains a summary of Stormwater Control Program activities and report of estimated expenditures for the 2018 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 Engineering Division 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, and by mid-2018 was fully staffed at 68 FTEs. The most

significant staffing additions included in 2018 were a Stormwater Enterprise Business Administrator and a small customer service team, dedicated to supporting customer communications following the re-establishment of the City's Stormwater Enterprise (SWENT), which Colorado Springs voters approved in November 2017. The City's Water Resources Engineering Division currently functions within the Stormwater Enterprise.

As described in previous annual expenditure reports, the overall Water Resources Engineering Division Program consists of three primary functions:

- Management of activities required by the City's MS4 permit.
- 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;

MS4 permit compliance activities are organized under three groups:

- Water Quality
- Stormwater Development Review
- 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 Stormwater Development Review group (formerly 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.

In 2018, the delivery of large stormwater capital projects was transitioned from the City Engineering Division's Capital Improvement Program (CIP) to the Water Resources Engineering Division Program's dedicated Stormwater Projects Delivery group. With this transition, the Division's Stormwater Projects Delivery group is responsible for the coordination and delivery of both large and small stormwater-related capital projects.

The organizational chart below illustrates the structure of the Water Resources Engineering Division within the recently re-established City Stormwater Enterprise.

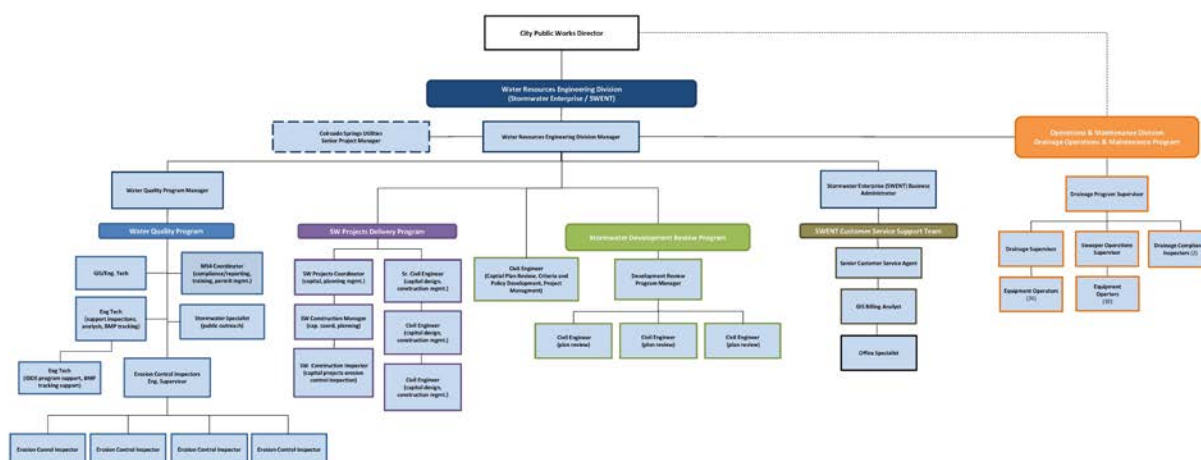


Figure 1: Water Resources Engineering Division Organizational Chart

City Stormwater Capital Improvement Projects Program

The IGA calls out specific projects to be completed between 2016 and 2035 (20-year period). 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 City's Stormwater Projects Delivery group. The City 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 9, 2018 and again on October 2, 2018 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. Copies of the updated five-year and three-year CIP project lists are 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. A total of 26 proposed stormwater projects were identified within the City limits using the Ballot Issue 2 funds. Work on these projects continued through the reporting period, with 18 of the projects completed between 2017 and 2018, and the remainder scheduled to be completed in 2019.

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. The fees are assessed on all developed real property within the City limits at an amount of \$5.00 per residential dwelling unit/month, and \$30.00 per acre/month for non-residential properties. The City conducts a thorough review and uses strict criteria to evaluate all non-residential parcels to ensure fees are calculated accurately in accordance with the Stormwater Enterprise Ordinance (Ordinance No. 17-69). The City partnered with Utilities to administer the monthly residential fee on individually metered residential customer Utility bills on behalf of the City. For non-residential properties and for multi-metered or non-Utility-metered residential properties, the City partnered with a third-party company to assist with billing and collection of the monthly fees. Collection of the stormwater service fees by the Stormwater Enterprise began on July 1, 2018. Prior the July 1, 2018, the City's Stormwater Program was funded through the City's general fund as a division of Public Works.

Stormwater Advisory Committee – In accordance with City Ordinance No. 17-69, the Colorado Springs City Council appointed seven (7) community members to form a Stormwater Advisory Committee in February 2018. The Stormwater Advisory Committee provides City Council with citizen input on the stormwater system and operation of the Stormwater Enterprise, along with advice and recommendations on the projects to be undertaken. The committee meets quarterly, with the first meeting held on May 17, 2018.

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. The intent of the Stormwater University is to provide clarification to developers, engineers, contractors, and consultants on 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, as well as community members and residents for improved compliance and understanding of stormwater-related issues. Two Stormwater University classroom training sessions were held in 2018.

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. Four training sessions were held in 2018. 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.

City-Specific Drainage Criteria Design Spreadsheets and Stormwater Construction Manual

The City is in the process of finalizing 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 finalized an internal draft Stormwater Construction Manual (SCM) 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. The City-specific design spreadsheets and SCM are scheduled to be finalized and published in 2019.

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 2018 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, 2018, the City and Utilities have invested (through either expenditures or encumbrances) a total of \$25.9 million dollars on the City's Stormwater Control Program. This includes expenditures and encumbrances of:
 - \$ 9.4 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
 - \$ 12.8 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
 - \$ 3.7 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)
- A more detailed summary of estimated expenditures for the 2018 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 estimated expenditures for the 2018 calendar year and provide a summary of the associated Stormwater Control Program activities.
- A subsequent preliminary report will be filed on or before March 31, 2019, with a final report to be filed on or before June 30, 2019 based on audited financials.

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 from the City, Utilities, and WWE met on March 9, 2018 and again on October 2, 2018 to review, discuss and update the five-year CIP for the City and the three-year CIP for Utilities' SSCC Program. Staff from the City, Utilities, and WWE additional participated in site visits on October 12, 2018 to observe three of the sites discussed. Copies of the updated five-year and three-year CIP project lists are included in Attachment A.

At the completion of the March 9, 2018 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Water Quality Project (2018 IGA Project #13) – Agreed to the location of the 2018 water quality project near the intersection of Colorado Avenue and Ridge Road in the western portion of Colorado Springs. The Ridge Road detention pond will be designed to treat a drainage area of approximately 74 acres of previously undetained flows prior to discharge into Fountain Creek.
- Camp Creek – Phase 1 (2018 IGA Project #11) – Project was redefined to include improvements to the natural channel portion upstream of Chambers Street to connect with previous channel improvement work completed farther to the north through the Garden of the Gods park entrance, and to prevent further encroachment of the natural channel of Camp Creek towards Chambers Street.
- Storage Wagner Park Detention Facility (2018 IGA Project #41) – Due to various site constraints, the Storage Wagner Park Detention Facility was discussed and replaced with the US24/Colorado Avenue Detention Facility. The replacement facility is a collaboration project between the City, El Paso County, and the Colorado Department of Transportation (CDOT) at the western extent of Colorado Springs to provide sub-regional detention in the Upper Fountain Creek drainage basin prior to discharge into Fountain Creek.
- Side Channel Sand Creek – Segment 107 (2021 IGA Project #35) – In November 2017, representatives of the City and WWE participated in a site visit to the Pine Creek drainage channel in the northern portion of Colorado Springs. Pine Creek is a significantly degraded natural channel not identified in the original IGA project list. Due to the condition of the channel observed, both the City and WWE representatives agreed it was appropriate to identify and replace less significant IGA projects with projects in the degraded areas of Pine Creek. At the March 9, 2018 meeting, it was agreed to replace the 2021 Side Channel Sand Creek IGA project with Pine Creek Channel Improvements Phase 1, with design of the new replacement project to commence in 2018 (moving up from 2021). Phase I of the

Sand Creek Channel Improvements Project will extend from the Pine Creek Detention Pond west to Chapel Hills Drive.

- Park Vista/Siferd Low Water Crossing (2020 IGA Project #24) – Based on the same rationale as the Side Channel Sand Creek – Segment 107 IGA project discussed above, the participating representatives additionally agreed to replace the 2020 Park Vista/Siferd Low Water Crossing IGA project with Pine Creek Channel Improvements Phase 2, with design commencing in 2019 or 2020 and extending from Chapel Hills Drive west to the existing Briargate Parkway and Voyager Parkway regional detention facility.

At the completion of the October 2, 2018 meeting and October 12, 2018 site visits, the participating representatives agreed to the following modifications to the original IGA project list:

- Storage Cottonwood Park (2019 IGA Project #51) and North Douglas Natural Channel (2020 IGA Project #16) – During the October 2 meeting it was discussed that the City is in the process of finalizing a pre-disaster mitigation (PDM) grant from FEMA to assist in the completion of the North Douglas Natural Channel project (a current 2020 IGA project) to begin in 2019. Storage Cottonwood Park (west side) is currently a 2019 IGA project that is scheduled to begin design in 2019 with construction to be completed between 2020 and 2022. Due to the opportunity to move the North Douglas Natural Channel project up from 2020 to 2019 with the assistance of the PDM grant, the participating representatives agreed to move the North Douglas Natural Channel project from 2020 to 2019 and the Storage Cottonwood Park (west side) from 2019 to 2020.
- Storage Austin Bluffs Parkway Upstream of Research (2019 IGA Project #38) – Due to various site constraints, the Storage Austin Bluffs Parkway Upstream of Research project was discussed and replaced with the Flying Horse Pond #1 retrofit project. The Storage Austin Bluffs Parkway Upstream of Research is identified as a 2019 IGA project in the Cottonwood Creek drainage basin. In preparation of this project, the City completed a preliminary design evaluation to better estimate the costs and overall performance of the facility once constructed. The evaluation identified several challenges, including utility and existing roadway constraints, limited storage area (3.1 to 4.7-acre feet), and limited peak flow reduction compared to an estimated construction cost of \$3,000,000 versus the original estimated IGA project cost of \$754,000.

On October 12, 2018, representatives of the City and WWE visited the existing Flying Horse Pond #1 regional detention facility located in the northern portion of the City as a proposed replacement project for the Storage Austin Bluffs Parkway Upstream of Research project. The reconstruction of Flying Horse Pond #1 will provide for full-spectrum release rates, allow the existing detention pond area to function more effectively, and drain the approximately 1,000 acre basin that the facility collects in accordance with current standards, while improving the outfall conditions to assist in the protection of the Monument Branch receiving stream. Lower sections of Monument Branch downstream of Flying Horse Pond #1 have been severely eroded and are in the process of being re-stabilized through another

IGA project (USAF A Drainages/Monument Branch Phases 1 and 2). Both the City and WWE representatives agreed that converting Flying Horse Pond #1 to a properly functioning full spectrum facility will increase the long-term success of these downstream projects and help existing stable sections of the creek from eroding and sending additional sediment downstream. Based on the benefits of the Flying Horse Pond #1 reconstruction and as other detention ponds are currently planned and being designed in the Cottonwood Creek drainage basin as part of the IGA, both parties agreed to Flying Horse Pond #1 project was an acceptable replacement for the Storage at Austin Bluffs Upstream of Research project.

- CS-239 Grade Control Upper Hancock Channel - Hancock to Academy (2020 IGA Project #70) – On October 12, 2018, representatives from the City and WWE visited the 2020 IGA project site and walked the Sand Creek channel bed from Hancock Road north to Academy Boulevard. The original IGA project description was based on the City's 2013 Stormwater Needs Assessment document which identified the need for the design and construction of three drop structures in the Upper Hancock channel of Sand Creek between Hancock Road and Academy Boulevard. In 2017, Utilities completed construction of two grouted boulder drop structures in the central portion of the Sand Creek channel between Hancock Road and Academy Boulevard and was described under the Utilities SSCC Program Activities section in the 2017 Stormwater IGA report. In addition to the two drop structures completed by Utilities in 2017, a previously constructed third drop structure is present at the north end of the project reach (on the downstream side of the Academy Boulevard bridge crossing), and two concrete/sheet pile ribbon wall structures are present near the south end of the reach (upstream of the Hancock Road bridge crossing), totaling five (5) grade control structures present within the reach between Hancock Road and Academy Boulevard.

Following the inspection of the channel and the existing structures, it was agreed by both the City and WWE personnel that the reach appeared stable with the structures performing as intended. The City noted that the structures are being monitored for performance and maintenance needs on a routine basis and will include additional maintenance as needed; however, both the City and WWE personnel agreed that construction of additional structures within the project area was not required. The City and WWE personnel further agreed that based on the construction of the two Utilities drop structures in 2017 and the current stabilized condition of the reach, the Grade Control Upper Hancock Channel - Hancock to Academy IGA project could be considered complete.

- Cottonwood Creek East of Austin Bluffs Parkway – On October 12, 2018, representatives from the City and WWE visited a stretch of Cottonwood Creek between Austin Bluffs Parkway and Powers Boulevard. This stretch of Cottonwood Creek is one of the last remaining unstabilized areas of Cottonwood Creek within the City and is not identified on the original IGA project list. During the inspection of the channel conditions, the City and WWE representatives discussed the potential to program this stretch of Cottonwood Creek into the IGA project list in place of one or two IGA projects in less critical condition as determined and agreed to by both the City and WWE. Do to the conditions of the creek in this area

observed during the site visit, the City and WWE agreed that this approach was acceptable and inclusion of this area of Cottonwood Creek in place of other IGA stream stabilization projects could be evaluated.

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 2018, 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: \$2,750,000

The project involves the installation of an extended detention basin to be located adjacent to the south bank of Fountain Creek on the current Timber Lodge cabins property, just north of US-24 and west 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 and the extended detention basin is currently in design.

(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.
- Utilities supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan in 2017 and in 2018 participated in the Plan update for recommended projects to commence in 2019.

(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:

- Utilities supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan in 2017 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. Utilities further participated in the selection of projects in 2018 to be completed in 2019 with appropriate updates to the District's Capital Improvements Plan.
- The City and Utilities supported the FCWFCGD in the development of a project design submittal checklist to support the land use review authority of the District. The intent of the checklist is to provide owners, developers, engineers and other agencies information regarding the level of project design required for project design review 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 participated 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 continued to complete the design of Phases II and III of the Monument Branch Channel Stabilization project (Phase I was designed and constructed in 2016 and 2017). The project is located on Monument Branch, a tributary of Monument Creek, between

North Gate Boulevard and the confluence with Monument Creek on the Air Force Academy property east of Interstate-25. 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 FCWFCGD.

- (4) *By coordinated support of acquisition of land or conservation easements by the FCWFCGD or other entities to preserve or enhance the Fountain Creek corridor below the City and through the City of Pueblo.*
- The City and Utilities participated in the review of a Proposed Fountain Creek Mitigation Bank Prospectus, dated June 17, 2018 (Action No. SPA-2018-00270-SCO), submitted to the US Army Corps of Engineers Albuquerque District by SCP Conservation, LLC to establish the Fountain Creek Mitigation Bank near the El Paso/Pueblo County line.
- (5) *By exploring opportunities for such coordination and cooperation on these Fountain Creek initiatives beyond the term of the IGA Agreement.*
- During the reporting period, the City completed the initial phase of a Stormwater Infrastructure Master Plan (SIMP) which incorporates 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 FCWFCGD.

Paragraph III.D - Payments to FCWFCGD

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 FCWFCGD 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.

- A check dated January 11, 2018 in the amount of \$10,382,296.00 payable to the Fountain Creek Watershed Water Activity Enterprise was delivered by Utilities to the FCWFCGD Executive Director on January 12, 2018. The payment was made in accordance with Condition 6 of the Southern Delivery System (SDS) 1041 Permit and as outlined in Pueblo County 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 2018 when the originally reported “Preliminary” November 2017 Producer Price Index (PPI) for

Finished Goods (WPUFD49207) value of 200.6 was updated to a “Finalized” published value of 200.4 (0.2 points less than the original published “Preliminary” value).

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

Paragraph III.D(3) states that to ensure long-term funding of FCWFCD'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 FCWFCD, will agree to contribute funds to ensure the long-term funding of FCWFCD's operating budget.

- The City and Utilities are committed to the long-term funding of the FCWFCD's operating budget and continues to support efforts to work cooperatively and in good faith with Pueblo County to establish a proportional operating budget funding formula with the participating stakeholders in the FCWFCD.

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 2, 2018 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, 2018.

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 received documentation from the City of Pueblo evidencing that a substantial portion of the combined 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.

- Forty-two (42) 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 responded to any questions Pueblo County representatives presented.

3.0 Estimated Expenditures for the 2018 Calendar Year

The following contains a report of estimated expenditures for the 2018 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 2018 calendar year reporting period. As of December 31, 2018, the City and Utilities have invested (through either expenditures or encumbrances) a total of \$25.9 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	2018	Total (2016-2018)
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$9,408,626	\$22,402,994
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$12,819,206	\$40,901,351
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,659,441	\$11,712,548
Total	\$25,528,981	\$23,600,639	\$25,887,273	\$75,016,893

Actual Expenditures Only	2016	2017	2018	Total (2016-2018)
Drainage O&M	\$2,225,302	\$3,766,691	\$3,597,678	\$9,541,149
Stormwater MS4 Program	\$2,772,986	\$3,753,575	\$4,295,106	\$11,821,667
Stormwater Capital Projects	\$8,743,880	\$7,878,724	\$8,662,100	\$25,284,704
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,659,441	\$11,712,548
Total	\$18,455,192	\$18,739,073	\$20,214,325	\$57,360,068

Additional Unclaimed Stormwater Expenditures in 2018

Other Capital Project Stormwater/Channel Related Work

\$5,132,672

(Excluded expenditures related to PPRTA and roadway/bridge construction or maintenance projects per IGA paragraph III.A(5)b.)

Capital Project Summary of Expenditures

Of the actual expended total listed above, \$8,662,100 has been invested in Capital Projects, of which \$4,770,831 has been invested on IGA projects, and \$3,891,269 has been invested on other stormwater related projects.

IGA CAPITAL PROJECTS		
IGA Project No.	Project Name	Actual Spent (\$)
11	Camp Creek Phase I (2018)	105,856
15	Citadel Mall Neighborhood Improvements (2018)	98,716
65	Cottonwood Creek Detention Basins (2017)	143,952
5	Downtown Drainage Imps (Pikes Peak Avenue) (2016)	218
1	Emergency Stormwater Projects (2018)	1,397,456
0	FEMA Grant Projects (City Funds)	1,057,261
	2015 May Storm-Monument Branch	\$ 6,960
	2015 May Storm-N. Douglas Design	\$ 647
	HMGP 4145 Camp Creek Flood Mitigation	\$ 676,396
	NRCS 4145 Chuckwagon Ph II	\$ 373,258
8	King Street Detention Pond (2016)	151,436
23	North Chelton Road (CS-057) (2018)	91,302
31	Rangewood Tributary Detention Pond (2017)	118,385
9	Pine Creek Drainage Corridor Detention Pond (2018)	62,164
35	Pine Creek Channel Phase I (2018)	164,671
26	Sand Creek South of Platte Grant Match (2016)	11,585
52	Scarborough Drive Detention Facility (2017)	66,085
6	USAFA Drainages (Monument Branch) (2016)	25,407
13	Water Quality Projects	999,810
Various*	Project Scoping and Definition	276,529
	(IGA-38) Flying Horse Pond 1 Retrofit (2019)	\$ 31,374
	(IGA-09) Pine Creek Drainage Corridor Detention Pond (2018)	\$ 4,816
	(IGA-25) Pine Creek I-25 Downstream to Monument Creek (2026)	\$ 36,161
	(IGA-31) Rangewood Tributary Detention Pond (2017)	\$ 79,553
	(IGA-34) Storage Sand Creek Detention Pond 2 (2019)	\$ 7,280
	(IGA 19 & 39) Sand Creek - Palmer Park and Platte (2020, 2021)	\$ 11,050
	(IGA-61) Sand Creek - Karr to W. Fork Confluence (2022)	\$ 81,705
	(IGA-28) Shooks Run Phase I (2021)	\$ 24,320
	TABOR16 199-Asbury Place Drainage System	\$ 269
Total IGA Projects		4,770,831

Other Stormwater Capital Projects

Project Name	Actual Spent (\$)
Comprehensive Drainage Master Plan	772,387
Dam Repairs	141,636
Drainage Criteria Manual Updates	78,778
Drainage Studies	76,715
Stormwater Improvements	10
TABOR16 001-Falcon Estates	683,440
TABOR16 002-Rustic Hills Drainage Imps	214,190
TABOR16 006-Doherty HS Channel	39,102
TABOR16 014-Pitkin Street Drainage	56,984
TABOR16 075-Turrett Dr. Stormdrain	78,456
TABOR16 078-El Camino Drive	69,970
TABOR16 117-Centennial Rising	458,310
TABOR16 119-Galley Road/N Murray	168,566
TABOR16 203-Deliverance Dr. Drainage	101,209
TABOR16 355-10th and 11th Street	488,962
TABOR16 365-Fountain Blvd.	69,800
TABOR16 381-Litleshooks Run	302,396
TABOR16-070-Anita and Mesa	17,993
TABOR16-093 Serendipity Circle	66,690
TABOR16-137-Teal Court-Spring Creek	4,617
TABOR16-178-Dale-Prospect St.	538
TABOR16-365 Fountain-Huchinson	519
Total Non-IGA Stormwater Capital Projects	3,891,269

Total Stormwater Capital Projects Expenditures

Total 2018 Stormwater Capital Projects Expenditures	8,662,100
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Colorado Springs Utilities SSCC Program Activities

Work Order No.	Project Name	Actual Spent (\$)
2973829	Monument Creek Stream Stabilization Upstream of Pikeview Intake	\$2,706,912
2785897	CSR Sludgeline Bank Protection, Design	\$20,992
3129020	Dry Creek Stream Stabilization Downstream of Dawson Drive, Design	\$47,443
3273548	Fountain Creek Bank Stabilization (Non-Pot Pipeline Protection)	\$36,193
3221972	Sand Creek Downstream of West Fork Confluence Bank Stabilization	\$203,776
2970837	Revegetation Services for Cottonwood Creek at Duryea (Warranty)	\$0.00
2913735	Revegetation Services for Monument Creek Wetland Mitigation (Warranty)	\$0.00
3221685	Revegetation Services Monument Creek Wetlands Upstream of Pikeview	\$100,074
3320423	Cottonwood Creek at John Pinkerton Service Center	\$544,051
Total Utilities SSCC Program 2018 Project Costs to Date:		\$3,659,441

4.0 Stormwater Control Program Activities Undertaken in 2018 Calendar Year

2016 Capital Projects Carried Over Into the 2018 Reporting Period

2016 FEMA/ GRANT PROJECTS (IGA PROJECT #0)

Projects arising from the 2013 and 2015 flooding

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. Due to archeological findings within the proposed project site, FEMA has requested further study and mitigation of the area before commencing with construction.

Engineer/Contractor:	Wilson and Company/TBD
Status:	Engineering 100% Complete Construction Planned for 2019

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 has begun on the pond with construction expected to begin in Fall 2019. 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/TBD
Status:	Grant Application 100% Complete IGA with CDOT executed; Design to continue into 2019

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:	100% Complete

WATER QUALITY PROJECTS (2016) - 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 addresses 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/ECC
Status: 100% Complete

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 stabilizes 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 include several channel stabilization structures, bank stabilization measures, and restoration of riparian habitat.

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

USAFA DRAINAGE-MONUMENT BRANCH - PHASE 2 & 3 (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 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.

Phase 1: 100% Complete (2016-2017)

Phase 2:

Engineer/Contractor: Matrix/TBD
Status: Phase 2 Engineering – 100% Complete, NEPA in process
Phase 2 Construction to begin in Fall 2019

Phase 3:

Engineer/Contractor: Matrix/Construction to be performed by a private developer
Status: Phase 3 Engineering – 60% Complete

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 was designed and constructed to slow down flows from the seepage and provide a better monitoring point.

Engineer/Contractor: JDS-Hydro/Tezak Construction
Status: 100% Complete

ENGINEERING STUDIES

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 provides updates as needed. The DBPS is scheduled to be completed and finalized in 2019.

Engineer: Matrix
Status: Engineering 90% 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 90% Complete

2017 Capital Projects Carried Over Into the 2018 Reporting Period

2017 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 the FEMA declared disaster has incised the channel and caused side slope damage. Project is designed to repair approximately 900 linear feet of channel.

Beginning approximately 1,000 feet west of Powers Boulevard, design includes installation of new drop structures and raising of the channel bottom approximately 5 feet.

Engineer/Contractor:	Respec/Frontier Environmental
Status:	Design 100% Complete
	Construction to be Completed in 2019

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:	100% Complete

WATER QUALITY PROJECTS (2017) - SIERRA MADRE POND (IGA PROJECT #13)

Location: West side of South Sierra Madre Street near intersection with West Cucharas Street.

Description: This project is designed to provide water quality to the southwest downtown redevelopment area. The current area does not have regional water quality facilities installed to collect storm flows 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 west of the Sierra Madre and Cucharas Street intersection.

Engineer/Contractor:	AECOM/TBD
Status:	Engineering 100% Complete
	Construction to be Completed in 2019

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 is designed to create an in-line detention pond within the city owned property for flood control purposes in order to attenuate flows downstream in Cottonwood Creek. The pond is also designed to eliminate a deep incised channel in the area of the pond.

Engineer/Contractor:	RESPEC/TBD
Status:	Engineering 100% Complete
	Construction to be Completed in 2019

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/Blue Ridge Construction
Status:	Engineering 100% Complete Construction Commenced in 2018 and to be Completed in 2019

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

Tutt Pond (PR-2)

Location: Cottonwood Creek upstream of Tutt Boulevard

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

Engineer/Contractor:	Kiowa/TBD
Status:	Engineering 100% Complete Construction to be Completed in 2019

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 the City 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. Pipe repairs, including repair of two large heaving sections near Hancock Avenue, were completed in 2018.

Contractor:	CMS/DRX
Status:	100% Complete

TABOR PROJECTS (2016-2017) - Continued

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

Falcon Estates Phase I and II

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/BEC

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 100% Complete
Construction to be Completed in 2019

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/K.R. Swerdfeger

Status: Design 100% Complete
Construction Commenced in 2018 and to be Completed in 2019

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/Beers Construction

Status: 100% Complete

Rustic Hills

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

Description: Design of roadway drainage improvements (to be constructed by the City Streets Division in 2019) and design of new water quality pond (to be constructed by Water Resources Engineering Division) at southeast edge of site.

Engineer/Contractor: Drexell Barrell/Dwire Earthmoving

Status: Design 100% Complete
Construction to be Completed in 2019

TABOR PROJECTS (2016-2017) - Continued

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

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/ICS
Status: 100% Complete

ENGINEERING STUDIES**10% Conceptual Design**

Location: Various locations around the City.

Description: This project looked at several of the planned IGA projects over the next 3 years (2019-2021). The planned projects were designed to a 10% level and a cost estimate developed to better scope and budget the projects.

Engineer: Various
Status: Engineering 100% Complete

Capital Projects Undertaken During the 2018 Reporting Period

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1)

Projects arising from 2018 prioritized needs

Dry Creek at Dawson Drive

Location: Dry Creek Channel downstream of Dawson Drive

Description: Removed damaged sections of concrete channel and placed sheet pile cut-off walls with rip-rap to stabilize the section of creek that will be fully restored at a future time by Utilities.

Contractor: DRX
Status: 100% Complete

Blue Sky Channel

Location: Concrete Channel near Blue Sky Drive and Research Parkway

Description: Removed and replaced damaged sections of concrete channel.

Contractor: DRX
Status: 100% Complete

Meadowland at Montebello

Location: Concrete Channel near Meadowland and Montebello Drives

Description: Removed and replaced damaged sections of concrete channel.

Contractor: Ability
Status: 100% Complete

Flintridge and Academy

Location: Concrete Channel near Flintridge Drive and Academy Boulevard

Description: Removed and replaced damaged sections of concrete channel.

Contractor: DRX
Status: 100% Complete

Circle and Airport Pipe Lining

Location: Northeast corner of Airport Road and Circle Drive

Description: Lined bottom of 84" corrugated metal storm pipe to mitigate corrosion of pipe and groundwater seeps.

Contractor: CMS
Status: 100% Complete

Willowglen Drive at Pine Creek

Location: Outfall from Willowglen Drive into Pine Creek to the south

Description: Repaired stormwater pipe outfall into Pine Creek by placing a manhole and outlet pipe within the drainage easement north of the Creek.

Contractor: DRX
Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2018 prioritized needs

Spurwood Pipeline Point Repairs

Location: Spurwood Drive and Bay Springs Lane.

Description: Repaired sinkhole in roadway and installed concrete lining of the storm pipe in select areas to mitigate pipe corrosion and further instabilities.

Contractor: CMS
Status: 100% Complete

Bear Creek Dredging

Location: Bear Creek downstream of 8th Street

Description: Removed sediment buildup from culvert crossing 8th street and channel downstream to prevent flooding of pedestrian walkway.

Contractor: CMS
Status: 100% Complete

Chambrey Court Drainage

Location: East side of Chambrey Court Hillside down into City Parks Property.

Description: Stabilized heavily eroded drainage channel with new grading, erosion control fabric, rip-rap and revegetation.

Contractor: NB Trenchless
Status: 100% Complete

Alsace and 7th

Location: North side of Alsace Way east and west of Hawthorne Place

Description: Added curb, gutter and stormwater inlets to control stormwater flows coming from the west and south into the Cheyenne Creek drainage.

Contractor: CMS
Status: 100% Complete

Cresta and La Veta Way

Location: South side of La Veta Way between Cresta and Vista Place

Description: Added curb and gutter to south side of road with wide cross pan across La Veta to convey stormwater flows into inlet on north side of street.

Contractor: Ability
Status: 100% Complete

624 Yucca Drive

Location: East side of Pinion Drive leading into the north side of Yucca Drive

Description: Added curb and gutter to east side of Pinion Drive and a concrete swale across Pinion Drive at the intersection with Yucca Drive.

Contractor: CMS
Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2018 prioritized needs

Sommerlynn Hills Drainage Improvements

Location: Neighborhood northeast of Sommerlynn Road and Woodburn Street

Description: 30% Design only of stormwater system to capture flows at high point on El Sereno Drive and convey flow through neighborhood to Woodburn Street just south of Cheyenne Creek.

Contractor: Kimley-Horn
Status: 100% Complete

Pine Road

Location: North side of Pine Road just south of Old Stage Road.

Description: Repaired storm pipe transition that was causing sinkholes in what was formerly a private road conveyed to the City. Added a stormwater inlet to improve area drainage.

Contractor: DRX
Status: 100% Complete

Pine Creek Emergency Sheet Pile

Location: Just north of Pine Knoll View cul-de-sac within Pine Creek

Description: Installed sheet pile to stop headcutting moving up the creek in advance of the detention pond work to be performed later in the same area.

Contractor: Sun Construction
Status: 100% Complete

King Street Detention Pond Grading

Location: Southeast corner of King Street and 25th Street

Description: Performed grading of east detention pond bank area to improve drainage of pond and improve slopes into trickle channel.

Contractor: ECC
Status: 100% Complete

Tejon and Moreno

Location: North side of Moreno Drive just west of Tejon Street

Description: Installed new stormwater pipe to collect flows from the alley and convey flows to the main storm line in Tejon Street.

Contractor: TGC
Status: 100% Complete

Old Ranch and Monmouth

Location: West side of Monmouth Lane just south of Old Ranch Road

Description: Installed a stormwater inlet above an existing storm pipe to remove nuisance flows caused by area sump pumps.

Contractor: CMS
Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2018 prioritized needs

1127 North Prospect

Location: West Bank of Shooks Run

Description: Closing costs for acquired land along Shooks Run that will be used for future stabilization of the creek.

Contractor: Land Title
Status: 100% Complete

Little Shooks Run Inlet Improvements

Location: Existing inlets at Foote, Institute and Arcadia Streets

Description: Installed Neenan Grate style stormwater inlets alongside existing stormwater grates to better capture flow into below ground Little Shooks Run storm pipe.

Contractor: ECC
Status: 100% Complete

Siferd and Dale Street Closure

Location: Area to the east and south of Siferd and Dale Street intersection.

Description: Title search for properties to be acquired by the City for future stormwater project that will ultimately close this intersection and provide for a crossing above the drainageway.

Contractor: Land Title
Status: 100% Complete

Fountain Park

Location: Drainage within Park located south of Fountain Boulevard at Cedar Street

Description: Installed boulders and rip-rap at storm sewer outfalls within park to prevent scour as well as rip-rap along the trickle channel through the park.

Contractor: C&C Sand
Status: 100% Complete

YellowWood Forebay Modifications

Location: Detention Pond located west of YellowWood Drive just north of Woodmen Road

Description: Added rip-rap along wing walls of detention pond forebay to prevent erosion and undercutting of forebay walls.

Contractor: ECC
Status: 100% Complete

Cache La Poudre at Foote

Location: North side of intersection at Cache La Poudre and Foote Avenue

Description: Reconstructed curb and gutter and ADA ramps, and installed cross-pan across north side of intersection to prevent stormwater flows in the street from overtopping into private properties.

Contractor: CMS
Status: 100% Complete

EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued

Projects arising from 2018 prioritized needs

King Street Detention Pond Bank Repair

Location: Southeast corner of King Street and 25th Street

Description: Regraded and revegetated detention pond banks that had eroded as a result of large July, 2018 rainstorm event.

Contractor: Seedmasters
Status: 100% Complete

21st and Sheldon

Location: 21st Street from Fountain Creek to Sheldon Avenue

Description: Installed new curb, gutter, stormwater inlets, and stormwater pipe to improve area drainage and update system in the area.

Contractor: AA Construction
Status: 100% Complete

Cumbre Vista Pond Repair

Location: Cowpoke Road and Mt. Ouray Drive

Description: Repaired emergency spillway and outlet structure erosion at tie-in to Cottonwood Creek.

Contractor: ECC
Status: 100% Complete

WATER QUALITY PROJECTS (2018) - RIDGE ROAD POND (IGA PROJECT #13)

Location: Southeast corner of Ridge Road and Colorado Boulevard

Description: This project will provide water quality to a large section of the previously developed west side, old annexed area within the City. The current area does not include regional water quality features before discharging into Fountain Creek. The project is designed to address water quality before entering Fountain Creek by installing a regional full-spectrum water quality facility.

Engineer/Contractor: FHU/TBD
Status: Engineering 90% Complete
Construction to be Completed in 2019

PINE CREEK DRAINAGE CORRIDOR DETENTION POND (IGA Project #9)

Location: Within the Pine Creek channel just south of the golf course pond and northeast of Pine Knoll View

Description: The project will create an in-line detention pond within the Pine Creek channel for flood control purposes where head-cutting and erosion have been occurring. This project is being designed in conjunction with improvements to the downstream channel and will be constructed by the same contractor selected for Phase I of the channel improvements project.

Engineer/Contractor: WaterVation/TBD
Status: Engineering 100% Complete
Construction to be completed with Pine Creek Channel Improvements Phase I Project in 2019

PINE CREEK CHANNEL IMPROVEMENTS PHASE I (IGA PROJECT #35)

Location: Pine Creek natural channel alignment from Chapel Hill Drive east to the planned Pine Creek Drainage Corridor Detention Pond

Description: The scope of this project is to restore the natural channel using natural and hardened structures to mitigate against further erosion and loss of vegetation within the drainage way. The project will help reconnect the floodway and create new riparian areas downstream of the planned Pine Creek Drainage Corridor Detention Pond IGA project.

Engineer/Contractor: HDR/TBD
Status: Engineering 100% Complete
Construction to be Completed in 2019

CITADEL MALL NEIGHBORHOOD IMPROVEMENTS (IGA PROJECT #15)

Location: Santa Rosa Street and Chelton Road

Description: Installing below grade storm system along Santa Rosa and Chelton north up to Bowser Drive. New inlets will also be installed at the intersection of Santa Rosa and Chelton to prevent the flooding of this intersection.

Engineer/Contractor: HDR/TBD
Status: Engineering 90% Complete
Construction to be completed in 2020

NORTH CHELTON ROAD (IGA PROJECT #23)

Location: North Chelton Road from Sturgis Road south to Maizeland Road

Description: Install new stormwater inlets, curb, gutter and below ground stormwater pipe network to capture storm flows and direct flows to the existing nearby storm system. Project will mitigate against the flooding of residences immediately downgradient of Chelton Road.

Engineer/Contractor: SEH/TBD
Status: Engineering 60% Complete
Construction to be Completed in 2020

CAMP CREEK PHASE I (IGA PROJECT #11)

Location: Camp Creek within the Rockledge Ranch near the intersection of 31st Street and Chambers Way

Description: Install erosion control vanes in the Camp Creek natural channel and rip-rap stabilization of the stream banks and channel bottom upstream of Chambers Way to prevent further scouring of the stream bed and banks.

Engineer/Contractor: Wilson & Co/TBD
Status: Engineering 90% Complete
Construction to be completed in 2019

US24 / COLORADO DETENTION FACILITY (IGA PROJECT #41)

Location: Northwest corner of Ridge Road and US Highway 24

Description: The scope of this project is to acquire the existing property, raze all structures and install a full-spectrum water quality pond that will treat areas of City property and well as CDOT, Manitou and El Paso County.

Engineer/Contractor: TBD/TBD
 Status: Planning 10% Complete
 Construction to be Completed in 2019-2020

TABOR PROJECTS (2016-2017)

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

Fountain and Hutchinson

Location: Concrete channel on north side of Fountain Boulevard just west of Hutchinson Drive.

Description: Removed and replaced broken section of concrete channel and removed vegetation from surrounding area to mitigate future damages.

Contractor: Ability
 Status: 100% Complete

Teal Court

Location: Teal Court cul-de-sac.

Description: Removed the existing undersized stormwater inlet and pipe and replaced with a concrete channel to convey the flows through private properties into wetland areas to the north. Improvements designed to improve stormwater conveyance and mitigate against flooding of local residence buildings.

Contractor: Ability
 Status: 25% Complete

Pitkin Street

Location: West side of Pitkin Street between Platte Avenue and Boulder Street

Description: Installed curb and gutter and improved drive pans in the area to mitigate against surface flows flooding residences. Also improved a grated stormwater inlet near Platte Avenue to capture more surface flows into the existing below ground storm sewer system.

Contractor: DRX
 Status: 100% Complete

Anita Road and Mesa Lane

Location: Cul-de-sac at east end of Anita Road near Mesa Lane.

Description: Replaced curb and gutter around cul-de-sac to improve drainage into a new inlet box that discharges flows into existing drainage through properties. Inlet box designed with sump to capture sediment before discharge.

Contractor: CMS
 Status: 100% Complete

TABOR PROJECTS (2016-2017) - Continued

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

Turret Drive

Location: North end of Turret Drive at Dublin Boulevard.

Description: Installed new inlets on either side of Turret drive to capture stormwater flow into below ground system before flowing over Dublin.

Contractor: DRX
Status: 100% Complete

El Camino

Location: Concrete channel between El Camino Drive and Academy Boulevard

Description: Removed and replaced damaged sections of concrete lined channel.

Contractor: ECC
Status: 100% Complete

Dale and Prospect

Location: intersection of North Prospect Street and East Dale Street.

Description: Removed non-conforming street inlet with new curb and gutter bump-out, new stormwater inlet and pipeline that was designed to take street flows below ground through a City Parks property to the west and into Shooks Run.

Contractor: ECC
Status: 100% Complete

Deliverance Drive

Location: Concrete channel that is aligned between Deliverance Drive and Montabor Drive from the Cottonwood Creek Trail to Reuben Drive.

Description: Replaced damaged sections of the concrete lined channel.

Contractor: CMS
Status: 100% Complete

Serendipity Circle

Location: South side of Serendipity Circle and north side of Radiant Drive both near Tea Time Place.

Description: Installed larger stormwater inlet on Serendipity Drive to better capture flows from the street; removed and replaced the curb, gutter and drive pan on Radiant Drive to eliminate sump condition; and installed outfall energy dissipater and protection to prevent scour on large 30-inch stormwater pipes that discharge under Academy Boulevard into Serendipity Drive.

Contractor: Ability
Status: 100% Complete

GRANT APPLICATIONS

2018 Pre-Disaster Mitigation (PDM) Grant Applications

Location: Two separate project areas.

Description: Applications are being submitted to FEMA in an effort to acquire funding for the design and construction of two mitigation projects in the Pine Creek and Cottonwood Creek drainage basins. The funding determination is scheduled to be made later in 2019.

Engineer: HDR
Status: 75% Complete

ENGINEERING STUDIES

10% Conceptual Design

Location: Various locations around the City.

Description: This project looked at several of the planned IGA projects programmed 3 years from now (2021). The planned projects were designed to a 10% level and a cost estimate developed to better scope and budget the projects.

Engineer: Various
Status: Engineering 100% Complete

Sand Creek Drainage Basin Planning Study (DBPS)

Location: Sand Creek Drainage Basin (east section of the City)

Description: The Sand Creek DBPS was last performed and adopted into use in 1996. This project reassesses the previous DBPS and will provide updates as needed. The DBPS is scheduled to be completed and finalized in 2020. Many of the future IGA projects are located in this basin and will rely on the updated DBPS once complete.

Engineer: Stantec
Status: Engineering 5% Complete

Utilities Sanitary Sewer Creek Crossing (SSCC) Program Activities

In 2018, Utilities SSCC Program included repair or rehabilitation of 9 projects, at a preliminary cost of \$3,659,441.

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

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 was designed to reduce risk to infrastructure by stabilizing a 4,450-foot reach of Monument Creek where a 54-inch sanitary sewer interceptor parallels the creek, a 36-inch sanitary sewer 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:	August 2018
Status:	100% Complete

Clear Spring Ranch Bank Protection - Design

The Clear Spring Ranch Sludge Line Bank Protection Project is designed to protect Utilities sanitary sewer sludge line that runs longitudinally adjacent to Fountain Creek. The project site is located approximately 1,000 feet upstream of the Utilities' Owen Hall Diversion on the north end of the Clear Spring Ranch property. Fountain Creek has meandered towards the outside of the bend with the erosion creating a large vertical bank that has placed the infrastructure at risk.

During 2017, easements were acquired, and the design of the stabilization project was completed in 2018. The project design consists of grouted boulder bank protection with vertical sheet pile walls. Construction of this project is planned to begin in Fall 2019.

Contractor:	Matrix Design
Notice to Proceed:	May 2016
Completion date:	April 2018
Status:	Design 100% Complete Construction Anticipated to be Commence in 2019

Dry Creek Downstream of Dawson Drive Stream Stabilization - Design

This project is designed to reduce risk to Utilities infrastructure by stabilizing a reach of Dry Creek in the northwestern portion of the City. A 12-inch sanitary sewer main extends down the Dry Creek drainage, crossing Dry Creek itself at several locations. The crossings of Dry Creek are encased in concrete; however, the encasements are exposed due to ongoing channel degradation. 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 and will likely extend into 2019. Project construction is anticipated to begin in Fall 2019.

Contractor:	CH2M
Notice to Proceed:	June 2017
Design Completion:	April 2018
Status:	Design 100% Complete Construction Anticipated to Commence in 2019

Utilities SSCC Program Activities (Continued)

Fountain Creek Bank Stabilization (Non-Pot Pipeline Protection)

Bank erosion of Fountain Creek had caused a non-potable water pipeline to become exposed through the removal of previously placed riprap revetment and earth. This project was designed to maintain the bank by restoring the bank through the placement of riprap revetment to reduce the risk to the non-potable water pipeline. The bank protection included the installation of Type VH riprap. The riprap installation is expected to have long term durability and stability in this location requiring relatively little maintenance. This mitigation project was designed around the following criteria: Reduce risk of non-potable water pipeline damage due to erosion by armoring the bank to increase the resiliency of the pipeline.

Contractor:	Beers Construction LLC
Notice to Proceed:	March 2018
Construction Completion:	April 2018
Status:	100% Complete

Sand Creek Downstream of West Fork Confluence Bank Stabilization

Project designed to include stabilization of a portion of Sand Creek downstream of the confluence with the West Fork of Sand Creek to protect a 30-inch sanitary sewer pipeline. Project consisted of realignment of the low flow channel, repairing tape coating on the pipeline, and constructing a boulder wall to protect the sanitary sewer. Lateral migration and erosion of the low flow channel of Sand Creek, that occurred in the summer of 2017, caused the sanitary sewer pipeline to become exposed. The steel pipeline had been previously lined and secured to concrete caissons. The project placed two un-grouted bolder walls to armor the pipe and reduce the risk to the sanitary sewer.

Contractor:	Tezak Heavy Equipment Co. Inc.
Notice to Proceed:	February 2018
Construction Completion:	May 2018
Status:	100% Complete

Revegetation Services for Cottonwood Creek at Duryea

This revegetation project is associated with a construction project previously completed by Utilities to protect sanitary sewer main crossings on Cottonwood Creek at Duryea. The revegetation efforts included application of upland seed mix to restore staging and access areas, willow staking along banks and drop structures, and wetland seeding and plantings to replace vegetation permanently disturbed by the stabilization project.

Contractor:	Total Terrain Inc.
Notice to Proceed:	March 2016
Construction/Maintenance Completion:	November 2018
Status:	100% Complete

Utilities SSCC Program Activities (Continued)

Revegetation Services for Monument Creek Wetland Mitigation

Utilities constructed 6 grouted bolder drop structures to protect infrastructure near Fillmore Street and Goose Gossage Park to address stream degradation that had caused several sanitary sewer mains to be at risk of exposure. Approximately 0.19 acres of wetland was permanently disturbed during the project. Following completion of the construction project, revegetation efforts included application of upland seed mix to restore staging and access areas, willow staking along banks and boulder walls, and wetland seeding and plug planting to create wetlands permanently disturbed by the stabilization project in compliance with the project-related USACE 404 permits.

Contractor:	T-P Enterprises, Inc.
Notice to Proceed:	November 2015
Construction/Maintenance Completion:	November 2018
Status:	100% Complete

Revegetation Services Monument Creek Wetlands Upstream of Pikeview

Utilities stabilized a degrading reach of Monument Creek upstream of the Pikeview Intake to protect a 36-inch sanitary sewer main crossing Monument Creek and a 54-inch sanitary sewer main paralleling Monument Creek. The revegetation project consisted of upland seeding to restore staging and access areas, willow staking along banks and boulder walls, and wetland seeding and plug planting to create wetlands permanently disturbed by the stabilization project. The project begins just downstream of the 36-inch sanitary sewer crossing and extends approximately 2,500 feet upstream. Professional wetland vegetation services and wetland cell maintenance associated with drop structures installed along the project reach were procured to ensure proper establishment of riparian seeding, plants, and erosion control material.

Contractor:	Western States Reclamation, Inc.
Notice to Proceed:	November 2017
Construction/Maintenance Completion:	November 2020
Status:	85% Complete

Cottonwood Creek at Utilities John Pinkerton Service Center

Heavy storm events over the last several years resulted in erosion of the Cottonwood Creek banks behind (north) of the Utilities John Pinkerton Service Center (JPSC) site near the intersection of Woodmen Road and Powers Boulevard, which also resulted in damage to the JPSC stormwater outfalls to the creek. The bank between Cottonwood Creek and the JPSC site has eroded more than 20 feet in the last few years and was within 40 feet of the property fence line. In August 2018, an additional 9+ feet had eroded toward the facility parking area. Due to the erosion of the bank, the stormwater outfalls were required to be repaired to avoid the materials falling into the creek and to meet stormwater obligations. Emergency bank erosion mitigation was also required to protect Utilities property and to make repair and access safe for the stormwater outfall construction crew.

Contractor:	Wildcat Construction
Notice to Proceed:	September 2018
Construction Completion:	December 2018
Status:	100% 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 2018 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
- Completed identified maintenance activities within 75 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 3,703 cubic yards of sediment and debris
- Performed maintenance activities through 20.74 miles of concrete-lined and natural channels, including removal of 1,828 cubic yards of sediment, vegetation, and debris
- Completed 9,179 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 852.25 cubic yards of debris
- Repaired, replaced, or installed 2,696 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 33,715 lane miles of city streets, removing 30,718 cubic yards of debris

2018 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
 - 3 new educational brochures (Restaurant Best Management Practices, Pressure Washing, and Directional Drilling) were created to assist in addressing illicit discharges observed and/or reported throughout the City.
 - All existing educational brochures were updated, including brochures pertaining to Paint Disposal and Cleanup Guide, Commercial Carpet Cleaning, Managing Concrete/Stucco/Mortar Wash Water Waste, Managing Yard Waste & Landscape Debris, Pesticides/Herbicides/Fertilizers, and Proper Disposal of Pet Waste.

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): 166
 - Number of students and citizens reached (i.e., schools, community events): 4,244
 - Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions, including advertising on public buses, benches, and radio and television spots (i.e., pet waste, used oil, and illicit discharge related advertising on billboards and other signs):
1,792,958 estimated sign impressions; 1,121,658 estimated radio and television impressions
 - Storm Drain Art Project
 - Walking Tours (facilitated by The Downtown Partnership) – direct impressions: 32
 - Estimated indirect impressions to the downtown Colorado Springs area (i.e., special events, parades, tourism): 300,000
- 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: 25,080
(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 1,715 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, concrete contractors, directional drilling contractors, and painting contractors.
- 96 new businesses targeted to receive education and outreach material.
- 50 brochures titled Common Discharges From Industrial Facilities were created and distributed to Utilities Industrial Pretreatment staff. The pretreatment staff was encouraged to distribute the brochures at sites that have the potential for illicit discharges.
- 23 industrial facilities were inspected for stormwater compliance, including facilities that hold No Exposure certifications with CDPHE, facilities that received a complaint, and facilities inspected in conjunction with Utilities Industrial Pretreatment inspections.

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

- The City offered classes for the construction program and construction-related community in the spring and fall of 2018. 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 conducted four outdoor Stormwater Best Management Practices (BMP) Field Academy trainings to members of the construction community to provide hands-on training on proper installation and maintenance of construction BMPs.
- 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 BMP 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 584 inspections of private BMPs were conducted by the City in 2018, either during construction phases or associated with annual compliance requirements, which resulted in 69 enforcement actions.

- Private Structures Operation and Maintenance (O&M) Program Sites: 264
 - Structures Within Private Structures O&M Program: 355

Construction Site Inspections

In 2018, six full-time MS4 inspectors were dedicated to the MS4 Program. During the 2018 reporting year, the City MS4 Program construction inspection team completed the following:

- Total inspections: 6,438
- Active construction sites through the year: 357
- Initial Inspections: 115
- Final Inspections: 94
- Routine Inspections: 5,987
- Complaint Inspections: 24
- Follow-up Inspections, reconnaissance/indicator, storm event inspections: 1,355
- Operations and Maintenance Inspections: 175

Construction Site Enforcement:

- Notice and Order: 1
- Letter of Non-compliance: 60
- Stop Work Orders: 4

Continuing Education:

- Certified Inspector of Sediment and Erosion Control (CISEC) Training and Certification

Illicit Discharge Detection and Elimination (IDDE) Program

In 2017 the City hired a full-time employee to manage the IDDE Program. In prior years the work was accomplished by existing employees. The addition of a dedicated IDDE Program employee has allowed for better management of calls, tracking, and follow-ups concerning suspected illicit discharges.

In 2018 the IDDE Program received 186 reports of illicit discharges. Of those reported, only 31 incidents were classified as an illicit discharge that reached the City's MS4 or Waters of the State. In addition, 23 spill notifications were received on the City's Spill Hotline.

IDDE Enforcement:

- Verbal Warnings Issued: 69
- Educational Brochures Distributed: 45
- Notice of Violation Issued: 4
- Letter of Non-Compliance Issued: 2

IDDE Training Presented to Field Staff:

- IDDE training was provided to both City and Utilities field staff with an emphasis on how to identify and respond to illicit discharges in the field. Training was received by the following City and Utilities personnel:
 - City Traffic Inspectors: 3
 - City Water Resources Engineering Division: 12
 - City Code Enforcement Officers: 18
 - City ROW Inspectors: 7
 - City Engineering Development Review: 5
 - City Operation and Maintenance: 133
 - Colorado Springs Utilities: 128

Stormwater Development Review:

In 2018, the Stormwater 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 participated in the following professional events during the reporting period:

- Certified Inspector of Sediment and Erosion Control (CISEC) Training
- Colorado Association of Stormwater and Floodplain Managers (CASFM) Annual Conference
- Colorado Riparian Association (CRA) Stream Academy
- Colorado State University BMP Design and Design Review Workshop
- 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 2017 annual report was submitted to the Colorado Department of Health and Environment (CDPHE) on March 30, 2018.

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 2018 annual monitoring report was submitted to the CDPHE on May 31, 2018.

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 38 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 2018, the City continued to work with other local area governmental agencies/regional stakeholders 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 is to preemptively prepare a plan in preparation for this anticipated 2019 requirement. To date, the City/Utilities have dedicated \$25,000 to the Arkansas and Fountain Coalition for Urban River Evaluation (AF CURE) for these efforts.

5.0 Planned 2019 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 2019 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 2019 City of Colorado Springs budget titled *Annual Budget, 2019*, describes the 2019 Stormwater Enterprise budget. The document can be downloaded at: <https://coloradosprings.gov/budget/page/2019-budget>
- The 2019 Utilities budget allocates \$3,000,000 as part of Utilities' SSCC Program.
- Planned IGA related activities in 2019 include, but are not limited to:
 - 10% conceptual engineering for IGA capital projects (2020-2021);
 - Coordination and delivery of 2017-2019 IGA capital projects;
 - Completion of 2018 engineering studies;
 - 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 2019 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, the City's consultant team, and WWE plan to meet prior to March 31, 2019.

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 A

City of Colorado Springs Stormwater Program 5-Year Project List (2018-2022)

City Capital Project Prioritization (2018-2022)

Prioritization Criteria (see notes below)

Priority Ranking

Project Name	Total Estimated Capital Cost (2016\$) ⁴⁾	City Capital Contribution (2018\$)	Additional Funding (Grants) (2018\$)	Total Funding (2018\$)	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	Comments	Projected Project Dates
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.	2018 - 2022
13. Water Quality Project--Ridge Road at Colorado Boulevard Water Quality Pond ²⁾	\$500,000	\$500,000	\$0	\$500,000			X		X		X	X	3	Yes	9	4	See Footnote No. 2 below.	2018
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)	\$1,270,000	\$1,270,000	\$0	\$1,270,000	X	X	X						0	Yes		14	Localized flooding. Design to evaluate detention retrofit. Original IGA Budget \$1,053,000	2018- 2020
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- 2020
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
11. Camp Creek--Phase I (Redefined) ³⁾	\$1,500,000	\$1,500,000	\$0	\$1,500,000	X	X	X			X	X		2	Yes	18	16	Channel improvements. Cost shown is for natural channel improvements upstream of Chambers Street along Camp Creek	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
US24/Colorado Detention Facility	\$704,000	\$704,000	\$3,140,000	\$3,844,000			X	X	X		X	X	3		8	17	Work being performed in conjunction with a CDOT and El Paso County sponsored project along Colorado Avenue.	2018-2019
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	Work previously completed.	2021-2023
Pine Creek Channel Improvements Phase 1	\$1,242,000	\$1,242,000	\$0	\$1,242,000	X		X			X	X		2		20	26	Moving project up from 2021 to begin in 2018 due to degradation of Pine Creek Channel.	2018-2020
13. Water Quality Project--2019 ²⁾ (Location To Be Determined)	\$500,000	\$500,000	\$0	\$500,000			X		X		X	X	3	Yes	9	4	See Footnote No. 2 below.	2019-2020
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 (Replacing with Flying Horse Pond #1)	2019-2020
Flying Horse Pond #1	\$754,000	\$754,000	\$0	\$754,000			X	X	X		X	X	3		10	18	Monument Branch existing regional detention pond retrofit in accordance with current standards.	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 (Moved to 2020)	2019-2021

Prioritization Criteria (see notes below)

Priority Ranking

Project Name	Total Estimated Capital Cost (2016\$) ⁴⁾	City Capital Contribution (2018\$)	Additional Funding (Grants) (2018\$)	Total Funding (2018\$)	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	Comments	Projected Project Dates
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.	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
13. Water Quality Project--2020 ²⁾ (Location To Be Determined)	\$500,000	\$500,000	\$0	\$500,000			X		X		X	X	3	Yes	9	4	See Footnote No. 2 below.	2020-2021
24. Park Vista (Siford 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
Pine Creek Channel Improvements Phase 2	\$3,750,000	\$3,750,000	\$0	\$3,750,000	X		X			X	X		2	Yes		21	Pine Creek drainage basin.	2020-2022
70. CS-239 Grade Control Upper Hancock Channel - Hancock to Academy, 78+33 to (Completed by Utilities in 2017)	\$1,236,000	\$1,236,000	\$0	\$1,236,000					X	X			2		13	22	Desire for provision for regular sediment removal. Colorado Springs Utilities installed two drop structures in the project area in 2017. WWE and the City visited the IGA project site on October 12, 2018 and determined the project to be complete.	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
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	2020-2022
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
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
77. CS-265 Grade Control Sand Creek Upper West Fork - Maizeland to South Carefree 3 drop structures	\$420,000	\$420,000	\$0	\$420,000						X			1		24	29		2022-2024
76. CS-254 Channel/Grade Control Sand Creek Upper West Fork - Galley to Murray 1730lf channel stabilization, 2 drop structures	\$2,006,000	\$2,006,000	\$0	\$2,006,000						X			1		25	30		2022-2024
75. CS-262 Channel/Grade Control Upper Sand Creek - W. Fork to Palmer Park Blvd. 1550lf channel stabilization, w/drop structures	\$1,192,000	\$1,192,000	\$0	\$1,192,000						X			1		26	31		2022-2024

Prioritization Criteria (see notes below)

Priority Ranking

Project Name	Total Estimated Capital Cost (2016\$) ⁴⁾	City Capital Contribution (2018\$)	Additional Funding (Grants) (2018\$)	Total Funding (2018\$)	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	Comments	Projected Project Dates
74. CS-252 Channel Sand Creek Lower West Fork - Emory to Platte Ave. 1000lf channel stabilization	\$2,383,000	\$2,383,000	\$0	\$2,383,000						X			1		27	32		2022-2024
73. CS-025 Channel/Grade Control Sand Creek West Fork - Main stem to Wooten Construct drop structures & streambank protection	\$2,206,000	\$2,206,000	\$0	\$2,206,000						X			1		28	33		2022-2024

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.
- 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.

Attachment B

City of Colorado Springs Water Resources Engineering Division Organizational Chart

