

## Smith, Sandra

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**To:** Copy to Case File 1041 2008-002  
**Subject:** FW: 2020 Stormwater Control Program\_Preliminary Expenditures Annual Report (Electronic Report Delivery)  
**Attachments:** COS SWE CY2020 Preliminary Expenditures Annual Report (Mar21)\_Final.pdf

**From:** Binkley, Kevin <[Kevin.Binkley@coloradosprings.gov](mailto:Kevin.Binkley@coloradosprings.gov)>  
**Sent:** Friday, March 26, 2021 11:21 AM  
**To:** Howard, Carmen <[howardca@pueblocounty.us](mailto:howardca@pueblocounty.us)>  
**Cc:** Mulledy, Richard <[Richard.Mulledy@coloradosprings.gov](mailto:Richard.Mulledy@coloradosprings.gov)>; Roy, Brenda <[Brenda.Roy@coloradosprings.gov](mailto:Brenda.Roy@coloradosprings.gov)>; Easton, Travis W. <[Travis.Easton@coloradosprings.gov](mailto:Travis.Easton@coloradosprings.gov)>; Phil Tunnah <[ptunnah@csu.org](mailto:ptunnah@csu.org)>; Earl Wilkinson III <[ewilkinson@csu.org](mailto:ewilkinson@csu.org)>; Joe Awad <[jawad@csu.org](mailto:jawad@csu.org)>; Day, Marci <[daym@pueblocounty.us](mailto:daym@pueblocounty.us)>; [ipaton@wrightwater.com](mailto:ipaton@wrightwater.com)  
**Subject:** 2020 Stormwater Control Program\_Preliminary Expenditures Annual Report (Electronic Report Delivery)

Good morning, Ms. Howard.

It is hard to believe it is almost April 2021 already. I hope you and your staff are doing well and staying healthy. Attached, please find an electronic version of the City of the Colorado Springs Stormwater Control Program IGA Annual Report of Preliminary Expenditures for the 2020 Calendar Year.

As continues to be the case through most of 2020 and the first quarter of 2021 with the ongoing local and statewide COVID-19 situation and directives, Richard and I are still not able to make the trip down to deliver hard copy versions of the report in person as we have in the past and wanted to again. That said, there appears to be light at the end of the tunnel approaching and if all goes well we may be able to deliver copies of the IGA Annual Report of Final Expenditures in person in June as has been the tradition for the two of us until March of last year. If you would like hardcopies of the attached report, please let us know and we can send them via courier or standard US Mail. Otherwise, we have formatted the attached report with appropriate blank pages inserted to allow for proper printing.

Please let us know if you have any questions regarding the attached 2020 Preliminary Expenditures report (the second report in the three part series), or if we can be of further assistance.

As a final quick note, per paragraph III.B(2) of the IGA, we will be holding our annual IGA meeting with Wright Water Engineers (WWE) on Tuesday next week (March 30). In preparation of that meeting I have also copied Mr. Ian Paton of WWE to allow him the opportunity to review the attached report ahead of our discussion.

Thank you in advance.

-Kevin.

### Kevin Binkley, PMP

Utilities Program Manager

City of Colorado Springs | Stormwater Enterprise

30 S. Nevada Ave., Suite 401 | Colorado Springs, CO 80903

(719) 385-5400 office | (719) 339-3394 cell

[kevin.binkley@coloradosprings.gov](mailto:kevin.binkley@coloradosprings.gov)

(Please Note New Email Address)



Kevin Binkley, PMP | Water Projects & Programs Compliance Section Supervisor

Colorado Springs Utilities | System Planning and Projects Division  
1521 S. Hancock Expressway | MC: 1821 | Colorado Springs, CO 80903  
O (719) 668-3748 | M (719) 339-3394



1041 2008-002



# **City of Colorado Springs Stormwater Enterprise**

## **Stormwater Control Program Inter-Governmental Agreement (IGA) Annual Report of Preliminary Expenditures Calendar Year 2020**

Prepared for:

**Pueblo County**

Submitted by:

**City of Colorado Springs**

**Colorado Springs Utilities**



March 2021



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# Definitions and Acronyms

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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)
LOMR	Letter of Map Revision

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
SWENT	City of Colorado Springs Stormwater Enterprise
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

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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 Stormwater Control Program during the prior year (2020) 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 expenditures report on or before March 31, and a final expenditures report to be filed on or before June 30 of that year based on audited financial information.

The following contains a summary of Stormwater Control Program activities and a report of preliminary audited expenditures for the 2020 calendar year. Per the IGA, for the purpose of this report, "...expenditures mean both actual expenditures and encumbered funds.

'Encumbered funds' shall mean monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction."

## Summary of Preliminary Expenditures for the 2020 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 2020 Calendar Year reporting period as outlined below. As of December 31, 2020 a total of **\$17.7 million dollars** have been invested on the City's Stormwater Control Program in 2020. This includes annual encumbrances of:

- \$ 9.8 million associated with the City's Drainage O&M and MS4 program
- \$ 7.9 million associated with the City's Stormwater Capital Projects program

(As Utilities met their first 5-year (2016-2020), \$15 million dollar investment obligation to the City in 2019, the 2020 Utilities Sanitary Sewer Creek Crossing (SSCC) Program expenditures were not included in the 2020 IGA expenditure reporting. The 2020 Utilities SSCC Program expenditures were instead included as part of the Condition 7 wastewater improvements commitment associated with the Southern Delivery System (SDS) Pueblo County 1041 Permit.)

**Expenditures for the 2020 Calendar Year**

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

**Claimed Expenditures**

(Actual Expenditures and Encumbered Funds)	2016	2017	2018	2019	2020	<b>Total (2016-2020)</b>
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$9,408,626	\$9,080,041	<b>\$9,818,000</b>	\$41,301,035
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$12,819,206	\$7,478,927	<b>\$7,900,000</b>	\$56,280,278
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,700,166	\$4,093,307	-	\$15,846,580
<b>Total</b>	<b>\$25,528,981</b>	<b>\$23,600,639</b>	<b>\$25,927,998</b>	<b>\$20,652,275</b>	<b>\$17,718,000</b>	<b>\$113,427,893</b>

**Summary of Stormwater Control Program Activities**

Below is a summary of actual expended dollars between the 2016 and 2020 calendar years:

Program Dollars Spent	2016	2017	2018	2019	2020	<b>Total (2016-2020)</b>
Drainage O&M	\$2,176,780	\$3,766,691	\$4,029,563	\$4,523,710	<b>\$4,222,353</b>	<b>\$18,719,097</b>
Stormwater MS4 Program	\$2,772,986	\$3,753,575	\$4,652,951	\$4,553,479	<b>\$5,277,950</b>	<b>\$21,010,941</b>
Stormwater Capital Projects	\$8,743,880	\$7,878,724	\$9,997,414	\$12,189,439	<b>\$12,043,070</b>	<b>\$50,837,527</b>
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,700,166	\$4,093,307	-	<b>\$15,846,580</b>
<b>Total</b>	<b>\$18,406,670</b>	<b>\$18,739,073</b>	<b>\$22,380,094</b>	<b>\$25,359,935</b>	<b>\$21,543,373</b>	<b>\$106,429,145</b>

**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 2020. This included a continuation of Emergency Projects, Grant Projects, Water Quality Projects, and thirteen (13) specifically negotiated IGA project as outlined below. At the completion of the reporting period, the scheduled 2020 IGA projects were generally in the engineering phase of the projects, while the 2016, 2017, 2018, and 2019 IGA projects had either been completed, were under construction, or were continuing through the engineering phase.

Of the \$12,043,070 expended, a total of \$10,853,062 was spent on specifically negotiated IGA projects during the reporting period, with an additional \$1,190,008 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 1 (2018)	507,395
15	Citadel Mall Neighborhood Improvements (2018)	1,474,326
65	Cottonwood Creek Detention Basins (2017)	4,117,865
1	Emergency Stormwater Projects (2020)	966,859
0	FEMA Grant Projects (City Funds) (2016)	1,631,307
7	Fairfax Tributary Detention Pond (2016)	27,460
105	Flying Horse Pond 1 Retrofit (2019)	175,924
21	Monument Creek at Talemene (2020)	1,693
23	North Chelton Road (CS-057) (2018)	49,312
31	Rangewood Tributary Detention Pond (2017)	1,180
100	Pine Creek Drainage Corridor Detention Pond (2018)	149,740
103	Pine Creek Channel Phase 1 (2018)	509,634
61	Channel/Grade Control Sand Creek Karr to West Fork (2024)	1,084
6	USAFA Drainages (Monument Branch) (2016)	56,281
109	USAFA Supplemental Black Squirrel Creek (2022)	4,860
13	Water Quality Projects (2016-2019)	1,110,028
Various*	Project Scoping and Definition	68,114
	(105) Flying Horse Pond 1 Retrofit (2019)	83
	(39) Sand Creek (Palmer Park Channel) - Palmer Park to Galley	14,374
	(106) Cottonwood Creek (2021)	22,572
	(6) USAFA Drainages (Monument Branch Ph 2)	13,808
	(21) Monument Creek at Talemene	17,277
	<b>Total IGA Projects</b>	<b>10,853,062</b>

## Other Stormwater Capital Projects

<b>Total Non-IGA Stormwater Capital Projects</b>	<b>1,190,008</b>
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## Total Stormwater Capital Projects Expenditures

<b>Total 2020 Stormwater Capital Project Expenditures</b>	<b>12,043,070</b>
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- **Engineering Studies** - The Stormwater Enterprise continued to work on several significant and important engineering studies during the course of 2020, including continuation of the Sand Creek Drainage Basin Planning Study (DBPS), finalization of the City's Stormwater Infrastructure Master Plan (SIMP), and commencement of the City's Green Infrastructure Manual. 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 Stormwater Enterprise prepared submittals for four FEMA grant applications for proposed mitigation projects located in the Monument Creek, Monument Branch, Sand Creek, and Cottonwood Creek drainage basins. The funding determination is scheduled to be made later in 2021.

### 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. Utilities and City staff closely coordinate their efforts to provide maximum benefits to meet the overall Stormwater Control Program objectives.

As noted above, the Utilities SSCC Program met their first 5-year, \$15 million dollar investment obligation to the City in 2019, investing a total of \$15,846,580 between 2016 and 2019 protecting stream channels and floodplains adjacent to Utilities' infrastructure crossings. In 2020, the Utilities SSCC Program expenditures were alternatively included as part of the Condition 7 Wastewater Improvements investment commitment associated with the Southern Delivery System (SDS) Pueblo County 1041 Permit.

### Drainage Operations and Maintenance Activities Undertaken During the Reporting Period

During the 2020 calendar year, the Drainage Operations and Maintenance (O&M) Program completed the following activities:

- Completed inspections of all 125 publicly maintained regional and sub-regional detention ponds/facilities
- Completed identified maintenance activities within 102 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 12,874 cubic yards of sediment and debris
- Completed inspections of 41.04 miles of concrete-lined and natural channels
- Performed maintenance activities through 38.73 miles of concrete-lined and natural channels, including removal of 2,047 cubic yards of sediment, vegetation, and debris
- Completed 9,897 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 604 cubic yards of debris
- Repaired, replaced, or installed 1,744 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 20,443 lane miles of city streets, removing 24,728 cubic yards of debris

### 2020 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 207 suspected Illicit Discharge calls, of which only 45 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): 56
  - Number of students and citizens reached (i.e., schools, community events): 1,484
  - Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions: 11,666,649 impressions (visual and audial)
  - Storm Drain Art Project: One new gateway mural installed in the Ivywild Neighborhood
  - Educational distributions: 1,364 brochures and 7,405 school related items
  - Adopt-A-Waterway Program: 43 events with 540 volunteers
- Industrial facilities program education and outreach activities during the reporting period included:
  - 1,374 businesses targeted to receive education and outreach material.
  - Collaboration with Utilities Industrial Pretreatment staff to inspect leaking grease interceptors.
  - Collaborated with Colorado Springs Fire Department Inspections Division to investigate potential discharges from medical marijuana grow facility
- Construction Site Inspection:
  - Total inspections: 7,551 associated with 406 active sites
- Private Permanent BMP Structure Inspections: 1,857
  - 1,459 construction inspections; 398 compliance inspections
- Stormwater Development Review:
  - Completed reviews of over 4,800 drainage related development submittals
  - Participated in the following professional events:
    - City Stormwater Enterprise Presentations (Stormwater Construction Manual, Stormwater Theory Review, and Illicit Discharge Training)
    - Kimley-Horn & Associates, Inc. Green Infrastructure Measures Workshop
    - USEPA SWMM Training Class

#### Other Relevant Activities Undertaken During the Reporting Period

- City Stormwater Construction Manual (SCM) – The City finalized and implemented the Stormwater Enterprise’s 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. This manual explains the types of construction activities requiring such a permit, who obtains the permit, and how the permit is obtained. 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 was officially adopted on December 1, 2020
- 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 (TAC), Monetary Mitigation Fund Advisory Committee (MMFAC), and Citizens Advisory Group (CAG).



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# 1.0 Introduction

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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 (2020) for Capital Projects included as part of the IGA, stormwater-related operations and maintenance activities, Municipal Separate Storm Sewer System (MS4) Permit compliance, and protection of waterways adjacent to Utilities infrastructure.

## 1.1 Reporting Requirements

The IGA requires the City to file with Pueblo County, on or before March 31 of the year following the expenditures, a report containing 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 Preliminary Expenditures report serves as an update to the Annual Report of Estimated Expenditures for the 2020 Calendar Year, submitted on January 28, 2021. This report is to be followed by the filing of a Final Expenditure report on or before June 30, 2021. The Final Expenditures report will be based on the completed audited financial information.

The following contains a summary of Stormwater Control Program activities and report of preliminary audited expenditures for the 2020 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 Stormwater Enterprise Program

In 2016, the City created a separate dedicated Water Resources Engineering Division within the City's Public Works Department. In November 2017, Colorado Springs voters approved Ballot Issue 2A to reestablish the City's Stormwater Enterprise, 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 or improved 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 partnered with Utilities to administer the monthly residential fee on individually metered residential customer utility bills on behalf of the City, and with a third-party company to assist with billing and collection of the monthly fees for properties not collected through Utilities customer billing. 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.

As described in previous annual expenditure reports, the overall Stormwater Enterprise 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

#### Stormwater Advisory Committee

In accordance with the City's Stormwater Enterprise Ordinance (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. In 2020 the committee met quarterly on May 21, August 20, and November 19. The February 20, 2020 committee meeting was postponed until the May 21, 2020 meeting due to the lack of agenda items.

#### 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, and WWE met on March 27, 2020 and again on September 21, 2020 to review, discuss and update the five-year CIP for the City and the three-year CIP for Utilities' Sanitary Sewer Creek Crossing (SSCC) Program. A copy of the updated IGA CIP project list is included in Attachment A.



In parallel with the City's stormwater capital program efforts, Utilities has an ongoing effort to construct stormwater projects to protect stream channels and floodplains adjacent to infrastructure crossings. 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 Stormwater Control 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, or \$100 million in investments between 2016 and 2020. 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. As outlined in Section 3.0 below, between 2016 and 2020 the City and Utilities have invested (through either expenditures or encumbrances) a total of \$113 million dollars on the City's Stormwater Control Program with a total of \$106 million dollars expended to date.

#### City-Specific Stormwater Construction Manual (SCM)

The City finalized and implemented the Stormwater Enterprise's 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. This manual explains the types of construction activities requiring such a permit, who obtains the permit, and how the permit is obtained. 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 was officially adopted on December 1, 2020.

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## 2.0 IGA Compliance Activities Undertaken During the Reporting Period

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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 2020 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, 2020, the City invested a total of \$17.7 million dollars on the City's Stormwater Control Program in 2020. This includes encumbrances of:
  - \$ 9.8 million associated with the City's Drainage O&M and MS4 program  
(Annual Encumbrance)
  - \$ 7.9 million associated with the City's Stormwater Capital Projects program  
(Annual Encumbrance)
- Utilities met their first 5-year, \$15 million dollar investment obligation to the City in 2019, investing a total of \$15,846,580 between 2016 and 2019 protecting stream channels and floodplains adjacent to Utilities' infrastructure crossings. In 2020, the Utilities SSCC Program expenditures (totaling \$2.9 million) were alternatively included as part of the Condition 7 Wastewater Improvements investment commitment associated with the Southern Delivery System (SDS) Pueblo County 1041 Permit.
- Between 2016 and 2020, the City and Utilities have invested (through either expenditures or encumbrances) a total of **\$113.4 million dollars** on the City's Stormwater Control Program with a total of **\$106.4 million dollars** expended to date.
- A more detailed summary of preliminary expenditures for the 2020 calendar year is provided in Section 3.0 of this report.

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

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

- This report serves to document the preliminary expenditures for the 2020 calendar year and provide a summary of the associated Stormwater Control Program activities.
- This Preliminary Expenditures report serves as an update to the Annual Report of Estimated Expenditures for the 2020 Calendar Year, submitted on January 28, 2021. A subsequent final expenditures report will be filed on or before June 30, 2021 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 Wright Water Engineers (WWE) met on March 27, 2020 and again on September 21, 2020 to review, discuss, and update the five-year CIP for the City and the three-year CIP for Utilities' SSCC Program. A copy of the updated IGA CIP project list is included in Attachment A.

At the completion of the March 27, 2020 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Cottonwood Creek Detention Basins (2017 IGA Project #65) – Agreed to evaluate the Cottonwood Creek Detention Basins project as complete with the completion of the Cowpoke and Tutt regional detention pond (PR-2) and the Yellowwood regional detention pond, and the deletion of the Austin Bluffs at Woodmen Road regional detention pond (PR-7) and the smaller Vickers detention pond (PR-14) from the project. The request was based on the planned channel stabilization activities in the area of PR-7 between Austin Bluffs and upstream to Powers Boulevard (currently IGA Projects #106, #107, and #108), and the absence of benefit identified in the evaluation of the smaller Vickers detention pond (PR-14). In addition, at least three other regional detention ponds have or will be constructed under separate IGA projects (IGA Projects #31, #51, and #101).
- US24/Colorado Detention Facility (2018 IGA Project #102) – Agreed to remove and replace the US24/Colorado Detention Facility IGA Project #102 with the Bear Creek Channel Stabilization project (IGA Project #109). The US24/Colorado Detention Facility project was previously added to the IGA project list as a substitution for the Storage Wagner Park Detention (IGA Project # 41). However, during the US24/Colorado Detention Facility design process it was determined that property identified for the intended water quality pond could not be acquired for the project. Therefore, it was agreed that the US24/Colorado Detention Facility project be replaced by the Bear Creek Channel Stabilization project which would further stabilize the upper reach of the channel which was not included as part of a project completed with FEMA PA Grant funds in 2016.

- Grade Control Sand Creek Upper West Fork - Maizeland to South Carefree (2022 IGA Project #77) - Agreed to remove and replace the Grade Control Sand Creek Upper West Fork - Maizeland to South Carefree IGA Project #77 with the Black Squirrel Creek Channel Improvements project (IGA Project #110). After verifying the Grade Control Sand Creek Upper West Fork - Maizeland to South Carefree project location, it was determined that a concrete trapezoidal channel was already present in the project location and functioning properly. The Black Squirrel Creek Channel Improvements project will be designed to mitigate the downstream channel before its confluence with Monument Creek.
- Channel/Grade Control East Fork of Sand Creek (2026-2035 IGA Project #62) - Agreed to identify the Channel/Grade Control East Fork of Sand Creek (CS-041) IGA Project #62 as complete pending inspection of the channel section as the primary project area was completed in 2019 with final seeding completed in 2020 using grant funding.

At the completion of the September 21, 2020 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Cottonwood Creek Detention Basins (2017 IGA Project #65) - Agreed to completion of the Cottonwood Creek Detention Basins project based on the factors outlined above during the March 27, 2020 meeting.
- Old Annexation Drainage Improvements (2026-2035 IGA Project #4) - Agreed to identify the Old Annexation Drainage Improvements IGA Project #4 as complete based on the completion of drainage improvements in the Falcon Estates and Rustic Hills areas and smaller improvement projects in the Broadmoor and Skyway areas totaling over \$2.8 million between 2016 and 2020.

*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 2020, 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 ("FCWFCGD") to obtain federal and state assistance for stormwater, flood control and water quality projects within the Fountain Creek basin, including federal and state grants;*
  - No new activities were performed in 2020 which required support by the City or Utilities.
- (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 along Fountain Creek.
  - Utilities supported the FCWFCGD MMFAC in the development of a draft 10-year Capital Improvement Plan in 2017 and in 2020 participated in the annual Plan update for recommended projects to commence in 2021.
- (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 Capital Improvement Plan in 2017 for the purpose of ensuring that the Monetary Mitigation Funds provided through Condition No. 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 discussions related to the selection of projects in 2020 to be commenced in 2021 with appropriate updates to the District's Capital Improvements Plan.
  - The City and Utilities continued to participate through the Arkansas and Fountain Coalition for Urban River Evaluation (AF CURE) to further advance regional water quality efforts including nutrient sampling and modelling, PFAS-related groundwater issues, and water quality policy tracking.
- (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 the FCWFCGD began exploring the potential for compensatory mitigation banking projects within the Fountain Creek basin. A mitigation bank is a resource area restored, established, enhanced, or in some circumstances preserved for the purpose of providing regulatory compensation for unavoidable impacts to a natural resource (i.e., wetland, stream bank, or plant or animal species) permitted under the Clean Water Act, Endangered Species Act, or a similar state or local

regulation. Compensatory mitigation projects are implemented by a mitigation bank sponsor under an approved mitigation bank instrument. The mitigation bank project(s) then produce released credits that fulfill the obligations incurred by the mitigation bank sponsor through the sale or transfer of the credits generated.

(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 final 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 14, 2020 in the amount of \$10,706,513.00 payable to the Fountain Creek Watershed Water Activity Enterprise was delivered by Utilities to the FCWFCGD Executive Director on January 15, 2020. 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 2020 when the originally reported “Preliminary” November 2018 Producer Price Index (PPI) for Finished Goods (WPUFD49207) value of 206.6 was updated to a “Finalized” published value of 206.4 (0.2 points less than the original published “Preliminary” value).

Based on this decrease in the index value, it was calculated that the Total Annual Payment Amount with Indexing for the 2020 payment to the FCWFCGD should have been \$10,696,183, which resulted in an overpayment and credit of \$10,330 to Colorado Springs Utilities. On April 29, 2020, the SDS Partners (Colorado Springs Utilities, City of Fountain, Security Water District, and Pueblo West Metropolitan District) unanimously agreed as part of the SDS Operating Committee’s quarterly meeting to allow the FCWFCGD’s Watershed Water Activity Enterprise to retain the \$10,330 overpayment in 2020 as an additional contribution to the District for use on a future project, program, or study within the Fountain Creek watershed as approved by Utilities on behalf of the SDS Partners.



### 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.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.*

- Seventy-four (74) 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 each response by Pueblo County under advisement and responded to any questions Pueblo County representatives presented.
- In January 2020, the City and Pueblo County agreed to an alternative method for Pueblo County's review and comment pertaining to certain stormwater criteria variances associated with the City of Colorado Springs' DCM. The alternative method allows Pueblo County to consider certain identified categories of variances to be routine, if, and only if, the variance requests will not lead to any increase in flows, will not result in additional generation of sediment or erosion, will result in no decrease to water quality for Fountain Creek or tributaries to Fountain Creek, and meet the routine variance condition criteria agreed upon by the City and Pueblo County. The routine variances are only related to consistent variances that Pueblo County previously had no concerns or comments historically. All other non-routine variances are sent to Pueblo County for an opportunity to comment upon as per Paragraph III.F of the IGA.

The goal of the alternative method is to help reduce the time Pueblo County uses to review such variances for which consensus has been reached. A total of nine categories of routine variances and associated conditions to meet the routine variance definition were agreed upon. The categories include the following:

- |                                |                                      |
|--------------------------------|--------------------------------------|
| - Drop Manholes                | - Pipe Velocities                    |
| - Pipe Bends                   | - Pipe Crowns Matching               |
| - Retaining Wall Footings      | - Retaining Wall Horizontal Distance |
| - Retaining Wall Circumference | - Minimum Pipe Size                  |
| - Pipe Material                |                                      |

A summary of the number and nature of routine variances approved by the City are provided to Pueblo County on a quarterly basis. During the reporting period, a total of 54 routine variances were approved by the City and reported to Pueblo County.



## 3.0 Preliminary Expenditures for the 2020 Calendar Year

The following contains a report of preliminary audited expenditures for the 2020 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 2020 calendar year reporting period. As of December 31, 2020, the City and Utilities have invested (through either expenditures or encumbrances) a total of **\$17.7 million** dollars on the City's Stormwater Control Program and expended **\$21.5 million** dollars.

### Expenditures for the 2020 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	2019	2020	Total (2016-2020)
Drainage O&M/MS4 Program	\$5,833,812	\$7,160,556	\$9,408,626	\$9,080,041	<b>\$9,818,000</b>	\$41,301,035
Stormwater Capital Projects	\$14,982,145	\$13,100,000	\$12,819,206	\$7,478,927	<b>\$7,900,000</b>	\$56,280,278
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,700,166	\$4,093,307	-	\$15,846,580
<b>Total</b>	<b>\$25,528,981</b>	<b>\$23,600,639</b>	<b>\$25,927,998</b>	<b>\$20,652,275</b>	<b>\$17,718,000</b>	<b>\$113,427,893</b>

<b>Actual Expenditures</b>	2016	2017	2018	2019	2020	<b>Total (2016-2020)</b>
Drainage O&M	\$2,176,780	\$3,766,691	\$4,029,563	\$4,523,710	<b>\$4,222,353</b>	<b>\$18,719,097</b>
Stormwater MS4 Program	\$2,772,986	\$3,753,575	\$4,652,951	\$4,553,479	<b>\$5,277,950</b>	<b>\$21,010,941</b>
Stormwater Capital Projects	\$8,743,880	\$7,878,724	\$9,997,414	\$12,189,439	<b>\$12,043,070</b>	<b>\$50,852,527</b>
Colorado Springs Utilities (SSCC Program)	\$4,713,024	\$3,340,083	\$3,700,166	\$4,093,307	-	<b>\$15,846,580</b>
<b>Total</b>	<b>\$18,406,670</b>	<b>\$18,739,073</b>	<b>\$22,380,094</b>	<b>\$25,359,935</b>	<b>\$21,543,373</b>	<b>\$106,429,145</b>

Additional Unclaimed Stormwater Expenditures in 2020

Other Capital Project Stormwater/Channel Related Work \$3,053,275  
 (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, \$12,043,070 has been invested in Capital Projects, of which \$10,853,062 has been invested on IGA projects, and \$1,190,008 has been invested on other stormwater related projects.

IGA CAPITAL PROJECTS		
IGA Project No.	Project Name	Actual Spent (\$)
11	Camp Creek Phase 1 (2018)	507,395
15	Citadel Mall Neighborhood Improvements (2018)	1,474,326
65	Cottonwood Creek Detention Basins (2017)	4,117,865
1	Emergency Stormwater Projects (2020)	966,859
0	FEMA Grant Projects (City Funds) (2016)	1,631,307
	PDM-Bear Creek Channel	172,096
	HMGP 4145-Camp Creek Flood Mitigation	38,276
	PDM-Cottonwood Creek Channel Imp Phase 1	86,428
	PDM-North Douglas Channel	916,444
	HMGP-Sand Creek South of Platte (CS-18)	10,806
	NRCS Chuckwagon Phase 2	291,706
	Flying W Ranch/Chuckwagon Phase 3	31,836
	South Douglas at Centennial Design	83,715
7	Fairfax Tributary Detention Pond (2016)	27,460
105	Flying Horse Pond 1 Retrofit (2019)	175,924
21	Monument Creek at Talemine (2020)	1,693
23	North Chelton Road (CS-057) (2018)	49,312
31	Rangewood Tributary Detention Pond (2017)	1,180
100	Pine Creek Drainage Corridor Detention Pond (2018)	149,740
103	Pine Creek Channel Phase 1 (2018)	509,634
61	Channel/Grade Control Sand Creek Karr to West Fork (2024)	1,084
6	USAFA Drainages (Monument Branch) (2016)	56,281
109	USAFA Supplemental Black Squirrel Creek (2022)	4,860
13	Water Quality Projects (2016-2019)	1,110,028
Various*	Project Scoping and Definition	68,114
	(105) Flying Horse Pond 1 Retrofit (2019)	83
	(39) Sand Creek (Palmer Park Channel)-Palmer Park to Galley	14,374
	(106) Cottonwood Creek (2021)	22,572
	(6) USAFA Drainages (Monument Branch Ph 2)	13,808
	(21) Monument Creek at Talemine	17,277
<b>Total IGA Projects</b>		<b>10,853,062</b>

Other Stormwater Capital Projects	
Project Name	Actual Spent (\$)
Channel Inspection and Restoration	1,089
Comprehensive Drainage Master Plan	13,574
Drainage Criteria Manual Updates	4,170
Drainage Studies	151,429
Miscellaneous Studies	24,000
South Douglas Upstream Centennial	35,379
TABOR16 002-Rustic Hills Drainage Imps	45
TABOR16 006-Doherty HS Channel	41,415
TABOR16 009-Sommerlynn Hills	850,047
TABOR16 198-Ranch Lane Garden Way	300
TABOR16 224-Southgate Channel	38,941
USAFA-Elk Horn Creek	28,055
US24/CO Detention-Timber Lodge	1,564
<b>Total Non-IGA Stormwater Capital Projects</b>	<b>1,190,008</b>

Total Stormwater Capital Projects Expenditures	
<b>Total 2020 Stormwater Capital Project Expenditures</b>	<b>12,043,070</b>

#### Colorado Springs Utilities

The Utilities' Sanitary Sewer Creek Crossing (SSCC) Program met their first 5-year (2016-2020), \$15 million dollar investment obligation to the City in 2019, investing a total of \$15,846,580 between 2016 and 2019 protecting stream channels and floodplains adjacent to Utilities' infrastructure crossings. In 2020, the Utilities SSCC Program expenditures were therefore included as part of the Condition 7 Wastewater Improvements investment commitment associated with the Southern Delivery System (SDS) Pueblo County 1041 Permit.

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## 4.0 Stormwater Control Program Activities Undertaken in 2020 Calendar Year

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### 2016 Capital Projects Carried Over Into the 2020 Reporting Period

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#### 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 requested further study and mitigation of the area before commencing with construction. Construction activities commenced and were completed in 2020.

Engineer/Contractor: Wilson and Company/Mortenson Company  
Status: Complete

##### **East Fork Sand Creek Stabilization**

Location: East Fork Sand Creek downstream of Airport creek Point

Description: Heavy Rains from the 2013 and 2015 events caused instability and erosion within this section of East Fork Sand Creek. The FEMA Grants Program funded the construction of several drops and bank stabilization along this section of creek. Construction activities commenced in 2019 and completed in 2020.

Engineer/Contractor: Respec/Frontier Environmental Services  
Status: Complete

##### **South Douglas at Centennial**

Location: South Douglas natural channel between Centennial and Chestnut

Description: Flash floods following the Waldo Canyon Fire caused increased flood flows and erosion along this section of channel. The FEMA PAAP Grants Program funded restoration of the channel washout areas. Due to increased erosion after subsequent rain events, the grant dollars are only enough to fund one major washout area. Due to the changes in work scope and hydrology within the proposed project site, FEMA had requested further study and mitigation of the area before commencing with construction. Construction activities plan to commence in 2021.

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

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**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 designed 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 was completed in 2017. Phase 2 consists of the section outside of Phase 1 between Voyager Parkway and I-25. Phase 3 is the section of Monument Branch from the confluence with Monument Creek to 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 FCWFCGD.

**Phase 2:**

**Engineer/Contractor:** Matrix Design Group/TBD  
**Status:** Phase 2 Engineering – 100% Complete  
 Phase 2 Construction to begin in Fall 2021 or Fall 2022 Pending FEMA PDM Grant

**Phase 3:**

**Engineer/Contractor:** Matrix/Construction to be performed by a private developer  
**Status:** Phase 3 Engineering – Complete  
 Phase 3 Construction – 25% Complete

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**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 has completed IGA negotiations with CDOT for the project and the design of the pond was completed in 2020. Construction is expected to begin in 2021. 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:** IGA negotiations with CDOT complete;  
 Design 100% Complete  
 Construction planned for Fall 2021 pending CDOT interchange construction timing

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

**Location:** Sand Creek, downstream of Platte Avenue

**Description:** Following completion of the IGA project in this area it was determined a Letter of Map Revision (LOMR) was required to be completed for this reach of creek in order to correct the FEMA floodplain mapping of the surrounding area. Consultation with a vendor was completed and the LOMR applied for through FEMA. Acceptance of the application by FEMA is expected in the spring of 2021.

**Engineer:** Respec  
**Status:** Submitted. Finalization expected Spring of 2021

## 2017 Capital Projects Carried Over Into the 2020 Reporting Period

### 2017 FEMA/ GRANT PROJECTS (IGA PROJECT #0)

Projects arising from the 2013 and 2015 flooding

#### Flying W Ranch/ Chuckwagon-Phase 2

Location: Chuckwagon Road

Description: Flash floods following the Waldo Canyon fire caused significant erosion and damage to private property on the Wolfe Ranch/Chuckwagon. The NRCS grant program for Phase 2 of the project funded additional stabilization of approximately 1,500 feet of drainage channels throughout the property.

Engineer/Contractor: Matrix Design Group/BMH Development  
Status: Complete

#### Flying W Ranch/ Chuckwagon-Phase 3

Location: Chuckwagon Road

Description: Flash floods following the Waldo Canyon fire caused significant erosion and damage to private property on the Wolfe Ranch/Chuckwagon. In fulfillment of the City's maintenance agreement with the landowner, additional work is being completed on both North and South Douglas drainage basins within the Wolfe Ranch properties.

Engineer/Contractor: Matrix Design Group/BMH Development  
Status: Design Complete  
Construction 50% Complete

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

Pond Projects arising from preliminary 2017 Cottonwood Creek DBPS

#### Tutt Pond (PR-2)

Location: Cottonwood Creek upstream of Tutt Boulevard

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

Engineer/Contractor: Kiowa/Dwire  
Status: Complete

### TABOR PROJECTS (2016-2017)

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

#### Sommerlynn Hills Drainage Improvements

Location: Cheyenne Creek and Woodburn Street south to southern curve of El Sereno Drive.

Description: Install below ground conveyance to capture flows in the Sommerlynn Hills neighborhood and convey north to Cheyenne Creek.

Engineer/Contractor: Kimley-Horn/Pate Construction  
Status: Complete

## 2018 Capital Projects Carried Over Into the 2020 Reporting Period

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### **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/Wildcat  
Status: Complete

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### **PINE CREEK DRAINAGE CORRIDOR DETENTION POND (IGA Project #100)**

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 1 of the channel improvements project.

Engineer/Contractor: WaterVation/Iron Woman Construction  
Status: Complete

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### **PINE CREEK CHANNEL IMPROVEMENTS PHASE 1 (IGA PROJECT #103)**

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.

Engineer/Contractor: HDR/Iron Woman Construction  
Status: Complete

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### **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/Pate Construction  
Status: Complete



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**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 down gradient of Chelton Road.

Engineer/Contractor: SEH/Blue Ridge Construction  
Status: Engineering 100% Complete  
Construction to commence in 2021

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**CAMP CREEK PHASE 1 (IGA PROJECT #11)**

Location: Camp Creek within the Rockledge Ranch near the intersection of 31<sup>st</sup> 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/Langston  
Status: Complete

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**BEAR CREEK CHANNEL STABILIZATION (IGA PROJECT #108)**

Location: Bear Creek immediately downstream of 8<sup>th</sup> Street.

Description: Install two grouted boulder drops, rip-rap stabilization and bank stabilization from the invert of the culvert crossing 8<sup>th</sup> Street and continuing downstream to the restoration work performed in 2016. Construction planned for beginning of 2021.

Engineer/Contractor: Dewberry/TBD  
Status: Design 100% Complete  
Construction to commence in 2021

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**RUSTIC HILLS WATER QUALITY DEVICE II**

Location: Near intersection of Constitution Avenue and Brady Road within stormwater easement

Description: Install water quality vault in line with stormwater pipeline that collects flows from the newly paved Brady Road in the Rustic Hills Subdivision.

Engineer/Contractor: In-House/HPD  
Status: Complete

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**ENGINEERING STUDIES****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 2021. Many of the future IGA projects are located in this basin and will rely on the updated DBPS once complete.

Engineer: Stantec  
Status: Engineering 95% Complete



## 2019 Capital Projects Carried Over Into the 2020 Reporting Period

### WATER QUALITY PROJECTS (2019) - LOW-IMPACT DEVELOPMENT (LID) ALONG VERMIJO STREET (IGA PROJECT #13)

Location: West Vermijo Avenue from Cascade Avenue to Sahwatch Street

Description: This project is a full reconstruction of street-scaping along Vermijo Avenue as part of the City's PPRTA redevelopment of this area. The Stormwater Enterprise is contributing the funding to install LID for this section of Vermijo Avenue as the 2019 Water Quality Project Downtown.

Engineer/Contractor: AECOM/Wildcat  
Status: Complete

### FLYING HORSE POND #1 (IGA PROJECT #105)

Location: Detention Pond located along Monument Branch just south of Crystal Basin Drive.

Description: The scope of this project is to retrofit the existing pond to a water quality facility to treat the area drainage and drainage from the future Powers Boulevard extension that will be constructed along the south side of the pond.

Engineer/Contractor: Merrick/TBD  
Status: Engineering 100% Complete  
Construction planned Spring of 2021

### NORTH DOUGLAS CHANNEL (IGA PROJECT #16)

Location: North Douglas Creek from Sinton Road outfall to the UPRR right-of-way

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 existing hardened concrete channel.

Engineer/Contractor: Merrick/TBD  
Status: Engineering 100% Complete  
Construction planned Fall of 2021 pending CLOMR approval

## ENGINEERING STUDIES

### South Douglas LOMR

Location: South Douglas Concrete Channel along Chesham Circle

Description: FEMA Updated floodplain mapping for this area. Subsequently, the new maps graphically put homes along Chesham Circle into the floodplain. The LOMR will revise the mapping and take the homes out of the floodplain.

Engineer: Merrick  
Status: Complete

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## GRANT APPLICATIONS

### **2019 Pre-Disaster Mitigation (PDM) Grant Applications**

Location: Three separate project areas.

Description: Applications were submitted to FEMA in an effort to acquire funding for the design and construction of three mitigation projects in the Monument Branch, Sand Creek, and Cottonwood Creek drainage basins.

Engineer:	Various
Status:	Complete

## Capital Projects Undertaken During the 2020 Reporting Period

### WATER QUALITY PROJECTS (2020) - LOW-IMPACT DEVELOPMENT (LID) MANUAL (IGA PROJECT #13)

Location: City-wide

Description: The city is developing a green infrastructure manual in an effort to increase the amount of water quality pre-treatment established in development and re-development areas around the City. The manual will include best practices from the industry and have heavy stakeholder involvement from the development community and many other outside stakeholders.

Engineer/Contractor: Muller Engineering  
Status: 10% Complete

### PINE CREEK CHANNEL IMPROVEMENTS PHASE 2 (IGA PROJECT #104)

Location: Pine Creek natural channel alignment from Chapel Hill Drive west to the detention pond at Voyager Parkway

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.

Engineer/Contractor: HDR/TBD  
Status: Design 90% Complete  
Construction planned Fall of 2021

### STORAGE COTTONWOOD PARK (PR-15) (IGA PROJECT #51)

Location: Detention Pond located along Cottonwood Creek at Montarbor Drive

Description: The scope of this project is to retrofit the existing pond to a larger detention facility that will collect flows from the neighborhood to the south before entering Cottonwood Creek.

Engineer/Contractor: Kimley-Horn/TBD  
Status: Engineering 10% Complete  
Construction planned Fall of 2021

### MONUMENT CREEK AT TALEMINE (IGA PROJECT #21)

Location: East bank of Monument Creek at Goose Gossage Park along Mark Dabbling Drive.

Description: The scope of this project is to reconstruct and stabilize the east bank of Monument Creek where a high cliff has formed from continued erosion.

Engineer/Contractor: In-House/TBD  
Status: Engineering 100% Complete  
Construction planned Spring of 2021

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**COTTONWOOD CREEK AUSTIN BLUFFS TO BUS BARN (2021 IGA PROJECT #106)**

Location: Cottonwood Creek natural channel upstream of Austin Bluffs

Description: This is the first of a three-phased project to stabilize the reach of creek between Austin Bluffs and Powers Boulevard. The project will include several drop structures and reconnect the adjacent floodplain to the creek creating more riparian areas and environmental restoration of the area.

Engineer/Contractor: Matrix Design Group/TBD  
Status: Engineering 30% Complete  
Construction Phase 1 planned Fall of 2021

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**USAFA SUPPLEMENTAL PROJECT BSC (2022 IGA PROJECT #109)**

Location: Black Squirrel Creek between USAFA east property line and I-25 ROW

Description: The scope of this project is to stabilize this reach of creek and reconnect the floodplain to prevent further head cutting and erosion downstream.

Engineer/Contractor: In-House/TBD  
Status: Engineering 50% Complete  
Construction planned Spring of 2021

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**EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1)**

Projects arising from 2020 prioritized needs

**Tejon Pipe Repair**

Location: Tejon Street from Mill St. to Fountain Creek

Description: Rehabilitation and lining of CMP. Project was a joint venture of SWENT and PPRTA. Only SWENT funding was reported in this report.

Contractor: Lucky Dog  
Status: Complete

**Cheyenne Boulevard Drainage**

Location: North side of Cheyenne Boulevard just west of Cresta Ave.

Description: Reestablished ditch and drainage to direct flow away from roadway and into Cheyenne Creek tributary.

Contractor: ECC  
Status: Complete

**South Douglas Concrete Channel**

Location: Concrete channel south of Garden of the Gods Road

Description: Repairs to concrete trapezoidal channel.

Contractor: HPD  
Status: Complete

**EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued**

Projects arising from 2020 prioritized needs

**Arrowswest Concrete Channel**

Location: Concrete channel near Arrowswest Ave.

Description: Repairs to concrete trapezoidal channel.

Contractor: Ability  
Status: Complete

**Cheyenne Blvd Phase 2, N. side Ditch**

Location: North side of Cheyenne Boulevard from Ridgeway Ave to Sumner St.

Description: Ditch cleaning, culvert replacement and erosion controls to keep flows on north side of Cheyenne Boulevard.

Contractor: CMS  
Status: Complete

**1260 Mesa Lane**

Location: Beginning at Mesa Lane and continuing within drainage easement through 1260 Mesa Lane property.

Description: Added inlet and pipeline to capture flows from Mesa Lane and direct them underground through the property into Cheyenne Creek.

Contractor: Ability  
Status: Complete

**1615 Eyrie Drive**

Location: From 1615 Eyrie Drive to North Douglas concrete channel.

Description: Installed inlet and pipeline to direct flows away from private property into the channel.

Contractor: ICS  
Status: Complete

**1255 Bandon Drive**

Location: North side of Bandon Drive along sidewalk.

Description: Installed underdrain and pipeline to existing infrastructure to capture ground water seeps in the area that were flooding sidewalk and street.

Contractor: HPD  
Status: Complete

**801 Cheyenne Blvd**

Location: Intersection of Mesita Court and Cheyenne Boulevard.

Description: Installed new apron at Mesita court near 801 Cheyenne Boulevard to prevent flows from entering Mesita Court.

Contractor: CMS  
Status: Complete

**EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued**

Projects arising from 2020 prioritized needs

**2411 Bennett Avenue**

Location: Bennett Avenue at 2411.

Description: Reconstructed curb and gutter along street to create positive flows in front of residence.

Contractor: HPD  
Status: Complete

**Coleridge Ave Apartments**

Location: Coleridge Avenue at Bijou Street.

Description: Raised Curb height and added flow paths to prevent flows from entering apartment property from street.

Contractor: CMS  
Status: Complete

**1703 Arbor Way**

Location: Arbor Way Bridge over Cheyenne Run at Ramona Ave.

Description: Stabilization of Cheyenne Run south bank and wing wall of bridge.

Contractor: Langston  
Status: Complete

**Mount Woodmen Court**

Location: Drainage from Mount Woodmen Court north to Cedar Valley Lane.

Description: Acquisition of easements ahead of construction project in 2021.

Contractor: HDR  
Status: Complete

**Woodmen and Vincent**

Location: East bound Woodmen Road immediately west of intersection with Vincent Drive.

Description: Repairs concrete stormwater pipe that was causing depression in center lane of woodmen road.

Contractor: Langston  
Status: Complete

**Siferd and Date Streets Drainage Improvements**

Location: Intersection of Siferd and Date Streets.

Description: Installed closure gates to intersection where low water crossing exists to prevent cars from entering during large rain events.

Contractor: Peak Custom/In-house crews  
Status: Complete

**EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued**

Projects arising from 2020 prioritized needs

**Hollycrest Curb/Misc. Bollards**

Location: Hollycrest drive at Pine Creek drainage and Rustic Hills Water Quality Pond.

Description: Repairs to concrete curb and gutter on Hollycrest Drive and installation of bollards at entrance to water quality pond in Rustic Hills neighborhood.

Contractor: HPD  
Status: Complete

**Yucca and Kinnikinik**

Location: Drainage easements from intersection of Yucca and Kinnikinik down to Ramona Ave.

Description: Acquisition of easement ahead of project planned for 2021.

Contractor: HDR  
Status: Complete

**Broken Circle Drainage**

Location: Cul-de Sac at the south end of Broken Circle.

Description: Installed inlet and pipeline from the cul-de-sac down to water quality pond.

Contractor: Tasmarr  
Status: Complete

**Spring Creek Tree Removal**

Location: Spring Creek from Airport Road to Chelton Drive.

Description: Removed all large trees from the drainage channel that were causing blockage and flooding of Chelton during large rain events.

Contractor: Hortus  
Status: Complete

**Elkhorn Creek at USAFA**

Location: Elkhorn Creek from I-25 west to the USAFA Airport.

Description: Stabilization of the creek through this reach. This is a joint USAFA SWENT project to restore the creek from damage due to increased upstream flows. SWENT is funding the design.

Consultant: Matrix Design Group  
Status: 10% Complete

**Cottonwood Creek Austin Bluffs to Powers 30% Design**

Location: Cottonwood Creek from Austin Bluffs to Powers Boulevard.

Description: The scope of this project is to provide a 30% design for future IGA projects in the area. The design will include creek stabilization and reconnection of the floodplain as well as creating riparian habitat throughout the corridor.

Engineer: Matrix Design Group  
Status: Engineering 90% Complete

**EMERGENCY STORMWATER PROJECTS (IGA PROJECT #1) - Continued**

Projects arising from 2020 prioritized needs

**T-Gap Levee Study**

Location: Templeton Gap levee from Nevada Ave to Union Boulevard.

Description: The scope of this project is to perform a drainage study of the existing levee construction in order to update the hydrology and floodplain mapping.

Engineer/Contractor: HDR  
Status: Complete

**Wetland Mitigation Bank Study**

Location: El Paso County Region

Description: Investigate the need and future opportunities of creating a wetland and/or stream stabilization credit bank in the Fountain Creek basin area. Study is in cooperation with the FCWFCGD and Utilities.

Consultant: Westervelt  
Status: 30% Complete

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**GRANT APPLICATIONS****2020 FEMA BRIC Grant Applications**

Location: Four separate project areas.

Description: Applications are being submitted to FEMA in an effort to acquire funding for the design and construction of four mitigation projects in the Monument Creek, Monument Branch, Sand Creek, and Cottonwood Creek drainage basins. The funding determination is scheduled to be made later in 2021.

Engineer: Various  
Status: 90% Complete

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**ENGINEERING STUDIES**

The Stormwater Enterprise continued to work on several significant and important engineering studies during the course of 2020, including continuation of the Sand Creek Drainage Basin Planning Study (DBPS), finalization of the City's Stormwater Infrastructure Master Plan (SIMP), and commencement of the City's Green Infrastructure Manual. These studies will be used to further develop capital lists, plan future maintenance and capital projects, and manage stormwater related infrastructure.



## Utilities Sanitary Sewer Creek Crossing (SSCC) Program Activities

In 2020, Utilities SSCC Program included design, repair, rehabilitation, or closeout of 15 creek crossing locations, at a preliminary cost of \$2.9 million dollars.

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

### Monument Creek Stream Stabilization Upstream of Pikeview Intake - Permitting Closeout

The Monument Creek Stream Stabilization Upstream of the Pikeview Intake project began construction in Fall 2017 and was completed in Spring 2018. 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 was achieved by reconnecting Monument Creek to its historic floodplain through the installation of sculpted concrete drop structures, rock riffles, W-weirs, and channel fill. During 2019, a Letter of Map Revision (LOMR) was completed in order to satisfy floodplain regulation requirements from FEMA. A monitoring report for the USACE 404 permit was also created to document the status of the wetland mitigation. In 2020, Habitat Management was contracted to perform closeout mitigation activities as required by the USACE. The project 404 permit was closed out by the USACE on September 23<sup>rd</sup>, 2020 after all mitigation requirements were met.

Engineer/Contractor:	Matrix Design Group/Wildcat Construction ERO Resources/Habitat Management
Notice to Proceed:	May 2016/ August 2017
Completion date:	November 2019 (Construction)/September 2020 (404 Permit)
Status:	Complete

### Clear Spring Ranch Bank Protection - Construction

The Clear Spring Ranch (CSR) Sludge Line Bank Protection Project was 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 had meandered towards the outside of the bend with the erosion creating a large vertical bank that has placed the infrastructure at risk. The project design consisted of 900 feet of grouted boulder bank protection and was constructed between October 2019 and April 2020.

Engineer/Contractor:	Matrix Design Group/Tezak Heavy Equipment
Notice to Proceed:	May 2016/October 2019
Completion date:	April 2018/April 2020
Status:	Complete

### Unnamed Drainage Upstream of CSR Bank Protection Project - Construction

Project designed to stabilize a local drainage with a head cut that was slowly working its way towards the vicinity of Utilities infrastructure. Project included the placement of soil riprap and site grading to establish a rundown to stabilize the drainage. While the work was completed in 2019, payment was provided in January 2020.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	November 2019
Completion Date:	December 2019
Status:	Complete

## Utilities SSCC Program Activities (Continued)

### Dry Creek Downstream of Dawson Drive Stream Stabilization – Phase I Construction

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. Phase I construction consisted of the portion of the project between Mark Dabbling Road and the BNSF railroad. Construction of Phase I began in Fall 2019 with completion in April 2020. Phase II construction (extending from near Dawson Drive to the BNSF railroad bridge) is planned to begin January 2021.

Engineer/Contractor:	Jacobs Engineering Group/Tezak Heavy Equipment
Notice to Proceed:	June 2017/October 2019
Completion Date:	April 2018/April 2020
Status:	Complete

### Dry Creek Downstream of Dawson Drive Stream Stabilization – Phase II Construction

This project was 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. Phase II construction consists of the portion of the project between Dawson Drive and the BNSF railroad. The Phase II construction contract has been awarded and construction is planned to begin in January 2021.

Engineer/Contractor:	Jacobs Engineering Group/Tezak Heavy Equipment
Notice to Proceed:	June 2017/December 2020
Completion Date:	April 2018/Projected May 2021
Status:	Construction Commencement in January 2021

### Monument Creek at Uintah Street Bank Stabilization - Construction

Bank erosion of Monument Creek resulted in the need to install bank protection to prevent erosion and lateral migration from impacting a wastewater pipeline parallel to Monument Creek. The bank protection included installation of a grouted stacked boulder wall. Design was completed in December 2019 with construction completed in April 2020.

Engineer/Contractor:	Ayres Associates/Tezak Heavy Equipment
Notice to Proceed:	November 2019/January 2020
Completion Date:	December 2019/April 2020
Status:	Complete

## Utilities SSCC Program Activities (Continued)

### Monument Creek at Monument Stream Stabilization - Design

This project is being designed to reduce risk to Utilities infrastructure in the vicinity of Monument Creek at Monument Street. Channel degradation has exposed the toe of an existing drop structure and resulted in bank erosion. The design of the project extends over 3,000 feet and will consist of drop structures, rock riffles, bendway weirs, and bank armoring. Project design is complete and permitting with USACE and FEMA is ongoing. Construction is anticipated to commence in 2023.

Engineer/Contractor:	Dewberry
Notice to Proceed:	January 2020
Completion Date:	September 2021
Status:	Design complete, undergoing permitting

### Sand Creek Spring Ranch Golf Course Channel Drop 5 Emergency Repair - Construction

A Utilities drop structure on Sand Creek had been undermined such that water was flowing under and around the drop structure. Project rehabilitated the drop structure by placing a new sheet pile cutoff wall and placing grout below the drop structure to restore structural integrity.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	May 2020
Completion Date:	May 2020
Status:	Complete

### Cottonwood Creek Austin Bluffs Pkwy to Powers Blvd Stream Stabilization - Design

Project consists of design of approximately 8,500 feet of stream stabilization on Cottonwood Creek from Austin Bluffs Parkway to just east of Powers Boulevard. This project is being funded jointly by Utilities and the City Stormwater Enterprise. Due to the length and vertical relief of the reach, it is anticipated to be a multi-year project with several design and construction phases. Planned activities for 2019 include procurement of a 30% design of the entire reach and final design of the first construction phase of the project, with the design elements commencing in 2020. The design will result in multiple grade control structures and bank protection elements in order meet design goals. Utilities provided funds in 2019 to partner with the City on this project, but many design activities were performed in 2020.

Engineer:	Matrix Design Group
Notice to Proceed:	February 2020
Completion Date:	TBD
Status:	Design In Progress

### North Pulpit Rock Creek at Monument Creek Stream Stabilization

Project designed to include stabilization of a portion of North Pulpit Rock Creek just upstream of its confluence with Monument Creek. The existing ungrouted riprap rundown had failed. Project consisted of reconstructing rundown with a grouted boulder rundown. Project closeout work was completed in first quarter 2020.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	October 2019
Completion Date:	December 2019/January 2020 (closeout)
Status:	Complete

## Utilities SSCC Program Activities (Continued)

### Sand Creek Upstream of Constitution Pond Stream Stabilization - Construction

Channel degradation on Sand Creek has resulted in three vertical concrete cutoff walls beginning to be compromised. This project converted the concrete cutoff walls to grouted sloping boulder drop structures and restored the channel invert. Bank protection and vegetative establishment were also included as part of the project. (Project closeout work was completed in first quarter 2020.)

Contractor:	Wildcat Construction
Notice to Proceed:	January 2019
Completion Date:	May 2019/ January 2020 (closeout)
Status:	Complete

### Sand Creek Stabilization Karr to West Fork Confluence - Design

Channel degradation in Sand Creek from Karr Road to the confluence with the West Fork of Sand Creek threatens a wastewater pipeline running parallel to Sand Creek. The erosion also places a drop structure and creek crossing at risk. This project is under internal design and will result in the installation of drop structures and bank protection. Construction is anticipated to begin in late 2021 or early 2022 depending on the timing for receiving permits from FEMA and USACE. This project will be constructed in conjunction with the West Fork of Sand Creek Stream Stabilization project, with exact timing depending on project costs.

Engineer:	Internal Design (Utilities)
Notice to Proceed:	2019
Completion Date:	Projected Mid-2021
Status:	Design In-Progress

### West Fork of Sand Creek Stream Stabilization - Design

Channel degradation in the West Fork of Sand Creek from Wooten Road to the confluence with the Main Stem of Sand Creek threatens a wastewater pipeline running parallel to West Fork of Sand Creek. The erosion also places a drop structure and creek crossing at risk. This project is under internal design and will result in the installation of drop structures and bank protection. Construction is anticipated to begin in late 2021 or early 2022 depending on the timing for receiving permits from FEMA and USACE. This project will be constructed in conjunction with the Sand Creek Stabilization Karr to West Fork Confluence, with exact timing depending on project costs.

Engineer:	Internal Design (Utilities)
Notice to Proceed:	2019
Completion Date:	Projected Mid-2021
Status:	Design In-Progress

### Templeton Gap at Siferd Blvd Stream Stabilization - Construction

Channel degradation in Templeton Gap threatens a sewer that parallels and crosses the drainage upstream of Siferd Boulevard. The project was designed internally by Utilities engineers and will utilize boulder bank projection and a boulder riffle to stabilize the reach.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	January 2021
Completion Date:	Projected May 2021
Status:	Construction Contract Awarded

## Utilities SSCC Program Activities (Continued)

### **Sand Creek Downstream of the East Fork Confluence Stream Stabilization - Design**

Channel degradation on Sand Creek has resulted in two existing vertical sheet pile cutoff walls to begin to become compromised. This project will convert the concrete cutoff walls to grouted sloping boulder drop structures and provide a long-term channel stabilization solution. Downstream of the project a sheet pile cutoff wall will be installed to protect against potential future channel degradation. Bank protection and vegetative establishment will also be included as part of the project. This project will protect wastewater pipelines running parallel to Sand Creek as well as the grouted boulder drop structures. Construction will is scheduled to begin in February 2021.

Engineer:	Internal Design (Utilities)/Tezak Heavy Equipment
Notice to Proceed:	2019
Completion Date:	November 2020
Status:	Design Complete, Construction Contract Awarded

## 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 2020 calendar year, the Drainage O&M Program completed the following activities:

- Completed inspections of all 125 publicly maintained regional and sub-regional detention ponds/facilities
- Completed identified maintenance activities within 102 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 12,874 cubic yards of sediment and debris
- Completed inspections of 41.04 miles of concrete-lined and natural channels
- Performed maintenance activities through 38.73 miles of concrete-lined and natural channels, including removal of 2,047 cubic yards of sediment, vegetation, and debris
- Completed 9,897 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 604 cubic yards of debris
- Repaired, replaced, or installed 1,744 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 20,443 lane miles of city streets, removing 24,728 cubic yards of debris

## 2020 MS4 Permit Compliance Summary

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.

### Public Outreach Activities

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

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

- Illicit Discharge Detection
  - Provided online training to 105 field staff and CCTV training to 466 firefighters and first responders.
  - Collaborated with Utilities Industrial Pretreatment staff to inspect leaking grease interceptors.
  - Collaborated with Colorado Springs Fire Department Inspections Division to investigate potential discharges from medical marijuana grow facility

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): 56
  - Number of students and citizens reached (i.e., schools, community events): 1,484
  - 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): 11,666,649
  - Storm Drain Art Project
    - New gateway entrance mural installed in the Ivywild Neighborhood
  - Adopt-A-Waterway Program: 43 events with 540 volunteers
- Educational materials distributed:
  - Brochures: 1,364  
(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: 7,405  
(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:

- 1,375 businesses targeted to receive education and outreach material with focus on food truck guidance, oil, and concrete waste.
- By early March, 115 industrial facilities had been identified that were operating without an individual industrial stormwater discharge permit from CDPHE. Due to the coronavirus pandemic (COVID-19) and the hardships of many small businesses as a result, these facilities were not contacted since it is not an MS4-permit requirement. Once businesses are able to operate at full capacity following the restrictions caused by the pandemic, the identified businesses will be contacted.

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

- The City conducted one outdoor Stormwater Best Management Practices (BMP) Field Academy training for members of the construction community to provide hands-on training on proper installation and maintenance of construction BMPs. The training was captured on video for future training opportunities.
- The City hosted Grading and Erosion Control (GEC) and Stormwater Management Plan trainings virtually to the construction and engineering community.
- The City participated in “Wet Wednesdays” stakeholder meetings held virtually and 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.

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### **Private Control Measure 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 1,857 inspections of private BMPs were conducted by the City in 2020, either during construction phases or associated with annual compliance requirements, which resulted in 42 enforcement actions.

- Private Structures Operation and Maintenance (O&M) Program Sites: 384
  - Structures Within Private Structures O&M Program: 543
- Total Private BMP Inspections: 1,857
  - Construction Inspections: 1,459
  - Compliance Inspections: 398
- Total Permanent BMP Enforcement Actions: 42

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### **Construction Site Inspections**

In 2020, six full-time MS4 inspectors were dedicated to the MS4 Program. During the 2020 reporting year, the City MS4 Program construction inspection team completed the following:

- Total inspections: 7,551



- Active construction sites through the year: 406
- Initial Inspections: 176
- Final Inspections: 163
- Routine Inspections: 5,103
- Complaint Inspections: 2
- Pre-Construction Reconnaissance Inspections: 619
- Follow-up Inspections and storm event inspections: 1,178

Construction Site Enforcement:

- Notice and Order: 0
- Letter of Non-compliance: 236
- Stop Work Orders: 14

Continuing Education:

The City MS4 Program construction inspectors respond to after-hours emergency spill calls that are received through the City's Spill Hotline. The inspection team has received the following training to assist with their safety while responding to emergency spill calls:

- Hazardous Waste Operations (Hazwoper) 24-hour training course (2 inspectors)
- Hazwoper 8-hour refresher training (4 inspectors)

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**Illicit Discharge Detection and Elimination (IDDE) Program**

In 2020 the IDDE Program received 207 reports of illicit discharges. Of those reported, only 45 incidents were classified as an illicit discharge that reached the City's MS4 or Waters of the State.

IDDE Enforcement:

- Verbal Warnings Issued: 74
- Educational Brochures Distributed: 111
- Letter of Non-Compliance Issued: 4
- Notice of Violation Issued: 2

IDDE Training Presented to Field Staff:

- Continued ongoing 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.

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**Stormwater Development Review:**

In 2020, the Stormwater Development Review team completed reviews of over 4,800 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:

- City Stormwater Enterprise Presentations (Stormwater Construction Manual, Stormwater Theory Review, and Illicit Discharge Training)
- Kimley-Horn & Associates, Inc. Green Infrastructure Measures Workshop
- USEPA SWMM Training Class

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### **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 2019 annual report was submitted to the Colorado Department of Health and Environment (CDPHE) on March 16, 2020.

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### **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 2019 annual monitoring report was submitted to the CDPHE on May 14, 2020.

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### **Municipal Facilities Runoff Control Program (MFRCP)**

The MFRCP program is administered by the City's Stormwater Water Quality Program Manager along with various representatives from the City vehicle maintenance group, City Public Works Operations and Maintenance Division, City Parks and Recreation Department, City Fire Department and the City Police Department. There are currently 43 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.

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### **E. Coli TMDL**

In 2020, the City and Utilities continued to implement activities and program elements identified in the Fountain Creek Watershed Environmental Protection Agency Nine-Element Plan for the Management of *Escherichia Coli* (*E-coli*). These efforts were in preparation of the anticipated implementation of a Total Maximum Daily Load (TMDL) standard for *E. coli* affecting the Fountain Creek watershed in the immediate future 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 was to preemptively create a plan in preparation for this anticipated 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.

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## 5.0 Planned 2021 IGA Related Activities

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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 2021 calendar year, the City and Utilities are required to invest a minimum of \$16.5 million dollars on the City's Stormwater Control Program. However, in 2021 the minimum total second 5-year (2021-2025) expenditure increases to \$110 million with an average annual expenditure of \$22 million.

IGA Requirement	Minimum Total Expenditures	Average Annual Expenditures	Minimum Annual Expenditures
Second Five Years (2021-2025)	\$110 Million	\$22 Million	\$16.5 M/yr.

- The approved 2021 City of Colorado Springs budget titled *Annual Budget, 2021*, describes the 2021 Stormwater Enterprise budget. The document can be downloaded at:  
<https://coloradosprings.gov/sites/default/files/2021pbudgetfulldocument.pdf>  
<https://coloradosprings.gov/budget/page/city-budget>
- The 2021 Utilities budget allocates \$3,300,000 as part of Utilities' SSCC Program.
- Planned IGA related activities in 2021 include, but are not limited to:
  - Coordination and delivery of ongoing IGA capital projects;
  - Completion of 2020 engineering studies;
  - Continued implementation of the City of Colorado Springs Stormwater Construction Manual and design spreadsheets;
  - Implementation 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 2021 calendar year and provide a summary of the associated Stormwater Control Program activities accordingly.

### **Paragraph III.B – Stormwater Capital Improvement Program**

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

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

- Staff members from the City, Utilities, and WWE plan to meet prior to March 31, 2021.

*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

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## City of Colorado Springs Stormwater Program Project List

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City Stormwater IGA Capital Project Status (2016-2035)  
Colorado Springs Stormwater Enterprise

Prioritization Criteria (see notes below)											Priority Ranking			Comments	Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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		
2. Sand Creek Pond 3	\$3,076,000			X		X	X	X	X	4	Yes	1	1	Complete	2015-2017
0. FEMA Projects <sup>1)</sup>	\$2,081,000	X	X	X		X	X	X		3	Yes	6	2	Originally scheduled to be completed in 2018; additional FEMA grants received extend the City matching program to at least 2021.	2016-2021
8. King Street Detention Pond (WWE CS-013)	\$250,000			X	X	X		X	X	3	Yes	7	3	Complete	2016-2018
13. Water Quality Project (1 of 5)--America the Beautiful Park Detention Basin <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	Complete	2016-2018
6. USAFA Drainages (Northgate Area)	\$2,000,000	X		X			X			1	Yes	16	5	To be constructed in 3 phases. Phase 1 complete. Phase 2 scheduled to begin construction Fall 2021.	2016-2022
1. Emergency Stormwater Projects <sup>3)</sup>	\$7,500,000	X	X	X						0	Yes		6	On-going annual budget.	2016-2020
7. Fairfax Tributary Detention Pond (WWE CS-330)	\$398,000			X	X	X	X	X	X	4		5	7	CDOT grant; pending design; estimated construction start date in Fall 2021	2016-2022
5. Downtown Drainage Improvements	\$2,250,000	X	X							0	Yes		8	Complete	2016-2018
26. Sand Creek Stabilization south of Platte (WWE CS-018) <sup>5)</sup>	\$5,290,000	X		X			X			1		22	9	Complete	2016-2018
13. Water Quality Project (2 of 5)--Sierra Madre Water Quality Pond <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	Complete	2017-2019
65. Cottonwood Creek Detention Basins (PR-2 and YellowWood)	\$2,740,000					X	X	X	X	4		2	10	Modified from original IGA list of sites in 2017. Replaced PR-6 and PR-9 with YellowWood Regional Pond in same genearal area; PR-11 removed with PR-2 moved slightly to the west and increased in size.  YellowWood pond and PR-2 Tutt pond are both currently complete; PR-7 and PR-14 were removed from consideration in 2020. <b>Complete</b>	2017-2020
31. Rangewood Tributary Detention Pond (WWE CS-333)	\$750,000			X	X	X	X	X	X	4		3	11	Complete	2017-2019

Prioritization Criteria (see notes below)											Priority Ranking			Comments	Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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		
<del>52. Storage Bridle Pass Drive Construct new pond to improve 2 yr flows (CS 332)</del>	<del>\$1,591,000</del>			X	X	X	X	X	X	4		4	12	<del>Include channel improvements.</del>	<del>2017-2019</del>
101. Scarborough Drive Sub-Regional Detention Pond	\$1,100,000			X	X	X	X	X	X	4		4	12	Replaced with Project #101: Scarborough Drive Sub-Regional Detention Pond Located northeast of original Storage Bridle Pass Drive location, on the north side of Cottonwood Creek. Replacement project for Storage Bridle Pass Drive. Complete	2017-2019
13. Water Quality Project (3 of 5)--- Ridge Road at Colorado Boulevard Water Quality Pond <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	Complete	2018=2020
<del>9. South Pine Creek Detention Pond (WWE CS 335)</del>	<del>\$461,000</del>			X	X			X	X	2		14	13	Located on private land. Replaced with Project #100: Pine Creek Drainage Corridor Detention Pond.	<del>2018-2019</del>
Replace with: 100. Pine Creek Drainage Corridor Detention Pond	\$500,000			X	X	X	X	X	X	4			13	Located in the Pine Creek Drainage Basin. Replacement project for South Pine Creek. Complete	2018-2019
15. Citadel Mall Neighborhood Improvements (CS-374)	\$1,270,000	X	X	X						0	Yes		14	Localized flooding. Design to evaluate detention retrofit. Orginal IGA Budget \$1,053,000. Complete	2018-2020
23. North Chelton Road (CS-057)	\$1,370,000		X	X	X					0	Yes		15	Localized flooding. 2021 construction.	2018-2021
<del>11. Camp Creek Phase 1 (WWE CS 002 and CS 003)</del>	<del>\$4,356,000</del>	X	X	X				X		1	Yes	18	16	<del>Readiness for Implementation. Channel improvements. Cost shown is for downstream structure and channel restoration/lining removal.</del>	<del>2018-2019</del>
11. Camp Creek--Phase I (Redefined) <sup>4)</sup> (Rockledge Ranch channel)	\$1,000,000	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. Complete	2018-2019
<del>41. Storage Wagner Park Detention - downstream of Bijou Detention Storage Required (CS 360)</del>	<del>\$704,000</del>			X	X	X		X	X	3		8	17	<del>Spring Creek drainage</del> Replaced with Project #102: US24/Colorado Detention Facility	<del>2018-2019</del>
Replace with: 102. US24/Colorado Detention Facility	\$704,000			X	X	X		X	X	3		8	17	Install a new drop structure and stabilization to protect 8th Street upstream. Construction planned in 2021	2018-2021
Propose Replace with: 109. Bear Creek Channel Stabilization															
<del>35. Side Channel Sand Creek - segment 107, reach SC 5 1700lf channel stabilization (CS 261)</del>		X		X			X			1		20	26	<del>Work previously completed.</del> Replaced with Project #103: Pine Creek Channel Improvements Phase 1	<del>2018-2019</del>
Replace with: 103. Pine Creek Channel Improvements Phase 1	\$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. Complete	2018-2020



Prioritization Criteria (see notes below)											Priority Ranking				
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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
13. Water Quality Project (4 of 5)--- Low Impact Development (LID) Along Vermijo Street Between Cascade and Sierra Madre <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	Complete	2019-2020
<del>38. Storage Austin Bluffs Parkway upstream of Research (CS-331)</del> Replace with:	<del>\$754,000</del>			X	X	X		X	X	3		10	18	<del>Cottonwood Creek drainage</del> <b>Replaced with Project #105: Flying Horse Pond #1</b>	<del>2019-2020</del>
105. Flying Horse Pond #1	\$754,000			X	X	X		X	X	3		10	18	Monument Branch existing regional detention pond retrofit in accordance with current standards. Construction planned in 2021.	2019-2021
<del>51. Storage Cottonwood Park (west side) (CS-334)</del> Switch project priority with:	<del>\$3,768,000</del>			X	X	X		X	X	3		11	19	<del>Cottonwood Creek drainage</del> <b>(Moved to 2020)</b>	<del>2019-2021</del>
16. North Douglas Natural Channel	\$3,500,000	X	X				X	X		2	Yes	15	23	Redefine project to address reach between I-25 and railroad to east. <b>(Moved Up From 2020)</b> Construction planned in 2021.	2019-2021
34. Storage Sand Creek Detention Pond 2 Complete Detention Pond 2 on Sand Creek south of Barnes (CS-105)	\$1,025,000					X		X	X	3		12	20	Currently have 50 year protection. Build out to 100-year capacity. <b>Design pending Sand Creek DBPS completion.</b>	2019-2021
13. Water Quality Project (5 of 5)--- City-wide Low-Impact Development (LID) Manual <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	Manual to guide LID throughout Colorado Springs	2020-2021
<del>24. Park Vista (Siferd Low Water Crossing) (CS-232)</del> Replace with:	<del>\$3,750,000</del>	X		X						0	Yes		21	<del>Localized flooding. Evaluate property acquisition and detention storage.</del> <b>Replaced with Project #104: Pine Creek Channel Improvements Phase 2</b>	<del>2020-2022</del>
104. Pine Creek Channel Improvements Phase 2	\$3,750,000	X		X			X	X		2	Yes		21	Pine Creek drainage basin. Construction planned in Fall 2021.	2020-2022
70. CS-239 Grade Control Upper Hancock Channel - Hancock to Academy, 78+33 to	\$1,236,000					X	X			2		13	22	<del>Desire for provision for regular sediment removal.</del> <b>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. Complete</b>	2017
<del>16. North Douglas Natural Channel</del> Switch project priority with:	<del>\$3,500,000</del>	X	X				X	X		2	Yes	15	23	<del>Redefine project to address reach between I-25 and railroad to east. City has conceptual design for channel stabilization project.</del> <b>(Moved Up To 2019)</b>	<del>2020-2021</del>
51. Storage Cottonwood Park PR-15 (west side) (CS-334)	\$3,768,000			X	X	X		X	X	3		11	19	Cottonwood Creek drainage <b>(Moved From 2019)</b> Construction planned Fall 2021.	2020-2022
<del>19. Galley Road Channel (WWE CS-258) Sand Creek between Galley and Platte Avenue</del> <b>Moved to 2023</b>	<del>\$2,000,000</del>	X		X			X			1		19	24	<del>Portions of original scope have been completed by CSU. Additional reach to be improved.</del> <b>Moved to 2023; Pending Platte Avenue Bridge Replacement Project Completion</b>	<del>2020-2022</del>
21. Monument Creek at Talemine (CS-011)	\$1,778,000	X		X			X			1		17	25	Scheduled for construction in Spring 2021	2020-2021

Prioritization Criteria (see notes below)											Priority Ranking				
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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
<del>35. Side Channel Sand Creek – segment 107, reach SC 5 1700lf channel stabilization (CS-261)</del> <b>Moved to 2018</b>	<del>\$1,242,000</del>	X		X			X			1		20	26	Project #35 replaced with Pine Creek Channel Improvements Phase 1 and moved up to 2018.	2021-2025
<del>39. Grade Control Palmer Park Channel – Galley Rd. to Palmer Park, 300+00 to (CS-259)</del> <b>Moved to 2026-2035</b>	<del>\$6,594,000</del>	X		X			X			1		21	27	<del>On Sand Creek drainage.</del>	2021-2024
<b>106. Cottonwood Creek - Austin Bluffs to Bus Barn</b>	\$3,000,000	X		X			X			1		21	27	Project #106 Cottonwood Creek - AB to BB Replaced Former Project #12 - Shooks Run Improvements (2026-2035)	2021-2025
<del>28. Shooks Run Channel – Cache La Poudre St. to Patty Jewett Golf Course (CS-326)</del> <b>Replaced with:</b>	<del>\$3,500,000</del>	X	X	X				X		1		23	28	<del>Bundled and phased with other Shooks Run.</del> Replaced with Project #107 Cottonwood Creek - P to P	<del>2021-2023</del>
<b>107. Cottonwood Creek - Pinkerton to Powers Blvd</b>	\$3,500,000	X		X			X			1		23	28		2021-2025
<del>77. CS-265 Grade Control Sand Creek Upper West Fork – Maizeland to South Carefree 3 drop structures</del> <b>Propose Replace with:</b>	\$420,000						X			1		24	29	Black Squirrel Creek Channel Improvements project	2022-2024
<b>76. CS-254 Channel/Grade Control Sand Creek Upper West Fork</b> - Galley to Murray 1730lf channel stabilization, 2 drop structures	\$2,006,000						X			1		25	30		2022-2024
<b>75. CS-262 Channel/Grade Control Upper Sand Creek</b> - W. Fork to Palmer Park Blvd. 1550lf channel stabilization, w/drop structures	\$1,192,000						X			1		26	31		2022-2024
<b>74. CS-252 Channel Sand Creek Lower West Fork</b> - Emory to Platte Ave. 1000lf channel stabilization	\$2,383,000						X			1		27	32		2022-2024
<b>73. CS-025 Channel/Grade Control Sand Creek West Fork</b> - Main stem to Wooten Construct drop structures & streambank protection	\$2,206,000						X			1		28	33		2022-2024
<b>19. Galley Road Channel</b> (WWE CS-258) Sand Creek between Galley and Platte Avenue	\$2,000,000	X		X			X			1		19	24	Portions of original scope have been completed by CSU. Additional reach to be improved. <b>Moved From 2020; Pending Platte Avenue Bridge Completion</b>	2023-2025
<b>71. CS-246 Channel/Grade Control Sand Creek Lower Center Tributary</b> - No Name to East Fork	\$458,000						X			1		31	36	Complete	2023-2025

Prioritization Criteria (see notes below)											Priority Ranking			Comments	Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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		
62. Channel/Grade Control East Fork of Sand Creek (CS-041) <b>Moved to 2026-2035</b>	\$7,464,000	X		X			X			4		32	37	Shifted up from original 2024 project schedule to 2023 project schedule.	2023-2025
108. Cottonwood Creek - Bus Barn to Pinkerton	\$3,000,000	X		X			X			1		32	37	<b>Moved to 2026-2035 Project Grouping</b>  Cottonwood Creek - BB to P Replaced Former Project #27 and #29 - Shooks Run Channel and Shooks Run Improvements Phase 3 (2026-2035)	2023-2025
61. Channel/Grade Control Sand Creek (CS-040) Karr to West Fork	\$3,507,000	X		X			X			1		29	34	Shifted down from original 2023 project schedule to 2024 project schedule.	2024-2026
60. Channel/Grade Control Sand Creek (CS-039) Fountain to Airport	\$3,908,000	X		X			X			1		30	35	Shifted down from original 2023 project schedule to 2024 project schedule.	2024-2026
55. Grade Control Fountain Blvd. Channel - Chelton Rd. to Fountain Blvd., (CS-243)	\$2,553,000	X		X			X			1		33	38	Portions of original scope have been completed by CSU	2026-2035
54. Grade Control Chelton Road Channel - Academy to Chelton, 96+97 (CS-241)	\$1,593,000	X		X			X			1		34	39	On main stem of Sand Creek.	2026-2035
69. CS-240 Channel/Storm Drain Lower Sand Creek Tributaries 2,3, and 4 - Main Stem to Academy	\$867,000						X			1		35	40		2026-2035
67. CS-238 Channel/Grade Control Lower Hancock Channel - Downstream 1500lf channel stabilization, 2 drop structures	\$1,247,000						X			1		36	41		2026-2035
66. CS-268 Channel/Grade Control Las Vegas St. Channel - ATSF RR to Peterson Fld Trib. 700lf channel stabilization, 2 drop structures	\$1,545,000						X			1		37	42		2026-2035
72. CS-247 Channel/Grade Control Sand Creek Middle Center Tributary - Powers to No Name 300lf channel stabilization, 3 drop structures	\$175,000						X			1		38	43		2026-2035
68. CS-130 Channel Hancock Expressway Channel East of Astrozon Undermining of infrastructure.	\$72,000						X			1		39	44		2026-2035
20. Gold Medal Point Channel (WWE CS-339)	\$750,000	X		X			X			1		40	45	Cottonwood Creek. Could bundle with Project 31 (located next to each other)	2026-2035
57. Channel/Grade Control Cottonwood Creek - Academy to Union Construct flood control and stream restoration projects (CS-004)	\$5,840,000	X		X			X			1		41	46	Portions of original scope may have been completed by CSU	2026-2035
59. Channel/Grade Control Cottonwood Creek - Monument Creek to Academy Construct flood control and stream restoration projects. (CS-005)	\$13,232,000	X		X			X			1		42	47		2026-2035
58. Channel/Grade Control Rangewood Channel - Main Stem to Balsam 7400lf channel stabilization, w/drop structures (CS-343)	\$5,066,000	X		X			X			1		43	48		2026-2035

Prioritization Criteria (see notes below)											Priority Ranking				Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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		
63. Channel/Grade Control Cottonwood Creek - Rangewood to Woodmen 5300lf channel stabilization, w/drop structures (CS-337)	\$3,768,000	X		X			X			1		44	49		2026-2035
45. Channel/Grade Control Fountain Creek - W. Cimmaron St. to N end of Drake Power (CS-306)	\$1,298,000	X		X			X			1		45	50		2026-2035
46. Channel/Grade Control Fountain Creek - N end Drake Power Plant to south end of (CS-307)	\$1,941,000	X		X			X			1		46	51		2026-2035
18. Fountain Creek - Drake Power Plant to Shooks Run (WWE CS-308 and CS-309)	\$2,250,000	X		X			X			1		47	52		2026-2035
43. Channel/Grade Control Fountain Creek - Shooks Run to Fountain Mutual Canal Channel stabilization, 2 drop structures (CS-310)	\$11,854,000	X		X			X			1		48	53		2026-2035
53. Channel/Grade Control Fountain Creek - Fountain Mutual Canal to US 24 Bypass Channel stabilization, 2 drop structures (CS-311)	\$9,921,000	X		X			X			1		49	54		2026-2035
36. Channel/Grade Control Fountain Creek - US 24 Bypass to Spring Creek Channel stabilization, 2 drop structures (CS-312)	\$4,636,000	X		X			X			1		50	55		2026-2035
50. Channel/Grade Control Fountain Creek - Spring Creek to Mobile Home Park Channel stabilization, 3 drop structures (CS-313)	\$3,803,000	X		X			X			1		51	56		2026-2035
32. Channel/Grade Control Fountain Creek - Mobile Home Park to N end El Pomar Sports (CS-314)	\$4,235,000	X		X			X			1		52	57	Fountain Creek.	2026-2035
33. Channel/Grade Control Fountain Creek - N end El Pomar Sports Park to S end El (CS-315)	\$4,551,000	X		X			X			1		53	58	Fountain Creek.	2026-2035
22. Monument Creek Mobile Home Park (CS-139)	\$478,000	X		X			X			1		54	59	CSU has done partial work in the area, but not the complete project.	2026-2035
64. Channel/Grade Control Chelton Dr. Channel - Chelton Dr to Airport Rd 2400lf channel stabilization, 2 drop structures (CS-359)	\$1,487,000	X		X			X			1		55	60		2026-2035
25. Pine Creek Outfall into Monument Creek (CS-047)	\$1,250,000	X		X			X			1		56	61		2026-2035
49. Channel/Grade Control Templeton Gap Rd. Channel - Powers to Tutt 4400lf channel stabilization, w/drop structures (CS-342)	\$3,077,000	X		X			X			1		57	62		2026-2035
40. Storage Mount Woodmen Court Drainage Sedimentation pond outfalls directly onto private property (CS-064)	\$515,000	X	X					X		1		58	63		2026-2035



Prioritization Criteria (see notes below)											Priority Ranking				
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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
39. Grade Control Palmer Park Channel - Galley Rd. to Palmer Park, 300+00 to (CS-259)	\$6,594,000	X		X			X			1		59	64	On Sand Creek drainage. <b>Moved From 2021</b>	2026-2035
<del>12. Shooks Run Improvements (CS-319 through CS-329 minus CS-326)</del> <del>Replaced with:</del> <b>106. Cottonwood Creek -Austin Bluffs to Bus Barn. Moved to 2021</b>	<del>\$3,000,000</del>	<del>X</del>	<del>X</del>	<del>X</del>				<del>X</del>		<del>1</del>		<del>59</del>	<del>64</del>	<del>Bundled and phased with other Shooks Run</del>	<del>2026-2035</del>
62. Channel/Grade Control East Fork of Sand Creek (CS-041)	\$7,464,000	X		X			X			1		60	65	<b>Project #62 moved from 2023</b>	2026-2035
<del>27. Shooks Run Channel – Bijou Street Culvert &amp; Channel Stabilization (CS-054a)</del>	<del>\$1,500,000</del>	<del>X</del>	<del>X</del>	<del>X</del>				<del>X</del>		<del>1</del>		<del>60</del>	<del>65</del>	<del>Bundled and phased with other Shooks Run</del>	<del>2026-2035</del>
<del>29. Shooks Run Improvements Phase 3 (CS-054b)</del> <del>Replaced with:</del> <b>108. Cottonwood Creek -Bus Barn to Pinkerton Moved to 2023</b>	<del>\$1,500,000</del>	<del>X</del>	<del>X</del>	<del>X</del>				<del>X</del>		<del>1</del>		<del>61</del>	<del>66</del>		<del>2026-2035</del>
4. Old Annexation Drainage Improvements	\$2,800,000	X	X	X	X					0			67	Five neighborhoods experiencing significant flooding. <b>Complete</b>	2016-2020
14. Briargate Drainage Improvements (CS-344)	\$1,641,000	X	X	X						0			68	Replacing failing infrastructure.	2026-2035
30. Skyway Area Improvements (CS-235 & CS-296)	\$457,000	X	X		X					0			69		2026-2035
48. Channel/Storm Drain Columbia Road Drainage (CS-045)	\$2,088,000	X	X	X						0			70		2026-2035
17. Dry Creek Channel (WWE CS-007)	\$1,386,000	X		X	X					0			71	Increasing channel capacity.	2026-2035
<del>42. Channel/Grade Control Sand Creek Main Stem Phase III – Fountain Creek Confluence (CS-106)</del>														Not on the SNA "Validated" project list-- Appears to overlap with other validated SNA projects and may be redundant.	
<del>47. Channel Templeton Gap Floodway Reconstruct levee and floodway (CS-021)</del>														Delete - Channel Lining; Replacement of Existing Facilities. Removed from list, per WWE (12/16/15).	
<del>78. CS-264 Channel Sand Creek Upper West Fork – Raindrop to North Carefree 2200lf channel stabilization</del>														Remove from list, per WWE (12/16/15).	

Prioritization Criteria (see notes below)											Priority Ranking				Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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	
<del>56. Grade Control Palmer Park Channel – Galley Rd. to Palmer Park, 300+00 to (CS 259)</del>														Redundant with Project 39. Delete.	
<del>10. Erindale Drainage Improvements</del>														Change to an "Emergency "project. Likely a maintenance effort. Remove from this capital projects list.	
<del>44. Storage Spring Run Detention Ponds- (CS-051)</del>														Not on the SNA "Validated" project list--remove.	
<del>3. Dam Repairs</del>														Remove from list, per WWE (03/30/16). To be completed with Emergency Stormwater Projects funding.	
<del>37. Channel Rockrimmon Channel at Rockrimmon/Pro Rodeo Int. Repair damage to channel at outlet (CS 222)</del>														Area identified in previous MS4 inspections. Project being completed with Emergency Stormwater Project funding in 2016. Removed from list following 03/30/16 Meeting with WWE.	

- 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)

Prioritization Criteria (see notes below)											Priority Ranking			Comments	Projected Project Dates
Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	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		

Footnotes:

- 1) Total anticipated FEMA Grant City match portion through 2018: Budgeted \$1,081,000 (2016); \$500,000 (2017); \$500,000 (2018).
- 2) Total Capital Cost includes 5 detention ponds, one per year at \$500,000 each between 2016-2020. First pond to be initiated with America the Beautiful Park detention basin in 2016.
- 3) Emergency Stormwater Projects list total capital cost (2016-2020); budgeted at \$1.5 Million per year ongoing.
- 4) Additional channel lining removal projects along Camp Creek channel may be done as funding becomes available.
- 5) Funding for capital cost shown is FEMA grant funding and City grant match encumbered in 2015. No 2016 City capital contribution for this project.
- 6) See 2016 and 2016-2020 Project lists for additional detail on project funding.
- 7) 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