



# City of Colorado Springs Stormwater Enterprise

## Stormwater Control Program Inter-Governmental Agreement (IGA) Annual Report of Estimated Expenditures Calendar Year 2021

Prepared for:  
**Pueblo County**

Submitted by:  
**City of Colorado Springs**  
**Colorado Springs Utilities**



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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
CDPS	Colorado Discharge Permit System
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
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

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
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 (2021) 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 estimated expenditures for the 2021 calendar year. This report represents the beginning of sixth annual report series since 2016. Per the IGA, for the purpose of this report, "...expenditures mean both actual expenditures and encumbered funds. 'Encumbered funds' shall mean monies which are appropriated and placed into a fund or account restricted (1) for payment of an authorized Stormwater Control Program activity and cannot be obligated or used for any other purpose, and (2) for payment of capital construction projects for which appropriate steps are being undertaken in a timely manner to advance towards physical construction."

## Summary of Estimated Expenditures for the 2021 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 2021 Calendar Year reporting period as outlined below. Between 2021 and 2025, the City and Utilities are expected to invest a total of \$110 million dollars at an average of \$22 million dollars per year. The 2021 calendar year represents the sixth year of the IGA and the first year of the current 5-year investment period.

As of December 31, 2021, the City and Utilities have invested (through either expenditures or encumbrances) a total of **\$21.8 million dollars** on the City's Stormwater Control Program in 2021. This includes actual expenditures and/or annual encumbrances of:

- \$ 9.2 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
- \$ 9.0 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
- \$ 3.6 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)

**Expenditures for the 2021 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.
Second Five Years (2021-2025)	\$110 Million	\$22 Million	\$16.5 M/yr.

**Claimed Expenditures**

(Actual Expenditures and Encumbered Funds)	Total (2016-2020)	2021	Subtotal (2021-2025)	Total (2016-2021)
Drainage O&M/MS4 Program	\$41,301,035	<b>\$9,224,194</b>	\$9,224,194	\$50,525,229
Stormwater Capital Projects	\$56,280,278	<b>\$9,000,000</b>	\$9,000,000	\$65,280,278
Colorado Springs Utilities (SSCC Program)	\$15,846,580	<b>\$3,632,568</b>	\$3,632,568	\$19,479,148
<b>Total</b>	<b>\$113,427,893</b>	<b>\$21,856,762</b>	<b>\$21,856,762</b>	<b>\$135,284,655</b>

**Summary of Stormwater Control Program Activities**

Below is a summary of actual expended dollars between the 2016 and 2021 calendar years:

Program Dollars Spent	Total (2016-2020)	2021	Subtotal (2021-2025)	Total (2016-2021)
Drainage O&M	\$18,719,097	<b>\$3,340,842</b>	\$3,340,842	\$22,059,939
Stormwater MS4 Program	\$21,010,941	<b>\$6,100,729</b>	\$6,100,729	\$27,111,670
Stormwater Capital Projects	\$50,837,527	<b>\$5,196,584</b>	\$5,196,584	\$56,034,111
Colorado Springs Utilities (SSCC Program)	\$15,846,580	<b>\$3,632,568</b>	\$3,632,568	\$19,479,148
<b>Total</b>	<b>\$106,414,145</b>	<b>\$18,270,723</b>	<b>\$18,270,723</b>	<b>\$124,684,868</b>

**Capital Projects Undertaken During the Reporting Period**

- IGA Projects – A total of twenty (20) IGA projects were scheduled to continue, be completed, or commence in 2021. This included a continuation of Emergency Projects, Grant Projects, Water Quality Projects, and seventeen (17) specifically negotiated IGA project as outlined below. At the completion of the reporting period, the scheduled 2021 IGA projects were generally in the engineering phase of the projects, while the 2016-2020 IGA projects had either been completed, were under construction, or were continuing through the engineering phase.

Of the \$5,196,584 expended, a total of \$5,020,140 was spent on specifically negotiated IGA projects during the reporting period, with an additional \$176,444 invested on other Stormwater related projects during the period. The table below details project expenditures related to the IGA projects.



## IGA CAPITAL PROJECTS

IGA Project No.	Project Name	Actual Spent (\$)
11	Camp Creek Phase I (2018)	(3,372)
106	Cottonwood Creek Austin Bluffs to Bus Barn (2021)	40,685
65	Cottonwood Creek Detention Basins (2017)	298,857
1	Emergency Stormwater Projects (2021)	1,654,682
0	FEMA Grant Projects (City Funds) (2016)	55,599
7	Fairfax Tributary Detention Pond (2016)	35,394
105	Flying Horse Pond 1 Retrofit (2019)	242,111
21	Monument Creek at Talemine (2020)	928,154
23	North Chelton Road (CS-057) (2018)	604,057
109	Bear Creek Channel Stabilization (2018)	69,980
16	North Douglas Channel (2019)	13,690
103	Pine Creek Channel Ph I (2018)	353
104	Pine Creek Channel Ph 2 (2020)	77,586
111	South Douglas Sinton Trail Imps. (2022)	13,294
51	Storage Cottonwood Park-PR15 (2026)	118,079
40	Storage Mt. Woodmen Court (2026)	375,689
34	Storage Sand Creek Pond 2 (2019)	39,578
6	USAFA Drainages (Monument Branch) (2016)	20,915
110	USAFA Supplemental Black Squirrel Creek (2022)	249,333
13	Water Quality Projects (2016-2020)	156,573
Various*	Project Scoping and Definitions	28,903
<b>Total IGA Projects</b>		<b>5,020,140</b>

## Other Stormwater Capital Projects

<b>Total Non-IGA Stormwater Capital Projects</b>	<b>176,444</b>
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## Total Stormwater Capital Projects Expenditures

<b>Total 2021 Stormwater Capital Project Expenditures</b>	<b>5,196,584</b>
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- **Engineering Studies** - The Stormwater Enterprise continued to work on several significant and important engineering studies during the course of 2021, including finalization of the Sand Creek Drainage Basin Planning Study (DBPS) and continuation 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 was issued notification of award of a FEMA grant for proposed mitigation work in the Cottonwood Creek drainage basin between Austin Bluffs Parkway and the Colorado Springs School District Bus Service Facility. The Stormwater Enterprise additionally resubmitted applications for additional FEMA grant applications for proposed mitigation projects located in the Monument Creek, Monument Branch, Sand Creek, and Cottonwood Creek drainage basins.

### 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.

In 2021, the SSCC Program included design, repair, or rehabilitation of 12 creek crossing locations, at a preliminary cost of \$3,632,568.

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

During the 2021 calendar year, the Drainage Operations and Maintenance (O&M) Program completed the following activities:

- Completed inspections of all 140 publicly maintained regional and sub-regional detention ponds/facilities
- Completed identified maintenance activities within 48 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 16,984 cubic yards of sediment and debris
- Completed inspections of 4.43 miles of concrete-lined and natural channels
- Performed maintenance activities through 36.39 miles of concrete-lined and natural channels, including removal of 8,676 cubic yards of sediment, vegetation, and debris
- Completed 4,831 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 1,065.3 cubic yards of debris
- Repaired, replaced, or installed 2,234 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 22,153 lane miles of city streets, removing 32,270 cubic yards of debris

### 2021 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 193 suspected Illicit Discharge calls, of which only 40 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): 53
  - Number of students and citizens reached (i.e., schools, community events): 875

- Regional Stormwater Advertising Campaign reaching multiple counties and jurisdictions: 9,337,432 impressions (visual and audial)
- Storm Drain Art Project: Completed two murals by a School District 11 High School and one by the Goodwill Possibilities Program building
- Educational distributions: 1,364 brochures and 7,756 school related items
- Adopt-A-Waterway Program: 1,434 volunteers
- Industrial facilities program education and outreach activities during the reporting period included:
  - 1,487 businesses targeted to receive education and outreach material.
- Construction Site Inspection:
  - Total inspections: 5,823 associated with 305 active sites
- Private Permanent BMP Structure Inspections: 2,178
  - 1,586 construction inspections; 592 compliance inspections
- Stormwater Development Review:
  - Completed reviews of over 3,250 drainage related development submittals

#### 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, with implementation through 2021.
- MS4 Permit Renewal - The City commenced the City's Municipal Separate Storm Sewer System (MS4) permit renewal process with the Colorado Department of Public Health and Environment (CDPHE) for Colorado Discharge Permit System (CDPS) Permit COS000004. The permit is expected to be reissued in 2022 with a term extending between 2023 and 2028.
- Green Infrastructure Guidance Manual - The City hired Muller Engineering to assist in the development of a Green Infrastructure Guidance Manual. Infiltration metrics associated with Step 1 of the 4 Step Process will be implemented to promote volume reduction through infiltration in 2022. The guidance manual will help engineers to meet the future requirements using standardized green infrastructure measures such as vegetated pervious areas.
- Fountain Creek Watershed Flood Control and Greenway District (FCWFCD) Participation - The City and Utilities have continued participation in the FCWFCD 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 (2021) for Capital Projects included as part of the IGA, stormwater-related operations and maintenance activities, Municipal Separate Storm Sewer System (MS4) Permit compliance, and protection of waterways adjacent to Utilities infrastructure.

## 1.1 Reporting Requirements

The IGA requires the City to file with Pueblo County, on or before January 31 of the year following the expenditures, a report containing an estimate of the expenditures on the City's and Utilities' Stormwater Control Programs. The IGA also specifies the minimum annual, average annual, and minimum total expenditures, which must be met or exceeded each year. This Estimated Expenditures report is to be followed by the filing of a Preliminary Expenditures report on or before March 31, with a Final Expenditure report to be filed on or before June 30 of that year. The Final Expenditures report will be based on audited financial information.

The following contains a summary of Stormwater Control Program activities and report of estimated expenditures for the 2021 calendar year. This report represents the beginning of sixth annual report series since 2016. 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 over 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. 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.

An increase in stormwater fees from those originally set in 2017 was approved by Colorado Springs City Council Resolution 27-21 effective July 1, 2021. To ease the transition to a sustainable long-term fee, the increase was approved to be implemented in three phases effective July 1 each year between 2021 and 2023, as shown in the following schedule.

Monthly Fee	Phase 1 2021	Phase 2 2022	Phase 3 2023*
Residential / Unit	\$7.00	\$7.50	\$8.00
Non-residential / Acre	\$40.50	\$43.00	\$45.00

\*The rates are scheduled to remain fixed at the 2023 rates through 2038.

As described in previous annual expenditure reports, the overall Stormwater Enterprise Program consists of three primary functions:

- Management of activities required by the City' 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 2021 the committee met quarterly on May 20, August 19, and November 18. The February 19, 2021 committee meeting was postponed until May 2021 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 Capital 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 30, 2021 and again on September 30, 2021 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 are required collectively to invest a minimum of \$16.5 million on the City's Stormwater Control Program each year between 2016 and 2035. For the first 5 years beginning in 2016 the City and Utilities committed to invest an average of \$20 million per year on the stormwater program (core MS4 requirements, Drainage O&M, and stormwater capital projects), or \$100 million in investments between 2016 and 2020, and an average of \$22 million per year for the second 5 years beginning in 2021, or \$110 million in investments between 2021 and 2025. Between 2016 and 2020 the City and Utilities 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 through 2020. As outlined below in Section 3.0, in 2021 the City and Utilities invested (through either expenditures or encumbrances) a total of \$21.8 million dollars on the City's Stormwater Control Program with a total of \$18.3 million dollars expended in 2021.

#### 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, with implementation through 2021.

Green Infrastructure Guidance Manual - The City hired Muller Engineering to assist in the development of a Green Infrastructure Guidance Manual. Infiltration metrics associated with Step 1 of the 4 Step Process will be implemented to promote volume reduction through infiltration in 2022. The guidance manual will help engineers to meet the future requirements using standardized green infrastructure measures such as vegetated pervious areas.

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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 2021 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, 2021, the City invested a total of \$21.8 million dollars on the City's Stormwater Control Program in 2021. This includes encumbrances of:
  - \$ 9.2 million associated with the City's Drainage O&M and MS4 program (Annual Encumbrance)
  - \$ 9.0 million associated with the City's Stormwater Capital Projects program (Annual Encumbrance)
  - \$ 3.6 million by Utilities Sanitary Sewer Creek Crossing Program (Actual Expenditure)
- 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 million dollars** expended as of December 31, 2020.
- Between 2021 and 2025, the City and Utilities are expected to invest (through either expenditures or encumbrances) a total of \$110 million dollars at an average of \$22 million dollars per year. In 2021, The City and Utilities have invested a total of **\$21.8 million dollars** on the City's Stormwater Control Program with a total of **\$18.3 million dollars** expended as of December 31, 2021.
- A more detailed summary of estimated expenditures for the 2021 calendar year is provided in Section 3.0 of this report.

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

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



- This report serves to document the estimated expenditures for the 2021 calendar year and provide a summary of the associated Stormwater Control Program activities.
- A subsequent preliminary expenditures report will be filed on or before March 31, 2021, with a final report to 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 30, 2021 and again on September 30, 2021 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 September 30, 2021 meeting, the participating representatives agreed to the following modifications to the original IGA project list:

- Storage Cottonwood Park PR-15 (2020 IGA Project #51) - Agreed to move the Storage Cottonwood Park PR-15 project (IGA Project #51) to a later year and move up the Channel/Grade Control Cottonwood Creek - Monument Creek to Academy project (IGA Project #59) from the 2026-2035 timeframe to the present. The request was based on estimated construction costs of the Storage Cottonwood Park PR-15 project outweighing the benefit of the project as designed, and the greater immediate need to complete the remaining work required in the IGA Project #59 area with construction work planned to commence in the Fall of 2022. The planned work will stabilize a portion of Cottonwood Creek that is currently threatening two apartment buildings and an undercut vertical sandstone bank immediately upstream.
- Channel/Grade Control Sand Creek Upper West Fork - Galley to Murray (2022 IGA Project #76) - Agreed to remove and replace the Channel/Grade Control Sand Creek Upper West Fork - Galley to Murray IGA Project #76 with a new South Douglas Stabilization at Sinton Trail project (IGA Project #111). The request was based on the results of a 10% design completed for the Channel/Grade Control Sand Creek Upper West Fork - Galley to Murray project which determined that based on previous work conducted in the project area, the reach is well vegetated and appeared very stable with no visible detrimental changes over the past 5 years. However, the area of South Douglas Creek in the vicinity of the Sinton Trail has experienced instability and the loss of a drop structure that threatens upstream drop structures and Sinton Road. Construction of the South Douglas Stabilization at Sinton Trail project is planned for 2022.

- Channel/Grade Control Sand Creek – Fountain to Airport (2024 IGA Project #60) - Agreed to identify the Channel/Grade Control Sand Creek – Fountain to Airport IGA Project #60 as complete based on work previously performed and the stability of the remaining reach of the project area and replace the project with the new Middle Creek Upstream of I-25 project (IGA Project #112). The Middle Creek Upstream of I-25 project will stabilize a heavily incised and unstable reach of Middle Creek between I-25 and an old beaver pond and reduce sediment deposition downstream in Monument Creek. Construction is planned for the Fall of 2022 or 2023.
- Galley Road Channel – Sand Creek between Galley and Platte Avenue (2023 IGA Project #19) - Agreed to identify the Galley Road Channel – Sand Creek between Galley and Platte Avenue IGA Project #19 as complete based on work performed by development efforts in recent years and remaining stabilization work being completed as part of the replacement of the Platte Avenue Bridge over Sand Creek. It was agreed that the project will be replaced with the new Spring Creek Ecosystem Restoration USACE project (IGA Project #113). For this project the City is partnering with USACE under Continuing Authority Program 206 to restore the existing vacant City “Audubon” property at Pikes Peak Avenue and Academy Boulevard back to its original wetlands preserve by constructing drop structures downstream on Spring Creek and restoring the two channels of Spring Creek through the approximately 40-acre property. A feasibility study is currently being conducted and construction is planned for 2024.

*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.*

- A statement letter dated June 24, 2021 was received from Pueblo County by the City of Colorado Springs Attorney's Office evidencing a total of \$5,248.54 in fees incurred in 2020 associated with Wright Water Engineering's support of the IGA related yearly reviews and associated inspections. The fees were reimbursed to Pueblo County 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 2021 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), the FCWFCGD Citizen’s Advisory Committee (CAG), and the 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 2021 participated in the annual Plan update for recommended projects to commence in 2022.
- (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 2021 to be commenced in 2022 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 FCWFCGD has continued to explore 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.*
- Both the City and Utilities are committed to continuing to work with the FCWFCGD to explore opportunities to coordinate and cooperate on Fountain Creek related initiatives during and beyond the term of the IGA Agreement.

### 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.*

- This condition was completed in 2020. Between 2016 and 2020, a total of \$52 million including interest was provided to the Fountain Creek Watershed Water Activity Enterprise 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).

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

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

- The City and Utilities are committed to the long-term funding of the FCWFCGD'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 FCWFCGD.

### 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-eight (78) 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 Bends
- Retaining Wall Footings
- Retaining Wall Circumference
- Pipe Material
- Pipe Velocities
- Pipe Crowns Matching
- Retaining Wall Horizontal Distance
- Minimum Pip Size

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 97 routine variances were approved by the City and reported to Pueblo County.

## 3.0 Estimated Expenditures for the 2021 Calendar Year

The following contains a report of estimated expenditures for the 2021 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. For the second five-year period (2021-2025), the minimum annual expenditure requirement is \$16.5 million, and the average annual expenditure requirement is \$22 million for an overall expenditure of \$110 million for the period between 2021 and 2025. 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 2021 calendar year reporting period. As of December 31, 2021, the City and Utilities have invested (through either expenditures or encumbrances) a total of **\$21.8 million** dollars on the City's Stormwater Control Program and expended **\$18.3 million** dollars.

### Expenditures for the 2021 Calendar Year

IGA Requirement	Minimum		Minimum	
	Total Expenditures	Average Annual Expenditures	Annual Expenditures	
First Five Years (2016-2020)	\$100 Million	\$20 Million	\$16.5 M/yr.	
Second Five Years (2021-2025)	\$110 Million	\$22 Million	\$16.5 M/yr.	

  

Claimed Expenditures (Actual Expenditures and Encumbered Funds)	Total		Subtotal	Total
	(2016-2020)	2021	(2021-2025)	(2016-2021)
Drainage O&M/MS4 Program	\$41,301,035	<b>\$9,224,194</b>	\$9,224,194	\$50,525,229
Stormwater Capital Projects	\$56,280,278	<b>\$9,000,000</b>	\$9,000,000	\$65,280,278
Colorado Springs Utilities (SSCC Program)	\$15,846,580	<b>\$3,632,568</b>	\$3,632,568	\$19,479,148
<b>Total</b>	\$113,427,893	<b>\$21,856,762</b>	\$21,856,762	\$135,284,655

  

Actual Expenditures	Total		Subtotal	Total
	(2016-2020)	2021	(2021-2025)	(2016-2021)
Drainage O&M	\$18,719,097	<b>\$3,340,842</b>	\$3,340,842	\$22,059,939
Stormwater MS4 Program	\$21,010,941	<b>\$6,100,729</b>	\$6,100,729	\$27,111,670
Stormwater Capital Projects	\$50,837,527	<b>\$5,196,584</b>	\$5,196,584	\$56,034,111
Colorado Springs Utilities (SSCC Program)	\$15,846,580	<b>\$3,632,568</b>	\$3,632,568	\$19,479,148
<b>Total</b>	\$106,414,145	<b>\$18,270,723</b>	\$18,270,723	\$124,684,868

Additional Unclaimed Stormwater Expenditures in 2020

Other Capital Project Stormwater/Channel Related Work	\$2,186,851
(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, \$5,196,584 has been invested in Capital Projects, of which \$5,020,140 has been invested on IGA projects, and \$176,444 has been invested on other stormwater related projects.

IGA CAPITAL PROJECTS		
IGA Project No.	Project Name	Actual Spent (\$)
11	Camp Creek Phase I (2018)	(3,372)
106	Cottonwood Creek Austin Bluffs to Bus Barn (2021)	40,685
65	Cottonwood Creek Detention Basins (2017)	298,857
1	Emergency Stormwater Projects (2021)	1,654,682
0	FEMA Grant Projects (City Funds) (2016)	55,599
	NRCS Chuckwagon Phase II	10,800
	NRCS Chuckwagon Phase III	22,661
	South Douglas Design and Grant Match	22,138
7	Fairfax Tributary Detention Pond (2016)	35,394
105	Flying Horse Pond 1 Retrofit (2019)	242,111
21	Monument Creek at Talemine (2020)	928,154
23	North Chelton Road (CS-057) (2018)	604,057
109	Bear Creek Channel Stabilization (2018)	69,980
16	North Douglas Channel (2019)	13,690
103	Pine Creek Channel Ph I (2018)	353
104	Pine Creek Channel Ph 2 (2020)	77,586
111	South Douglas Sinton Trail Imps. (2022)	13,294
51	Storage Cottonwood Park-PR15 (2026)	118,079
40	Storage Mt. Woodmen Court (2026)	375,689
34	Storage Sand Creek Pond 2 (2019)	39,578
6	USAFA Drainages (Monument Branch) (2016)	20,915
110	USAFA Supplemental Black Squirrel Creek (2022)	249,333
13	Water Quality Projects (2016-2020)	156,573
<b>Various*</b>	Project Scoping and Definitions	28,903
	Monument Creek at Mark Dabling	6,237
	(39) Sand Creek-Palmer Park to Galley	2,010
	(106) Cottonwood Creek (2021)	4,688
	(6) USAFA Drainages (Monument Branch Ph II)	15,968
<b>Total IGA Projects</b>		<b>5,020,140</b>

## Other Stormwater Capital Projects

Project Name	Actual Spent (\$)
Comprehensive Drainage Master Plan	11,744
Drainage Studies	56,943
Mitigation Projects/Studies	73,287
South Douglas Upstream Centennial	5,525
USAFA-Elk Horn Creek	28,945
<b>Total Non-IGA Stormwater Capital Projects</b>	<b>176,444</b>

## Total Stormwater Capital Projects Expenditures

<b>Total 2021 Stormwater Capital Project Expenditures</b>	<b>5,196,584</b>
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## Colorado Springs Utilities SSCC Program Activities

Work Order No.	Project Name	Actual Spent (\$)
<b>3636510</b>	Dry Creek Downstream of Dawson Stream Stabilization - Phase II - Construction	\$1,029,712
<b>3749174</b>	Dry Creek Downstream of Dawson Drive Stream Stabilization - Revegetation	\$5,353
<b>3411434</b>	Templeton Gap at Siferd Blvd Stream Stabilization - Construction	\$11,425
<b>3526082</b>	Monument Creek at Monument Street Stream Stabilization - Design	\$35,984
<b>3255936</b>	Broadmoor Valley Park Stream Stabilization - Design	\$12,586
<b>3745926</b>	South Douglas Upstream of I-25 Stream Stabilization - Construction	\$110,933
<b>3460032</b>	Sand Creek Stabilization KARR to West Fork Confluence - Design	\$112,683
<b>3733502</b>	North Rockrimmon Creek Stream Stabilization - Construction	\$107,538
<b>3526106</b>	Cottonwood Creek Austin Bluffs Pkwy to Powers Blvd Stream Stabilization - Design	\$10,655
<b>3526116</b>	Sand Creek Downstream of East Fork Confluence Stream Stabilization - Construction	\$1,263,321
<b>3819643</b>	Middle Tributary Upstream of I-25 Channel Stabilization - Design & Construction	\$301,932
<b>3731441</b>	Cottonwood Creek Upstream of Academy Blvd Stream Stabilization - Construction	\$630,446
<b>Total Utilities SSCC Program 2021 Project Costs:</b>		<b>\$3,632,568</b>



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## 4.0 Stormwater Control Program Activities Undertaken in 2021 Calendar Year

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### 2016 Capital Projects Carried Over Into the 2021 Reporting Period

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

Projects arising from the 2013 and 2015 flooding

##### 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/53-Corp  
Status: Construction 50% 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 and was completed in 2020. The project is identified as a high priority project within the Monument Creek Watershed Restoration Master Plan, October 3, 2016 and has been a joint effort between the City, Utilities, the United States Air Force Academy, CDOT, and the FCWFCDG.

##### Phase 2:

Engineer/Contractor: Matrix Design Group/TBD  
Status: Phase 2 Engineering - 100% Complete  
Phase 2 Construction - 10% Complete

##### Phase 3:

Engineer/Contractor: Matrix Design/Construction performed by a private developer  
Status: 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 2022. 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 2022 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.

Engineer: Respec  
Status: Complete

## 2017 Capital Projects Carried Over Into the 2021 Reporting Period

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### 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: Complete

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### 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. Substantial completion achieved in 2020 with final contract closeout completed in early 2021.

Engineer/Contractor: Kiowa/Dwire  
Status: Complete

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## 2018 Capital Projects Carried Over Into the 2021 Reporting Period

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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: Complete

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### **BEAR CREEK CHANNEL STABILIZATION (IGA PROJECT #109)**

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/(RMC/Na Ali'i)  
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: Complete

## 2019 Capital Projects Carried Over Into the 2021 Reporting Period

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### 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/Wildcat Construction
Status:	Engineering Complete Construction 50% Complete

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### 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 2022 pending land acquisition

## 2020 Capital Projects Carried Over Into the 2021 Reporting Period

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### 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: 80% Complete

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### 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 100% Complete  
Construction planned Fall of 2022

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### 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 60% Complete  
Construction planned Fall of 2024

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

Location: East bank of Monument Creek at Goose Gossage Park along Mark Dabling 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/Siete  
Status: Complete

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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 100% Complete  
Construction Phase 1 planned Fall of 2022

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**USAFA SUPPLEMENTAL PROJECT BSC (2022 IGA PROJECT #110)**

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/53-Corp  
Status: Complete

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

Projects arising from 2020 prioritized needs

**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 and Colorado Springs Stormwater Enterprise (SWENT) project to restore the creek from damage due to increased upstream flows. SWENT is funding the design portion of the project.

Consultant: Matrix Design Group  
Status: Design 100% Complete  
Construction planned for 2022

**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 FCWFCDG and Utilities.

Consultant: Westervelt  
Status: Complete

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

Location: Four separate project areas.

Description: Applications were 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 grants were not awarded in 2021.

## Capital Projects Undertaken During the 2021 Reporting Period

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

Projects arising from 2020 prioritized needs

#### **T-Gap Concrete Channel**

Location: Tempelton-Gap at Grant Elementary School

Description: Repairs to concrete trapezoidal channel.

Contractor: Langston

Status: Complete

#### **Hollow Tree Court Channel**

Location: Concrete channel near Hollow Tree Court.

Description: Repairs to concrete trapezoidal channel.

Contractor: Langston

Status: Complete

#### **Wold Ave Channel**

Location: Concrete channel near Wold Avenue.

Description: Repairs to concrete trapezoidal channel.

Contractor: CMS

Status: Complete

#### **Turquoise Channel**

Location: Concrete Channel near Turquoise.

Description: Repairs to concrete trapezoidal channel

Contractor: Ability

Status: Complete

#### **Rampart Park Channel**

Location: Concrete channel along entrance to Rampart Park.

Description: Repairs to concrete trapezoidal channel.

Contractor: Langston

Status: Complete

#### **South Douglas Creek**

Location: Along Sinton Trail near Holland Park drive.

Description: Stabilized Creek bank that was threatening parks trail.

Contractor: Tezak

Status: Complete



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

Projects arising from 2020 prioritized needs

**Rustin Hills Pond Modifications**

Location: Water Quality Pond within Rustic Hills Neighborhood.

Description: Repair erosion areas and modified maintenance trail to prevent further deterioration.

Contractor: CMS  
Status: Complete**CMP Pipe Lining Project**

Location: 2005 Farnsworth Drive

Description: Spray lined large diameter CMP that was corroded and failing along the pipe invert.

Contractor: HPD  
Status: Complete**Stormpipe Repairs**

Location: Union and El Capitan

Description: Removed and replaced sections of pipe damaged during adjacent guardrail installation along Union.

Contractor: CMS  
Status: Complete**Valli Vista**

Location: Valli Vista Drive drainage

Description: Improved drainage from Valli Vista Drive through residents property easement into concrete channel.

Contractor: CMS  
Status: Complete**Broken Circle Drainage**

Location: Cul-de-sac at the end of Broken circle drive

Description: Installed inlet and stormpipe to carry flows from cul-de-sac down into the water quality pond.

Contractor: Tasmarr  
Status: Complete

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## GRANT APPLICATIONS

### 2020 FEMA BRIC Grant Applications

Location: Four separate project areas.

Description: Applications were resubmitted 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 2022.

Engineer: Various  
Status: Complete

### 2021 OLDCC Monument Creek Grant Application

Location: Northern Monument Creek

Description: Application submitted to OLDCC in an effort to secure funding for a study along Monument creek within the USAFA and the surrounding City drainages.

Engineer: TBD  
Status: Grant Award Complete

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## ENGINEERING STUDIES

The Stormwater Enterprise continued to work on several significant and important engineering studies during the course of 2021, including completion of the Sand Creek Drainage Basin Planning Study (DBPS) and continuation 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 2021, Utilities SSCC Program included design, repair, rehabilitation, or closeout of 12 creek crossing locations, at a preliminary cost of \$3,632,568.

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

### 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 were 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 Dabling 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) began in November 2020 with completion in May 2021.

Engineer/Contractor:	Jacobs Engineering Group/Tezak Heavy Equipment
Notice to Proceed:	January 2021
Completion Date:	May 2021
Status:	Complete

### Dry Creek Downstream of Dawson Drive Stream Stabilization – Vegetative Monitoring and Establishment

This project had construction completed in 2021. 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 were 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. A monitoring report for the USACE 404 permit was created to document the status of the revegetation. Habitat Management was contracted with to perform additional vegetative establishment activities per the recommendations of the monitoring report.

Consultant/Contractor:	ERO Resources/Habitat Management
Notice to Proceed:	June 2021
Completion Date:	Ongoing
Status:	Ongoing

### 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 stacked boulder bank projection and a boulder riffle to stabilize the reach. The extent of the improvements will be approximately 200 feet long. USACE and PPRBD permits have been obtained. Currently negotiations with El Paso County are ongoing for the use of the public right of way as it relates to the grading and erosion control permit.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	TBD
Completion Date:	TBD
Status:	Construction Contract Awarded

## 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:	February 2022
Status:	Design complete, undergoing permitting

### Broadmoor Valley Park - Design

Channel degradation through a drainage inside Broadmoor Valley Park threatens a sewer that crosses the drainage near Hidden Creek Drive. The project is being designed internally by Utilities engineers and will utilize sculpted concrete drops and riprap bank protection to stabilize the reach. Design is currently at 30% status and a permitting approach is being developed with ERO Resources.

Engineer:	Internal
Notice to Proceed:	TBD
Completion Date:	TBD
Status:	30% Design Completed

### South Douglas Creek Upstream of I-25 Stream Stabilization- Construction

Channel degradation in South Douglas Creek threatened a sewer that parallels and crosses the drainage upstream of I-25. The project was designed internally by Utilities engineers and utilized riprap bank protection and the construction of an ungrouted boulder riffle. This project was constructed in partnership with the City of Colorado Springs Stormwater Enterprise as they worked on channel stabilization nearby.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	July 2021
Completion Date:	July 2021
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 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-2022
Status:	Design and Permitting In-Progress

## Utilities SSCC Program Activities (Continued)

### North Rockrimmon Creek - Construction

Bank erosion on North Rockrimmon creek was threatening a sewer pipeline and manhole located adjacent to the channel. The project involved placing riprap toe protection at the bottom of a vertical bank and placing riprap to stabilizing a steep hillslope that was presented risk to a manhole. The project was designed internally by Utilities engineers and constructed in 2021.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	November 2021
Completion Date:	December 2021
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. The final 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 of the design activities were performed in 2021.

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

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

Channel degradation on Sand Creek resulted in two existing vertical sheet pile cutoff walls beginning to become compromised. This project will converted the concrete cutoff walls to grouted sloping boulder drop structures and provided a long-term channel stabilization solution. Downstream of the project a sheet pile cutoff wall was installed to protect against potential future channel degradation. Bank protection and vegetative establishment were be included as part of the project. This project protects wastewater pipelines running parallel to Sand Creek as well as the grouted boulder drop structures. Construction was completed in

Engineer:	Internal Design (Utilities)/Tezak Heavy Equipment
Notice to Proceed:	February 2021
Completion Date:	August 2021
Status:	Complete

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 Utilities SSCC Program Activities (Continued)
 

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**Middle Tributary Upstream of I-25 Channel Stabilization- Design**

Channel degradation on Middle Tributary threatens a force main that crosses the drainage upstream of I-25. Significant sediment aggradation due to upstream sediment moving downstream as resulted in a destabilized condition due to impacts to vegetation. This project will be design and constructed in partnership with the City of Colorado Springs Stormwater Enterprise in order to achieve efficiency in the expenditure of funds by partnering together on a reach of stream stabilization in which both parties have interest in restoring.

Engineer:	Watervation
Notice to Proceed:	TBD
Completion Date:	TBD
Status:	Initiation

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**Cottonwood Creek Upstream of Academy Blvd. Stream Stabilization - Construction**

Three vertical concrete walls were constructed in series on Cottonwood Creek upstream of Academy Boulevard. In 2015, the lowermost drop failed and was replaced with a grouted boulder drop structure. The Cottonwood Creek Interceptor, a 24-inch to 30-inch sanitary sewer, runs parallel to Cottonwood Creek on the left (south) bank through this reach. This sewer was at risk from drop structure failure and the expected stream degradation that would follow. This project converted the remaining two vertical concrete walls to more robust grouted boulder drop structures and reduced the risk to Utilities' infrastructure.

Contractor:	Tezak Heavy Equipment
Notice to Proceed:	August 2021
Completion Date:	December 2021
Status:	Closeout

## 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 2021 calendar year, the Drainage O&M Program completed the following activities:

- Completed inspections of all 140 publicly maintained regional and sub-regional detention ponds/facilities
- Completed identified maintenance activities within 48 publicly maintained regional and sub-regional detention facilities (including debris removal, sediment removal, mowing, tree trimming, and minor structure maintenance), resulting in removal of 16,984 cubic yards of sediment and debris
- Completed inspections of 4.43 miles of concrete-lined and natural channels
- Performed maintenance activities through 36.39 miles of concrete-lined and natural channels, including removal of 8,676 cubic yards of sediment, vegetation, and debris
- Completed 4,831 separate storm sewer maintenance/vacuum-truck operations (including cleaning of storm sewer inlets and storm sewer pipe cleaning), resulting in removal of 1,065.3 cubic yards of debris
- Repaired, replaced, or installed 2,234 linear feet of stormwater conveyance pipe
- Performed street sweeping operations on 22,153 lane miles of city streets, removing 32,270 cubic yards of debris

## 2021 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:
    - 139 new field employees
    - Annual IDDE refresher training to 465 field employees
    - CCTV training to 46 firefighters and first responders
  - Staff appeared on the local Fox 21 news stations Loving Living Local program and performed an interview on Illicit Discharges, how they impact the community, and what to do in case of a spill.

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): 53
  - Number of students and citizens reached (i.e., schools, community events): 875
  - 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): 9,337,432
  - Storm Drain Art Project: Completed two murals by a School District 11 High School and one by the Goodwill Possibilities Program building
  - Adopt-A-Waterway Program: 1,434 volunteers
- Educational materials distributed:
  - School Items: 7,756  
(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:

- 1,487 businesses targeted to receive education and outreach material with focus on food truck guidance, oil, and concrete waste.
- By early March 2020, 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. During the MS4 permit renewal process it was discovered that there will be new industrial requirements in the MS4 permit related to these tasks. Education and outreach to these facilities will be conducted under the new permit term.

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

- The City conducted three outdoor Stormwater Temporary Control Measure (TCM) Field Academy training for members of the construction community to provide hands-on training on proper installation and maintenance of construction control measures.
- The City hosted four Grading and Erosion Control (GEC) and Stormwater Management Plan trainings virtually to the construction and engineering community.
- The City hosted two Stormwater Management Plan (SWMP) courses for members of the construction community.
- The City participated in six “Wet Wednesdays” stakeholder meetings held virtually and at the area Home Builder’s Association (HBA) offices. Topics included:
  - CDPHE Updates: Significant Changes to the General Permit.
  - SCM Requirements: Maintaining GEC Site Compliance.
  - El Paso County Lot Control Measures: Inspection & Reporting.
  - Approved Sediment & Erosion Control Measures: Using Alternate Specs.
  - Dewatering Permits: An Overview.
  - Conversion of Temporary Sediment Basins & Traps to Permanent Water Quality Structures.

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### **Private BMP Inspection and Tracking**

City inspectors conduct inspections at various points of construction projects for conformance with construction specifications and compliance with MS4 related stormwater regulations. Additionally, the City completes required annual inspections of existing private permanent BMPs in accordance with issued private BMP maintenance agreements. The constructed permanent private BMPs (i.e., extended detention basins, porous landscape detention basins) are tracked in a database maintained by the City to ensure private BMPs are inspected and maintained appropriately. Approximately 2,178 inspections of private BMPs were conducted by the City in 2021, either during construction phases or associated with annual compliance requirements, which resulted in 10 enforcement actions.

- Private Structures Operation and Maintenance (O&M) Program Sites: 445
  - Structures Within Private Structures O&M Program: 616
- Total Private BMP Inspections: 2,178
  - Construction Inspections: 1,586
  - Compliance Inspections: 592
- Total Permanent BMP Enforcement Actions: 10

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### Construction Site Inspections

In 2021, seven full-time MS4 inspectors were dedicated to the MS4 Program, with six inspectors dedicated through the first three quarters of the year and a seventh added in October 2021.

During the 2021 reporting year, the City MS4 Program construction inspection team completed the following:

- Total inspections: 5,823
- Active construction sites through the year: 305
- Initial Inspections: 153
- Final Inspections: 214
- Routine Inspections: 3,906
- Complaint Inspections: 0
- Follow-up Inspections and storm event inspections: 1,433

Construction Site Enforcement:

- Notice and Order: 1
- Letter of Non-compliance: 95
- Stop Work Orders: 21

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 (2 inspectors)

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

In 2021 the IDDE Program received 193 reports of illicit discharges. Of those reported, only 40 incidents were classified as an illicit discharge that reached the MS4 or Waters of the State.

IDDE Enforcement:

- Verbal Warnings Issued: 50
- Educational Brochures Distributed: 65
- Letter of Non-Compliance Issued: 1
- Notice of Violation Issued: 3

IDDE Training Presented to Field Staff:

- IDDE training was provided to both City and Utilities field staff with an emphasis on how to identify and respond to illicit discharges in the field.
- Due to Covid-19 precautions, City field staff were provided with online illicit discharge training. 139 new field staff received the training during the City's onboarding process and 465 field staff received annual refresher training.

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### Stormwater Development Review

At the end of 2020, the Stormwater Enterprise Development Review team implemented a new Electronic Review System. This system is used for all drainage report, grading erosion control, drainage related design plans, and construction drawing reviews. 3,251 reviews were completed by stormwater staff in this system in 2021. Please note that planning reviews (plats, development plans, etc.) are handled separately by the City Planning Department and therefore are not included in this number.

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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 2020 annual report was submitted to the Colorado Department of Health and Environment (CDPHE) on March 24, 2021.

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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 2020 annual monitoring report was submitted to the CDPHE on May 25, 2021.

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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 41 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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### **MS4 Permit Renewal**

The City commenced discussions associated with the City's MS4 permit renewal process with the CDPHE for Colorado Discharge Permit System (CDPS) Permit COS000004. The permit is expected to be reissued in 2022 with a term extending between 2023 and 2028.

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### **E. Coli TMDL**

In 2021, 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.

It is anticipated that there will not be a TMDL in the renewal of the City's CDPS MS4 Permit COS000004, although a TMDL is still expected to be implemented in the future.

## 5.0 Planned 2022 IGA Related Activities

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

### Paragraph III.A - Stormwater Expenditures

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

For the 2022 calendar year, the City and Utilities are required to invest a minimum of \$16.5 million dollars on the City's Stormwater Control Program, with a goal of \$22 million dollars.

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 2022 City of Colorado Springs budget titled *Annual Budget, 2022*, describes the 2022 Stormwater Enterprise budget. The document can be downloaded at: <https://coloradosprings.gov/budget/page/city-budget>
- The 2022 Utilities budget allocates \$3,300,000 as part of Utilities' SSCC Program.
- Planned IGA related activities in 2022 include, but are not limited to:
  - Coordination and delivery of ongoing IGA capital projects;
  - Completion of 2021 engineering studies;
  - Commencement of additional IGA capital design and construction projects

#### 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 2022 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, 2022.

*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**

Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	Prioritization Criteria (see notes below)										Priority Ranking			Comments	Projected Project Dates
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking			
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 and extended with last project to be completed in early 2022.	2016-2022
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 3 completed in 2020. Phase 2 scheduled to begin construction 2022.	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 Fall to late 2022	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 general area; PR-11 removed with PR-2 moved slightly to the west and increased in size. <b>Complete</b>  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

Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking		
<del>52. Storage Bridle Pass Drive Construct new pond to improve 2 yr flows (CS-332)</del>	<del>\$1,591,000</del>			*	*	*	*	*	*	4		4	<del>12</del>	<del>Include channel improvements.</del>	<del>2017-2019</del>
<b>101. Scarborough Drive Sub-Regional Detention Pond</b>	\$1,100,000			X	X	X	X	X	X	4		4	12	Located northeast of original Storage Bridle Pass Drive location, on the north side of Cottonwood Creek. Replacement project for Storage Bridle Pass Drive. <b>Complete</b>	2017-2019
<b>13. Water Quality Project (3 of 5)---</b> Ridge Road at Colorado Boulevard Water Quality Pond <sup>2)</sup>	\$500,000			X		X		X	X	3	Yes	9	4	<b>Complete</b>	2018=2020
<del>9. South Pine Creek Detention Pond (WWE CS-335)</del> Replace with:	<del>\$461,000</del>			*	*			*	*	<del>2</del>		<del>14</del>	<del>13</del>	<del>Located on private land. Replaced with Project #100: Pine Creek Drainage Corridor Detention Pond.</del>	<del>2018-2019</del>
<b>100. Pine Creek Drainage Corridor Detention Pond</b>	\$500,000			X	X	X	X	X	X	4			13	Located in the Pine Creek Drainage Basin. Replacement project for South Pine Creek. <b>Complete</b>	2018-2019
<b>15. Citadel Mall Neighborhood Improvements (CS-374)</b>	\$1,270,000	X	X	X						0	Yes		14	Localized flooding. Design to evaluate detention retrofit. Original IGA Budget \$1,053,000. <b>Complete</b>	2018-2020
<b>23. North Chelton Road (CS-057)</b>	\$1,370,000		X	X	X					0	Yes		15	<b>Complete</b>	2018-2021
<del>11. Camp Creek Phase 1 (WWE CS-002 and CS-003)</del>	<del>\$4,356,000</del>	*	*	*				*	*	<del>1</del>	Yes	<del>18</del>	<del>16</del>	<del>Readiness for Implementation. Channel improvements. Cost shown is for downstream structure and channel restoration/lining removal.</del>	<del>2018-2019</del>
<b>11. Camp Creek--Phase I (Redefined) <sup>4)</sup></b> (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. <b>Complete</b>	2018-2019
<del>41. Storage Wagner Park Detention downstream of Bijou Detention Storage Required (CS-360)</del> Replace with:	<del>\$704,000</del>			*	*	*		*	*	<del>3</del>		<del>8</del>	<del>17</del>	<del>Spring Creek drainage</del> <del>Replaced with Project #102: US24/Colorado Detention Facility</del>	<del>2018-2019</del>
<del>102. US24/Colorado Detention Facility</del> Propose Replace with:	<del>\$704,000</del>			X	X	X		X	X	3		8	17	Install a new drop structure and stabilization to protect 8th Street upstream. <b>Complete</b>	2018-2021
<del>35. Side Channel Sand Creek segment 107, reach SC-5-1700lf channel stabilization (CS-261)</del> Replace with:	<del>\$1,242,000</del>	*		*				*	*	<del>1</del>		<del>20</del>	<del>26</del>	<del>Work previously completed.</del> <del>Replaced with Project #103: Pine Creek Channel Improvements Phase 1</del>	<del>2018-2019</del>
<b>103. Pine Creek Channel Improvements Phase 1</b>	\$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. <b>Complete</b>	2018-2020

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking		
<b>13. Water Quality Project (4 of 5)---</b> 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	<b>Complete</b>	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>
<b>105. Flying Horse Pond #1</b>	\$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 2021/2022.	2019-2022
<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>
<b>16. North Douglas Natural Channel</b>	\$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 2022.	<b>2019-2022</b>
<b>34. Storage Sand Creek Detention Pond 2 Complete</b> 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 in Process</b>	2019-2023
<b>13. Water Quality Project (5 of 5)---</b> 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	2020-2022
<del>24. Park Vista (Siferd Low Water Crossing) (CS 232)</del> Replace with:	<del>\$3,750,000</del>	X	X							0	Yes		21	<b>Localized flooding. Evaluate property acquisition and detention storage.</b> <b>Replaced with Project #104: Pine Creek Channel Improvements Phase 2</b>	<del>2020-2022</del>
<b>104. Pine Creek Channel Improvements Phase 2</b>	\$3,750,000	X	X					X	X	2	Yes		21	Pine Creek drainage basin. Construction planned in Fall 2022.	2020-2022
<b>70. CS-239 Grade Control Upper Hancock Channel -</b> Hancock to Academy, 78+33 to	\$1,236,000					X		X		2		13	22	Desire for provision for regular sediment removal. 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. <b>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	Redefine project to address reach between I-25 and railroad to east. City has conceptual design for channel stabilization project. <b>(Moved Up To 2019)</b>	<del>2020-2021</del>
<b>51. Storage Cottonwood Park PR-15 (west side) (CS 334)</b>	<del>\$3,768,000</del>			X	X	X		X	X	3		11	19	<del>Cottonwood Creek drainage</del> <b>(Moved From 2019)</b> <b>(In 2021, moved down to 2026)</b>	<del>2020-2022</del>
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	<b>Moved Up From 2026</b>	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	Portions of original scope have been completed by CSU. Additional reach to be improved. <b>Moved to 2023; Pending Platte Avenue Bridge Replacement Project Completion</b>	<del>2020-2022</del>

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)										Priority Ranking			Comments	Projected Project Dates	
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Downstream Benefit" Ranking	City Priority Ranking				
21. Monument Creek at Talemine (CS-011)	\$1,778,000	X		X			X					1		17	25	Complete	2020-2021
<del>35. Side Channel Sand Creek – segment 107, reach SC 5 1700lf channel stabilization (CS-261)</del> Moved to 2018	<del>\$1,242,000</del>	<del>X</del>		<del>X</del>			<del>X</del>					<del>1</del>		<del>20</del>	<del>26</del>	Project #35 replaced with Pine Creek Channel Improvements Phase 1 and moved up to 2018.	<del>2021-2025</del>
<del>39. Grade Control Palmer Park Channel – Galley Rd. to Palmer Park, 300+00 to (CS-259)</del> Moved to 2026-2035	<del>\$6,594,000</del>	<del>X</del>		<del>X</del>			<del>X</del>					<del>1</del>		<del>21</del>	<del>27</del>	<del>On Sand Creek drainage.</del>	<del>2021-2024</del>
106. Cottonwood Creek - Austin Bluffs to Bus Barn	\$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> Replaced with:	<del>\$3,500,000</del>	<del>X</del>	<del>X</del>	<del>X</del>						<del>X</del>		<del>1</del>		<del>23</del>	<del>28</del>	<del>Bundled and phased with other Shooks Run.</del> Replaced with Project #107 Cottonwood Creek - P to P	<del>2021-2023</del>
107. Cottonwood Creek - Pinkerton to Powers Blvd	\$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> Replace with:	\$420,000						X					1		24	29	Black Squirrel Creek Channel Improvements project Complete	2022-2024
110. USAFA Supplemental Project																	
<del>76. CS-254 Channel/Grade Control Sand Creek Upper West Fork – Galley to Murray 1730lf channel stabilization, 2 drop structures</del> Replace with:	\$2,006,000						X					1		25	30		2022-2024
111. South Douglas Stabilization at Sinton Trail																	
75. CS-262 Channel/Grade Control Upper Sand Creek - W. Fork to Palmer Park Blvd. 1550lf channel stabilization, w/drop structures	\$1,192,000						X					1		26	31		2022-2024
74. CS-252 Channel Sand Creek Lower West Fork - Emory to Platte Ave. 1000lf channel stabilization	\$2,383,000						X					1		27	32		2022-2024
73. CS-025 Channel/Grade Control Sand Creek West Fork - Main stem to Wooten Construct drop structures & streambank protection	\$2,206,000						X					1		28	33		2022-2024
<del>19. Galley Road Channel (WWE CS-258) Sand Creek between Galley and Platte Avenue</del> Replace with:	<del>\$2,000,000</del>	<del>X</del>		<del>X</del>			<del>X</del>					<del>1</del>		<del>19</del>	<del>24</del>	<del>Portions of original scope have been completed by CSU. Additional reach to be improved. Moved From 2020;</del> <b>Pending Platte Avenue Bridge Completion</b>	<del>2023-2025</del>
113. Pikes Peak and Academy Detention Facility Wetland Restoration Project with USACE	\$2,000,000			X	X	X	X	X	X			4		19	24	Planned spend is City's portion of project cost.	2023-2025

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates			
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking					
71. CS-246 Channel/Grade Control Sand Creek Lower Center Tributary - No Name to East Fork	\$458,000									X			1		31	36	Complete	2023-2025
<del>62. Channel/Grade Control East Fork of Sand Creek (CS-041)</del> <b>Moved to 2026-2035</b>	<del>\$7,464,000</del>	X								X			<del>1</del>		<del>32</del>	<del>37</del>	Shifted up from original 2024 project schedule to 2023 project schedule. <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)	<del>2023-2025</del>
108. Cottonwood Creek - Bus Barn to Pinkerton	\$3,000,000	X								X			1		32	37		2023-2025
61. Channel/Grade Control Sand Creek (CS-040) Karr to West Fork	\$3,507,000	X								X			1		29	34	Shifted down from original 2023 project schedule to 2024 project schedule.	2024-2026
<del>60. Channel/Grade Control Sand Creek (CS-039) Fountain to Airport</del> Replace with:	<del>\$3,908,000</del>	X								X			<del>1</del>		<del>30</del>	<del>35</del>	Shifted down from original 2023 project schedule to 2024 project schedule.	<del>2024-2026</del>
112. Middle Creek Upstream of I-25 I-25 to Old Beaver Pond	\$1,200,000				X	X				X			1		30	35		2024-2026
55. Grade Control Fountain Blvd. Channel - Chelton Rd. to Fountain Blvd., (CS-243)	\$2,553,000	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			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			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			1		41	46	Portions of original scope may have been completed by CSU	2026-2035
<del>59. Channel/Grade Control Cottonwood Creek - Monument Creek to Academy Construct flood control and stream restoration projects. (CS-005)</del>	<del>\$13,232,000</del>	X								X			<del>1</del>		<del>42</del>	<del>47</del>	Moved up to 2020	<del>2026-2035</del>

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Downstream Benefit" Ranking	City Priority Ranking		
51. Storage Cottonwood Park PR-15 (west side) (CS-334)	\$3,768,000			X	X	X		X	X	3		11	19	Cottonwood Creek drainage (Moved Down From 2020)	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
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

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)									Priority Ranking			Comments	Projected Project Dates			
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking					
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
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> Replaced with: <b>106. Cottonwood Creek -Austin Bluffs to Bus Barn. Moved to 2021</b>	<del>\$3,000,000</del>	X	X	X					X				1		59	64	Bundled and phased with other Shooks Run	2026-2035
<del>62. Channel/Grade Control East Fork of Sand Creek (CS-041)</del>	<del>\$7,464,000</del>	X		X					X				1		60	65	<b>Project #62 moved from 2023 Complete</b>	2026-2035
<del>27. Shooks Run Channel - Bijou Street Culvert &amp; Channel Stabilization (CS-054a)</del>	<del>\$1,500,000</del>	X	X	X					X				1		60	65	Bundled and phased with other Shooks Run	2026-2035
<del>29. Shooks Run Improvements Phase 3 (CS-054b)</del> Replaced with: <b>108. Cottonwood Creek -Bus Barn to Pinkerton Moved to 2023</b>	<del>\$1,500,000</del>	X	X	X					X				1		61	66		2026-2035
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).	

Project Name	Total Estimated Capital Cost (2016\$) <sup>(6) (7)</sup>	Prioritization Criteria (see notes below)								Priority Ranking			Comments	Projected Project Dates	
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Downstream Benefit" Ranking			City Priority Ranking
<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).	
<del>56. Grade Control Palmer Park Channel - Galley Rd. to Palmer Park, 300+00 to (CS-259)</del>														Redundant with Project 39. Delete.	
10. Erindale Drainage Improvements														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)



Project Name	Total Estimated Capital Cost (2016\$) <sup>6) 7)</sup>	Prioritization Criteria (see notes below)										Priority Ranking			Comments	Projected Project Dates
		Protect Public Safety/Property	Improve Failing Infrastructure	Enhance Community	Distribute Within the City	Enhance Sediment/Debris Capture	Reduce Sediment Generation/Enhance Soil Stewardship	Improve Water Quality	Provide Detention	Downstream Priority Score	Critical City Project	WWE "Down-stream Benefit" Ranking	City Priority Ranking			

**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
- 8) Includes costs documented through September 20, 2018.