1041 2008-002

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PLANNING & DEVELOPMENT

SDS
Water for generations

January 30, 2020

Michael S. Black
Regional Director
Great Plains Regional Office
Bureau of Reclamation
P.O. Box 36900
Billings, MT 59107-6900

Subject: Southern Delivery System Permit Compliance Annual Report (Calendar Year 2019)

Mr. Ryan:

Colorado Springs Utilities, the Southern Delivery System (SDS) Project Manager, hereby submits the attached Permit Compliance Annual Report (PCAR) for Calendar Year 2019. This report demonstrates the SDS Project's progress in successfully implementing the commitments prescribed in the SDS Record of Decision (ROD), Reference No.: GP-2009-0l, as well as meeting the annual reporting requirements for other programmatic permits and approvals.

Due to SDS becoming operational in April 2016, this report addresses compliance for both construction and operational activities associated with the project. Applicable compliance activities associated with Phase II planning and design will be incorporated into future PCARs; however, until Phase II enters the construction phase, all future reports will focus on operational compliance.

I certify that, to the best of my knowledge, the content of this report is true and accurate. As noted herein, SDS has complied with all applicable permit requirements.

Please contact me at 719-668-8679, with any questions regarding the attached report.

Sincerely,

David Padgett
Chief Environmental Officer

Enclosure

cc: City of Fountain, Curtis Mitchell, Director of Utilities
Colorado Department of Public Health and Environment, Pat Pfaltzgraff, Director,

Water Quality Control Division
Colorado Parks and Wildlife, Brett Ackerman, Regional Manager, Southeast Region
Fountain Creek Watershed Flood Control and Greenway District, Larry Small, Executive Director
Pueblo County Planning & Development, Carmen Howard, Director
Pueblo West Metropolitan District, Jim Blasing, Director of Utilities
Security Water and Sanitation District, Roy Heald, District Manager
U.S. Army Corps of Engineers, Larry (Dale) Caswell, Lieutenant Colonel, U.S. Army, District Commander
Bureau of Reclamation, Terry Stroh, Environmental Specialist
El Paso County, Craig Dossey, Executive Director, Planning and Community Development Department

1041 2008-002

Southern Delivery System Permit Compliance Annual Report

Calendar Year 2019

Prepared for:

Bureau of Reclamation

Colorado Department of Public Health and Environment

Colorado Parks and Wildlife

El Paso County

Pueblo County

Fountain Creek Watershed, Flood Control, and Greenway District

Submitted by:

Colorado Springs Utilities, SDS Project Manager on behalf of the SDS Participants

January 2020

Contents

Acronyms and Abbreviations

1041 Permit	Pueblo County 1041 Permit No. 2008-002
BMPs	Best Management Practices
CPW	Colorado Parks and Wildlife
CDPHE	Colorado Department of Public Health and Environment
CWC	Colorado Wildlife Commission
CWCB	Colorado Water Conservation Board
EMS	Environmental Management System
FEIS	Final Environmental Impact Statement
FWMP	Fish and Wildlife Mitigation Plan
mgd	million gallons per day
NEPA	National Environmental Policy Act
PCAR	Permit Compliance Annual Report
PDC	Pueblo Dam Connection
Reclamation	Bureau of Reclamation
ROD	Record of Decision
SDS	Southern Delivery System Project
SDS Participants	City of Colorado Springs, City of Fountain, Security Water District, and Pueblo West Metropolitan District
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
WTP	water treatment plant

Executive Summary

The Southern Delivery System Project (SDS) is a regional water delivery system that serves the City of Colorado Springs (via Colorado Springs Utilities), City of Fountain, Security Water District, and Pueblo West Metropolitan District (collectively, the SDS Participants).

Purpose

The purpose of the SDS Permit Compliance Annual Report (PCAR), submitted by Colorado Springs Utilities as the SDS Project Manager, is to demonstrate progress in successfully implementing the commitments as prescribed in the Record of Decision (ROD) to the Bureau of Reclamation (Reclamation). Colorado Springs Utilities also reviewed the other seven programmatic permits/approvals that are in place to identify the annual reporting requirements of each. The following five permits/approvals have annual reporting requirements addressed in this report:

- El Paso County Location Approvals
  - Planning Commission Resolution U-09-002, March 2, 2010, Southern Delivery System Raw Water Pipelines, Amended by Resolution U-12-001, October 18, 2012
  - Planning Commission Resolution U-09-003, March 2, 2010, Southern Delivery System Finished Water Pipelines, Amended by Resolution U-12-003, October 18, 2012
  - Planning Commission Resolution U-09-004, March 16, 2010, Southern Delivery System Bradley Pump Station
  - Planning Commission Resolution U-09-005, March 16, 2010, Southern Delivery System Upper Williams Creek Reservoir, Amended by Resolution U-12-002, October 18, 2012
  - Planning Commission Resolution U-09-007, March 16, 2010, Southern Delivery System Exchange Flow System, Amended by Resolution U-12-004, October 18, 2012
- El Paso County 1041 Permits
  - Development Services Department, File No. AASI-13-002, Southern Delivery System Finished Water Section 1C, Administratively Approved January 2, 2014
  - Development Services Department, File No. AASI-13-005, Southern Delivery System Finished Water Section 3, Administratively Approved January 29, 2014
  - Development Services Department, File No. AASI-14-001, Southern Delivery System Raw Water Pipeline Section S4AC, Administratively Approved February 18, 2014
- Pueblo County Board of County Commissioners Resolution No. P&D 09-22 approving 1041 Permit No. 2008-02, April 21, 2009

- Fountain Creek Watershed, Flood Control, and Greenway District (District) Resolution 2010-01, February 26, 2010
- Colorado Department of Public Health and Environment (CDPHE) 401 Certification No. 4224, April 23, 2010, which includes the requirement to provide copies of all other annual reports

The following two programmatic permits/approvals do not specifically include annual reporting requirements:

- Memorandum of Agreement with the State of Colorado, Department of Natural Resources on behalf of the Colorado Division of Wildlife regarding the Fish and Wildlife Mitigation Plan, May 18, 2010
- United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Individual Permit No. SPA-2005-00131-SCO, May 20, 2010

Reporting Requirements

The ROD requires annual reporting to summarize the SDS's progress made in implementing the ROD commitments. Colorado Springs Utilities has elected to develop a single SDS PCAR that addresses the ROD commitments and the other annual or periodic reporting requirements included in the programmatic permits/approvals that are listed above. This 2019 report focuses on commitments associated with project operations and mitigation project progress.

Summary of SDS Activities During this Reporting Period

Vegetation restoration efforts continued on the Phase I work packages.

Compliance with programmatic permit/approval commitments and construction permit requirements continued to be tracked in 2019 through an Environmental Management System (EMS).

Future SDS Activities

Compliance monitoring will continue for ongoing operational activities. Land acquisition activities associated with Bostrom Reservoir are expected to be completed in 2020. Phase II construction activities have not been scheduled. There have been no material changes to the project as described in the 2009 EIS.

1.0 Introduction

1.1 Purpose

The purpose of the SDS Permit Compliance Annual Report (PCAR), submitted by Colorado Springs Utilities as SDS Project Manager, is to demonstrate the progress in successfully implementing the commitments identified in the ROD (Reclamation 2009). This PCAR has been prepared to be consistent with the ROD and other permits issued by agencies having jurisdiction over SDS, specifically the following programmatic permits/approvals:

- Bureau of Reclamation Record of Decision for the Southern Delivery System Final Environmental Impact Statement, Record of Decision Reference No. GP-2009-01, March 20, 2009
- El Paso County Location Approvals
    - Planning Commission Resolution U-09-002, March 2, 2010, Southern Delivery System Raw Water Pipelines, Amended by Resolution U-12-001, October 18, 2012
    - Planning Commission Resolution U-09-003, March 2, 2010, Southern Delivery System Finished Water Pipelines, Amended by Resolution U-12-003, October 18, 2012
    - Planning Commission Resolution U-09-004, March 16, 2010, Southern Delivery System Bradley Pump Station
    - Planning Commission Resolution U-09-005, March 16, 2010, Southern Delivery System Upper Williams Creek Reservoir, Amended by Resolution U-12-002, October 18, 2012
    - Planning Commission Resolution U-09-007, March 16, 2010, Southern Delivery System Exchange Flow System, Amended by Resolution U-12-004, October 18, 2012
- El Paso County 1041 Permits
    - Development Services Department, File No. AASI-13-002, Southern Delivery System Finished Water Section 1C, Administratively Approved January 2, 2014
    - Development Services Department, File No. AASI-13-005, Southern Delivery System Finished Water Section 3, Administratively Approved January 29, 2014
    - Development Services Department, File No. AASI-14-001, Southern Delivery System Raw Water Pipeline Section S4AC, Administratively Approved February 18, 2014
- Pueblo County Board of County Commissioners Resolution No. P&D 09-22 approving 1041 Permit No. 2008-02, April 21, 2009
- Fountain Creek Watershed, Flood Control, and Greenway District (District) Resolution 2010-01, February 26, 2010

- Colorado Department of Public Health and Environment (CDPHE) 401 Certification No. 4224, April 23, 2010, which includes the requirement to provide copies of all other annual reports

Colorado Springs Utilities reviewed all eight of the programmatic permits/approvals that are in place to identify annual reporting requirements of each. The following two programmatic permits/approvals do not specifically include annual reporting requirements:

- Memorandum of Agreement with the State of Colorado, Department of Natural Resources on behalf of the Colorado Division of Wildlife regarding the Fish and Wildlife Mitigation Plan, May 18, 2010
- United States Army Corps of Engineers Clean Water Act Section 404 Individual Permit No. SPA-2005-00131-SCO, April 26, 2010

Colorado Springs Utilities prepared an Environmental Commitment Plan and developed a Phase I Environmental Management System (EMS) to track compliance with the commitments associated with all of the programmatic permits/approvals.

1.2 Southern Delivery System Project Overview

SDS is a regional water delivery project that serves the City of Colorado Springs (via Colorado Springs Utilities), City of Fountain, Security Water District, and Pueblo West Metropolitan District (collectively, the SDS Participants).

The first phase of SDS includes construction of the following facilities:

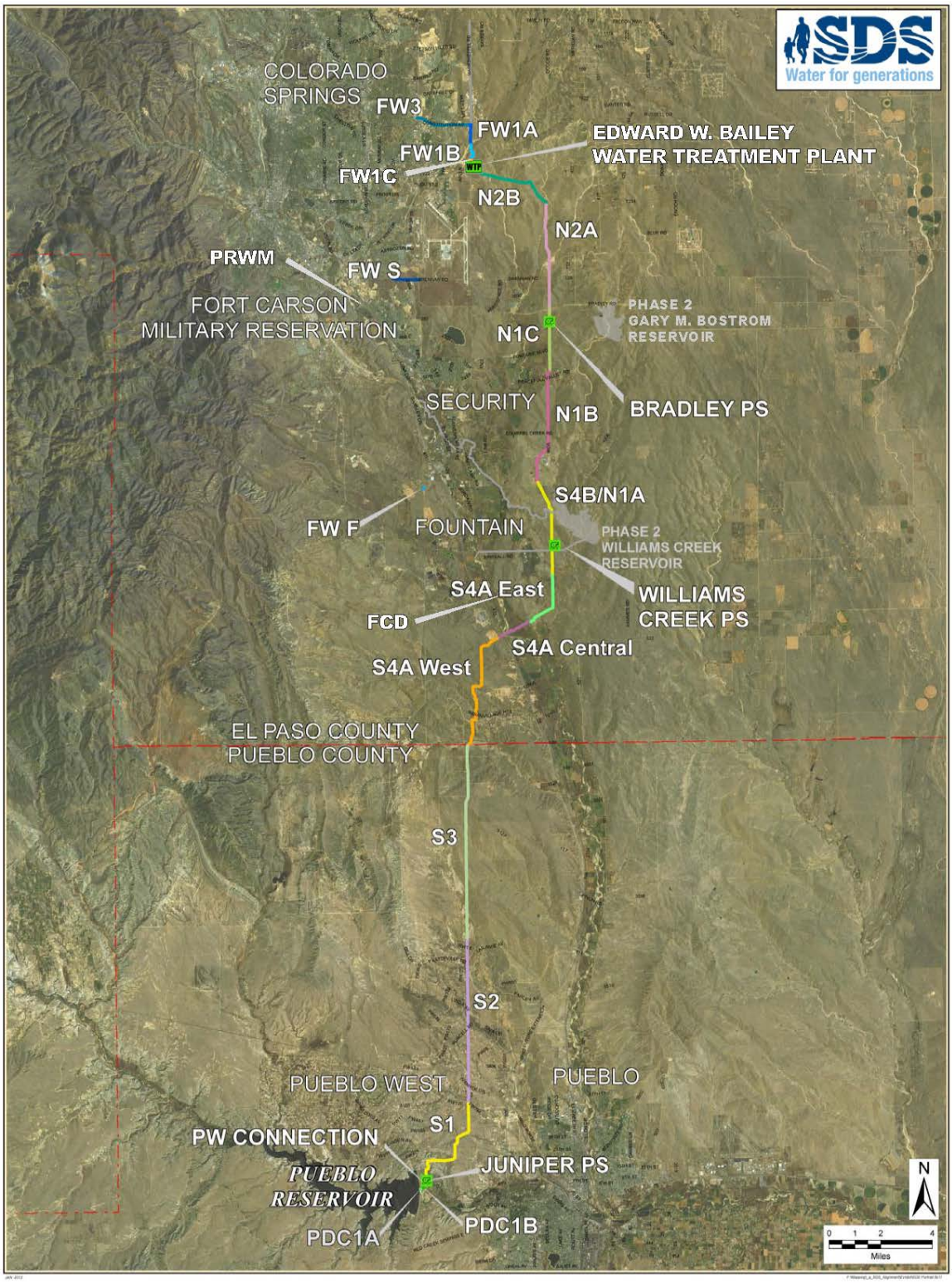
- 45 miles of raw water pipeline (66- and 72-inch diameter)
- Two 78-million-gallon-per-day (mgd) raw water pump stations and one 50-mgd raw water pump station (expandable in Phase 2)
- A water treatment plant, the Edward W. Bailey Water Treatment Plant (Bailey WTP) with a capacity of 50 mgd (expandable in Phase 2)
- Approximately seven miles of finished water pipelines up to 54 inches in diameter

Phase 2 of SDS includes the following:

- A 30,500 acre-feet terminal storage reservoir on upper Williams Creek, Gary M. Bostrom Reservoir
- Expansion of the 50-mgd raw water pump stations and Bailey WTP to 100-mgd capacity
- Expansion of the treated water delivery system
- A 28,000 acre-feet exchange storage reservoir on Williams Creek, Williams Creek Reservoir, and conveyance facilities to transfer water to and from Fountain Creek for exchange operations

SDS has been broken down into various work packages. The work packages and the facilities identified above are shown on Figure 1.

FIGURE 1. SOUTHERN DELIVERY SYSTEM WORK PACKAGES AND FACILITIES



1.3 SDS Participant Information

Contact details for the SDS Participants and their authorized agent are as follows.

1.3.1 SDS Participants

Colorado Springs Utilities
(Authorized agent acting on behalf of Participants)

Contact: Joseph Rasmussen, Senior Project Manager
Leon Young Service Center
1521 South Hancock Expressway
P.O. Box 1103, MC 1821
Colorado Springs, CO 80947-1821
Phone: (719) 668-4173; Fax: (719) 668-5651
E-mail: jrasmussen@csu.org

Security Water District (Participant)

Contact: Roy Heald, District Manager
231 Security Blvd.
Security, CO 80911
Phone: (719) 392-3475; Fax: (719) 390-7252
E-mail: r.heald@securitywsd.com

City of Fountain (Participant)

Contact: Curtis Mitchell, Director of Utilities
116 S. Main St.
Fountain, CO 80817
Phone: (719) 322-2040; Fax: (719) 322-2011
E-mail: cmitchell@fountaincolorado.org

Pueblo West Metropolitan District (Participant)

Contact: Jim Blasing, Utilities Director
20 West Palmer Lake Drive
Pueblo West, CO 81007
Phone: (719) 547-5047; Fax: (719) 547-0719
E-mail: jblasing@pwmd-co.us

1.4 Southern Delivery System Project Regulatory Review Process

SDS has undergone, and continues to undergo, significant regulatory oversight at the federal, state, and local levels. At the federal level, Reclamation has performed extensive and detailed environmental studies as a part of the National Environmental Policy Act (NEPA) process, the culmination of which was a Final Environmental Impact Statement (FEIS) and issuance of a ROD.

The ROD for SDS was issued on March 20, 2009. It identified SDS, as shown on Figure 1, as the Preferred Alternative. SDS has been determined to cause "the least damage to the biological and physical environment" (Reclamation 2009). The ROD included extensive commitments by the SDS Participants to significant, long-term mitigation measures.

Because SDS crosses wetlands and other waters of the United States, it required a permit from the USACE under the dredge and fill material permit program established under Section 404 of the federal Clean Water Act. A Section 404 Permit was received for SDS on April 26, 2010. Colorado Springs Utilities has developed new wetlands as compensatory mitigation under the Section 404 Permit, and provided copies of the mitigation plans to the Fountain Creek Watershed, Flood Control, and Greenway District for review. The jurisdictional wetlands mitigation project was reviewed and approved by the USACE and Fountain Creek Watershed, Flood Control, and Greenway District prior to its construction in September 2011. On January 22, 2015, the USACE determined that the wetland mitigation project was established and complete.

At the state level, the SDS Section 404 Permit received a Certification under Section 401 of the Clean Water Act from the Colorado Department of Public Health and Environment (CDPHE) on April 23, 2010. In February 2011, the State Water Quality Control Commission denied a challenge to the CDPHE (Water Quality Control Division) certification and upheld the certification. In April 2012, the Pueblo County District Court determined that the Commission action was not supported by the administrative record and remanded the certification. In July 2013, the Colorado Court of Appeals ruled that the state Water Quality Control Commission's approval of the SDS certification was consistent with applicable laws and regulations and was supported by substantial evidence.

Colorado Parks and Wildlife (CPW) also reviewed SDS, and the SDS Fish and Wildlife Mitigation Plan (FWMP) was prepared collaboratively with CPW staff and approved by both the Colorado Wildlife Commission (CWC) and the Colorado Water Conservation Board (CWCB) (Colorado Springs Utilities, City of Fountain, Security Water District, Pueblo West Metropolitan District, and Colorado Division of Wildlife 2010). A Memorandum of Agreement implementing the FWMP was executed with the CPW on May 18, 2010.

At the county, regional, and city levels, SDS is subject to a variety of regulatory reviews and associated mitigation requirements, including the following:

- Pueblo County 1041 Permit (No. 2008-002),
- El Paso County Approval of Location, Site Development Plan, and 1041 Permit processes, and
- Land use approval by the Fountain Creek Watershed, Flood Control, and Greenway District (District).

Collectively, these permit conditions include comprehensive and extensive mitigation requirements, which are detailed in the respective resolutions of approval.

2.0 Listing of Permit Compliance Reporting Requirements for SDS

A detailed and specific listing of the permit compliance reporting requirements for SDS for the six programmatic permits and approvals received for SDS that have annual reporting requirements is provided in Attachment 1 – Annual Implementation Progress Matrix.

The Annual Implementation Progress Matrix contains:

- A listing of the environmental commitments for SDS with annual reporting requirements (columns 1 and 2).
- A description of SDS implementation progress towards compliance with each of the commitments (column 3).
- A field to show if additional documentation is included in an attachment to this report (column 4).
- Items that are specific to either construction or operations have been color coded.

Supporting documentation listed in column 4 is provided in the following attachments:

- Attachment 2 - Monthly Average Flow Data from United States Geological Survey (USGS) Gauge Station
- Attachment 3 - Water Quality Monitoring Data
- Attachment 4 - Complaint Log
- Attachment 5 - Emergency Response Log
- Attachment 6 - Log of Work Occurring During Non-Typical Work Hours
- Attachment 7 - Expenditures for Wastewater System Improvements
- Attachment 8 - Summary of Storage, Diversion, Delivery of Water in Pueblo County
- Attachment 9 - Summary of Participants' Return Flows to Fountain Creek Including Storage and Releases of Such Return Flows
- Attachment 10 - Summaries of Exchanges by Participants between Pueblo Reservoir and the Fountain Creek Confluence
- Attachment 11 – Pueblo Flow Management Program
- Attachment 12 – Geomorphology Monitoring

3.0 Summary of SDS Activities Undertaken During the Reporting Period

SDS Work Package Activities

A number of actions have been taken during this reporting period related to the construction of SDS. Some of the key activities during this reporting period include the following:

FW1C Pipeline

Construction activities on the FW1C Pipeline were completed in 2015, while vegetation restoration and maintenance activities were completed in 2019. Activities in 2019 included vegetation maintenance and noxious weed mitigation. This is the last report that information will be included for this work package. The location of the FW1C Pipeline is shown on Figure 1.

Edward W. Bailey Water Treatment Plant (Bailey WTP)

Construction of the Bailey WTP was completed in 2016, while vegetation restoration and maintenance activities were completed in 2019. Activities in 2019 included vegetation maintenance, maintenance of BMPs and noxious weed mitigation. This is the last report that information will be included for this work package. The location of the Bailey WTP is shown on Figure 1.

Raw Water Pump Stations (RWPSs)

Construction of the three RWPSs, Bradley Pump Station (BPS), Williams Creek Pump Station (WCPS) and Juniper Pump Station (JPS), was completed in 2016. Vegetation restoration and maintenance activities at all three pump stations were completed in 2019. Activities in 2019 included maintenance of BMPs, vegetation maintenance, and noxious weed mitigation. This is the last report that information will be included for this work package. The locations of the three RWPS are shown on Figure 1.

Gary M. Bostrom Reservoir

30% design for the Gary M. Bostrom Reservoir was completed in 2016. No activities occurred in 2019. The location of the Gary M. Bostrom Reservoir is shown on Figure 1.

Pinello Ranch Wetland Mitigation (PRWM) Project

Construction of the PRWM project commenced in November 2016, while construction and planting activities were completed in 2017. Activities in 2019 at the PRWM site included vegetation maintenance and noxious weed mitigation. The PRWM project will be used to mitigate a portion of the 12.0 acres of non-jurisdictional wetlands that will be permanently impacted as a result of SDS current and future activities. The location of PRWM is shown on Figure 1.

Fountain Creek Diversion (FCD) Project

Construction of the FCD was completed in 2017. Activities in 2019 included vegetation maintenance and noxious weed mitigation. The location of FCD is shown on Figure 1.

Additional SDS Activities

In addition to the milestones listed above, Colorado Springs Utilities engaged in the following initiatives of note during the reporting period:

- Pueblo County SDS 1041 Permit Condition 6 (Monetary Mitigation for Fountain Creek Impacts) – In accordance with Condition 6 of the SDS 1041 Permit and 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), a check dated January 10, 2019 in the amount of $10,564,361.00 payable to the Fountain Creek Watershed Water Activity Enterprise was delivered by Colorado Springs Utilities to the Fountain Creek Watershed Flood Control and Greenway District Executive Director on January 15, 2019. Additional details are included in Attachment 1.

  As outlined in Resolution No. P&D 14-15 and the associated attachment, "*On or before March 31 of each year, CSU staff shall meet with Pueblo County Staff for purposes of confirming the PPIs for each of the November to November twelve month periods used in the calculation and reaching agreement upon the index-based amount to be paid by CSU utilizing the calculation methodology (described)….*" This meeting was postponed until April 2019 when the originally reported "Preliminary" November 2018 Producer Price Index (PPI) for Finished Goods (WPUFD49207) value of 203.7 was updated to a "Finalized" published value of 204.4 (0.7 points greater than the original published "Preliminary" value).

  Based on the increase in the index value, it was calculated that the Total Annual Payment Amount with Indexing for the 2019 payment to the FCWFCGD should have been $10,600,664, which resulted in an underpayment of $36,303 in the January 10, 2019 disbursement as it relates to interest payments associated with Condition 6 of the SDS 1041 Permit. Both Pueblo County and Utilities agreed that the $36,303 underpayment would be added to the January 2020 SDS Condition 6 payment.

- SDS entities complied with the terms of the Pueblo Flow Management Program. Colorado Springs Utilities exchanges were curtailed to meet the recreational flow targets during the months of October, November and December 2018 and January, February, March, April and May 2019. No other SDS entities were exchanging during this period.

Other Activities

- Stormwater – the City of Colorado Springs, Colorado Springs Utilities, and the County of Pueblo entered into an Intergovernmental Agreement (IGA) on April 27, 2016 related to stormwater management activities. The IGA annual report of final expenditures for the 2018 calendar year was submitted on June 26, 2019. This report is submitted to Pueblo County separately, and is not be submitted as part of this annual report.

4.0 Future SDS Activities

Anticipated activities for 2020 include:

- Continued land acquisition for SDS Phase II
- Cultural Resource Mitigation for SDS Phase II
- Permitting activities related to SDS Phase II
- Compliance monitoring for operational activities

5.0 References

Bureau of Reclamation. 2008. Southern Delivery System Final Environmental Impact Statement. December.

Bureau of Reclamation. 2009. Record of Decision for the Southern Delivery System Project Final Environmental Impact Statement. Record of Decision Reference No. GP-2009-01. Colorado Department of Public Health and Environment. 2010. Section 401 Water Quality Certification; Colorado 401 Certification No.: 4224; U.S. COE 404 Permit No.: SPA-1995-00131-SCO; Description: Southern Delivery System; Location: El Paso and Pueblo Counties; Watercourse: Arkansas River, Fountain Creek and tributaries; Designation: Reviewable (MA01, MA02, MA03, FO02a, FO02b); Use Protected: (FO04, LA01a, LA01b). April 23

Colorado Springs Utilities, City of Fountain, Security Water District, Pueblo West Metropolitan District, and Colorado Division of Wildlife. 2010. Southern Delivery System Fish and Wildlife Mitigation Plan. March 11.

El Paso County. 2010a. Planning Commission Resolution U-09-002. For the Approval of Location of the Southern Delivery System Raw Water Pipeline within the A-5 (Agricultural), PUD (Planned Unit Development), RR – 2.5 (Rural Residential) and RR-5 (Residential Rural) Zone District. March 2. Amended by Resolution U-12-001, October 18, 2012

El Paso County. 2010b. Planning Commission Resolution U-09-003. For the Approval of Location of the Southern Delivery System Finished Water Pipeline within the PUD (Planned Unit Development) Zone District. March 2. Amended by Resolution U-12-003, October 18, 2012.

El Paso County. 2010c. Planning Commission Resolution U-09-004. For the Approval of Location of the Southern Delivery System Bradley Pump Station within the RR-5 (Residential Rural) Zone District. March 16.

El Paso County. 2010d. Planning Commission Resolution U-09-005. For the Approval of Location of the Upper Williams Creek Reservoir within the RR-5 (Residential Rural) Zone District. March 16. Amended by Resolution U-12-002, October 18, 2012.

El Paso County. 2010e. Planning Commission Resolution U-09-007. For the Approval of Location of the Exchange Flow System within the RR-5 (Residential Rural) Zone District. March 16. Amended by Resolution U-12-004, October 18, 2012.

El Paso County. 2014a. Development Services Department, File No. AASI-13-002, Southern Delivery System Finished Water Section 1C. Administratively Approved Permit Issued to Conduct a Designated Activity of State Interest or to Engage in Development in a Designed Area of State Interest in El Paso County, Colorado. January 2.

El Paso County. 2014b. Development Services Department, File No. AASI-13-005, Southern Delivery System Finished Water Section 3. Administratively Approved Permit Issued to Conduct a Designated Activity of State Interest or to Engage in Development in a Designed Area of State Interest in El Paso County, Colorado. January 29.

El Paso County. 2014c. Development Services Department, File No. AASI-14-001, Southern Delivery System Raw Water Pipeline Section S4AC. Administratively Approved Permit Issued to Conduct a Designated Activity of State Interest or to Engage in Development in a Designed Area of State Interest in El Paso County, Colorado. February 18.

Fountain Creek Watershed, Flood Control, and Greenway District. 2010. Board of Directors Resolution 2010-01 – Land Use. A Resolution recommending that the El Paso County Planning Commission approve applications by Colorado Springs Utilities and on behalf of the Project Participants for location approvals for the Southern Delivery System located within the Fountain Creek Watershed Management Area and approving those portions of the Southern Delivery System located within the Fountain Creek Corridor. February 26.

Pueblo County. 2009. 1041 Permit No. 2008-002. The Board of County Commissioners of Pueblo County Colorado; A Resolution Approving 1041 Permit No.2008-002 With Terms and Conditions for Construction and Use of a Municipal Water Project Known as the Southern Delivery System within Pueblo County, Colorado. April 21.

State of Colorado. 2010. Memorandum of Agreement by and between the State of Colorado, acting by and through the Department of Natural Resources, for the use and benefit of the Division of Wildlife and Colorado Springs Utilities, acting as the Project Manager for the Southern Delivery System. May 18.

U.S. Army Corps of Engineers. 2010. Department of the Army Permit; Permittee: Colorado Springs Utilities; Permit No. SPA-2005-00131-SCO; Issuing Office: Albuquerque District, U.S. Army Corps of Engineers. April 26.

ATTACHMENT 1

Implementation Progress Matrix

ATTACHMENT 1

Annual Implementation Progress Matrix

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
Bureau of Reclamation - Record of Decision			
Environmental Commitments			
p. 11, ¶1	Such contracts will, at a minimum, include a requirement for the SDS Participants to submit to Reclamation an annual compliance report that certifies progress in successfully implementing these commitments in a timely manner as prescribed in this ROD and any contracts.	This Permit Compliance Annual Report is being prepared to demonstrate the progress in successfully implementing the commitments as prescribed in the ROD and the annual reporting requirements found in the other programmatic permits and approvals including: the Pueblo County 1041 Permit, the El Paso County Location Approvals, El Paso County 1041 Permits, the CDPHE 401 Water Quality Certification and the Fountain Creek Watershed, Flood Control and Greenway District approval.	No
Participants' Commitments: General Commitments			
p. 12, Bullet 1	Comply with all applicable permits, regulations, and laws including but not limited to CDPHE, USCOE 404, and local land use permits obtained for the SDS Project.	Compliance with permit and regulatory requirements is being tracked through the implementation of an Environmental Management System (EMS). In addition, the construction contract documents for each of the work packages include permit and regulatory compliance requirements. The EMS ensures that all applicable actions necessary for compliance are taken in a timely manner.	No
p. 12, Bullet 2	Construct and operate the SDS Project in a manner that does not differ substantially from that evaluated in this FEIS, except under emergency conditions, and unless additional and appropriate environmental investigations are completed by Reclamation and approval is then given to Participants to alter construction or operation of the SDS Project.	The SDS Participants constructed and will operate the preferred alternative that was identified in the FEIS in a manner that does not differ substantially from that evaluated in the FEIS.	No
Participants' Commitments: Surface Water			
p. 12, Bullet 1	Comply with the Upper Arkansas Voluntary Flow Management Program except during emergency conditions as defined in Section 2.b. of the Memorandum Of Understanding for Settlement of Case No. 04CW129, Water Division 2 (Chaffee County Recreation In-Channel Diversion).	The SDS Participants complied with the Upper Arkansas Voluntary Flow Management Program.	No
p. 13, Bullet 2	Comply with the Pueblo Flow Management Program pursuant to existing intergovernmental agreements. If Reclamation and the Participants receive credible information that project operations are impairing physical diversion of a senior water right, contrary to Colorado water law, the Participants will immediately initiate discussions among the parties, including the party alleging the impairment of Reclamation, to develop a solution and remedy the impairment in compliance with Colorado water law.	SDS Participants complied with the Pueblo Flow Management Program and details are shown in Attachments 8-11.	Attachments 8 through 11.

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
p. 13, Bullet 3	Participants will consult with Reclamation each year on the average annual flow in Fountain Creek. If the average annual stream flow of Fountain Creek as measured at Pueblo (USGS gauge station number 07106500) exceeds the scope and range of the flow estimated and analyzed in the Final Environmental Impact Statement (see Table 33 of the FEIS), then Participants will coordinate with Reclamation, within their adaptive management plan, to evaluate the cause(s) for the change in flows and determine whether appropriate response actions, such as monitoring and/or mitigation measures, are warranted. Each year, Participants will report to Reclamation the average annual flow in Fountain Creek at Pueblo together with other relevant data.	The average annual flow during this reporting period in Fountain Creek as measured at USGS gauge station number 07106500 was approximately 136.0 cubic feet per second (cfs). Table 33 of the FEIS reported the average annual simulated streamflow at this location under existing conditions as 188 cfs and under the preferred alternative (Alt 2) as 253 cfs. Flows did not exceed the scope and range identified in the FEIS. See Attachment 2 for the monthly average flow data from USGS Gauge Station Number 07106500.	Attachment 2 - Monthly Average Flow Data from USGS Gauge Station Number 07106500
p. 13, ¶1	Surface water mitigation measures will resolve adverse effects to physical diversions of senior water rights.	The SDS Participants are implementing the surface water mitigation measures per the Upper Arkansas Voluntary Flow Management Program and the Pueblo Flow Management Program.	No
Participants' Commitments: Water Quality			
p. 13, Bullet 1	Include water quality monitoring and adaptive management within the integrated adaptive management program (see Participants' General Commitments).	The Monitoring Plan has been completed and was submitted to the Bureau of Reclamation on March 18, 2011.	No
p. 13, Bullet 2	Begin implementing water quality monitoring when construction of the project begins. This will allow about three years of baseline data to be collected before project operations begin.	A Joint Funding Agreement was executed with the U.S. Geological Survey (USGS) on the water quality monitoring program. Water quality monitoring began in January, 2011.	Attachment 3 - Water Quality Monitoring Data
p. 13, Bullet 3	Submit water quality monitoring data, including trend analyses, for the preceding calendar year to Reclamation by January 31st of the subsequent year.	A Joint Funding Agreement was executed with the U.S. Geological Survey (USGS) on the water quality monitoring program. Water quality monitoring began in January, 2011. See Attachment 3 for the water quality monitoring data. USGS reports data on a water year basis (October-September). The annual report will present data based on that reporting period. Trend analysis is not included in this report because Section 14.0 of the IAMP submitted to Reclamation indicates periodic reviews are to begin a minimum of 10 years following the initiation of the SDS Project operations. SDS began operation in April 2016, so trend analysis will not begin until the 2026 reporting year.	Attachment 3 - Water Quality Monitoring Data
p. 13, Bullet 4	If the Colorado Department of Public Health and Environment (CDPHE) determines that operation of the SDS Project is causing significant adverse water quality effects, the Participants will coordinate with Reclamation, CDPHE, and other interested parties to evaluate and select measures to mitigate adverse effects.	CDPHE has not indicated that any adverse water quality effects have occurred due to the operation of SDS.	No

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
p. 13, Bullet 5	In the event that operation of the SDS Project causes, or threatens to cause, stream flows in the Arkansas River or other waterways to diminish to low levels that will contribute significantly to elevated concentrations/densities of dissolved selenium, *E. coli*, or sulfate, the Participants will coordinate with Reclamation, CDPHE, CDOW, and other interested parties to evaluate and select measures to mitigate adverse effects.	The SDS Project has not caused or threatened to cause stream flows to diminish to such low levels.	No
p. 13, ¶1	Development and implementation of a water quality monitoring and adaptive management plan will provide a means of detecting changes in water quality, judging whether they are likely caused by operation of the SDS Project, and addressing actual effects in a systematic manner. Additionally, implementation of the geomorphology mitigation measures (below) will reduce suspended sediment and total recoverable iron concentrations in Fountain Creek and the lower Arkansas River.	The Monitoring Plan, Geomorphic Mitigation Plan and IAMP have been completed. These plans were submitted to the Bureau of Reclamation in March 2011. The plans will be implemented during the operation of the SDS project in accordance with this commitment.	No
Participants' Commitments: Geomorphology			
p. 14, Bullet 3	Design and construct an energy dissipation structure that will protect against erosion at the outlet of the pipeline from Williams Creek Reservoir to Fountain Creek.	An energy dissipation structure at the pipe outlet will be incorporated in the final design of the Williams Creek Reservoir project.	No
p. 14, Bullet 4	Evaluate and implement appropriate future geomorphic stabilization projects, if such future projects are determined to be necessary after the project is operational.	The Geomorphic Mitigation Plan provides a means for evaluating geomorphic impacts and determining the need for stabilization projects. No need has been identified during the reporting period.	No
p. 14, ¶1	When implemented, these recommendations will mitigate potential adverse effects on geomorphology by avoiding or minimizing effects of return flow discharges through an energy dissipation structure, compensating for anticipated effects, and responding to effects identified after project operations begin.	This requirement is a summary statement of the specific water quality commitments described in the above listed bullets of this section. A Geomorphic Mitigation Plan has been completed and will be implemented during the construction and operation of SDS in accordance with this commitment.	No
Participants' Commitments: Aquatic Life			
p. 15, Bullet 2	In the event that the operation of the SDS Project causes, or threatens to cause, stream flows in Fountain Creek or the Arkansas River to diminish to low levels that could contribute significantly to impairment of aquatic life, coordinate with Reclamation, CDPHE, CDOW and other interested parties to evaluate and select measures to mitigate adverse effects.	The SDS Project has not caused or threatened to cause stream flows to diminish to low levels.	No
p. 15, Bullet 4	Monitor the effects of the operation of the SDS Project upon aquatic life in Fountain Creek and the Arkansas River between Pueblo Dam and the Las Animas Gage. Aquatic sampling will be conducted once per year at up to 10 locations. Monitoring methods and locations will be identified in the proposed wildlife mitigation plan that will be submitted to the Colorado Wildlife Commission pursuant to C.R.S. 37-60-122.2. Use the information from this monitoring in the adaptive management program for the SDS Project.	Aquatic sampling was performed per the Wildlife Mitigation Plan. There is no indication of adverse impacts to date as a consequence of the limited project operation.	No

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
p. 15, ¶1	When implemented, these recommendations will mitigate potential adverse effects on aquatic life by avoiding or minimizing effects, compensating for anticipated effects, and detecting and responding to effects identified after project operations begin.	The SDS Participants have implemented the Fish & Wildlife Mitigation Plan as well as the agreements from the MOA with the Colorado Department of Natural Resources during the construction phase and will continue to do so during the operation of SDS.	No
Participants' Commitments: Wetlands, Waters, and Riparian Vegetation			
p. 16, Bullet 5	Control Tamarisk that may establish around newly constructed reservoirs.	This requirement is not applicable yet as no SDS reservoir construction has commenced during this reporting period.	No
Participants' Commitments: Vegetation			
p. 17, Bullet 8	Monitor construction areas for 3 years after construction to assess if noxious weeds have invaded the site. If noxious weeds are present, weed control plans will be formulated and completed.	As part of the pre-construction vegetation surveys completed for each work package, a noxious weed survey was conducted. The noxious weed survey includes recommended weed control methods. This information was incorporated into the contract documents. Monitoring of construction areas will continue for three years after construction to ensure that any necessary weed control is performed. In 2019, applicable work packages were monitored for noxious weeds, control plans were followed and observed noxious weeds were treated consistent with these plans.	No
p. 17, Bullet 9	Because the project may indirectly increase the spread of tamarisk, the Participants will work with the Colorado Department of Agriculture's Colorado Noxious Weed Management Team on tamarisk issues in the Arkansas Valley including submitting a request for partnership evaluation.	The Fish and Wildlife Mitigation Plan has identified the inlet area at the Pueblo Reservoir as an area of specific interest and identified the Colorado Department of Agriculture's Colorado Noxious Weed Management group as a consulting agency. Appropriate coordination will continue to occur.	No
p. 17, ¶1	Impacts to plant species and communities of concern and other sensitive vegetation areas can be avoided and minimized during final design and implementation. Because mitigation measures such as transplanting of individuals are often unsuccessful, avoidance and minimization will ensure survival, especially of plant species of concern. Seeding disturbed areas, replacing mature trees, and controlling noxious weeds will replace existing vegetation types and structural diversity and will ensure that high quality habitat remained.	As described in the previous responses of this section, numerous measures were implemented to minimize potential impacts to plant species and communities of concern and other sensitive vegetation areas. No concerns have been identified to date for this item or the previous items of this section.	No
Participants' Commitments: Visual Resources			
p. 20, Bullet 1	Vegetate earthen dam faces with native herbaceous plants to match the adjacent undisturbed prairie plant communities.	This requirement is not applicable yet as the final design of the Gary M. Bostrom Reservoir and Williams Creek Reservoir did not begin during this reporting period.	No
El Paso County - Location Approvals			
El Paso County - Location Approvals did not contain operational requirements.			

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
El Paso County - 1041 Permits			
El Paso County - 1041 Permits did not contain operational requirements.			
Pueblo County - 1041 permit			
7. Expenditures for Wastewater System Improvements, p. 12	In order to continue its efforts to protect against future spills to Fountain Creek, to increase its opportunities for reuse, and to mitigate possible water quality impacts by the SDS Project to Fountain Creek, Colorado Springs Utilities shall commit to invest an additional $75,000,000 in its wastewater system. Expenditures will be made as part of the wastewater collection system rehabilitation programs or wastewater reuse systems between January 1, 2009 and December 31, 2024 as required. These expenditures shall be for projects not currently required by other regulatory permits, agency enforcement or court orders, consent agreements, or governmental regulations existing as of January 30, 2009. These expenditures will include the Local Collector Evaluation and Rehabilitation Program (LCERP) for the improvement and fortification of wastewater lines which could adversely affect Fountain Creek or its tributaries. These expenditures are subject to annual appropriation by the Colorado Springs City Council. Beginning in 2010, by January 31 of each year, Colorado Springs Utilities shall provide an annual report to Pueblo County describing such expenditures for the prior year.	Colorado Springs Utilities submitted a wastewater expenditures report documenting 2009 expenditures to Pueblo County on January 29, 2010. The report for 2010 was submitted to Pueblo County on January 31, 2011. The report for 2011 was submitted to Pueblo County on January 26, 2012. The report for 2012 was submitted to Pueblo County on January 31, 2013. The report for 2013 was submitted to Pueblo County on January 31, 2014. The report for 2014 was submitted to Pueblo County on January 28, 2015. The report for 2015 was submitted to Pueblo County on January 16, 2016. The report for 2016 was submitted to Pueblo County on January 31, 2017. The report for 2017 was submitted to Pueblo County on January 29, 2018. The report for 2018 was submitted to Pueblo County on January 31, 2019. The report for 2019 is being prepared and will be submitted to Pueblo County with this Annual Report on or before January 31, 2020.	Attachment 7 - Expenditures for Wastewater System Improvements Annual Report
Mitigation Appendix ENF-1, Project Detail, Item 2, p. 23 of 28	2. Submit an annual report to Pueblo County that will provide a summary of activities related to the SDS Project and the Conditions of the Permit. These reports will be due annually on or before January 31, beginning the year following commencement of water deliveries through the SDS pipeline. The reports shall include a signed certification of compliance with the Permit. Contents of the report will include, but will not be necessarily limited to:	This report will satisfy the requirement for the annual report following delivery of water through the SDS pipeline.	
	a. Summary of storage, diversion, delivery of water in Pueblo County.	Summary data from the project Particiapants related to the SDS Project is located in Attachment 8.	Attachment 8 - Summary of Storage, Diversion, Delivery of Water in Pueblo County related to the SDS Project

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
	b. Summary of Participants' return flows to Fountain Creek including storage and releases of such return flows (maximum daily flows, average annual and monthly flows and amounts).	Summary data from the project Particiapants in located in Attachment 9.	Attachment 9 - Summary of Participants' SDS Return Flows to Fountain Creek Including Storage and Releases of Such Return Flows
	c. Summaries of exchanges by Participants between Pueblo Reservoir and the Fountain Creek confluence (monthly and annual rates of flow and quantities).	Summary data from the project Particiapants in located in Attachment 10.	Attachment 10 - Summaries of Exchanges by Participants between Pueblo Reservoir and the Fountain Creek Confluence
	d. Use of any new water rights to be delivered or stored through SDS (amount, time, source).	There were no new water rights to be delivered or stored through SDS during the reporting period.	No
	e. Water quality monitoring.	A Joint Funding Agreement was executed with the U.S. Geological Survey (USGS) on the water quality monitoring program. Water quality monitoring began in January, 2011. See Attachment 3 for the water quality monitoring data. Colorado Springs Utilities continues to use effluent monitoring data from its Water Resource Recovery Facilities (WRRFs) to demonstrate the plants are operating in accordance with the specifications and standards associated with permits for its WRRFs. There were no violations of permit effluent limits during the reporting period.	Attachment 3 - Water Quality Monitoring Data
	f. Geomorphology monitoring.	Geomorphic monitoring data has been collected under an existing program led by the USGS in partnership with Colorado Springs Utilities and the City of Colorado Springs Engineering Department. Ten cross sections established at designated points along Fountain Creek are monitored for degradation, aggradation, and other changes to the geomorphic surface. Each cross section is surveyed once per year during low stream flow; preferably in the winter when leaves and other organic material on the ground is at a minimum. Survey data from 2015 has been provided as pre-SDS operations baseline conditions along with survey data from the reporting period (2019) for comparative purposes.	Attachment 12 - Geomorphology Monitoring

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
	g. Status of adaptive management plans on Fountain Creek.	The Monitoring Plan and Integrated Adaptive Management Plan were submitted to the Bureau of Reclamation on March 18, 2011 and acknowledged by Reclamation on March 24, 2011. The Geomorphic Mitigation Plan was submitted to Reclamation on March 15, 2011 and approved on April 26, 2011. Colorado Springs Utilities participates in a Joint Funding Agreement with the USGS regarding implementation of the Monitoring Plan.	No
	h. Status of payments into the Fountain Creek monetary mitigation fund.	A check dated January 10, 2019 in the amount of $10,564,361.00 payable to the Fountain Creek Watershed Water Activity Enterprise was delivered by Utilities to the Fountain Creek Watershed, Flood Control and Greenway District (FCWFCGD) Executive Director on January 15, 2019. The payment was made in accordance with Condition 6 of the Southern Delivery System (SDS) 1041 Permit and as outlined in Pueblo County Resolution No. P&D 14-15 (confirming the commencement date for the annual indexing and approving the annual indexing methodology for purposes of calculating monetary mitigation). As outlined in Resolution No. P&D 14-15 and the associated attachment, Utilities and Pueblo County staff met in April when the originally reported "Preliminary" November 2018 Producer Price Index (PPI) for Finished Goods (WPUFD49207) value of 203.7 was updated to a "Finalized" published value of 204.4 (0.7 points greater than the original published "Preliminary" value). Based on the increase in the index value, it was calculated that the Total Annual Payment Amount with Indexing for the 2019 payment to the FCWFCGD should have been $10,600,664, which resulted in an underpayment of $36,303 in the January disbursement as it relates to interest payments associated with Condition 6 of the SDS 1041 Permit. Both Pueblo County and Utilities agreed that the $36,303 underpayment would be added to the January 2020 SDS Condition 6 payment.	No
	i. Status of expenditures for wastewater system improvements for Participants (and third party users in the Fountain Creek basin) per Permit Conditions.	Summary data are in located in Attachment 7.	Attachment 7 - Expenditures for Wastewater System Improvements

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
	j. Reports on the operation of the Pueblo Flow Management Program and the Low Flow Program (rates, and quantities, and times of foregone exchanges, releases, and reception documentation).	A Memorandum of Understanding (MOU) was executed between the Pueblo Board of Water Works and Colorado Springs Utilities on April 17, 2009 that provides the terms and conditions under which each of the entities will contribute to and assist in the maintenance of a storage pool in Pueblo Reservoir. SDS entities complied with the terms of the Pueblo Flow Management Program. Colorado Springs Utilities exchanges were curtailed to meet the recreational flow targets during the months of October, November and December 2018 and January, February, March, April and May 2019. No other SDS entities were exchanging during this period.	Attachment 11
	k. Status of lake level management cooperative efforts with other entities at Pueblo Reservoir.	Colorado Springs Utilities remains committed to participate in the development of a reservoir management plan for Pueblo Reservoir at such time as the Bureau of Reclamation and the Southeastern Colorado Water Conservancy District decide to proceed forward.	No
	l. Status of conservation and local reuse.	Colorado Springs Utilities, on behalf of the SDS Participants, remains committed to incorporating conservation and local reuse as important aspects of its water management plan. Colorado Springs Utilities prepared the 2015 Water Use Efficiency Plan which identifies and reports on conservation measures. Colorado Springs Utilities incorporated the 2015 Water Use Efficiency Plan into its updated Integrated Water Resources Plan. As part of this implementation, Colorado Springs Utilities recently modified its Water Shortage Ordinance to only allow outdoor watering three (3) days per week. In 2018, both the City of Fountain and the Security Water District updated their respective water conservation/efficiency plans. Pueblo West Metropolitan District implemented its Water Conservation Plan in 2013, which was also incorporated into its 2017 Water Master Plan.	No
	m. Payments to Pueblo County in lieu of property taxes.	The payment in-lieu of property tax for 2016 for the properties acquired in Pueblo County was made on April 25, 2016.The payment in-lieu of property tax for 2017 for the properties acquired in Pueblo County was made on April 13, 2017. The payment in-lieu of property tax for 2018 for the properties acquired in Pueblo County was made on April 23, 2018. The payment in-lieu of property tax for 2019 for the properties acquired in Pueblo County was made on April 25, 2019.	No
	n. Copies of the annual reports on the SDS Project submitted to Reclamation.	This report will satisfy the requirement for the annual report following delivery of water through the SDS pipeline.	No

Reporting Requirements		CY2019 Annual Report Information	
Reference	**Permit or Approval Document Requirement**	**Implementation Progress**	**Attachment Provided**
CDPHE - 401 Water Quality Certification			
Certification Statement, Bullet 4, p. 6	All collected raw data and annual reports developed as a requirement of other agency conditions will be submitted to the Division at the same time they are submitted to the requiring regulatory agency. Data and reports will be submitted directly to the Environmental Data Unit in an electronic data format agreed to by the Division.	The SDS Permit Compliance Annual Report addresses the annual reporting requirements for all of the major programmatic permits. Pertinent raw data and reports are being submitted as part of this annual report, of which CDPHE is a recipient.	No
Fountain Creek WFCGD - Resolution 2010-01			
Technical Advisory Committee Condition 2, p. 3 (Also Citizen Advisory Committee Condition 2)	The Integrated Adaptive Management Plan (IAMP) shall be submitted to the District for review, and periodic reports on water quality and quantity shall be provided to the District. The Integrated Adaptive Management Plan (IAMP) will include how mitigation will be performed in case there are problems that were not anticipated during the project. This will include means and methods to address impacts from the project and specific triggers to initiate the process. Once the IAMP is finalized there will be an opportunity for comment.	The IAMP has been completed and was submitted to the Bureau of Reclamation on March 18, 2011. The IAMP has been provided to the District.	No

ATTACHMENT 2

Monthly Average Flow Data from USGS Gauge Station No. 07106500 Fountain Creek at Pueblo

The USGS provides data based on a water year (October through September).

ATTACHMENT 2

Monthly Average Flow Data

USGS Gauge Station No: 07106500

FOUNTAIN CREEK AT PUEBLO, CO
Pueblo County, Colorado
Hydrologic Unit Code 11020003
Latitude 38°17'16", Longitude 104°36'02" NAD27
Drainage area 925 square miles
Gage datum 4,705 feet above sea level NGVD29

00060, Discharge, cubic feet per second,														
YEAR	Monthly mean in cfs (Calculation Period: 2018-10-01 -> 2019-09-30) Period-of-record for statistical calculation restricted by user												Annual Average Flow	Long-Term Average Annual Simulated Streamflow
	2018			2019										
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Mean of Monthly Discharge	100	160	134	137	136	172	121	138	158	175	145	57	136	253

Notes:

1. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis/monthly) on November 12, 2019.
2. The annual average is computed from the monthly mean data published by the U.S. Geological Survey.
3. The long-term average annual simulated streamflow for the preferred alternative (Alt 2) was taken from Table 33 of the FEIS.

ATTACHMENT 3

Water Quality Monitoring Data

A Joint Funding Agreement was executed with the USGS to begin the water quality monitoring program in January 2011. Data are provisional until they go through the USGS quality assurance process. Cells shaded in blue represent data that exceed CDPHE Reg. 32 Water Quality standards for Middle Arkansas River Basin segment 3, Lower Arkansas River Basin segment 1a, and Fountain Creek Basin segments 1a, 2a, 2b, and 6.

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
	10-04-2018		610	9 S	8.8	8.3	381	10.8	4.9	< 0.02	440	6,900	0.16
	10-16-2018	B	--	11 S	--	--	353	2.4	--	--	290	> 2,400	--
	11-05-2018		603	15 S	9.7	8.1	286	6.1	5.9	< 0.02	26	> 2,400	0.12
	11-19-2018	B	--	13 S	--	--	309	1.5	--	--	90	2,000	--
	12-06-2018		609	14 S	11.6	7.9	331	0	6	< 0.02	770	> 2,400	0.15
	12-17-2018	B	--	15 S	--	--	297	2.9	--	--	67	> 2,400	--
	01-29-2019		607	18 S	11.2	8.2	320	0.1	21	< 0.02	100	1,100	0.18
	01-30-2019	B	--	18 S	--	--	317	0	--	--	60	820	--
	02-05-2019		599	12 S	10	8.4	336	3.9	4.7	< 0.02	250	1,300	0.18
	02-11-2019	B	--	13 S	--	--	327	0	--	--	310	980	--
	03-05-2019		612	11 S	11.6	8.3	381	0.1	55	< 0.02	270	2,400	0.19
	03-18-2019	B	--	16 S	--	--	366	1.1	--	--	100	820	--
SP #1	04-01-2019		608	14 S	10.2	8.3	356	5.2	5.7	< 0.02	50	1,000	0.21
FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO.	04-15-2019	B	--	19 S	--	--	292	4.7	--	--	260	1,400	--
USGS Site # 07103700	05-08-2019		604	18 S	9.5	8.3	281	8.2	13	< 0.02	--	--	0.2
	05-14-2019		--	24 S	--	--	284	11.2	--	--	330	> 2,400	--
	05-20-2019	B	--	16 S	--	--	294	6.6	--	--	650	> 2,400	--
	06-07-2019		608	22 S	8.6	8.2	289	11.5	8.2	< 0.02	370	> 2,400	0.14
	06-17-2019	B	--	28 S	--	--	266	13.1	--	--	280	3,400	--
	07-02-2019		610	18 S	8	8.1	255	15.1	130	< 0.02	360	4,600	0.12
	07-15-2019	B	--	29 S	--	--	225	15.9	--	--	320	6,000	--
	07-21-2019	J	616	61 S	7.4	8.2	164	18	1480	--	17,000	240,000	0.37
	08-09-2019		609	16 S	7.3	8.1	248	18.6	24	< 0.02	1,100	> 2,400	0.12
	08-19-2019	B	--	11 S	--	--	271	17.2	--	--	1,400	4,100	--
	09-06-2019		615	13 S	7.8	8.2	277	16.4	5.9	< 0.02 @c	1,600	> 2,400	0.14
	09-06-2019	J	614	38 S	7.4	8.1	238	17.6	330	--	14,000	> 24,000	0.33
	09-16-2019	B	--	10 S	--	--	292	14.8	--	--	550	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**6.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.6 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.
3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.
4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Apr - Oct = 23.9, Nov - Mar = 13.0. From 06/30/19 to 09/30/19, standards were: Apr - Oct = 24.3, Nov - Mar = 13.0

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #2 MONUMENT CREEK AT BIJOU ST. AT COLO. SPRINGS, CO USGS Site # 07104905	10-02-2018	B	612	24 S	7.6	8.5	643	19.9	6.7	0.03 n	410	13,000	2.4
	10-16-2018		--	27 S	--	--	747	6.2	--	--	390	> 2,400	--
	11-13-2018	B	618	47 S	9.2	8.3	1,300	10.4	30	< 0.02	1,200	> 2,400	2.5 d
	11-19-2018		--	30 S	--	--	1,100	6.3	--	--	160	> 2,400	--
	12-03-2018	B	610	34 S	10	8.3	704	5.8	16	0.04	140	> 2,400	2.6 d
	12-17-2018		--	34 S	--	--	560	8.1	--	--	130	> 2,400	--
	01-30-2019	B	--	17 S	--	--	1,170	2.7	--	--	66	820	--
	01-31-2019		610	29 S	9.4	8.5	876	8.6	7.3	0.03 n	88	1,300	3.9
	02-06-2019		600	19 S	10.5	8.4	924	3.6	6	0.03 n	110	1,200	4.5
	02-11-2019	B	--	26 S	--	--	686	8.1	--	--	69	> 2,400	--
	03-06-2019		608	33 S	9	8.4	1,290	10.7	18	0.1	440	> 2,400	3.3 d
	03-18-2019	B	--	45 S	--	--	1,060	3.2	--	--	55	> 2,400	--
	04-03-2019		608	51 S	9.4	8.5	669	11	33	< 0.02	61	1,400	2.1 d
	04-15-2019	B	--	59 S	--	--	677	10.3	--	--	49	2,000	--
	05-14-2019		613	46 S	7.6	8.4	591	18.9	12	0.32	34	1,400	2 d
	05-20-2019	B	--	30 S	--	--	734	9	--	--	130	2,000	--
	06-02-2019	J	612	320 S	7.6	8.2	352	16.1	450	--	5,800	> 24,000	1.7
	06-04-2019		612	91 S	7.5	8.3	546	16.9	73	0.04 n	550	> 2,400	1.9
	06-17-2019	B	--	51 S	--	--	643	18.4	--	--	3,400	> 24,000	--
	07-08-2019		612	72 S	6.7	8.2	523	22.4	35	0.61	1,100	> 24,000	1.6
	07-15-2019	B	--	39 S	--	--	692	25.6	--	--	420	8,700	--
	07-20-2019	J	615	1,360 S	7.5	8.3	150	17.9	620	--	20,000	> 240,000	0.79
	08-05-2019		616	27 S	6.6	8.4	686	25.6	9	0.07	140	9,200	2.4
	08-19-2019	B	--	24 S	--	--	653	25.1	--	--	130	4,600	--
	09-10-2019		612	41 S	6.9	8.4	650	22.3	18	< 0.02 @c	730	> 2,400	2.7
	09-16-2019	B	--	28 S	--	--	707	23.1	--	--	120	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.6 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.
3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.
4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #3 FOUNTAIN CREEK AT COLORADO SPRINGS, CO USGS Site # 07105500	10-03-2018	B	612	53	7.2	8.3	700	20.7	42	0.03 n	2,800	> 24,000	2.8
	10-16-2018		--	38	--	--	683	5.8	--	--	340	> 2,400	--
	11-13-2018	B	620	62	9.5	8.1	1,140	8.1	24	< 0.02	980	> 2,400	2.2 d
	11-19-2018		--	38	--	--	898	4.9	--	--	260	> 2,400	--
	12-03-2018	B	611	49	10.7	8.1	679	3.4	15	< 0.02	340	> 2,400	2.6
	12-17-2018		--	36 S	--	--	694	3.3	--	--	63	1,400	--
	01-30-2019	B	--	35 S	--	--	926	2.3	--	--	28	690	--
	01-31-2019		611	52 S	10.3	8.3	727	5.8	12	< 0.02	50	770	2.8
	02-06-2019		601	33 S	10.3	8.3	785	4.8	4.6	< 0.02	20	870	3.5
	02-11-2019	B	--	48 S	--	--	675	4.6	--	--	47	2,000	--
	03-06-2019		610	50 S	10.6	8.2	1,050	4.7	20	0.03 n	28	1,400	3 d
	03-18-2019	B	--	62 S	--	--	947	3.6	--	--	68	1,700	--
	04-03-2019		610	65 S	9.4	8.4	642	10.7	25	0.04 n	39	1,200	2.2
	04-15-2019	B	--	67 S	--	--	636	10.1	--	--	22	650	--
	05-14-2019		615	66 S	7.9	8.3	568	16.5	12	0.11	37	1,700	2.2
	05-20-2019	B	--	62 S	--	--	646	8.4	--	--	340	> 2,400	--
	06-04-2019		614	91 S	7.6	8.3	538	16.4	53	0.02 n	520	> 2,400	1.9
	06-17-2019	B	--	73 S	--	--	620	17.6	--	--	1,800	> 24,000	--
	07-08-2019		613	83 S	6.7	8.2	518	21.9	27	0.24	680	> 24,000	1.7
	07-15-2019	B	--	53 S	--	--	621	24.1	--	--	440	24,000	--
	07-20-2019	J	617	1,060 S	7.5	8.4	172	18.1	670	--	13,000	> 240,000	0.91
	08-05-2019		617	56 S	6.5	8.3	685	26.5	8.9	< 0.02	220	12,000	2.4
	08-08-2019	J	615	1,940 S	7.5	8.1	156	19	580	--	17,000	> 240,000	0.85
	08-19-2019	B	--	46 S	--	--	648	25	--	--	530	20,000	--
	09-11-2019		614	36 S	7.5	8.1	677	16.9	4.8	< 0.02 @c	820	> 2,400	2.5
	09-16-2019	B	--	36 S	--	--	721	22.4	--	--	170	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.
3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.
4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
	10-03-2018		613	66 S	8.1	8.2	776	18.6	4	1.23	310	9,200	2.9
	10-18-2018	B	--	72 S	--	--	746	12.4	--	--	280	> 2,400	--
	11-13-2018		621	119 S	8.7	8.1	1,040	11.4	19	< 0.02	770	> 2,400	2.8 d
	11-19-2018	B	--	101 S	--	--	858	12.3	--	--	120	> 2,400	--
	11-30-2018		--	111 S	--	--	765	11	--	--	220	> 2,400	--
	12-03-2018	B	613	101 S	9.5	7.9	771	9.5	8.7	0.03 n	180	2,000	3 d
	12-17-2018		--	101 S	--	--	783	11	--	--	240	1,400	--
	01-29-2019		614	95 S	9.6	8.2	982	9.5	12	0.02 n	160	1,600	3.7 d
	01-30-2019	B	--	88 S	--	--	928	10.5	--	--	130	> 2,400	--
	02-06-2019		604	85 S	9.3	8.2	814	10.5	6.2	< 0.02	91	> 2,400	3.5
	02-11-2019	B	--	92 S	--	--	780	9	--	--	180	> 2,400	--
	03-06-2019		612	90 S	9	8	1,120	9.7	8	0.28	160	2,400	3.7 d
SP #4	03-18-2019	B	--	116 S	--	--	876	9.3	--	--	84	1,700	--
FOUNTAIN CR BLW JANITELL RD BLW COLO. SPRINGS, CO	04-03-2019		611	106 S	9.6	8.4	736	13.1	14	< 0.02	150	1,400	3
USGS Site # 07105530	04-15-2019	B	--	106 S	--	--	699	13.4	--	--	61	2,000	--
	05-14-2019		616	92 S	8.3	8.3	664	18.4	8.9	0.09 d	48	2,400	2.5 d
	05-20-2019	B	--	106 S	--	--	672	11.3	--	--	> 2,400	> 2,400	--
	06-04-2019		616	130 S	7.8	8	616	17	33	0.05	240	1,000	2.2
	06-17-2019	B	--	119 S	--	--	671	17.6	--	--	370	20,000	--
	07-08-2019		614	106 S	6.8	8.1	587	23	18	0.1	570	> 24,000	1.7
	07-15-2019	B	--	92 S	--	--	671	23.4	--	--	1,000	17,000	--
	07-20-2019	J	618	984 S	7.5	8	322	18.1	370	--	13,000	240,000	1.4
	07-27-2019	J	618	479 S	7	7.8	357	21.4	380	--	9,100	140,000	1.6
	08-05-2019		619	87 S	6.6	8.2	732	25.1	6.9	0.04	520	17,000	2.6
	08-19-2019	B	--	101 S	--	--	680	24.5	--	--	260	5,800	--
	09-11-2019		615	57 S	7.2	8.1	714	20.9	6.2	0.05 @c	690	> 2,400	2.6
	09-16-2019	B	--	81 S	--	--	711	22.5	--	--	300	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.

2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.

3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.

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Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #5 FOUNTAIN CREEK AT SECURITY, CO USGS Site # 07105800	10-04-2018		620	66 S	8.3	8.6	833	17.9	7.3	0.25	170	3,900	3.5
	10-16-2018	B	--	72 S	--	--	706	9.9	--	--	110	> 2,400	--
	11-05-2018		615	129 S	8.2	8.2	744	12.1	17	0.34	150	> 2,400	3
	11-19-2018	B	--	105 S	--	--	976	9.4	--	--	56	> 2,400	--
	12-06-2018		619	105 S	10.3	8.4	997	5.9	20	0.56	84	> 2,400	3.6 d
	12-17-2018	B	--	96 S	--	--	826	9.4	--	--	62	1,700	--
	01-29-2019		619	102 S	9.6	8.7	956	8.8	13	0.49	370	> 2,400	4.3
	01-30-2019	B	--	86 S	--	--	1,010	7.9	--	--	100	2,000	--
	02-06-2019		609	99 S	10.2	8.7	869	6.7	14	0.44	62	> 2,400	4.2
	02-11-2019	B	--	94 S	--	--	854	8.1	--	--	78	> 2,400	--
	03-11-2019		620	105 S	9.3	8.8	900	13.5	16	0.62	23	650	4.3
	03-18-2019	B	--	135 S	--	--	988	8	--	--	28	920	--
	04-01-2019		618	125 S	8.3	8.6	800	16.5	30	0.3	20	520	3.5
	04-15-2019	B	--	108 S	--	--	779	15.3	--	--	23	870	--
	05-07-2019		620	89 S	8.5	8.3	756	12.3	11	< 0.02	59	980	3.9
	05-20-2019	B	--	89 S	--	--	779	10.9	--	--	23	2,000	--
	06-07-2019		617	129 S	6.8	8.4	751	24.5	22	0.17	52	3,000	2.8 d
	06-17-2019	B	--	148 S	--	--	721	17.6	--	--	580	> 24,000	--
	07-10-2019		628	71 S	7.6	8.2	725	17.6	18	0.28	190	14,000	2.5
	07-15-2019	B	--	94 S	--	--	713	26	--	--	52	3,900	--
	08-12-2019		622	108 S	7.2	8.1	622	19.6	33	0.28	410	> 2,400	2.3
	08-20-2019	B	--	54 S	--	--	746	20.2	--	--	120	2,400	--
	09-11-2019		619	34 S	7	8.3	784	22.1	8.6	0.42 @c	140	> 2,400	2.9
	09-16-2019	B	--	86 S	--	--	758	23.2	--	--	490	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

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Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #6 FOUNTAIN CR BELOW JIMMY CAMP CR NR FOUNTAIN, CO USGS Site # 383854104413601	10-16-2018	B	632	107	9.9	8.2	871	7.2	16	< 0.02	98	> 2,400	3.4
	10-18-2018		--	110	--	--	872	10.6	--	--	79	> 2,400	--
	11-07-2018	B	624	127	9.9	8.2	890	8.2	19	< 0.02	33	> 2,400	3.4
	11-19-2018		--	102	--	--	1,050	9.1	--	--	72	> 2,400	--
	12-10-2018	B	626	106	10.3	8.3	931	5.8	16	0.65	88	> 2,400	3.6 d
	12-18-2018		--	118	--	--	883	7.2	--	--	33	> 2,400	--
	01-29-2019	B	--	88 S	--	--	1,070	7.1	--	--	32	> 2,400	--
	01-30-2019		621	103 S	11.4	8.2	1,060	2	15	0.13	40	> 2,400	4.2 d
	02-07-2019		624	89 S	11.5	8.3	967	1.3	14	0.19	52	> 2,400	4.4
	02-12-2019	B	--	100 S	--	--	964	8	--	--	100	> 2,400	--
	03-07-2019		619	119 S	9.5	8.2	1,410	8.2	53	0.26	130	> 2,400	4.2 d
	03-18-2019	B	--	169 S	--	--	1,060	9.6	--	--	33	2,400	--
	04-04-2019		625	110 S	9.8	8.4	887	9.2	19	< 0.02	23	> 2,400	3.9
	04-15-2019	B	--	131 S	--	--	895	18	--	--	22	1,200	--
	05-07-2019		624	95 S	8.4	8.4	846	13	13	< 0.02	44	1,600	3.3
	05-20-2019	B	--	95 S	--	--	872	13.4	--	--	25	980	--
	06-06-2019		625	184 S	7.8	8.2	718	16.2	44	< 0.02	610	24,000	2.5 d
	06-18-2019	B	--	147 S	--	--	824	17.9	--	--	110	7,700	--
	07-10-2019		632	104 S	7.2	8.3	783	20.6	15	< 0.02	250	9,200	2.6
	07-16-2019	B	--	120 S	--	--	675	21.2	--	--	990	24,000	--
	08-06-2019		628	66 S	7.1	8.4	836	21.1	5.7	0.02 n	63	10,000	3.1
	08-20-2019	B	--	93 S	--	--	788	22.6	--	--	35	> 2,400	--
	09-12-2019		629	73 S	7.7	8.3	816	18.2	7.9	< 0.02 @c	62	> 2,400	2.8
	09-17-2019	B	--	88 S	--	--	819	18	--	--	86	2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

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Legend

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less than	<
greater than	>
estimated	E
holding time exceeded	@
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value verified by rerun, same method	r
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Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #7 FOUNTAIN CREEK NEAR FOUNTAIN, CO. USGS Site # 07106000	10-16-2018	B	634	109	9.5	8.1	940	8.8	16	< 0.02	70	2,400	3.8
	10-18-2018		--	91	--	--	952	11.5	--	--	41	> 2,400	--
	11-07-2018	B	626	117	9.3	8.2	942	9.6	22	< 0.02	37	> 2,400	3.8 d
	11-19-2018		--	150	--	--	1,090	9	--	--	23	2,400	--
	12-10-2018	B	627	98	9.9	8.3	970	6.7	18	0.36	21	> 2,400	4 d
	12-18-2018		--	104	--	--	912	7.9	--	--	25	> 2,400	--
	01-29-2019	B	--	90 S	--	--	1,080	6.5	--	--	12	2,400	--
	01-30-2019		622	123 S	10.7	8.3	1,080	4.7	16	0.09	18	> 2,400	4.5 d
	02-07-2019		627	140 S	11	8.4	993	3.5	15	0.1	15	> 2,400	4.6
	02-12-2019	B	--	127 S	--	--	1,020	6.6	--	--	38	2,000	--
	03-07-2019		620	222 S	8.8	8.2	1,430	10.2	50	0.12	33	> 2,400	4.4 d
	03-18-2019	B	--	93 S	--	--	1,100	11.9	--	--	10	2,400	--
	04-04-2019		627	117 S	9	8.4	936	12.9	18	< 0.02	11	870	4.3
	04-15-2019	B	--	160 S	--	--	951	18.4	--	--	6	770	--
	05-07-2019		626	132 S	8.3	8.4	918	13.7	12	0.36	22	1,100	3.3
	05-20-2019	B	--	50 S	--	--	934	14.2	--	--	43	1,200	--
	06-06-2019		627	211 S	7.2	8.1	758	19.5	48	< 0.02	380	> 24,000	2.9 d
	06-18-2019	B	--	96 S	--	--	876	19	--	--	190	14,000	--
	07-10-2019		634	76 S	6.7	8.2	861	23.5	15	< 0.02	190	9,800	2.9 d
	07-16-2019	B	--	89 S	--	--	765	24.5	--	--	460	20,000	--
	08-06-2019		629	52 S	6.6	8.3	933	23.6	6.1	< 0.02	41	2,400	3.6
	08-20-2019	B	--	89 S	--	--	886	24.5	--	--	39	2,400	--
	09-12-2019		630	50 S	7.3	8.2	948	20	7.3	< 0.02 @c	49	> 2,400	3.6
	09-17-2019	B	--	76 S	--	--	943	19.9	--	--	66	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

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value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
	10-16-2018		642	91 S	9.3	8.3	1,030	10.7	44	< 0.02	68	2,400	4 d
	10-18-2018	B	--	91 S	--	--	1,040	12.6	--	--	38	> 2,400	--
	11-07-2018		633	140 S	9.3	8.3	1,010	10.4	64	< 0.02	24	> 2,400	4.1 d
	11-20-2018	B	--	140 S	--	--	1,080	3.2	--	--	46	> 2,400	--
	11-30-2018		--	114 S	--	--	960	8.9	--	--	11	> 2,400	--
	12-10-2018	B	635	127 S	10.3	8	1,030	5.4	70	0.17	41	> 2,400	4 d
	12-18-2018		--	135 S	--	--	915	7.4	--	--	15	> 2,400	--
	01-29-2019	B	--	120 S	--	--	1,080	4.4	--	--	110	> 2,400	--
	01-30-2019		629	119 S	10.5	8.4	1,100	5	76	0.05	24	> 2,400	4.9 d
	02-07-2019		635	118 S	10.8	8.4	1,040	3.6	55	0.07	10	1,700	4.8 d
	02-13-2019	B	--	121 S	--	--	1,050	4.1	--	--	10	> 2,400	--
SP #8	03-07-2019		628	178 S	8.7	8.3	1,450	10.4	160	0.04	130	> 2,400	4.9 d
FOUNTAIN CREEK NEAR PINON, CO	03-18-2019	B	--	165 S	--	--	1,160	12.8	--	--	15	2,400	--
USGS Site # 07106300	04-04-2019		634	102 S	8.2	8.4	1,030	16.5	39	< 0.02	5	440	4.8
	04-16-2019	B	--	124 S	--	--	1,030	10	--	--	100	2,000	--
	05-13-2019		632	87 S	7.2	8.4	1,030	22.2	35	< 0.02	13	870	4 d
	05-30-2019	B	--	111 S	--	--	1,020	23.9	--	--	32	2,000	--
	06-06-2019		634	240 S	7	8.3	749	22.3	170	< 0.02	1,300	> 24,000	2.7 d
	06-18-2019	B	--	157 S	--	--	932	22.1	--	--	270	20,000	--
	07-10-2019		641	80 S	6.5	8.3	915	27.1	42	< 0.02	120	2,000	3.2 d
	07-16-2019	B	--	131 S	--	--	955	27.2	--	--	1,700	> 24,000	--
	08-06-2019		637	39 S	6.3	8.4	964	27.2	18	< 0.02	160	2,600	3.5
	08-20-2019	B	--	65 S	--	--	992	29.1	--	--	120	> 2,400	--
	09-12-2019		638	24 S	6.9	8.3	1,020	22.8	19	< 0.02 @c	370	> 2,400	3.7
	09-17-2019	B	--	36 S	--	--	1,060	22.6	--	--	550	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.

2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.

3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.

4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #9 FOUNTAIN CR ABV 40TH ST AT PUEBLO, CO USGS Site # 381840104361001	10-16-2018		648	120	8.9	8.4	1,090	13.9	47	< 0.02	42	> 2,400	5.2 d
	10-25-2018	B	--	152	--	--	1,060	10.8	--	--	820	> 2,400	--
	11-07-2018		639	144	9.3	8.4	1,070	11.4	100	< 0.02	35	> 2,400	5.3 d
	11-20-2018	B	--	155	--	--	1,130	6	--	--	23	> 2,400	--
	12-10-2018		641	136	10.6	8.2	1,090	4.8	88	0.05	49	> 2,400	4.9 d
	12-18-2018	B	--	145	--	--	1,020	8.1	--	--	8	2,400	--
	01-30-2019		635	159 S	10.5	8.4	1,120	4.2	200	0.02 n	51	> 2,400	5.9 d
	01-31-2019	B	--	129 S	--	--	1,140	6.8	--	--	1	> 2,400	--
	02-07-2019		642	135 S	10.8	8.5	1,100	4.4	51	< 0.02	6	770	5.8 d
	02-11-2019	B	--	140 S	--	--	1,110	4.3	--	--	2	730	--
	03-08-2019		633	179 S	9.5	8.4	1,320	9.3	94	< 0.02	10	1,300	5.9 d
	03-18-2019	B	--	196 S	--	--	1,220	13.7	--	--	16	> 2,400	--
	04-01-2019		639	177 S	8.2	8.5	1,050	15	91	< 0.02	25	1,600	5.4 d
	04-16-2019	B	--	151 S	--	--	1,080	11.8	--	--	21	2,400	--
	05-13-2019		639	106 S	9.2	8.4	1,090	12.4	34	< 0.02	16	1,700	5.4 d
	05-30-2019	B	--	145 S	--	--	1,080	24.1	--	--	15	2,000	--
	06-06-2019		640	308 S	7	8.3	767	23.2	340	< 0.02	1,400	> 24,000	3.2 d
	06-18-2019	B	--	200 S	--	--	967	24.6	--	--	270	> 24,000	--
	07-10-2019		647	106 S	6.5	8.4	975	28	50	< 0.02	20	5,800	4.4 d
	07-16-2019	B	--	82 S	--	--	1,070	30.7	--	--	85	8,200	--
	08-06-2019		642	63 S	6.1	8.4	1,080	30.2	33	< 0.02	86	2,600	7 dr
	08-20-2019	B	--	81 S	--	--	1,060	29.9	--	--	36	1,700	--
	09-11-2019		638	50 S	6.5	8.3	1,110	27.6	24	< 0.02 @c	37	> 2,400	5.7 d
	09-17-2019	B	--	33 S	--	--	1,180	25.9	--	--	31	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**4.8 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.
3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.
4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #10 FOUNTAIN CREEK AT PUEBLO, CO. USGS Site # 07106500	10-15-2018	B	649	90 S	9.6	8.4	1,120	10.7	50	< 0.02	75	> 2,400	7.8 d
	10-23-2018		--	104 S	--	--	1,140	16.2	--	--	20	> 2,400	--
	11-06-2018	B	638	153 S	9.1	8.4	1,090	11.5	97	< 0.02	60	> 2,400	7.3 d
	11-20-2018		--	167 S	--	--	1,180	8.4	--	--	20	> 2,400	--
	11-29-2018	B	--	131 S	--	--	1,110	9.1	--	--	440	1,600	--
	12-04-2018		645	125 S	11.9	8.2	1,130	1.7	54	< 0.02	32	> 2,400	8 d
	12-17-2018	B	--	143 S	--	--	833	6.5	--	--	18	> 2,400	--
	01-29-2019		639	149 S	11.6	8.3	1,150	1.5	82	0.08	11	1,600	7.6 d
	01-31-2019	B	--	134 S	--	--	1,170	2.3	--	--	12	170	--
	02-06-2019		632	137 S	9.8	8.6	1,120	8	44	< 0.02	4	1,000	8.1 d
	02-12-2019	B	--	119 S	--	--	960	1.3	--	--	11	770	--
	03-08-2019		632	171 S	9	8.4	1,320	12	92	< 0.02	3	1,600	8.1 d
	03-18-2019	B	--	162 S	--	--	1,250	8.2	--	--	11	> 2,400	--
	04-02-2019		641	181 S	8.8	8.5	1,090	13.7	68	< 0.02	10	820	7.3 d
	04-15-2019	B	--	191 S	--	--	1,060	15.3	--	--	47	2,000	--
	05-06-2019		638	81 S	8	8.5	1,140	19.8	40	< 0.02	18	770	8.9 d
	05-30-2019	B	--	196 S	--	--	1,110	23.6	--	--	36	> 2,400	--
	06-05-2019		641	245 S	7.4	8.4	986	22.4	120	< 0.02	280	14,000	6.6
	06-18-2019	B	--	157 S	--	--	935	25.2	--	--	300	> 24,000	--
	07-10-2019		647	66 S	6.4	8.4	997	28.6	49	< 0.02	86	8,700	6.1 d
	07-15-2019	B	--	63 S	--	--	1,150	31.6	--	--	52	7,700	--
	08-07-2019		641	60 S	6.5	8.4	1,260	27	29	< 0.02	41	14,000	14.3 d
	08-20-2019	B	--	69 S	--	--	1,140	30.4	--	--	45	> 2,400	--
	09-05-2019		645	20 S	8.4	8.4	1,310	21.4	6.6	< 0.02 @c	20	> 2,400	16.5 d
	09-17-2019	B	--	70 S	--	--	1,280	26.4	--	--	69	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**28.1 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.

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4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #11 FOUNTAIN CR AT EAST RIVER ST AT PUEBLO, CO USGS Site # 381601104355801	10-15-2018		650	119	9.2	8.4	1,150	12.1	52	< 0.02	66	> 2,400	8.4 d
	10-25-2018	B	--	154	--	--	1,130	17.5	--	--	580	> 2,400	--
	11-06-2018		639	149	9	8.4	1,120	10.6	97	< 0.02	49	> 2,400	8.1 d
	11-20-2018	B	--	164	--	--	1,160	8.7	--	--	15	> 2,400	--
	12-04-2018		646	138	11.7	8.2	1,160	0.3	54	< 0.02	70	2,000	7.9 d
	12-18-2018	B	--	147	--	--	1,140	8.4	--	--	7	2,400	--
	01-29-2019		642	144 S	11.4	8.2	1,000	0	66	0.04	20	1,700	8.9 d
	01-30-2019	B	--	117 S	--	--	1,200	0.8	--	--	8	870	--
	02-07-2019		644	141 S	10.8	8.5	1,140	3.6	53	< 0.02	8	690	8.3 d
	02-13-2019	B	--	134 S	--	--	1,150	7.1	--	--	4	730	--
	03-08-2019		636	183 S	10.3	8.3	1,370	5.7	97	0.02 n	13	1,700	8.3 d
	03-18-2019	B	--	207 S	--	--	1,250	13.2	--	--	17	> 2,400	--
	04-02-2019		640	156 S	8.2	8.5	1,120	15.4	60	< 0.02	11	820	8.2 d
	04-16-2019	B	--	145 S	--	--	1,100	15.8	--	--	20	870	--
	05-06-2019		640	87 S	8.3	8.4	1,180	17	32	< 0.02	20	1,200	9.7 d
	05-30-2019	B	--	132 S	--	--	1,140	22.6	--	--	34	> 2,400	--
	06-05-2019		643	148 S	7.7	8.4	999	19.9	140	< 0.02	340	9,200	6.5 d
	06-18-2019	B	--	193 S	--	--	995	24.1	--	--	340	> 24,000	--
	07-11-2019		647	65 S	6.9	8.2	1,080	23.9	33	< 0.02	86	9,800	8.2 d
	07-16-2019	B	--	72 S	--	--	1,050	30.8	--	--	85	7,700	--
	08-07-2019		642	60 S	6.7	8.4	1,280	24.2	34	< 0.02	260	17,000	14.2 d
	08-21-2019	B	--	69 S	--	--	1,190	22.6	--	--	64	2,400	--
	09-05-2019		646	30 S	8.3	8.5	1,390	25.8	7.9	< 0.02 @c	29	> 2,400	16.1 d
	09-18-2019	B	--	33 S	--	--	1,360	20.8	--	--	870	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**28.1 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
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Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #12 ARKANSAS RIVER AT MOFFAT STREET AT PUEBLO, CO USGS Site # 07099970	10-15-2018		652	53 S	11.1	8.3	816	7.4	2.1	< 0.02	40	2,000	32 d
	10-23-2018	B	--	90 S	--	--	704	14.9	--	--	20	2,400	--
	11-06-2018		641	229 S	10.2	8.3	578	10.6	3.6	< 0.02	32	> 2,400	15.6 d
	11-20-2018	B	--	42 S	--	--	1,080	8.5	--	--	28	> 2,400	--
	12-04-2018		644	57 S	12.5	8.5	847	5.3	2.6	< 0.02	15	1,100	35.6 d
	12-18-2018	B	--	53 S	--	--	900	6.8	--	--	11	490	--
	01-29-2019		640	63 S	12.3	8.4	807	2.8	13	< 0.02	16	290	32 d
	01-31-2019	B	--	60 S	--	--	859	4.2	--	--	11	200	--
	02-08-2019		644	35 S	12.4	8.7	907	4.3	5	< 0.02	11	520	37.4 d
	02-12-2019	B	--	46 S	--	--	876	4.6	--	--	21	280	--
	03-12-2019		637	62 S	10.9	8.6	1,010	10.5	4.6	< 0.02	310	920	41.4 d
	03-18-2019	B	--	227 S	--	--	676	5.4	--	--	8	180	--
	04-02-2019		644	409 S	11.4	8.4	567	4.9	4.8	< 0.02	6	310	12.3 d
	04-16-2019	B	--	148 S	--	--	579	9.9	--	--	5	200	--
	05-03-2019		644	649 S	10.2	8.9	502	12	13	< 0.02	4	240	9.9
	05-30-2019	B	--	397 S	--	--	535	15.1	--	--	38	730	--
	06-05-2019		644	1,210 S	10.1	8.5	500	10.4	4.8	0.05	98	1,400	9
	06-19-2019	B	--	3,260 S	--	--	406	14.4	--	--	10	3,100	--
	07-01-2019		643	3,720 S	8.2	8.1	264	15.6	16	< 0.02	31	> 2,400	2.4 rc
	07-15-2019	B	--	2,360 S	--	--	268	18.5	--	--	10	5,500	--
	08-09-2019		644	933 S	8.3	8.1	276	18.6	14	< 0.02	46	> 2,400	3.2
	08-21-2019	B	--	726 S	--	--	298	19.5	--	--	18	> 2,400	--
	09-05-2019		645	735 S	8.6	8.6	290	21	9.1	< 0.02 @c	270	> 2,400	3.3
	09-18-2019	B	--	238 S	--	--	367	19	--	--	16	2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**17.1 (chronic)**

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Legend

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no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
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sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

Location	Date	Sample Note	Barometric pressure (mmHg)	Flow (cfs)	Dissolved oxygen (mg/L)	pH	Specific conductance (µS/cm at 25°C)	Temperature (°C)	Turbidity (FNU)	Total Ammonia (mg/L as N)	Escherichia coli (#/100 mL)	Total coliform (#/100 mL)	Selenium (µg/L)
SP #13 ARKANSAS RIVER NEAR AVONDALE, CO. USGS Site # 7109500	10-15-2018		655	231	10.4	8.3	988	7.5	36	< 0.02	100	> 2,400	13.7 d
	10-22-2018	B	--	251	--	--	942	15.6	--	--	65	2,400	--
	11-06-2018		642	411	9.7	8.3	864	10.5	57	< 0.02	93	> 2,400	13 d
	11-20-2018	B	--	243	--	--	1,080	8.1	--	--	11	2,000	--
	12-04-2018		648	247	12	8.3	1,050	4.2	33	< 0.02	13	1,300	15.6 d
	12-18-2018	B	--	251	--	--	1,020	7.8	--	--	6	1,200	--
	01-29-2019		643	279 S	11.9	8.3	1,060	3.4	43	0.03 n	21	690	17.7 d
	01-31-2019	B	--	259 S	--	--	811	3.5	--	--	6	610	--
	02-08-2019		647	224 S	11.7	8.5	1,060	4.5	28	0.03 n	5	340	15.5 d
	02-12-2019	B	--	240 S	--	--	1,090	3.2	--	--	17	520	--
	03-12-2019		641	243 S	9.9	8.4	1,080	9.1	36	0.1	31	580	16.9 d
	03-18-2019	B	--	532 S	--	--	975	9.7	--	--	16	1,300	--
	04-02-2019		646	768 S	9.9	8.4	764	8.7	48	< 0.02	31	1,400	11.9 d
	04-16-2019	B	--	526 S	--	--	850	15.1	--	--	20	2,000	--
	05-03-2019		644	1,040 S	8.7	8.2	637	15.5	66	< 0.02	21	2,000	10.4 d
	05-30-2019	B	--	354 S	--	--	816	20.3	--	--	41	> 2,400	--
	06-05-2019		647	1,540 S	8.7	8.3	585	12	67	0.03 n	120	5,800	9.1
	06-19-2019	B	--	3,890 S	--	--	457	14.9	--	--	730	11,000	--
	07-11-2019		649	2,290 S	7.9	8	337	18.4	29	< 0.02	74	2,500	3.4 cr
	07-15-2019	B	--	2,310 S	--	--	337	21.2	--	--	20	9,200	--
	08-07-2019		644	1,220 S	7.2	8.2	416	22.3	40	< 0.02	170	> 24,000	4.9
	08-21-2019	B	--	1,030 S	--	--	440	21.3	--	--	72	2,400	--
	09-05-2019		648	789 S	7.4	8.2	462	23.7	19	< 0.02 @c	67	> 2,400	6
	09-18-2019	B	--	511 S	--	--	586	22	--	--	50	> 2,400	--
Standards from WQCC Regulation No. 32, Appendix 32-1 (if applicable)		**See Note 2**			**5.0 (minimum)**	**6.5-9.0**		**See Note 4**		**See Note 1**	**126**		**14.1 (chronic)**

Notes: 1. Standards for ammonia include calculations to be performed monthly and are not included as the small amount of data would yield inaccurate standards.
2. Samples with a note of B are bi-weekly bacteria samples, and those with a note of J are storm event samples, and are provided as additional data for informational purposes.
3. Data in the above table were queried from the USGS National Water Information System database (https://waterdata.usgs.gov/nwis) on January 16, 2020.
4. Revised temperature standards effective on June 30, 2019. From 10/01/18 to 06/29/19, standards were: Mar - Nov = 28.6, Dec = 21.5, Jan - Feb = 14.3. From 06/30/19 to 09/30/19, standards were: Mar - Nov = 28.6, Dec - 21.5, Jan - Feb = 25.2

Legend

Description	Qualfier
no data for that parameter for that sample event	--
less than	<
greater than	>
estimated	E
holding time exceeded	@
see USGS result comment in NWIS	c
sample was diluted	d
below the reporting level but at or above the detection level	n
value verified by rerun, same method	r
value will likely be estimated when record is approved	#
data is preliminary and subject to change based on USGS QA/QC	S

ATTACHMENT 4

Complaint Log

Complaint logs are only recorded during construction, so no attachment is included. This activity will resume during Phase II construction.

ATTACHMENT 5

Emergency Response Log

Emergency response logs are only recorded during construction, so no attachment is included. This activity will resume during Phase II construction.

ATTACHMENT 6

Log of Work Occurring During Non-Typical Work Hours

Non-typical work hours are only recorded during construction, so no attachment is included. This activity will resume during Phase II construction.

ATTACHMENT 7

Expenditures for Wastewater System Improvements

Colorado Springs Utilities
It's how we're all connected

Pueblo County 1041 Permit

Expenditures for Wastewater System Improvements

Annual Progress Report

January 17, 2020

Reporting for the period between January 1, 2019 and December 31, 2019

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Table of Contents

Introduction

On March 18, 2009 the Pueblo Board of County Commissioners passed Resolution No. P&D 09-22, approving 1041 Permit No. 2008-002 with terms and conditions for construction of the Southern Delivery System (SDS) water project within Pueblo County, Colorado.

1041 Permit Condition No.7 requires that Colorado Springs Utilities provide an annual report to the Pueblo County Board of Commissioners on or before January 31 of each year reporting the Wastewater System Improvement expenditures from January 1 through December 31 of the prior year. Condition No.7 of the permit states:

> ***Expenditures for Wastewater System Improvements***
> *In order to continue its efforts to protect against future spills to Fountain Creek, to increase its opportunities for reuse, and to mitigate possible water quality impacts by the SDS Project to Fountain Creek, Colorado Springs Utilities shall commit to invest an additional seventy-five million dollars ($75,000,000) in its wastewater system. Expenditures will be made as part of the wastewater collection system rehabilitation programs or wastewater reuse systems between January 1, 2010 and December 31, 2024 as required. These expenditures shall be for projects not currently required by other regulatory permits, agency enforcement or court orders, consent agreements, or governmental regulations existing as of January 30, 2010. These expenditures will include the Local Collector Evaluation and Rehabilitation Program (LCERP) for the improvement and fortification of wastewater lines which could adversely affect Fountain Creek or its tributaries. These expenditures are subject to annual appropriation by the Colorado Springs City Council. Beginning in 2010, by January 31 of each year, Colorado Springs Utilities shall provide an annual report to Pueblo County describing such expenditures for the prior year.*

The Wastewater Collection System Rehabilitation Programs are comprehensive programs that systematically inspect, evaluate, prioritize, and rehabilitate the entire Colorado Springs Utilities collection system. In 2019 the projects that met the terms of the 1041 Permit Condition No. 7 included: 1) the Local Collectors Evaluation and Rehabilitation Program (LCERP); 2) the Collection System Rehabilitation and Replacement Program (R&R); and 3) the Manhole Evaluation and Rehabilitation Program (MHERP). These programs are independent of Colorado Springs Utilities' normal operation and maintenance programs.

Project Descriptions

Local Collectors Evaluation and Rehabilitation Program (LCERP)

LCERP consists of the systematic evaluation and rehabilitation of sewer collection pipes less than 10-inch in diameter.

LCERP:

- Determines the condition of all the sanitary sewer pipe segments less than 10-inches in diameter and places them by priority on a schedule to be re-inspected, rehabilitated, repaired and/or replaced.
- Reduces the risk of Sanitary Sewer Overflows (SSO's)
- Is part of the overall long-term investments to our wastewater system through the year 2025

LCERP repaired or rehabilitated approximately 47,352 feet of less than 10-inch sewer pipe, representing approximately 181-line segments, at a cost of $2,638,579 in 2019.

Collection System Rehabilitation and Replacement Program (R&R)

The Sanitary Sewer Evaluation and Rehabilitation Program (SSERP) was completed on December 31, 2012, meeting all the requirements of the CDPHE Compliance Order on Consent (COC). Closure of the COC was requested on January 29, 2013 and granted by CDPHE on March 8, 2013. The successor Collection System Replacement and Rehabilitation Program (R&R) contracts were also put into place in 2009 to continue the rehabilitation and replacement of the pipes identified and is described below. The total cost associated with SSERP since 2000 is approximately $74.85million.

The R&R program rehabilitates or replaces large diameter (greater than 10-inch) sewer pipe that were installed after January 1, 1994.

R&R:

- Is designed to facilitate operations, increase capacity, and upgrade the system
- Focuses on the reduction of sanitary sewer overflows and stoppages
- Reduces the risk of spills and protecting the public health and environment

R&R repaired or rehabilitated approximately 11,937 feet of pipe greater than 10-inch, representing 42-line segments, at a cost of $3,021,310 in 2019.

Manhole Evaluation and Rehabilitation Program (MHERP)

MHERP has been developed as a comprehensive program to provide the rehabilitation of sanitary sewer manholes throughout the Colorado Springs Utilities wastewater collection system.

MHERP:

- Is designed to reducing the risk of spills, stoppages and SSOs
- Reduces infiltration and inflow at manholes throughout collection system

MHERP completed repair and/or rehabilitation of 2 large MHERP projects totaling $37,590 in 2019. All other manhole related projects were conducted under normal operation and maintenance operations.

Wastewater Reuse System

The Colorado Springs Utilities Wastewater Reuse System consists of several pumping stations, storage reservoirs, holding ponds, transmission mains and a tertiary treatment facility.

Wastewater Reuse Systems:

- Deliver tertiary-treated wastewater to parks, cemeteries, golf courses and commercial properties for landscape irrigation
- Deliver tertiary-treated wastewater to Drake Power Plant for evaporative cooling
- Include supplies from raw surface water, groundwater, and reclaimed water

Only normal operation and maintenance of the reuse system was conducted in 2019.

Summary

During the reporting period of January 1, 2019 through December 31, 2019 costs for LCERP, System R&R Program, and MHERP totaled $5,697,479. The total Wastewater Expenditures reported since 2010 is $68,155,783.

Appendix A

CSU Location ID	Work Order #	DIAMETER (inches)	LENGTH (feet)	Assesment Description	Collection Basin Name	Date Complete
WW.155497	3296458	8	243	CIPP	CRAGMOOR	02/11/19
WW.163737	3296460	8	290	CIPP	CRAGMOOR	02/11/19
WW.145413	3296553	8	290	CIPP	CRAGMOOR	02/12/19
WW.145423	3294572	8	285	CIPP	CRAGMOOR	02/12/19
WW.153505	3295377	8	400	CIPP	CRAGMOOR	02/13/19
WW.147483	3296451	8	353	CIPP	CRAGMOOR	02/14/19
WW.147494	3294818	8	335	CIPP	CRAGMOOR	02/15/19
WW.155511	3296452	8	352	CIPP	CRAGMOOR	02/20/19
WW.145419	3294822	8	400	CIPP	CRAGMOOR	02/21/19
WW.153504	3295346	8	400	CIPP	CRAGMOOR	02/22/19
WW.137139	3295373	8	399	CIPP	CRAGMOOR	02/25/19
WW.141247	3296528	8	299	CIPP	CRAGMOOR	02/26/19
WW.157630	3296542	8	299	CIPP	CRAGMOOR	02/27/19
WW.147484	3296455	8	311	CIPP	CRAGMOOR	02/28/19
WW.134339	3295382	8	141	CIPP	CRAGMOOR	03/01/19
WW.143322	3296472	8	370	CIPP	CRAGMOOR	03/05/19
WW.157634	3294827	8	398	CIPP	CRAGMOOR	03/05/19
WW.161686	3296500	8	251	CIPP	CRAGMOOR	03/06/19
WW.159684	3295372	8	401	CIPP	CRAGMOOR	03/06/19
WW.149520	3296540	8	220	CIPP	CRAGMOOR	03/07/19
WW.155509	3294830	8	296	CIPP	CRAGMOOR	03/07/19
WW.153502	3296538	8	120	CIPP	CRAGMOOR	03/08/19
WW.134362	3294826	8	432	CIPP	CRAGMOOR	03/08/19
WW.163746	3294580	8	400	CIPP	CRAGMOOR	03/11/19
WW.161688	3294566	8	401	CIPP	CRAGMOOR	03/12/19
WW.163740	3296501	8	271	CIPP	CRAGMOOR	03/18/19
WW.145421	3294833	8	235	CIPP	CRAGMOOR	03/18/19
WW.160078	3174031	8	56	CIPP	LOWER SAND CREEK	03/19/19
WW.158061	3174038	8	227	CIPP	LOWER SAND CREEK	03/19/19
WW.157628	3294823	8	402	CIPP	CRAGMOOR	03/19/19
WW.147495	3295330	8	217	CIPP	CRAGMOOR	03/19/19
WW.157625	3296509	8	269	CIPP	CRAGMOOR	03/20/19
WW.141238	3296524	8	173	CIPP	CRAGMOOR	03/20/19
WW.161691	3296526	8	326	CIPP	CRAGMOOR	03/20/19
WW.147896	3174003	8	223	CIPP	LOWER SAND CREEK	03/21/19
WW.147487	3296512	8	219	CIPP	CRAGMOOR	03/21/19
WW.163749	3296523	8	226	CIPP	CRAGMOOR	03/21/19
WW.145854	3174016	8	333	CIPP	LOWER SAND CREEK	03/25/19
WW.155969	3174019	8	313	CIPP	LOWER SAND CREEK	03/26/19
WW.136792	3178103	8	283	CIPP	TEMPLETON GAP	03/28/19
WW.163317	3368252	8	328	CIPP	LOWER COTTONWOOD CREEK	04/01/19
WW.145410	3296522	8	316	CIPP	CRAGMOOR	04/01/19
WW.151491	3296499	8	398	CIPP	CRAGMOOR	04/02/19
WW.137135	3295378	8	380	CIPP	CRAGMOOR	04/02/19
WW.151496	3294862	8	400	CIPP	CRAGMOOR	04/03/19
WW.134357	3296546	8	400	CIPP	CRAGMOOR	04/03/19
WW.149530	3295376	8	400	CIPP	CRAGMOOR	04/04/19
WW.149074	3368310	8	399	CIPP	LOWER COTTONWOOD CREEK	04/23/19
WW.136725	3368303	8	353	CIPP	LOWER COTTONWOOD CREEK	04/24/19
WW.145032	3368301	8	398	CIPP	LOWER COTTONWOOD CREEK	04/25/19
WW.136726	3368302	8	171	CIPP	LOWER COTTONWOOD CREEK	04/26/19
WW.151077	3368292	8	262	CIPP	LOWER COTTONWOOD CREEK	04/30/19
WW.140793	3368304	8	179	CIPP	LOWER COTTONWOOD CREEK	05/01/19
WW.140792	3368291	8	397	CIPP	LOWER COTTONWOOD CREEK	05/01/19
WW.155087	3368294	8	250	CIPP	LOWER COTTONWOOD CREEK	05/02/19
WW.138778	3368295	8	80	CIPP	LOWER COTTONWOOD CREEK	05/02/19
WW.142902	3368296	8	250	CIPP	LOWER COTTONWOOD CREEK	05/03/19
WW.138777	3368305	8	196	CIPP	LOWER COTTONWOOD CREEK	05/07/19
WW.152138	3368290	8	151	CIPP	LOWER COTTONWOOD CREEK	05/07/19
WW.159254	3368313	8	326	CIPP	LOWER COTTONWOOD CREEK	05/08/19

CSU Location ID	Work Order #	DIAMETER (inches)	LENGTH (feet)	Assesment Description	Collection Basin Name	Date Complete
WW.138789	3368306	8	280	CIPP	LOWER COTTONWOOD CREEK	05/09/19
WW.133581	3368293	8	280	CIPP	LOWER COTTONWOOD CREEK	05/09/19
WW.153974	3455149	10	259	CIPP	DOWNTOWN	05/10/19
WW.161301	3368297	8	149	CIPP	LOWER COTTONWOOD CREEK	05/20/19
WW.149089	3368307	8	324	CIPP	LOWER COTTONWOOD CREEK	05/22/19
WW.155094	3368314	8	323	CIPP	LOWER COTTONWOOD CREEK	05/23/19
WW.197864	3368312	8	317	CIPP	LOWER COTTONWOOD CREEK	05/28/19
WW.163323	3368300	8	343	CIPP	LOWER COTTONWOOD CREEK	05/29/19
WW.155093	3368298	8	151	CIPP	LOWER COTTONWOOD CREEK	05/29/19
WW.153105	3368311	8	237	CIPP	LOWER COTTONWOOD CREEK	05/30/19
WW.149081	3368247	8	200	CIPP	LOWER COTTONWOOD CREEK	05/31/19
WW.149103	3368284	8	172	CIPP	LOWER COTTONWOOD CREEK	06/10/19
WW.136729	3368250	8	262	CIPP	LOWER COTTONWOOD CREEK	06/11/19
WW.164482	3368283	8	280	CIPP	LOWER COTTONWOOD CREEK	06/12/19
WW.142933	3368253	8	233	CIPP	LOWER COTTONWOOD CREEK	06/13/19
WW.157220	3368258	8	307	CIPP	LOWER COTTONWOOD CREEK	06/13/19
WW.178026	3368251	8	250	CIPP	LOWER COTTONWOOD CREEK	06/17/19
WW.178030	3368248	8	75	CIPP	LOWER COTTONWOOD CREEK	06/17/19
WW.140803	3368287	8	342	CIPP	LOWER COTTONWOOD CREEK	06/18/19
WW.157218	3368285	8	255	CIPP	LOWER COTTONWOOD CREEK	06/19/19
WW.151117	3368279	8	155	CIPP	LOWER COTTONWOOD CREEK	06/20/19
WW.163336	3368259	8	258	CIPP	LOWER COTTONWOOD CREEK	06/24/19
WW.149100	3368262	8	314	CIPP	LOWER COTTONWOOD CREEK	06/25/19
WW.136722	3368308	8	403	CIPP	LOWER COTTONWOOD CREEK	06/26/19
WW.136754	3368282	8	221	CIPP	LOWER COTTONWOOD CREEK	06/27/19
WW.147135	3368281	8	297	CIPP	LOWER COTTONWOOD CREEK	06/27/19
WW.138810	3368318	8	187	CIPP	LOWER COTTONWOOD CREEK	06/28/19
WW.138738	3370507	8	110	CIPP	PINE CREEK	07/01/19
WW.144998	3370506	8	262	CIPP	PINE CREEK	07/01/19
WW.155132	3370505	8	174	CIPP	PULPIT ROCK	10/14/19
WW.148091	3370504	8	290	CIPP	PULPIT ROCK	11/18/19
WW.133655	3370503	8	234	CIPP	PULPIT ROCK	11/19/19
WW.135659	3370501	8	331	CIPP	PULPIT ROCK	11/20/19
WW.142962	3370500	8	347	CIPP	PULPIT ROCK	11/21/19
WW.153144	3370499	8	148	CIPP	PULPIT ROCK	11/22/19
WW.153145	3370498	8	227	CIPP	PULPIT ROCK	11/23/19
WW.159303	3370496	8	76	CIPP	PULPIT ROCK	11/24/19
WW.149111	3370495	8	63	CIPP	PULPIT ROCK	11/25/19
WW.141913	3370494	8	224	CIPP	PULPIT ROCK	11/26/19
WW.157247	3370493	8	112	CIPP	PULPIT ROCK	11/27/19
WW.160287	3370492	8	336	CIPP	PULPIT ROCK	11/28/19
WW.138812	3370489	8	148	CIPP	PULPIT ROCK	11/29/19
WW.157250	3370487	8	300	CIPP	PULPIT ROCK	11/30/19
WW.133663	3370486	8	257	CIPP	PULPIT ROCK	12/01/19
WW.159264	3370485	8	300	CIPP	PULPIT ROCK	12/02/19
WW.180394	3370484	8	191	CIPP	PULPIT ROCK	12/03/19
WW.132088	3370483	8	301	CIPP	PULPIT ROCK	12/04/19
WW.194448	3370482	8	90	CIPP	PULPIT ROCK	12/05/19
WW.194447	3370481	8	301	CIPP	PULPIT ROCK	12/06/19
WW.150063	3370480	8	305	CIPP	PULPIT ROCK	12/07/19
WW.138056	3370479	8	188	CIPP	PULPIT ROCK	12/08/19
WW.140102	3370478	8	249	CIPP	PULPIT ROCK	12/09/19
WW.154020	3370476	8	166	CIPP	ROCKRIMMON	12/10/19
WW.154340	3370474	8	255	CIPP	ROCKRIMMON	12/11/19
WW.140066	3370473	8	197	CIPP	ROCKRIMMON	12/12/19
WW.152328	3370472	8	356	CIPP	ROCKRIMMON	12/13/19
WW.154023	3370471	8	307	CIPP	ROCKRIMMON	12/14/19
WW.154342	3370470	8	157	CIPP	ROCKRIMMON	12/15/19
WW.150359	3370469	8	187	CIPP	ROCKRIMMON	12/16/19
WW.160524	3370467	8	224	CIPP	ROCKRIMMON	12/17/19

CSU Location ID	Work Order #	DIAMETER (inches)	LENGTH (feet)	Assesment Description	Collection Basin Name	Date Complete
WW.132046	3370466	8	268	CIPP	ROCKRIMMON	12/18/19
WW.144188	3370465	8	177	CIPP	ROCKRIMMON	12/19/19
WW.150351	3370464	8	318	CIPP	ROCKRIMMON	12/20/19
WW.150358	3370463	8	208	CIPP	ROCKRIMMON	12/21/19
WW.154326	3370462	8	298	CIPP	ROCKRIMMON	07/01/19
WW.138035	3370459	8	333	CIPP	ROCKRIMMON	07/02/19
WW.140067	3370458	8	411	CIPP	ROCKRIMMON	07/03/19
WW.152343	3370457	8	200	CIPP	ROCKRIMMON	07/02/19
WW.146291	3370455	8	121	CIPP	ROCKRIMMON	07/05/19
WW.146290	3370452	8	157	CIPP	ROCKRIMMON	07/05/19
WW.160543	3370451	8	131	CIPP	ROCKRIMMON	07/08/19
WW.142063	3370449	8	129	CIPP	ROCKRIMMON	07/08/19
WW.144202	3370448	8	290	CIPP	ROCKRIMMON	07/09/19
WW.158503	3370447	8	423	CIPP	ROCKRIMMON	07/10/19
WW.148039	3370446	8	240	CIPP	ROCKRIMMON	07/11/19
WW.142146	3370445	8	288	CIPP	ROCKRIMMON	07/11/19
WW.154252	3370444	8	189	CIPP	ROCKRIMMON	07/09/19
WW.160437	3370443	8	332	CIPP	ROCKRIMMON	07/15/19
WW.162550	3370442	8	256	CIPP	ROCKRIMMON	07/15/19
WW.138012	3370441	8	271	CIPP	ROCKRIMMON	07/16/19
WW.156445	3370440	8	399	CIPP	ROCKRIMMON	07/17/19
WW.144192	3370439	8	146	CIPP	ROCKRIMMON	07/18/19
WW.132043	3370438	8	105	CIPP	ROCKRIMMON	07/19/19
WW.159302	3370437	8	244	CIPP	PULPIT ROCK	07/09/19
WW.160523	3370435	8	80	CIPP	ROCKRIMMON	07/03/19
WW.178015	3368249	8	245	CIPP	LOWER COTTONWOOD CREEK	10/10/19
WW.159270	3368254	8	410	CIPP	LOWER COTTONWOOD CREEK	10/15/19
WW.153122	3368255	8	157	CIPP	LOWER COTTONWOOD CREEK	10/15/19
WW.161319	3368256	8	399	CIPP	LOWER COTTONWOOD CREEK	10/24/19
WW.151104	3368257	8	259	CIPP	LOWER COTTONWOOD CREEK	10/29/19
WW.163335	3368261	8	379	CIPP	LOWER COTTONWOOD CREEK	10/11/19
WW.138802	3368263	8	140	CIPP	LOWER COTTONWOOD CREEK	10/28/19
WW.175560	3368264	8	258	CIPP	LOWER COTTONWOOD CREEK	10/28/19
WW.133604	3368266	8	519	CIPP	LOWER COTTONWOOD CREEK	10/31/19
WW.140816	3368267	8	85	CIPP	LOWER COTTONWOOD CREEK	11/08/19
WW.153125	3368268	8	290	CIPP	LOWER COTTONWOOD CREEK	11/09/19
WW.159277	3368270	8	275	CIPP	LOWER COTTONWOOD CREEK	11/10/19
WW.133627	3368271	8	396	CIPP	LOWER COTTONWOOD CREEK	11/11/19
WW.161327	3368272	8	119	CIPP	LOWER COTTONWOOD CREEK	11/09/19
WW.151105	3368273	8	223	CIPP	LOWER COTTONWOOD CREEK	11/19/19
WW.147132	3368275	8	262	CIPP	LOWER COTTONWOOD CREEK	11/12/19
WW.149110	3368276	8	293	CIPP	LOWER COTTONWOOD CREEK	11/06/19
WW.147133	3368277	8	303	CIPP	LOWER COTTONWOOD CREEK	11/05/19
WW.133628	3368278	8	44	CIPP	LOWER COTTONWOOD CREEK	11/20/19
WW.154092	3368280	8	383	CIPP	LOWER COTTONWOOD CREEK	11/07/19
WW.159266	3368286	8	158	CIPP	LOWER COTTONWOOD CREEK	10/25/19
WW.147110	3368299	8	280	CIPP	LOWER COTTONWOOD CREEK	10/26/19
WW.138776	3368309	8	377	CIPP	LOWER COTTONWOOD CREEK	10/27/19
WW.149099	3368315	8	14	CIPP	LOWER COTTONWOOD CREEK	10/28/19
WW.159272	3368316	8	172	CIPP	LOWER COTTONWOOD CREEK	10/29/19
WW.146161	3368317	8	95	CIPP	LOWER COTTONWOOD CREEK	12/30/19
WW.161324	3368319	8	310	CIPP	LOWER COTTONWOOD CREEK	12/06/18
WW.140796	3368321	8	210	CIPP	LOWER COTTONWOOD CREEK	12/07/19
WW.163728	3296468	8	172	CIPP	CRAGMOOR	02/21/19
WW.134323	3296475	8	216	CIPP	CRAGMOOR	03/01/19
WW.153497	3296505	8	219	CIPP	CRAGMOOR	02/27/19
WW.151490	3696509	8	265	CIPP	CRAGMOOR	03/20/19
WW.151493	3296529	8	271	CIPP	CRAGMOOR	03/15/19
WW.149527	3296541	8	282	CIPP	CRAGMOOR	03/15/19
WW.134354	3296532	8	400	CIPP	CRAGMOOR	03/03/19

CSU Location ID	Work Order #	DIAMETER (inches)	LENGTH (feet)	Assesment Description	Collection Basin Name	Date Complete
WW.149529	3296537	8	278	CIPP	CRAGMOOR	02/15/19
Totals	**181**		**47,352**			

Appendix B

2019 - Collection System Rehabilitation and Replacement Program

PIPE LID	Task Order #	Work Order #	Existing Size	PIPE COND.	LENGTH	NEW PIPE SIZE	Completion Date
WW.133217	95	3368775	30	Corroded Pipe	398	NA	12/6/2019
WW.133219	95	3368774	30	Corroded Pipe	401	NA	12/6/2019
WW.136550	95	3368773	30	Corroded Pipe	401	NA	12/4/2019
WW.140636	95	3368772	30	Corroded Pipe	262	NA	12/5/2019
WW.150111	95	3368771	30	Corroded Pipe	288	NA	12/17/2019
WW.150914	95	3368770	30	Corroded Pipe	203	NA	12/16/2019
WW.161123	95	3368769	30	Corroded Pipe	403	NA	12/4/2019
WW.140638	95	3368768	30	Corroded Pipe	250	NA	12/13/2019
WW.140663	95	3368767	30	Corroded Pipe	375	NA	12/12/2019
WW.133159	95	3368766	30	Corroded Pipe	82	NA	12/11/2019
WW.146942	95	3368765	30	Corroded Pipe	428	NA	12/9/2019
WW.154895	95	3368763	30	Corroded Pipe	201	NA	12/12/2019
WW.161140	95	3368762	30	Corroded Pipe	379	NA	12/9/2019
WW.152874	95	3368761	30	Corroded Pipe	293	NA	12/6/2019
WW.140699	95	3368760	30	Corroded Pipe	194	NA	12/19/2019
WW.138666	95	3368759	30	Corroded Pipe	167	NA	9/11/2019
WW.144914	95	3368758	30	Corroded Pipe	203	NA	9/27/2019
WW.161172	95	3368757	30	Corroded Pipe	294	NA	12/18/2019
WW.133347	95	3368756	30	Corroded Pipe	148	NA	12/18/2019
WW.140698	95	3368755	30	Corroded Pipe	339	NA	12/18/2019
WW.150974	95	3368754	30	Corroded Pipe	202	NA	9/27/2019
WW.150973	95	3368753	30	Corroded Pipe	197	NA	9/27/2019
WW.163214	95	3368752	30	Corroded Pipe	142	NA	12/18/2019
WW.150976	95	3368751	30	Corroded Pipe	257	NA	9/9/2019
WW.150975	95	3368750	30	Corroded Pipe	258	NA	9/10/2019
WW.137782	95	3368749	30	Corroded Pipe	200	NA	9/11/2019
WW.151799	95	3368748	30	Corroded Pipe	41	NA	9/11/2019
WW.135736	95	3368747	30	Corroded Pipe	74	NA	9/24/2019
WW.155838	95	3368745	30	Corroded Pipe	243	NA	9/11/2019
WW.148950	95	3368743	36	Corroded Pipe	213	NA	12/19/2019
WW.138168	96	3391665	42	Corroded Pipe	500	NA	11/22/2019
WW.158237	96	3391666	42	Corroded Pipe	501	NA	12/4/2019
WW.152018	96	3391667	42	Corroded Pipe	395	NA	12/6/2019
WW.150016	96	3391668	42	Corroded Pipe	496	NA	12/8/2019
WW.160189	96	3391670	42	Corroded Pipe	500	NA	12/10/2019
WW.150019	96	3391676	42	Corroded Pipe	499	NA	12/20/2019
WW.137660	96	3391677	42	Corroded Pipe	439	NA	12/11/2019
WW.141805	96	3391679	42	Corroded Pipe	402	NA	12/12/2019
WW.152028	96	3391680	42	Corroded Pipe	202	NA	12/18/2019
WW.135480	96	3391682	42	Corroded Pipe	218	NA	12/18/2019
WW.196481	96	3391686	42	Corroded Pipe	174	NA	12/13/2019
WW.196500	96	3391688	42	Corroded Pipe	75	NA	12/13/2019
Subtotal	**42**				**11937**		

Appendix C

2019 - Manhole Evaluation and Rehabilitation Program

Manhole Evaluation and Rehabilitation Project				
CSU Location ID #	**Work Order #**	**Diameter (feet)**	**Depth (feet)**	**Date Complete**
WW.105314	3525592	6	18.0	12/3/2019
WW.129400	3406661	6	14.0	3/25/2019
Total	**2**			
Total Rehabilitated or Installed				2
Total Cost in 2019: $37,590				

ATTACHMENT 8

Summary of Storage, Diversion, Delivery of Water in Pueblo County related to the SDS Project

Data will be reported in 12-month increments, from November of the previous year to October of the current year.

Summary of Storage, Diversion, Delivery of Water in Pueblo County

Storage & Diversion

Colorado Springs Utilities

	Pueblo Reservoir EOM Storage (acre-feet)		Total Diversion	Total Delivery
	Long Term Excess Capacity Acct	*Fry-Ark Carry Over Account*	acre-feet	acre-feet
Oct 2018	16,279.78	49,379.84	0.00	403.01
Nov	16,315.87	49,247.47	0.00	412.14
Dec	14,498.53	49,161.66	0.00	413.15
Jan 2019	13,338.84	49,081.03	0.00	403.13
Feb	12,452.08	48,968.52	0.00	359.81
Mar	12,980.57	48,762.94	0.00	362.98
Apr	14,018.93	48,421.83	0.00	381.68
May	16,368.09	51,344.09	0.00	266.60
Jun	14,713.79	50,805.04	0.00	316.93
Jul	12,667.17	50,244.33	0.00	262.00
Aug	16,445.20	49,735.23	0.00	271.20
Sep	14,766.02	49,272.46	0.00	265.78

Annual Total: 4118.40

City of Fountain

	Pueblo EOM Storage (acre-feet)		Total Diversion	Total Delivery
	Fry-Ark Carryover Account	*SDS Long-Term Excess Capacity Account*	acre-feet	acre-feet
Oct 2018	6,809.32	1,181.43	0.00	38.22
Nov	6,791.07	1,223.86	0.00	4.41
Dec	6,779.25	1,210.28	0.00	16.42
Jan 2019	6,768.13	1,343.36	0.00	0.00
Feb	6,752.61	1,340.30	0.00	0.00
Mar	6,724.27	1,332.29	0.00	2.39
Apr	6,546.77	1,316.81	0.00	128.57
May	7,015.98	1,278.34	0.00	83.98
Jun	6,942.33	1,454.29	0.00	61.22
Jul	6,865.86	1,534.49	120.00	122.82
Aug	6,796.29	1,488.07	0.00	113.80
Sep	6,732.52	1,361.71	0.00	113.20

Annual Total: 120.00 685.03

Pueblo West Metropolitan District

	Pueblo Reservoir EOM Storage (acre-feet)	Total Diversion	Total Delivery
	Pueblo West	acre-feet	acre-feet
Oct 2018	7,444.80	0.00	0.00
Nov	7,170.45	0.00	0.00
Dec	6,898.88	0.00	0.00
Jan 2019	7,948.91	0.00	0.00
Feb	8,146.44	0.00	0.00
Mar	7,884.08	0.00	0.00
Apr	6,985.93	0.00	0.00
May	7,586.77	0.00	0.00
Jun	6,968.81	0.00	0.00
Jul	6,275.97	0.00	0.00
Aug	5,575.38	0.00	0.00
Sep	4,971.21	0.00	0.00

Annual Total: 0.00 0.00

Notes: Did not use North Outlet Works during this reporting period.

Security Water District

	Pueblo EOM Storage (acre-feet)		Total Diversion	Total Delivery
	Fry-Ark Carryover Account	*SDS Long-Term Excess Capacity Account*	acre-feet	acre-feet
Oct 2018	4,276.72	400.25	0.00	71.46
Nov	4,191.33	508.94	0.00	43.50
Dec	4,094.13	537.67	0.00	54.84
Jan 2019	3,999.14	604.07	0.00	65.70
Feb	3,911.17	638.72	0.00	50.55
Mar	3,812.40	595.36	0.00	43.25
Apr	3,594.50	721.19	0.00	65.30
May	4,741.79	904.42	0.00	108.83
Jun	4,601.46	1,101.57	0.00	146.91
Jul	4,550.84	1,092.62	0.00	226.43
Aug	4,504.73	990.63	0.00	204.76
Sep	4,202.55	984.35	0.00	187.31

Annual Total: 1268.84

ATTACHMENT 9

Summary of Participants' SDS Return Flows to Fountain Creek Including Storage and Releases of Such Return Flows

Data will be reported in 12-month increments, from November of the previous year to October of the current year.

Summary of Participants' Return Flows to Fountain Creek
Including Storage and Releases of Such Return Flows
Return Flow Summary

Colorado Springs Utilities

SDS Return Flow Summary

	Total SDS RFs to Fountain Creek	Avg Flow	Max Daily Flow	RFs to Fountain Creek Storage	RFs released from Ftn Ck Storage
	acre-feet	cfs	cfs	acre-feet	acre-feet
Oct 2018	264.50	4.30	6.28	0.00	0.00
Nov	328.98	5.53	7.14	0.00	0.00
Dec	335.84	5.46	6.67	0.00	0.00
Jan 2019	353.50	5.75	10.90	0.00	0.00
Feb	304.85	5.49	6.61	0.00	0.00
Mar	286.08	4.65	7.49	0.00	0.00
Apr	247.99	4.17	6.14	0.00	0.00
May	137.56	2.24	5.23	0.00	0.00
Jun	121.15	2.04	3.18	0.00	0.00
Jul	89.83	1.46	2.61	0.00	0.00
Aug	90.86	1.48	2.70	0.00	0.00
Sep	81.30	1.37	2.72	0.00	0.00
	2642.43			0.00	0.00

City of Fountain

	Total SDS RFs to Fountain Creek	Avg Flow	Max Daily Flow	RFs to Ftn Ck Storage	RFs released from Ftn Ck Storage
	acre-feet	cfs	cfs	acre-feet	acre-feet
Oct 2018	21.82	0.35	1.10	0.00	0.00
Nov	2.60	0.04	0.25	0.00	0.00
Dec	12.81	0.21	0.70	0.00	0.00
Jan 2019	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00
Mar	2.06	0.03	0.35	0.00	0.00
Apr	6.46	0.11	0.59	0.00	0.00
May	21.29	0.35	1.54	0.00	0.00
Jun	43.99	0.74	1.87	0.00	0.00
Jul	70.38	1.14	1.79	0.00	0.00
Aug	64.70	1.05	2.11	0.00	0.00
Sep	55.30	0.93	1.82	0.00	0.00
	301.41			0.00	0.00

Pueblo West Metropolitan District

Return Flow Summary

Pueblo West does not exchange flows from Fountain Creek.

	Total SDS RFs to Fountain Creek	Avg Flow	Max Daily Flow	RFs to Ftn Ck Storage	RFs released from Ftn Ck Storage
	acre-feet	cfs	cfs	acre-feet	acre-feet
Oct 2018	acre-feet	cfs	cfs	acre-feet	acre-feet
Nov	n/a	0.00	0.00	0.00	0.00
Dec		0.00	0.00	0.00	0.00
Jan 2019		0.00	0.00	0.00	0.00
Feb		0.00	0.00	0.00	0.00
Mar		0.00	0.00	0.00	0.00
Apr		0.00	0.00	0.00	0.00
May		0.00	0.00	0.00	0.00
Jun		0.00	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00
Aug		0.00	0.00	0.00	0.00
Sep		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
	0.00			0.00	0.00

Security Water District

	Total SDS RFs to Fountain Creek	Avg Flow	Max Daily Flow	RFs to Ftn Ck Storage	RFs released from Ftn Ck Storage
	acre-feet	cfs	cfs	acre-feet	acre-feet
Oct 2018	48.74	0.79	0.83	0.00	0.00
Nov	44.87	0.75	0.76	0.00	0.00
Dec	47.78	0.78	0.78	0.00	0.00
Jan 2019	55.19	0.90	0.90	0.00	0.00
Feb	44.32	0.80	0.80	0.00	0.00
Mar	44.62	0.73	0.74	0.00	0.00
Apr	47.60	0.80	0.81	0.00	0.00
May	62.79	1.02	1.02	0.00	0.00
Jun	71.97	1.21	1.22	0.00	0.00
Jul	87.09	1.42	1.43	0.00	0.00
Aug	83.74	1.36	1.37	0.00	0.00
Sep	79.03	1.33	1.34	0.00	0.00
	717.74			0.00	0.00

ATTACHMENT 10

Summaries of SDS Exchanges by Participants between Pueblo Reservoir and the Fountain Creek Confluence

Data will be reported in 12-month increments, from November of the previous year to October of the current year.

Summaries of Exchanges by Participants between Pueblo Reservoir and the Fountain Creek Confluence

Colorado Springs Utilities

SDS Exchange Summary

	Total Exchange	Avg Flow
	acre-feet	cfs
Oct 2018	171.45	2.88
Nov	139.51	2.34
Dec	0.00	0.00
Jan 2019	0.00	0.00
Feb	0.00	0.00
Mar	132.48	2.23
Apr	221.27	3.60
May	120.21	2.02
Jun	111.27	1.81
Jul	76.53	1.24
Aug	71.85	1.21
Sep	55.76	0.91

1100.34

City of Fountain

SDS Exchange Summary

	Total Exchange	Avg Flow
	acre-feet	cfs
Oct 2018	0.00	0.00
Nov	0.00	0.00
Dec	0.00	0.00
Jan 2019	0.00	0.00
Feb	0.00	0.00
Mar	0.00	0.00
Apr	0.00	0.00
May	0.00	0.00
Jun	0.00	0.00
Jul	0.00	0.00
Aug	0.00	0.00
Sep	0.00	0.00

0.00

Pueblo West Metropolitan District

SDS Exchange Summary

	Total Exchange	Avg Flow
	acre-feet	cfs
Oct 2018	0.00	0.00
Nov	0.00	0.00
Dec	0.00	0.00
Jan 2019	0.00	0.00
Feb	0.00	0.00
Mar	0.00	0.00
Apr	0.00	0.00
May	0.00	0.00
Jun	0.00	0.00
Jul	0.00	0.00
Aug	0.00	0.00
Sep	0.00	0.00

0.00

Security Water District

SDS Exchange Summary

	Total Exchange	Avg Flow
	acre-feet	cfs
Oct 2018	0.00	0.00
Nov	0.00	0.00
Dec	0.00	0.00
Jan 2019	0.00	0.00
Feb	0.00	0.00
Mar	0.00	0.00
Apr	0.00	0.00
May	0.00	0.00
Jun	0.00	0.00
Jul	0.00	0.00
Aug	0.00	0.00
Sep	0.00	0.00

0.00

ATTACHMENT 11

Pueblo Flow Management Program

Data will be reported in 12-month increments, from November of the previous year to October of the current year.

Pueblo Flow Management Program

Southern Delivery System
1041 Permit Reporting
Water Year 2019

Entity: **Colorado Springs Utilities**

Pueblo Flow Management Program Summary

			Amount	Rate	*Run to Colo Canal*	*Colo Canal aug*	*Leased*
Date Curtailed	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
October 10, 2018	14:00	24:00	43.28	21.90	0.00	0.00	43.28
October 11, 2018	0:00	24:00	94.55	47.75	0.00	0.00	94.55
October 12, 2018	0:00	24:00	92.17	46.47	0.00	0.00	92.17
October 13, 2018	0:00	24:00	86.01	43.36	0.00	0.00	86.01
October 14, 2018	0:00	24:00	80.21	40.44	0.00	0.00	80.21
October 15, 2018	0:00	10:00	40.43	20.38	0.00	7.36	33.07
October 30, 2018	8:30	24:00	60.95	30.73	60.95	0.00	0.00
October 31, 2018	0:00	24:00	106.77	53.83	102.28	0.00	0.00
November 1, 2018	0:00	9:00	37.19	18.75	37.19	0.00	0.00
November 15, 2018	0:00	24:00	89.14	44.94	89.14	0.00	0.00
November 16, 2018	0:00	24:00	74.47	37.55	74.47	0.00	0.00
November 17, 2018	0:00	24:00	75.22	37.92	75.22	0.00	0.00
November 18, 2018	0:00	24:00	81.63	41.16	81.63	0.00	0.00
November 19, 2018	0:00	24:00	87.37	44.05	87.37	0.00	0.00
November 20, 2018	0:00	24:00	94.04	47.41	94.04	0.00	0.00
November 21, 2018	0:00	24:00	99.66	50.24	99.66	0.00	0.00
November 22, 2018	0:00	24:00	100.01	50.42	100.01	0.00	0.00
November 23, 2018	0:00	24:00	98.03	49.42	98.03	0.00	0.00
November 24, 2018	0:00	24:00	96.00	48.40	96.00	0.00	0.00
November 25, 2018	0:00	24:00	95.78	48.29	95.78	0.00	0.00
November 26, 2018	0:00	24:00	95.31	48.05	95.31	0.00	0.00
November 27, 2018	0:00	24:00	93.42	47.10	93.42	0.00	0.00
November 28, 2018	0:00	24:00	93.26	47.02	93.26	0.00	0.00
November 29, 2018	0:00	24:00	93.29	47.03	93.29	0.00	0.00
November 30, 2018	0:00	24:00	89.73	45.24	89.73	0.00	0.00
December 1, 2018	0:00	24:00	88.52	44.63	88.52	0.00	0.00
December 2, 2018	0:00	24:00	88.07	44.40	88.07	0.00	0.00
December 3, 2018	0:00	24:00	94.10	47.44	94.10	0.00	0.00
December 4, 2018	0:00	24:00	99.95	50.39	99.95	0.00	0.00
December 5, 2018	0:00	24:00	98.90	49.86	98.90	0.00	0.00
December 6, 2018	0:00	24:00	98.70	49.76	98.70	0.00	0.00
December 7, 2018	0:00	24:00	99.64	50.23	99.64	0.00	0.00
December 8, 2018	0:00	24:00	98.24	49.53	98.24	0.00	0.00
December 9, 2018	0:00	24:00	96.90	48.85	96.90	0.00	0.00
December 10, 2018	0:00	24:00	95.75	48.27	95.75	0.00	0.00
December 11, 2018	0:00	24:00	94.78	47.79	94.78	0.00	0.00
December 12, 2018	0:00	24:00	94.71	47.75	94.71	0.00	0.00
December 13, 2018	0:00	24:00	92.31	46.54	92.31	0.00	0.00

Entity: **Colorado Springs Utilities**

Pueblo Flow Management Program Summary

Date Curtailed	Start Time	End Time	Amount acre-feet	Rate cfs	*Run to Colo Canal* acre-feet	*Colo Canal aug* acre-feet	*Leased* acre-feet
December 14, 2018	0:00	24:00	90.82	45.79	90.82	0.00	0.00
December 15, 2018	0:00	24:00	90.82	45.79	90.82	0.00	0.00
December 16, 2018	0:00	24:00	91.36	46.06	91.36	0.00	0.00
December 17, 2018	0:00	24:00	91.24	46.00	91.24	0.00	0.00
December 18, 2018	0:00	24:00	90.59	45.67	90.59	0.00	0.00
December 19, 2018	0:00	24:00	89.24	44.99	89.24	0.00	0.00
December 20, 2018	0:00	24:00	86.38	43.55	86.38	0.00	0.00
December 21, 2018	0:00	24:00	87.49	44.11	87.49	0.00	0.00
December 22, 2018	0:00	24:00	88.49	44.62	88.49	0.00	0.00
December 23, 2018	0:00	24:00	88.35	44.54	88.35	0.00	0.00
December 24, 2018	0:00	24:00	87.94	44.34	87.94	0.00	0.00
December 25, 2018	0:00	24:00	87.06	43.89	87.06	0.00	0.00
December 26, 2018	0:00	24:00	85.21	42.96	85.21	0.00	0.00
December 27, 2018	0:00	24:00	85.79	43.25	85.79	0.00	0.00
December 28, 2018	0:00	24:00	87.69	44.21	87.69	0.00	0.00
December 29, 2018	0:00	24:00	86.58	43.65	86.58	0.00	0.00
December 30, 2018	0:00	24:00	87.79	44.26	87.79	0.00	0.00
December 31, 2018	0:00	24:00	87.19	43.96	87.19	0.00	0.00
January 1, 2019	0:00	24:00	87.27	44.00	87.27	0.00	0.00
January 2, 2019	0:00	24:00	88.40	44.57	88.40	0.00	0.00
January 3, 2019	0:00	24:00	91.88	46.32	91.88	0.00	0.00
January 4, 2019	0:00	24:00	90.17	45.46	90.17	0.00	0.00
January 5, 2019	0:00	24:00	90.78	45.77	90.78	0.00	0.00
January 6, 2019	0:00	24:00	91.38	46.07	91.38	0.00	0.00
January 7, 2019	0:00	24:00	91.58	46.17	91.58	0.00	0.00
January 8, 2019	0:00	24:00	91.46	46.11	91.46	0.00	0.00
January 9, 2019	0:00	24:00	92.13	46.45	92.13	0.00	0.00
January 10, 2019	0:00	24:00	93.54	47.16	93.54	0.00	0.00
January 11, 2019	0:00	24:00	94.77	47.78	94.77	0.00	0.00
January 12, 2019	0:00	24:00	97.19	49.00	97.19	0.00	0.00
January 13, 2019	0:00	24:00	99.14	49.98	99.14	0.00	0.00
January 14, 2019	0:00	24:00	98.80	49.81	98.80	0.00	0.00
January 15, 2019	0:00	24:00	97.83	49.32	97.83	0.00	0.00
January 16, 2019	0:00	24:00	96.83	48.82	96.83	0.00	0.00
January 17, 2019	0:00	24:00	99.14	49.98	99.14	0.00	0.00
January 18, 2019	0:00	24:00	93.30	47.04	93.30	0.00	0.00
January 19, 2019	0:00	24:00	99.33	50.08	99.33	0.00	0.00
January 20, 2019	0:00	24:00	109.43	55.17	109.43	0.00	0.00
January 21, 2019	0:00	24:00	104.89	52.88	104.89	0.00	0.00
January 22, 2019	0:00	24:00	100.40	50.62	0.00	0.00	100.40
January 23, 2019	0:00	24:00	95.17	47.98	0.00	0.00	95.17
January 24, 2019	0:00	24:00	94.34	47.56	0.00	0.00	94.34
January 25, 2019	0:00	24:00	94.38	47.58	0.00	0.00	94.38
January 26, 2019	0:00	24:00	91.60	46.18	0.00	0.00	91.60

Entity: **Colorado Springs Utilities**

Pueblo Flow Management Program Summary

Date Curtailed	Start Time	End Time	Amount acre-feet	Rate cfs	*Run to Colo Canal* acre-feet	*Colo Canal aug* acre-feet	*Leased* acre-feet
January 27, 2019	0:00	24:00	89.56	45.15	0.00	0.00	89.56
January 28, 2019	0:00	24:00	88.89	44.81	0.00	0.00	88.89
January 29, 2019	0:00	24:00	88.93	44.83	0.00	0.00	88.93
January 30, 2019	0:00	24:00	86.69	43.71	0.00	0.00	86.69
January 31, 2019	0:00	24:00	85.22	42.96	0.00	0.00	85.22
February 1, 2019	0:00	24:00	84.44	42.57	0.00	0.00	84.44
February 2, 2019	0:00	24:00	84.75	42.73	0.00	0.00	84.75
February 3, 2019	0:00	24:00	85.63	43.17	0.00	0.00	85.63
February 4, 2019	0:00	24:00	86.96	43.84	0.00	0.00	86.96
February 5, 2019	0:00	24:00	87.99	44.36	0.00	0.00	87.99
February 6, 2019	0:00	24:00	87.47	44.10	0.00	0.00	87.47
February 7, 2019	0:00	24:00	86.08	43.40	0.00	0.00	86.08
February 8, 2019	0:00	24:00	85.13	42.92	0.00	0.00	85.13
February 9, 2019	0:00	24:00	84.51	42.61	0.00	0.00	84.51
February 10, 2019	0:00	24:00	84.93	42.82	0.00	0.00	84.93
February 11, 2019	0:00	24:00	85.32	43.01	0.00	0.00	85.32
February 12, 2019	0:00	24:00	85.52	43.11	0.00	0.00	85.52
February 13, 2019	0:00	24:00	84.01	42.35	0.00	0.00	84.01
February 14, 2019	0:00	24:00	84.01	42.36	0.00	0.00	84.01
February 15, 2019	0:00	24:00	86.38	43.55	0.00	0.00	86.38
February 16, 2019	0:00	24:00	87.08	43.90	0.00	0.00	87.08
February 17, 2019	0:00	24:00	87.27	44.00	0.00	0.00	87.27
February 18, 2019	0:00	24:00	88.50	44.62	0.00	0.00	88.50
February 19, 2019	0:00	24:00	85.90	43.31	0.00	0.00	85.90
February 20, 2019	0:00	24:00	85.85	43.28	0.00	0.00	85.85
February 21, 2019	0:00	24:00	84.78	42.74	0.00	0.00	84.78
February 22, 2019	0:00	24:00	84.74	42.72	0.00	0.00	84.74
February 23, 2019	0:00	24:00	85.84	43.28	0.00	0.00	85.84
February 24, 2019	0:00	24:00	89.58	45.16	0.00	0.00	89.58
February 25, 2019	0:00	24:00	91.42	46.09	0.00	0.00	91.42
February 26, 2019	0:00	24:00	95.84	48.32	0.00	0.00	95.84
February 27, 2019	0:00	24:00	97.11	48.96	0.00	0.00	97.11
February 28, 2019	0:00	24:00	96.20	48.50	0.00	0.00	96.20
March 1, 2019	0:00	24:00	92.69	46.73	0.00	0.00	92.69
March 2, 2019	0:00	24:00	88.81	44.77	0.00	0.00	88.81
March 3, 2019	0:00	24:00	87.06	43.89	0.00	0.00	87.06
March 4, 2019	0:00	24:00	84.84	42.77	0.00	0.00	84.84
March 5, 2019	0:00	24:00	84.76	42.73	0.00	0.00	84.76
March 6, 2019	0:00	24:00	84.51	42.61	0.00	0.00	84.51
March 7, 2019	0:00	24:00	87.02	43.87	0.00	0.00	87.02
March 8, 2019	0:00	24:00	86.28	43.50	0.00	0.00	86.28
March 9, 2019	0:00	24:00	84.26	42.48	0.00	0.00	84.26
March 10, 2019	0:00	24:00	81.85	41.27	0.00	0.00	81.85
March 11, 2019	0:00	24:00	80.81	40.74	0.00	0.00	80.81

Entity: **Colorado Springs Utilities**

Pueblo Flow Management Program Summary

			Amount	Rate	*Run to Colo Canal*	*Colo Canal aug*	*Leased*
Date Curtailed	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
March 12, 2019	0:00	24:00	81.06	40.87	0.00	0.00	81.06
March 13, 2019	0:00	24:00	87.23	43.98	0.00	0.00	87.23
March 14, 2019	0:00	24:00	88.14	44.44	0.00	0.00	88.14
April 19, 2019	7:00	24:00	50.80	36.16	50.80	0.00	0.00
April 20, 2019	0:00	24:00	69.28	34.93	69.28	0.00	0.00
April 21, 2019	0:00	21:00	60.05	34.60	60.05	0.00	0.00
May 26, 2019	0:00	24:00	72.70	36.65	72.70	0.00	0.00
May 27, 2019	0:00	24:00	56.57	36.03	56.57	0.00	0.00

Low Flow Program Summary (Colorado Springs and BWWP only)

			Amount	Rate	*Use 1*	*Use 2*	*Use 3*
Date	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
no releases in 2019							

Entity: **City of Fountain**

Pueblo Flow Management Program Summary

			Amount	Rate	*Use 1*	*Use 2*	*Use 3*
Date Curtailed	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
n/a							

Entity: **Pueblo West Metropolitan District**

Pueblo Flow Management Program Summary

			Amount	Rate	Spill	*Use 2*	*Use 3*
Date Curtailed	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
n/a							

Entity: **Security Water District**

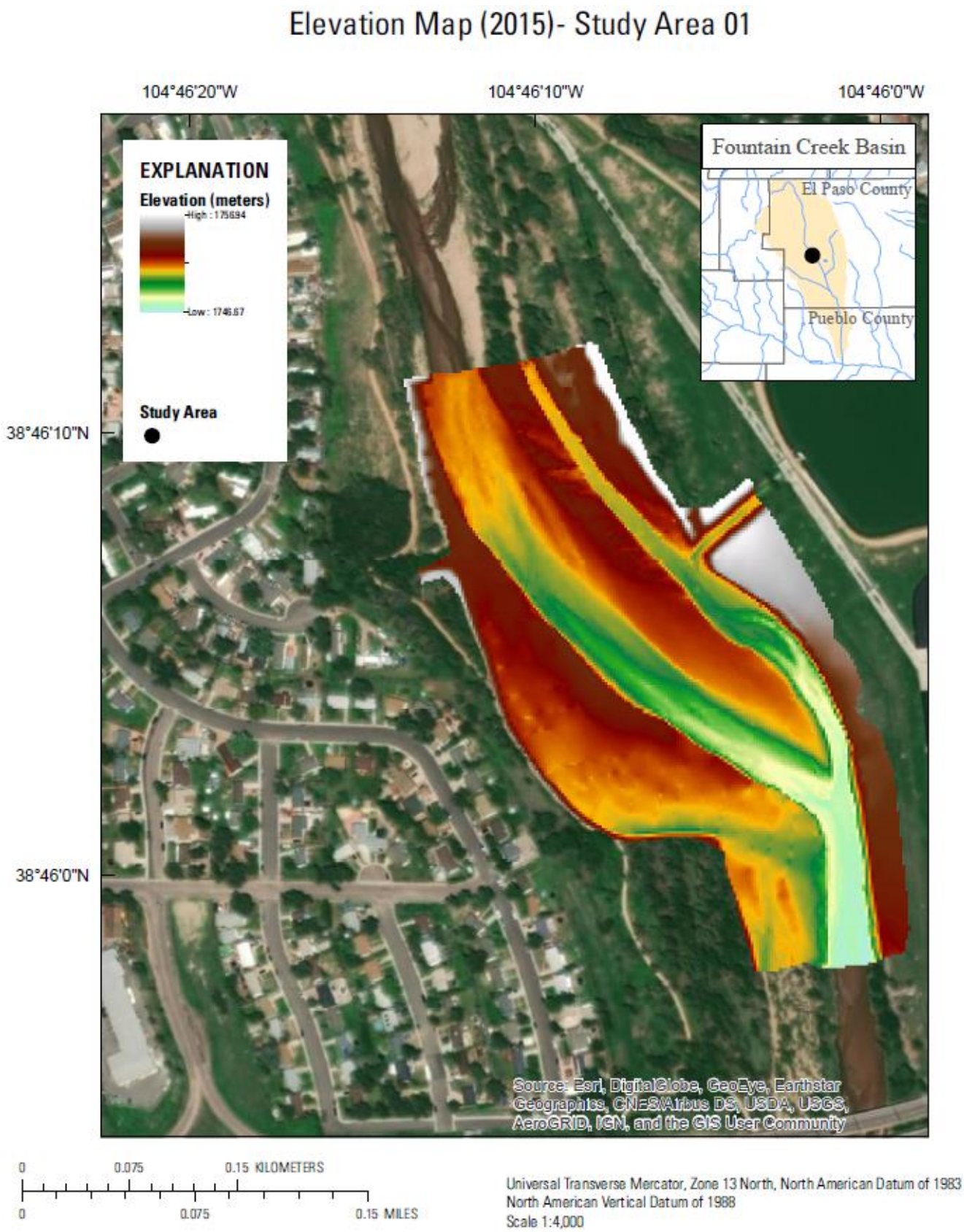
Pueblo Flow Management Program Summary

			Amount	Rate	*Use 1*	*Use 2*	*Use 3*
Date Curtailed	Start Time	End Time	acre-feet	cfs	acre-feet	acre-feet	acre-feet
n/a							

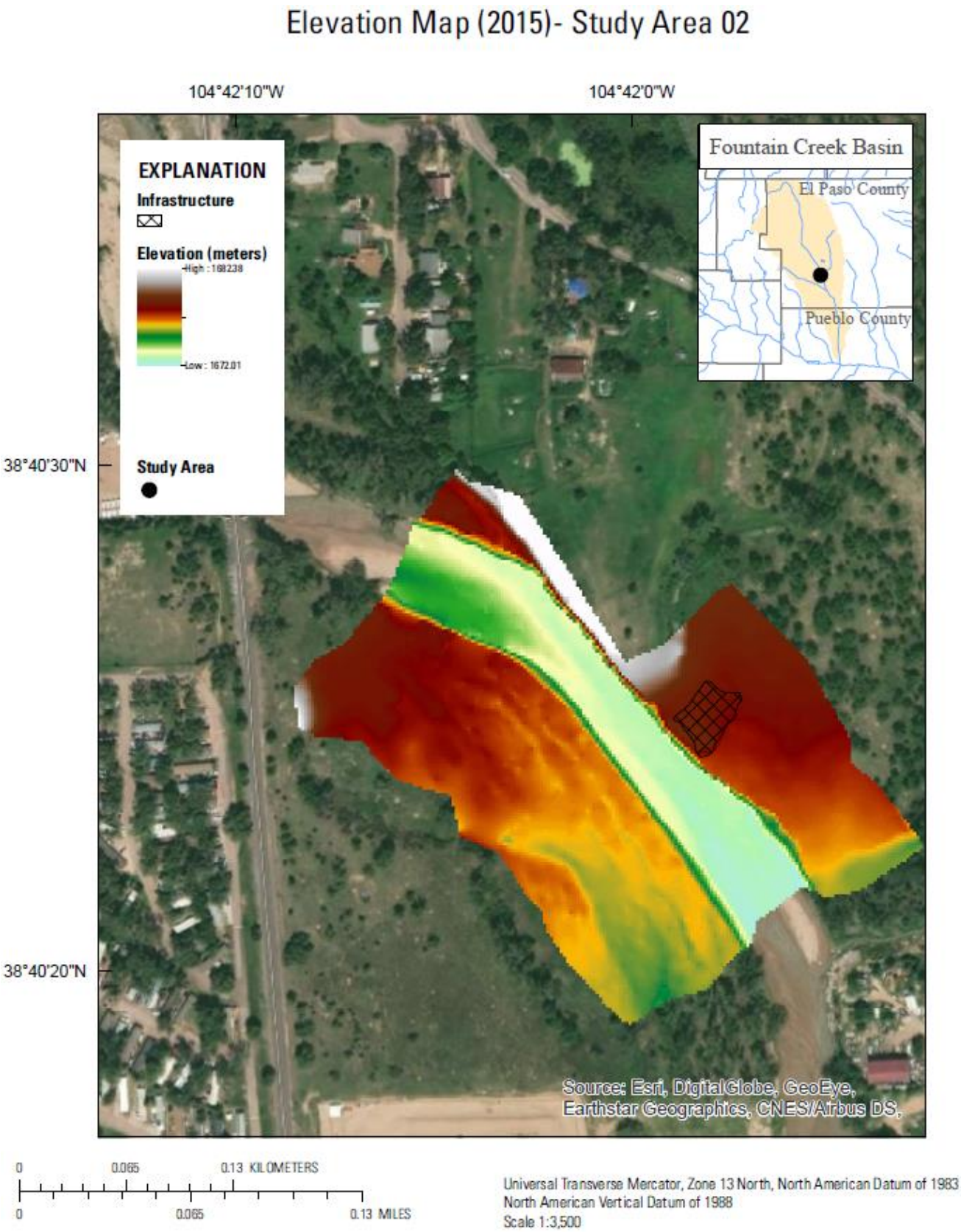
ATTACHMENT 12

Geomorphology Monitoring

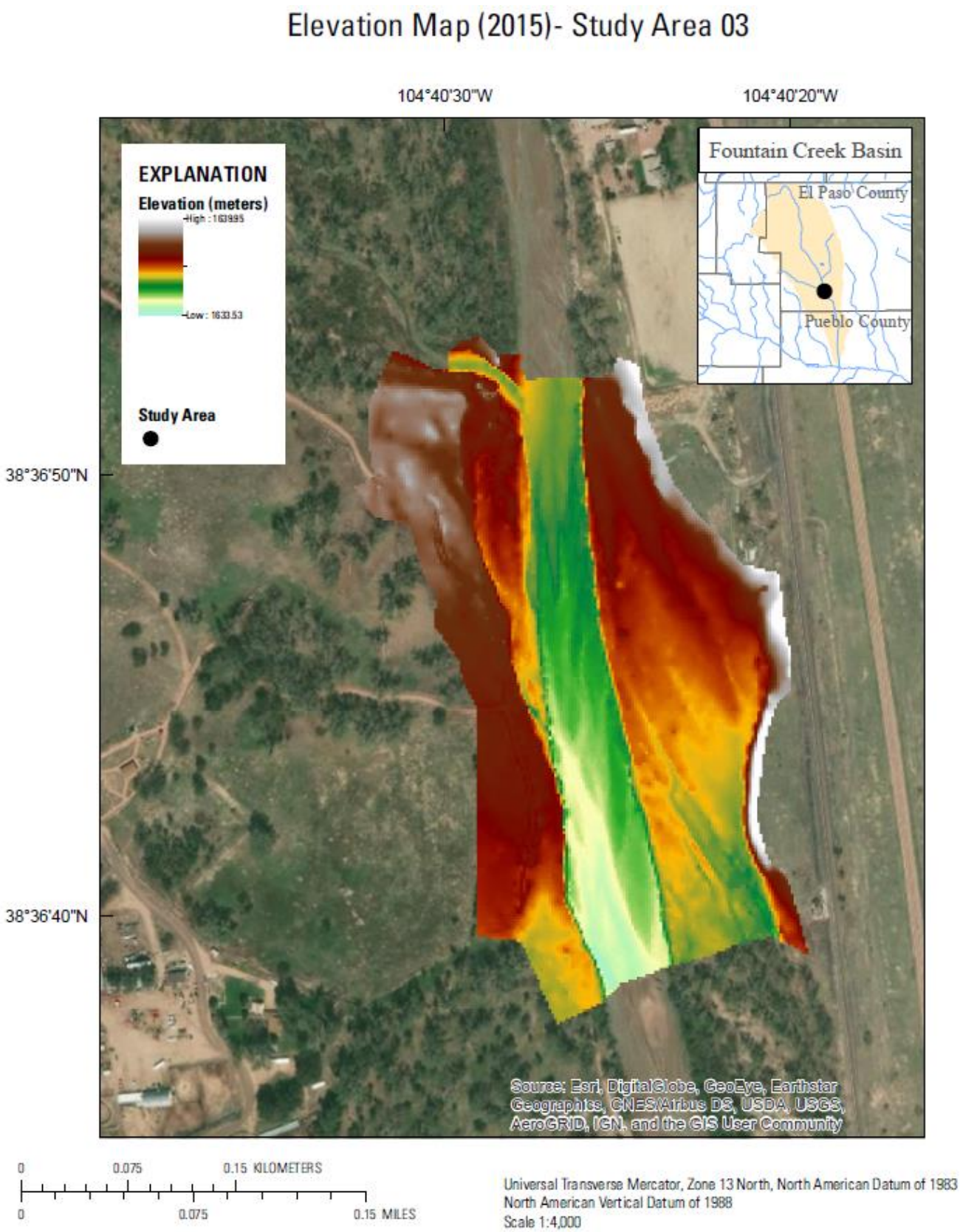
Geomorphic monitoring data are collected under an existing program led by the USGS in partnership with Colorado Springs Utilities and the City of Colorado Springs Engineering Department. Ten cross sections established at designated points along Fountain Creek are monitored for degradation, aggradation, and other changes to the geomorphic surface. Each cross section is surveyed once per year during low stream flow; preferably in the winter when leaves and other organic material on the ground is at a minimum. Survey data from 2015 are provided as pre-SDS operations baseline conditions along with survey data from the reporting period (2019) for comparative purposes. Note that the data are overlaid on an aerial photo that provides context of the surrounding landscape.



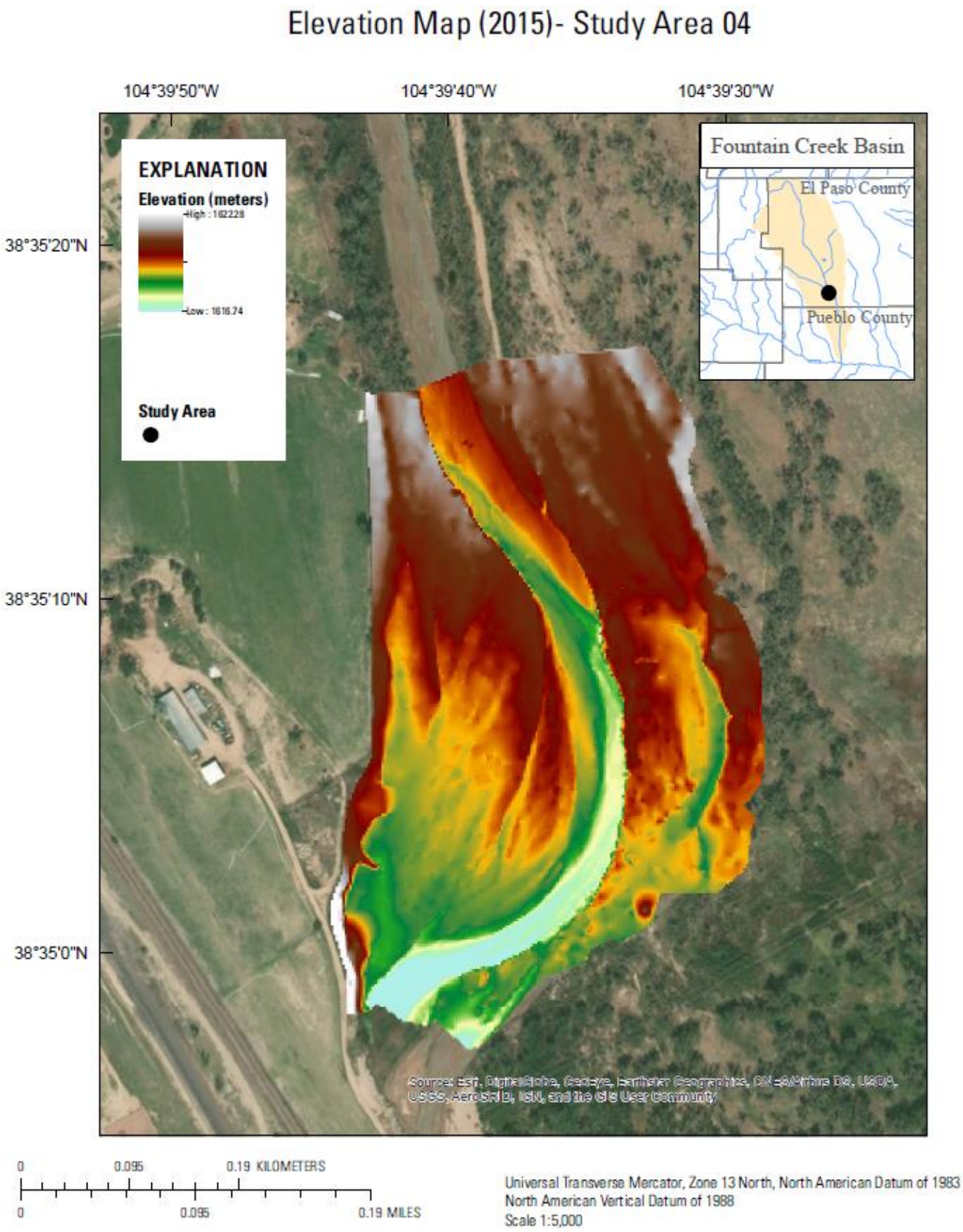
Elevation map of Fountain Creek study area 01 with an aerial background image, 2015.



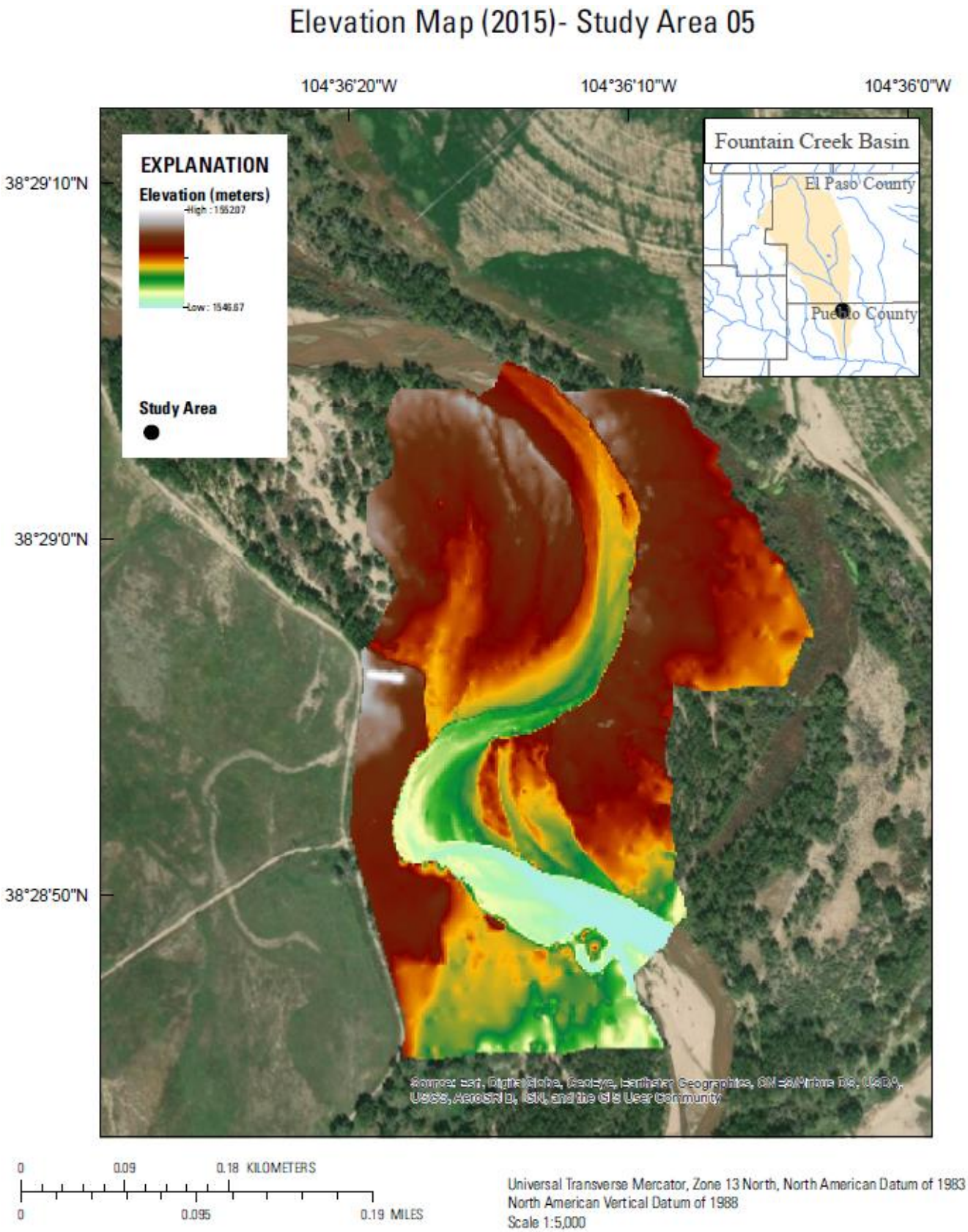
Elevation map of Fountain Creek study area 02with an aerial background image, 2015.



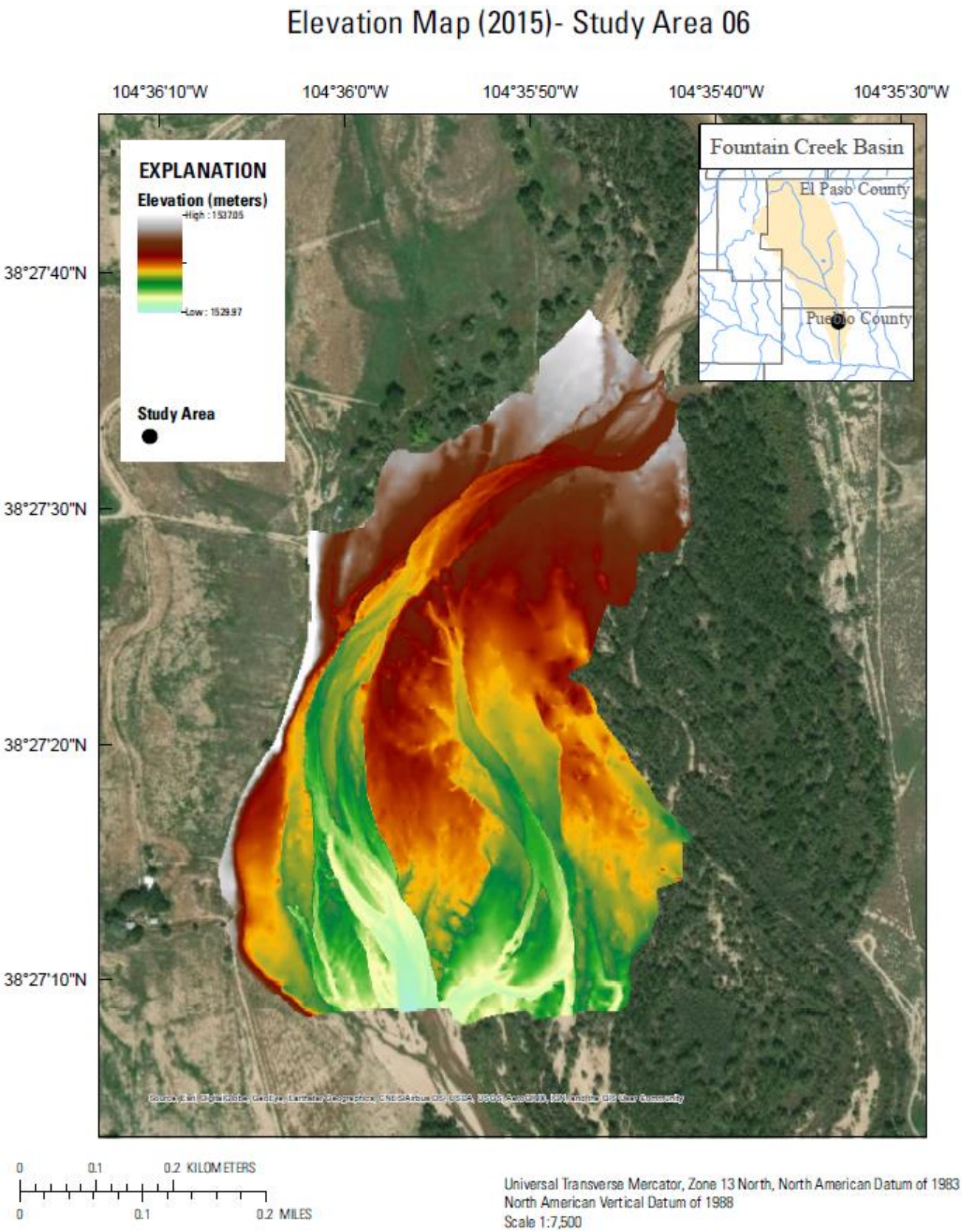
Elevation map of Fountain Creek study area 03 with an aerial background image, 2015.



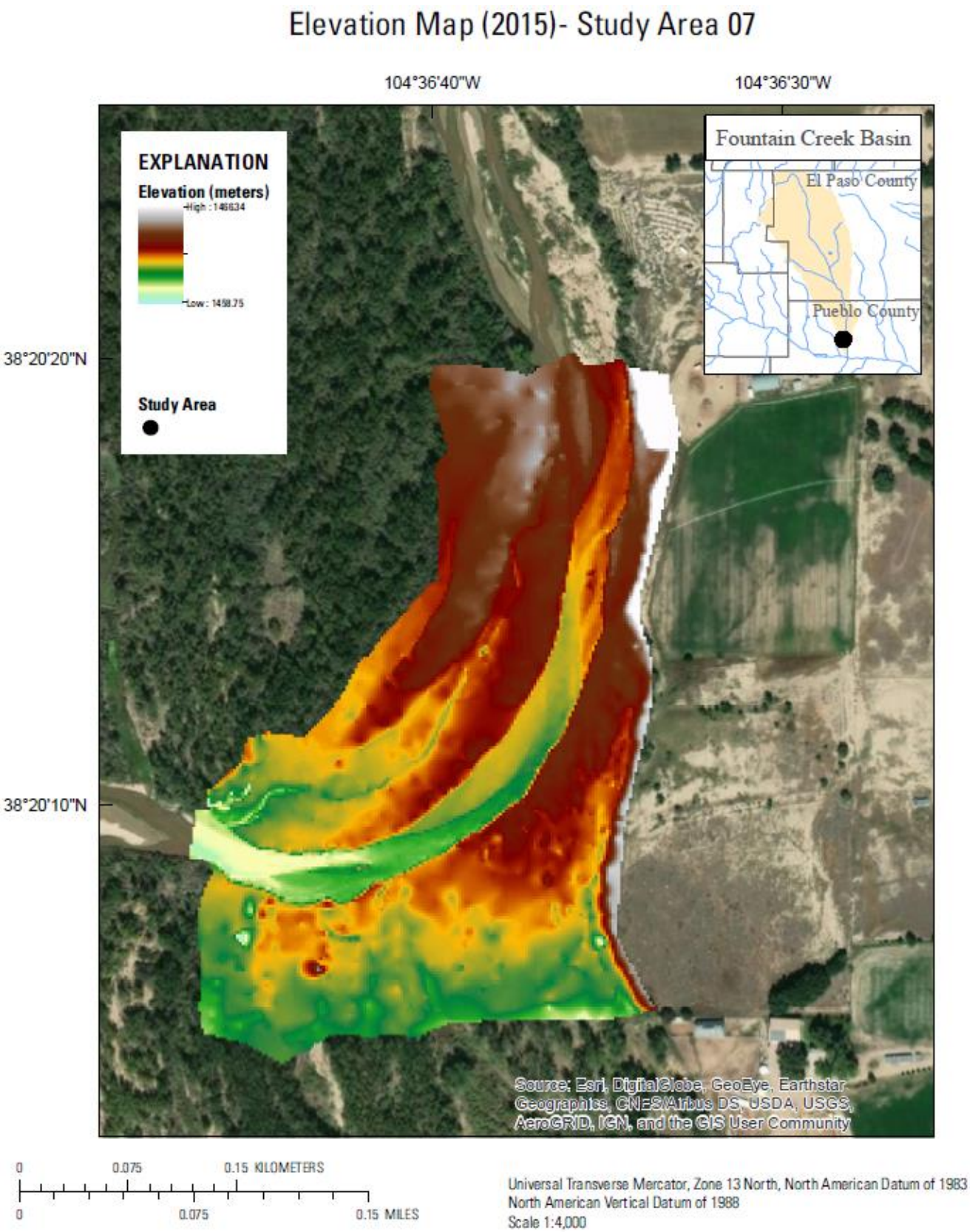
Elevation map of Fountain Creek study area 04 with an aerial background image, 2015.



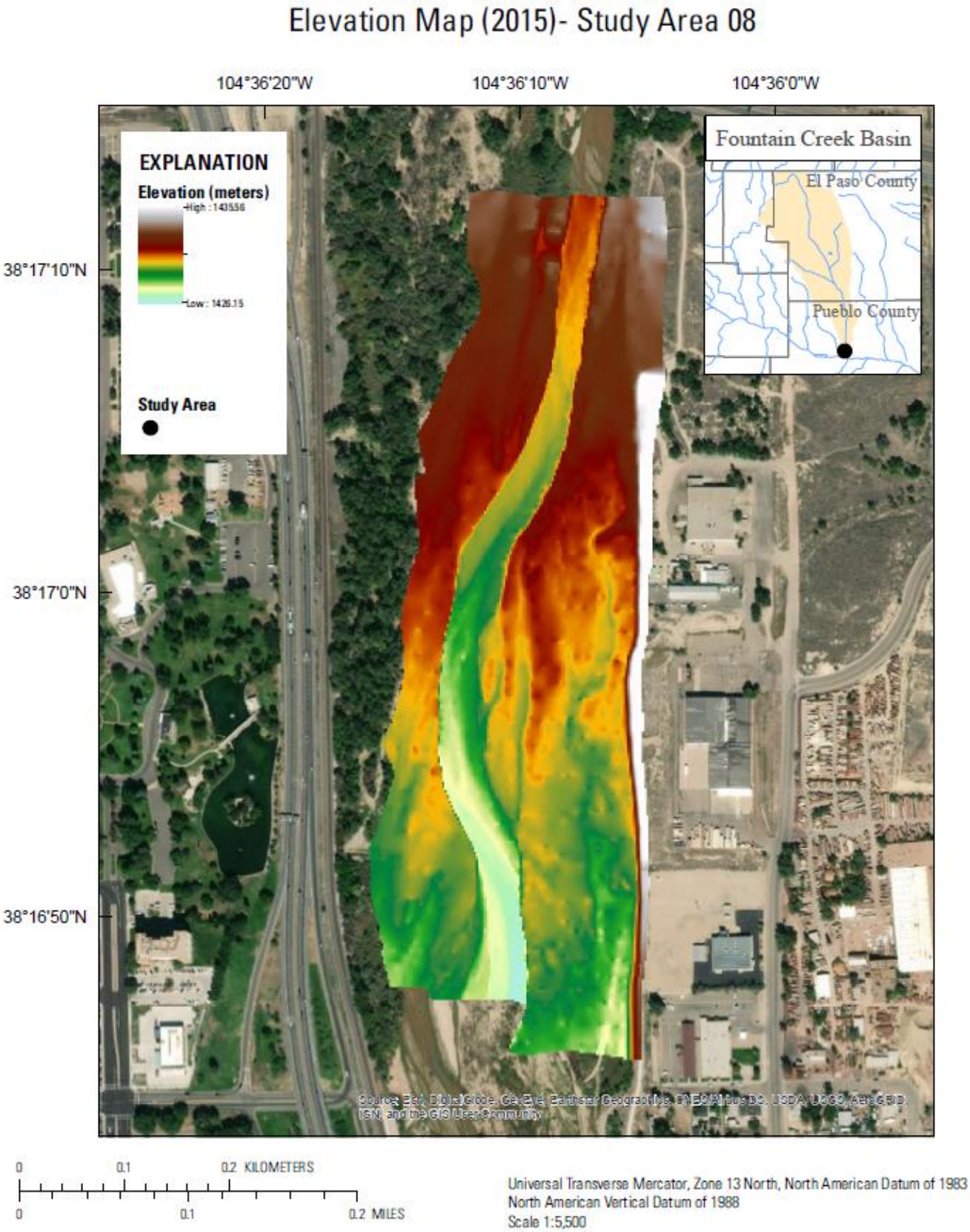
Elevation map of Fountain Creek study area 05 with an aerial background image, 2015.



Elevation map of Fountain Creek study area 06 with an aerial background image, 2015.

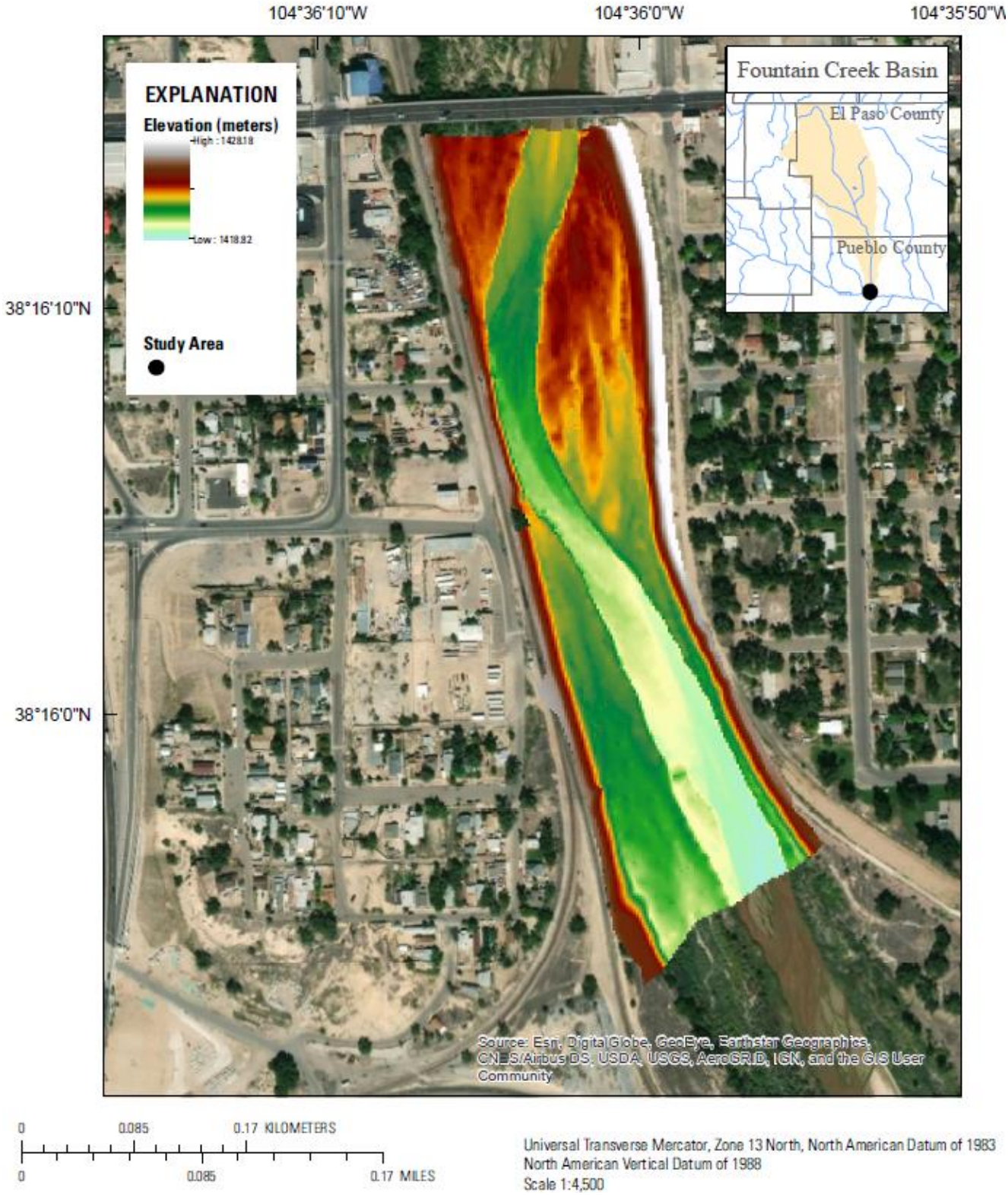


Elevation map of Fountain Creek study area 07 with an aerial background image, 2015.

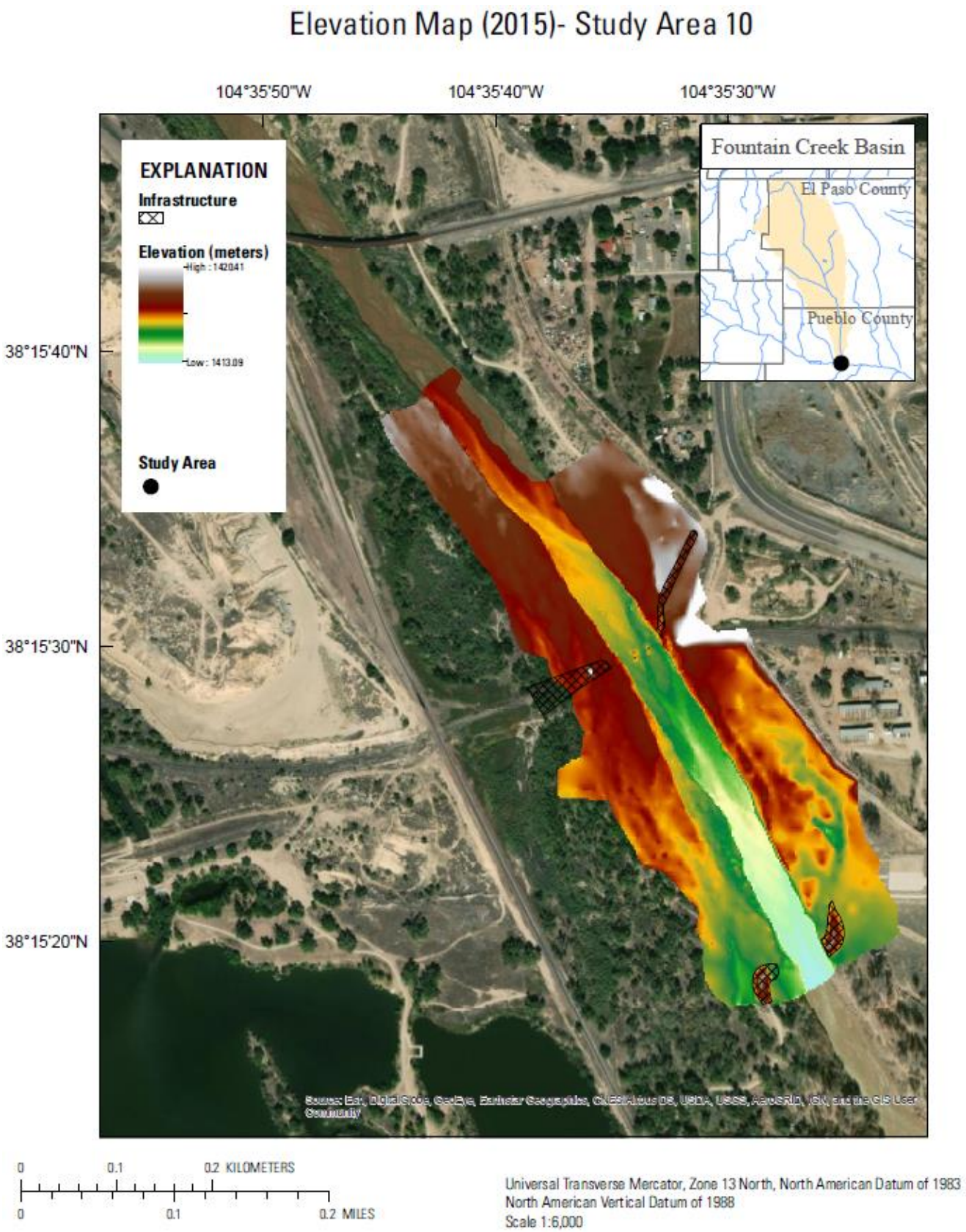


Elevation map of Fountain Creek study area 08 with an aerial background image, 2015.

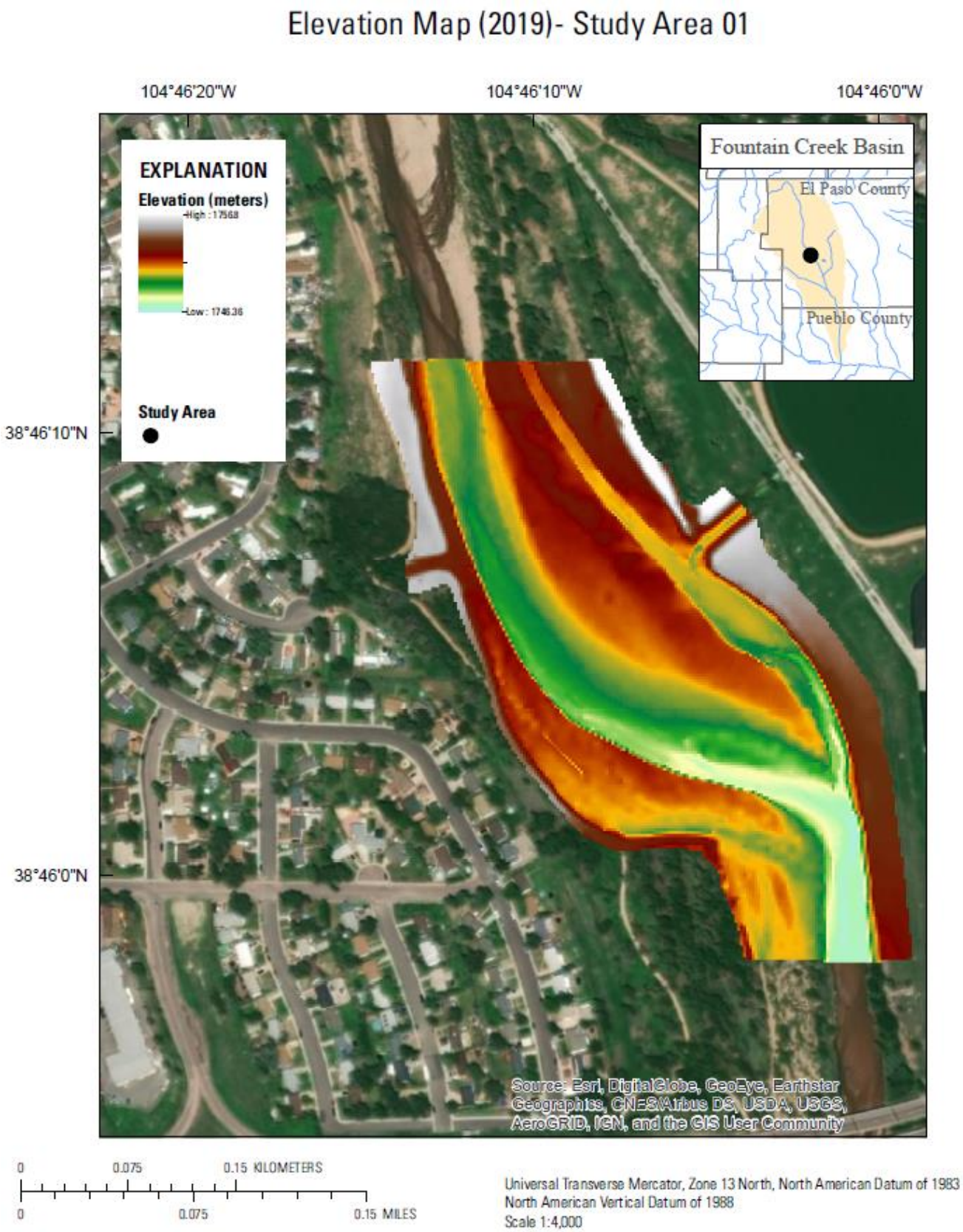
Elevation Map (2015)- Study Area 09



Elevation map of Fountain Creek study area 09 with an aerial background image, 2015.

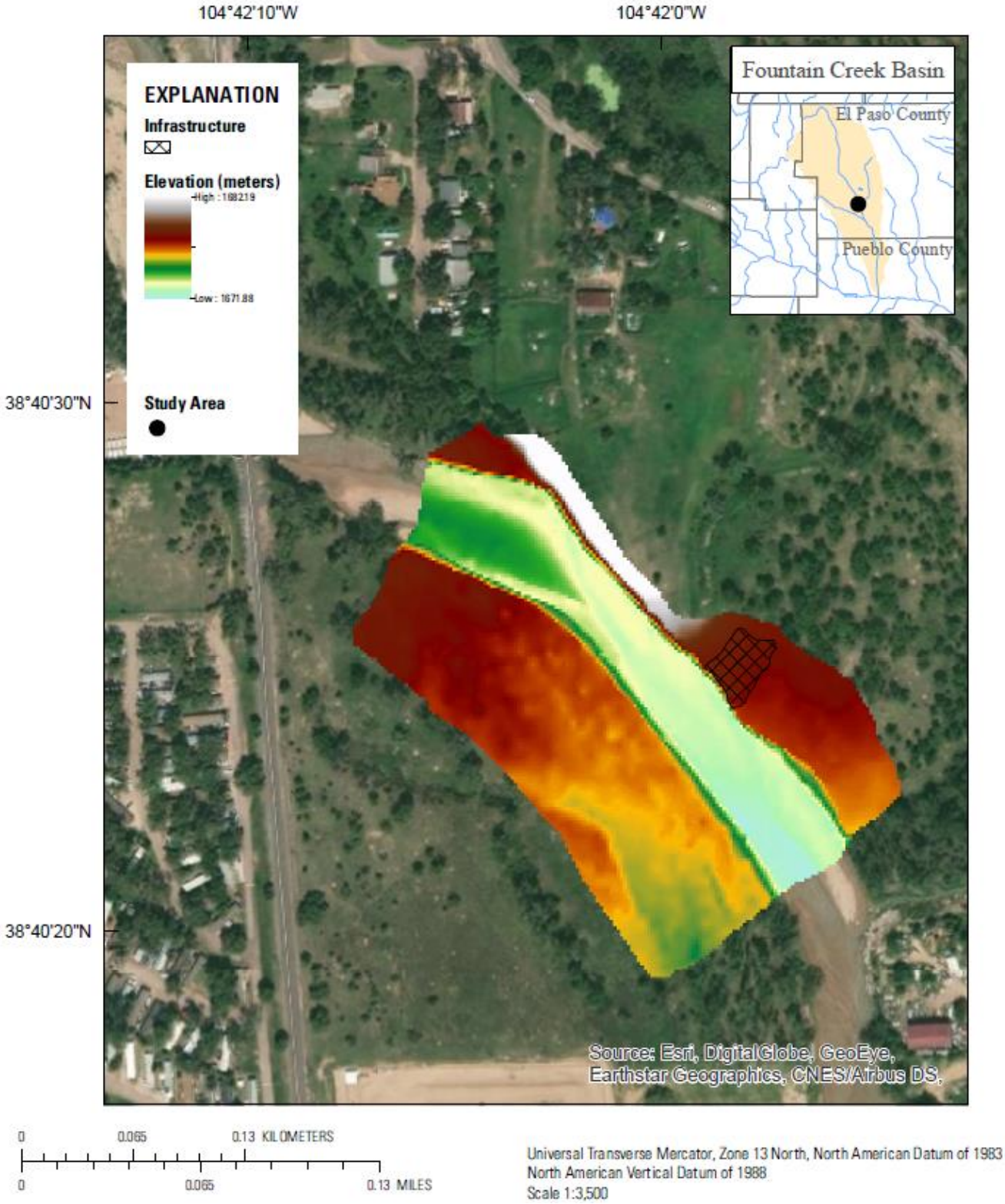


Elevation map of Fountain Creek study area 10 with an aerial background image, 2015.

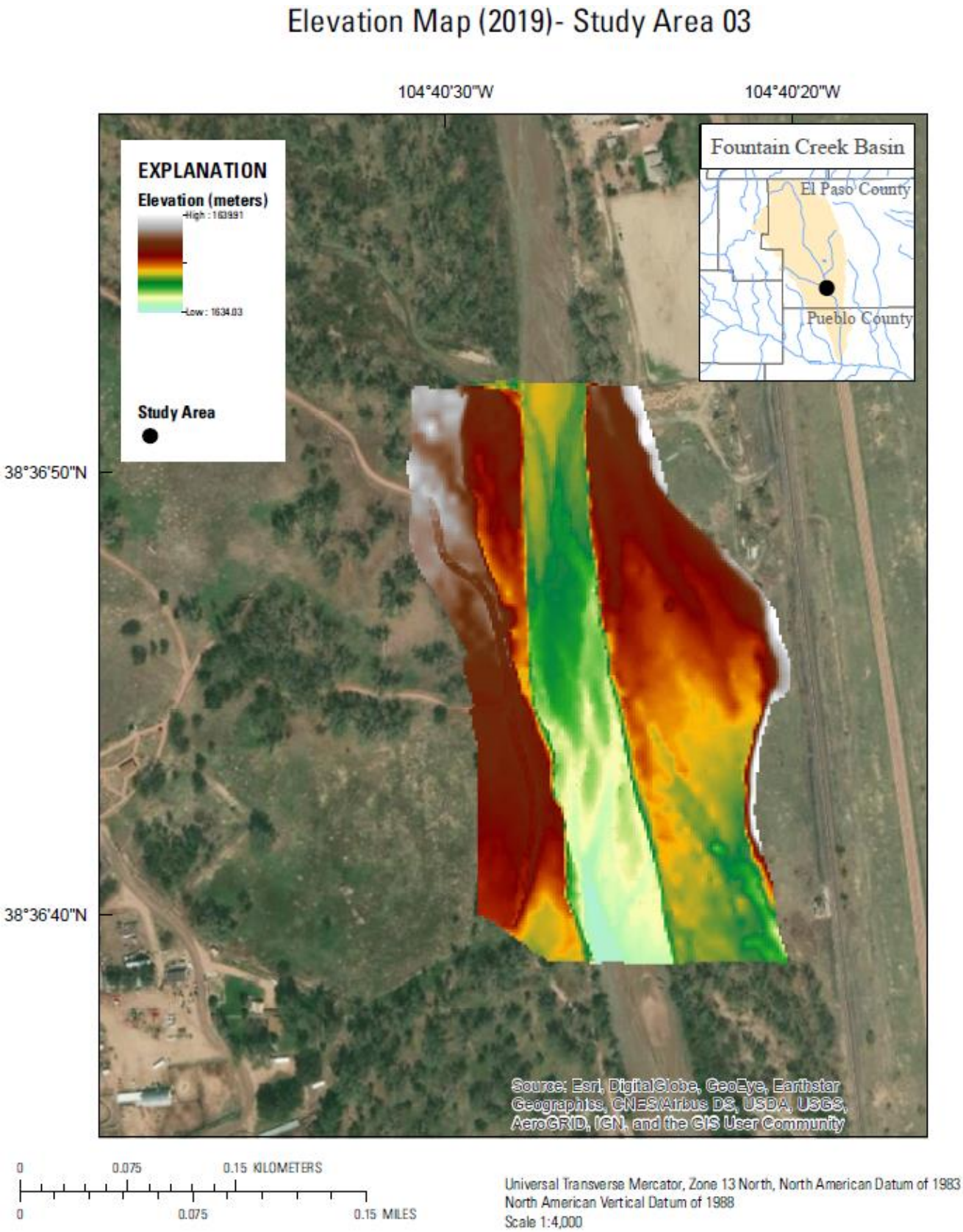


Elevation map of Fountain Creek study area 01 with an aerial background image, 2019.

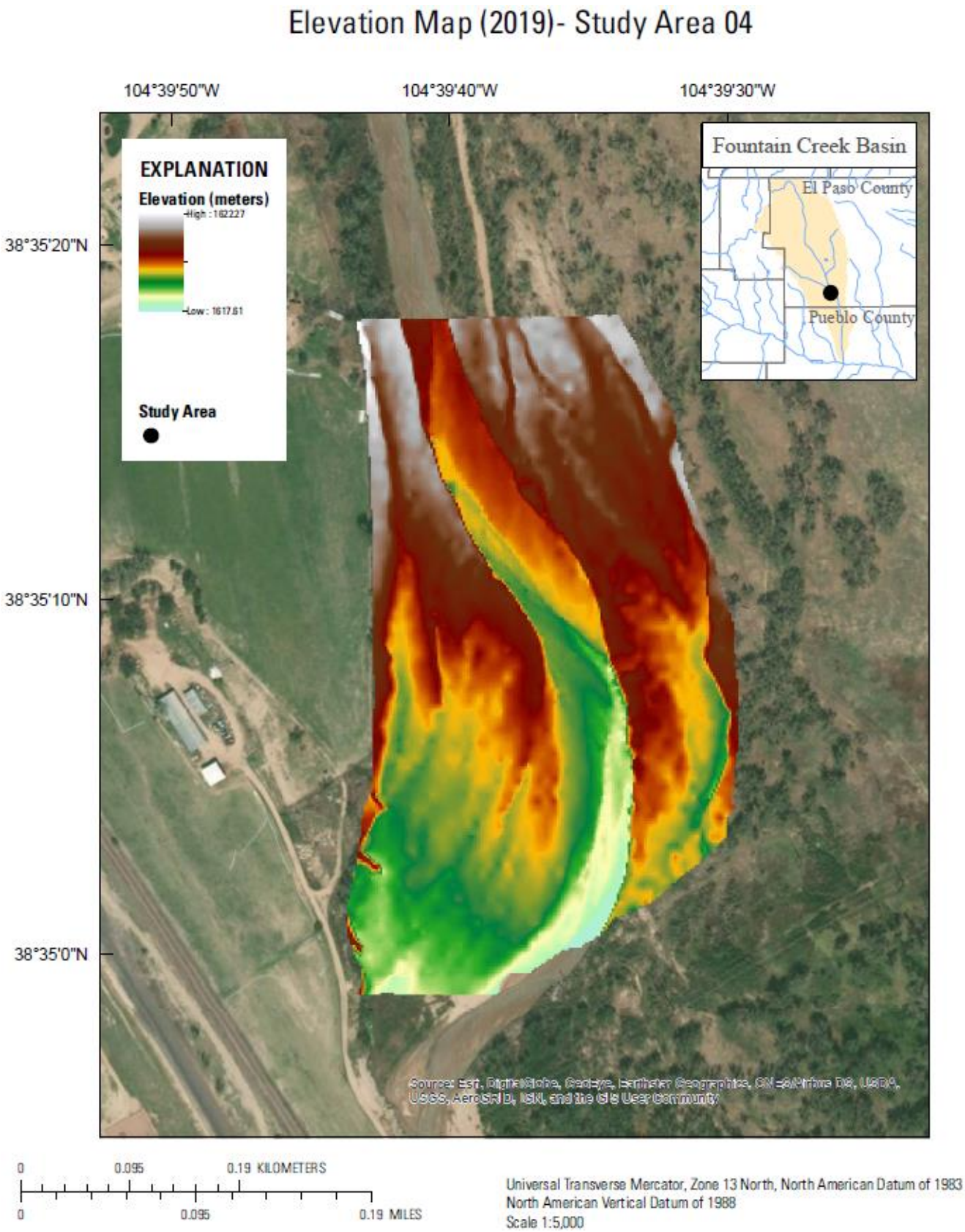
Elevation Map (2019)- Study Area 02



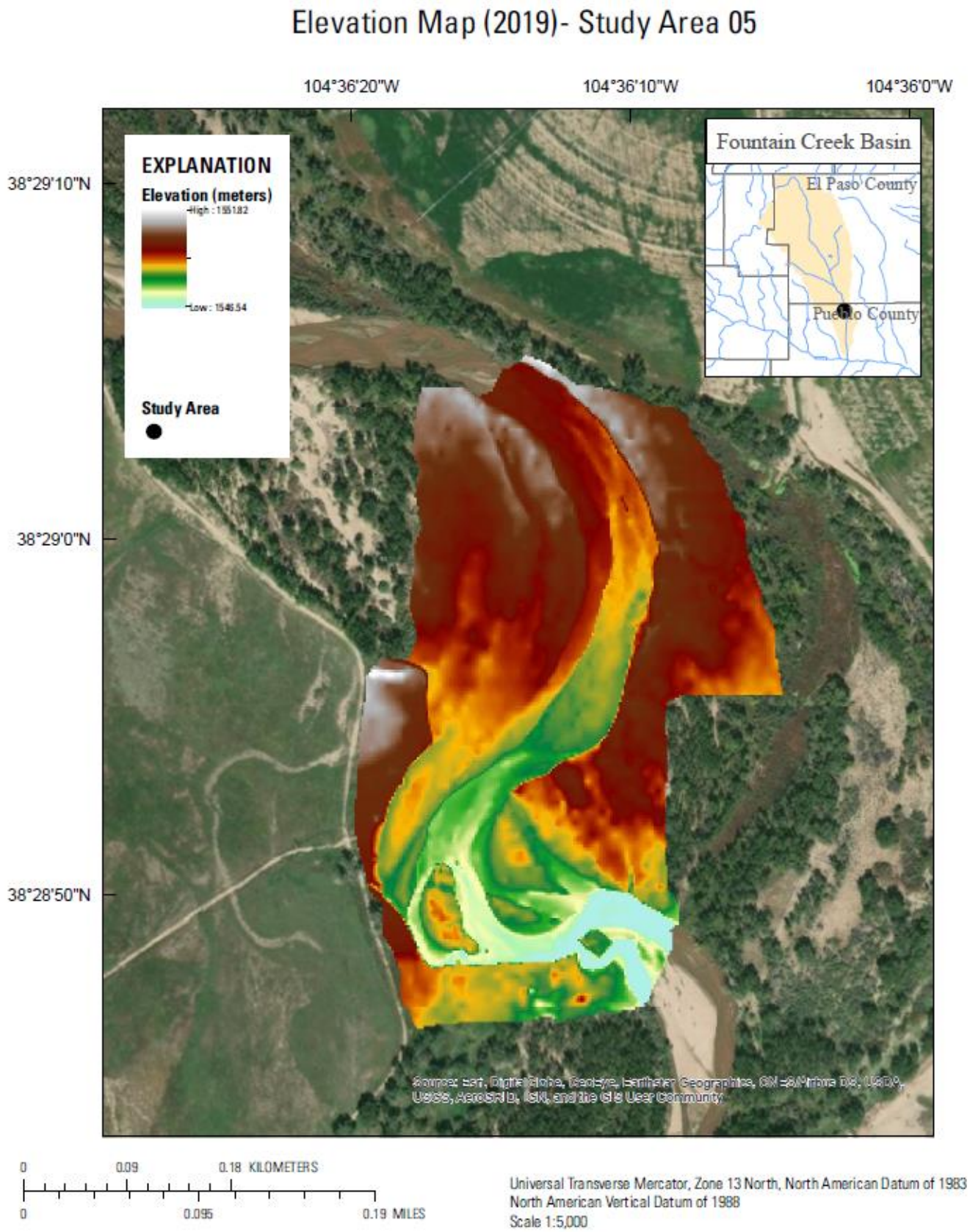
Elevation map of Fountain Creek study area 02 with an aerial background image, 2019.



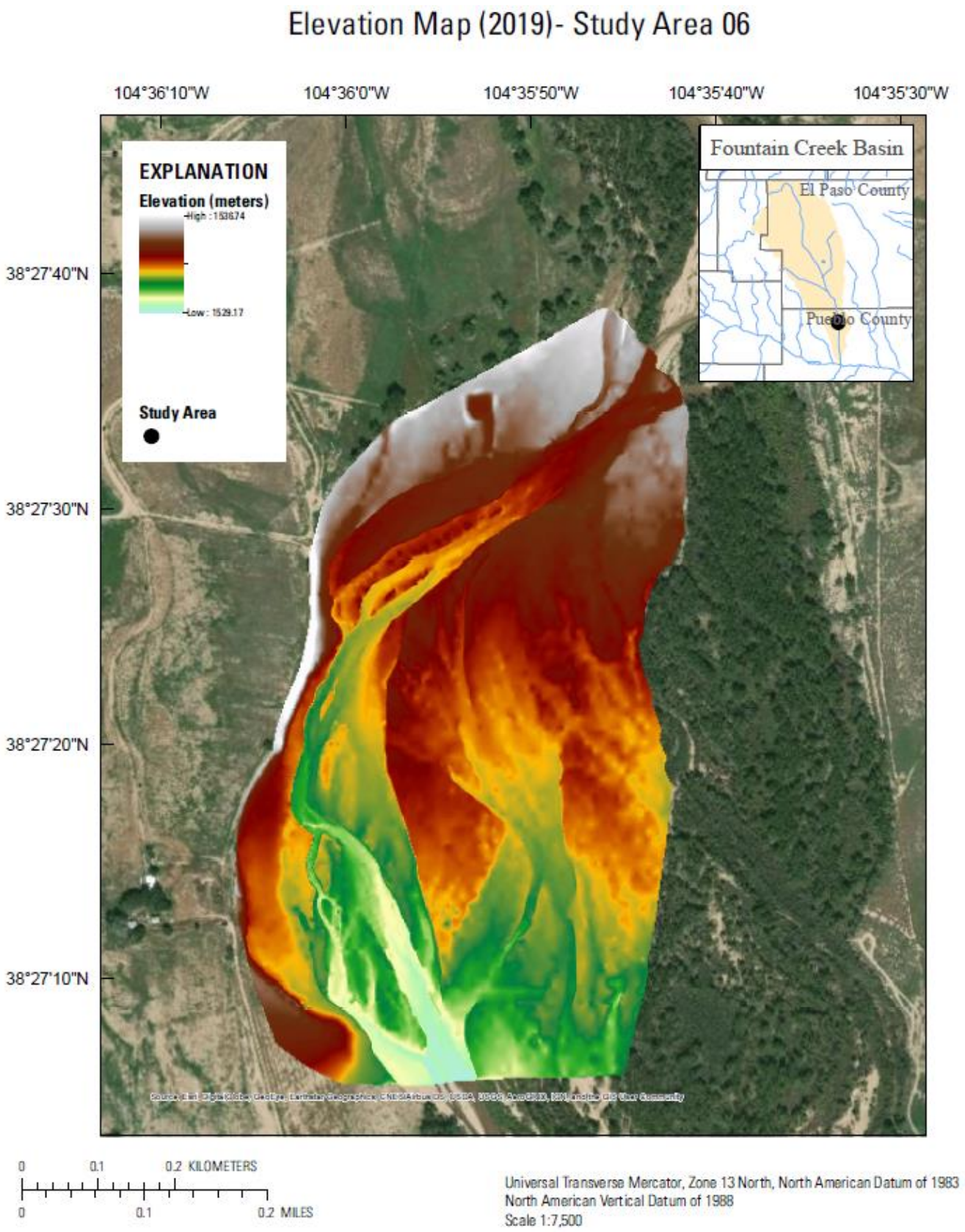
Elevation map of Fountain Creek study area 03 with an aerial background image, 2019.



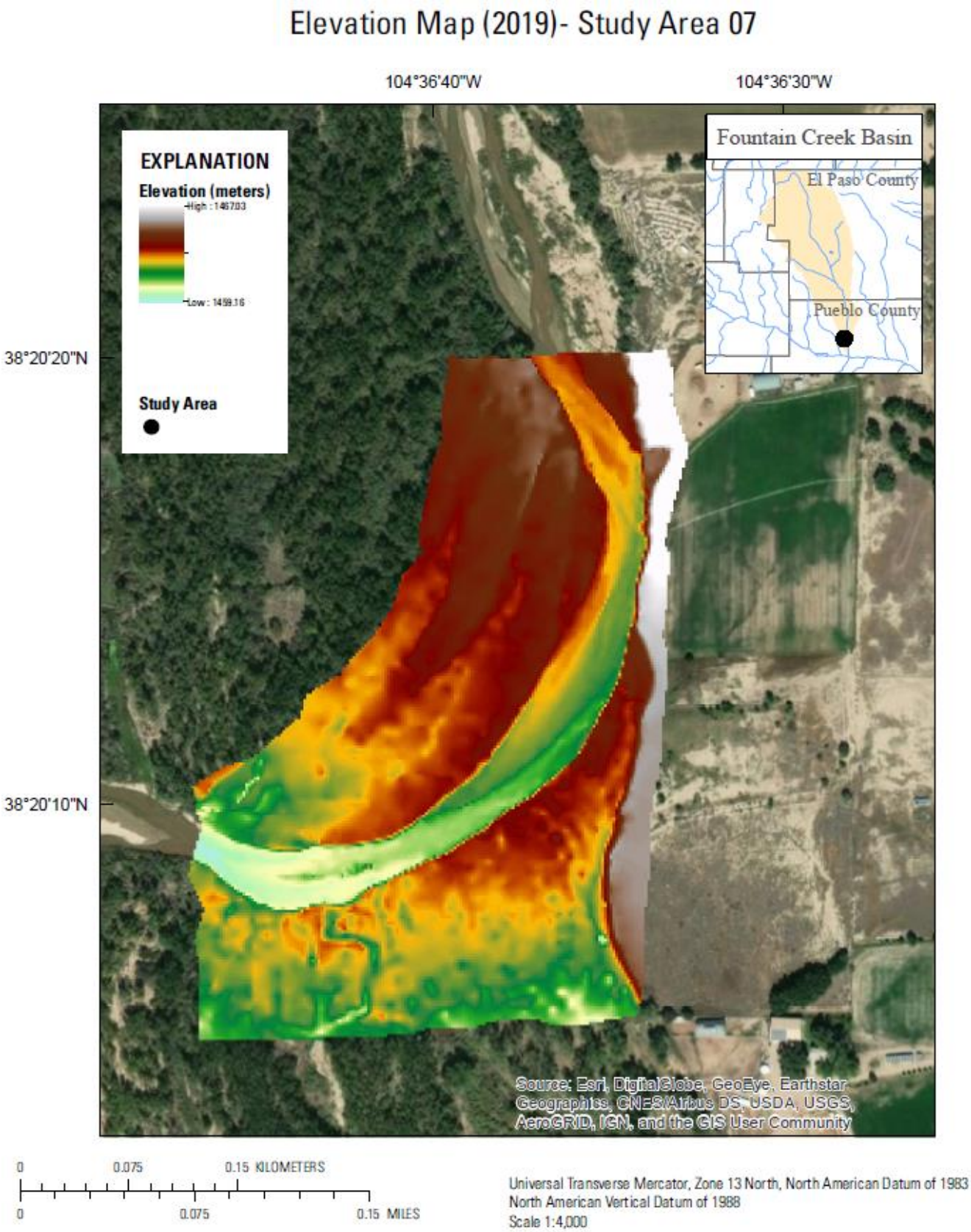
Elevation map of Fountain Creek study area 04 with an aerial background image, 2019.



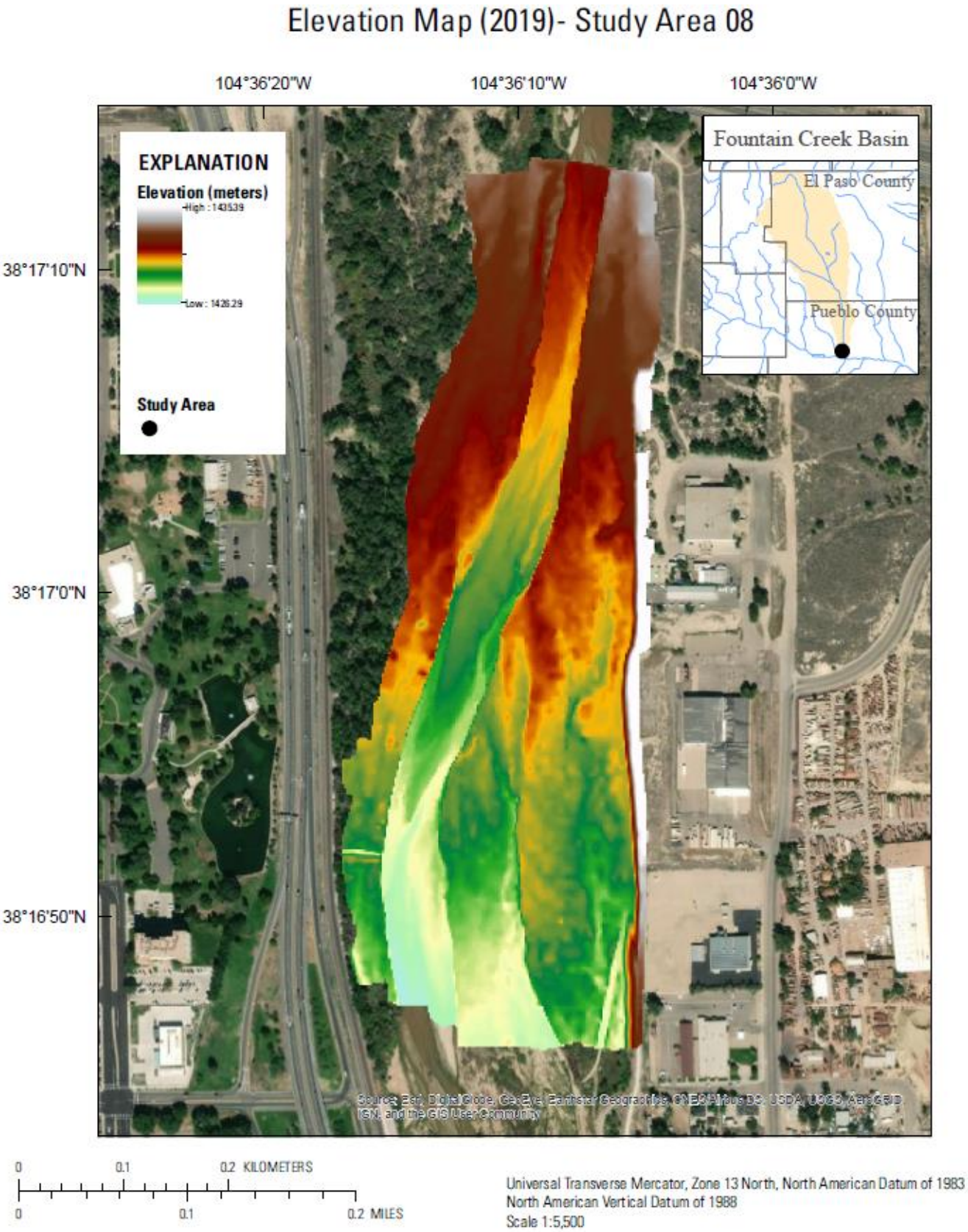
Elevation map of Fountain Creek study area 05 with an aerial background image, 2019.



Elevation map of Fountain Creek study area 06 with an aerial background image, 2019.

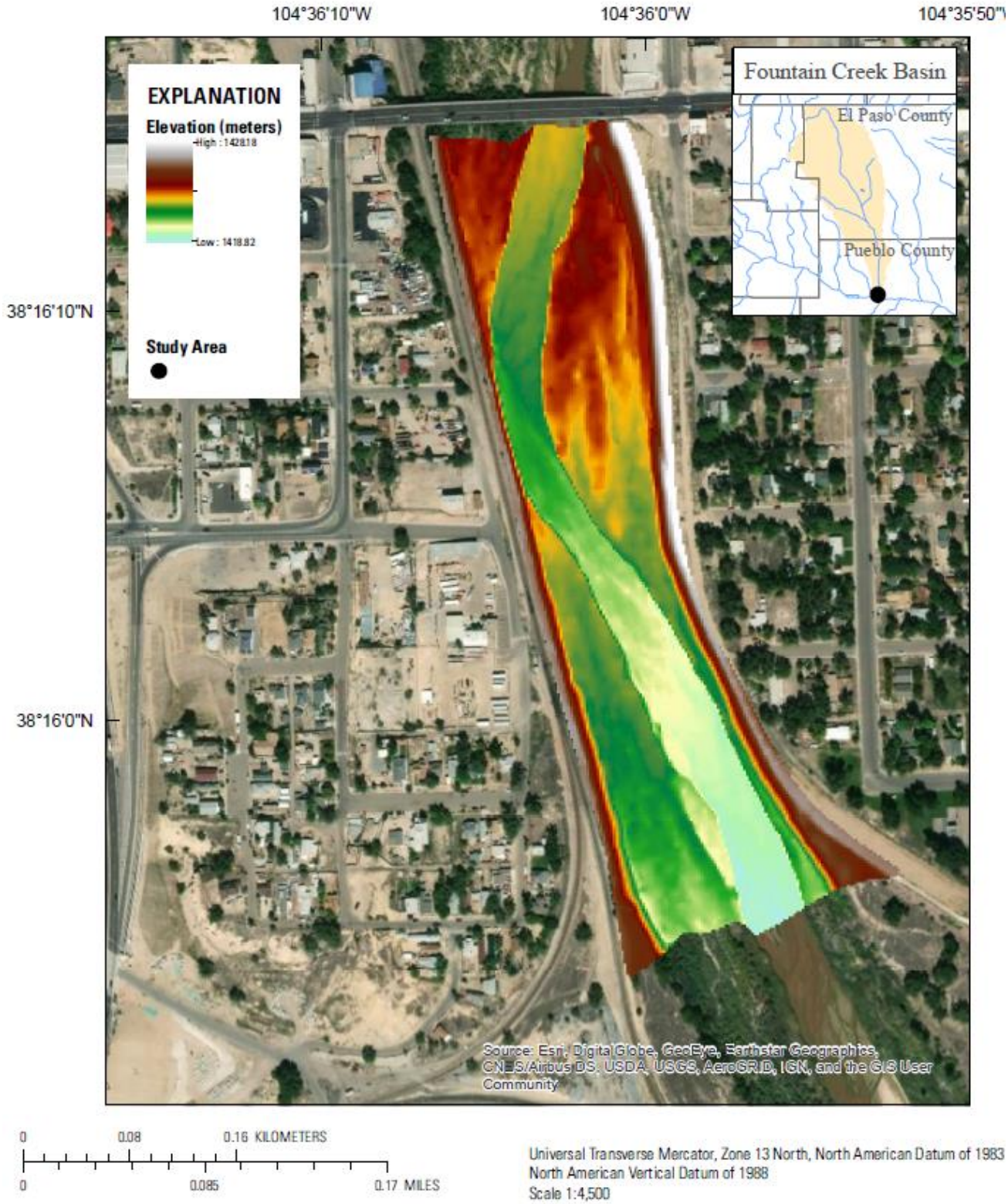


Elevation map of Fountain Creek study area 07 with an aerial background image, 2019.

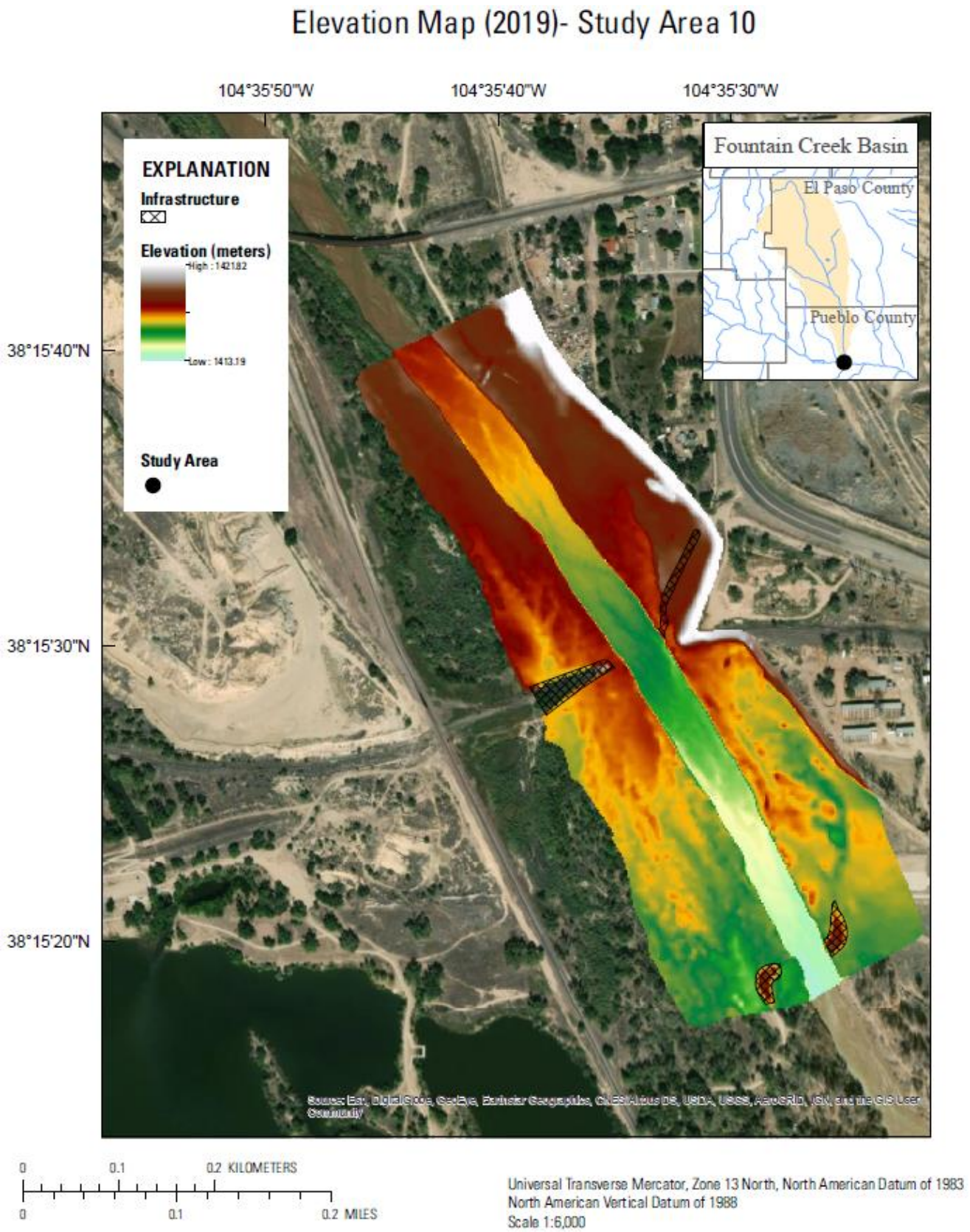


Elevation map of Fountain Creek study area 08 with an aerial background image, 2019.

Elevation Map (2019)- Study Area 09



Elevation map of Fountain Creek study area 09 with an aerial background image, 2019.



Elevation map of Fountain Creek study area 10 with an aerial background image, 2019.