

AGENDA

Denver Board of Water Commissioners

Video Conference: <http://zoom.us/join>, Meeting ID: 965 4348 5971, Password: 019391 or Dial – in: (669) 900-6833, Meeting ID: 96543485971

Wednesday, April 22, 2020 9:00 a.m.

I. INTRODUCTORY BUSINESS

1. Call to Order and Determination of Quorum

2. Public Comment and Communications

At this point in the agenda, the Board may allow members of the public to address the Board on any item of interest within the jurisdiction of the Board, and not on the agenda for action. Speakers wishing to address a specific Action Item will be invited to address the Board when the item is being considered. Three minutes are allowed for each person unless the President determines otherwise.

1. Distributor Communications
2. Citizen Advisory Committee Communications

3. Ceremonies, Awards and Introductions

3. Legislative Update

II. ACTION ITEMS

A. Consent Items

Items listed below are considered routine and may be enacted by one motion and vote. If any Board member desires discussion beyond explanatory questions, or corrections to the Minutes, the President may order that item to be considered in a separate motion and vote.

1. 2020 Main Replacements – Contract 504267
2. Appointment to the Citizens Advisory Committee Home Builders Association of Metro Denver Representative

B. Individual Approval Items

- | | | |
|--------------------------------------|-----------------|-----------|
| 1. Northwater Treatment Plant Update | Peter McCormick | 5 minutes |
|--------------------------------------|-----------------|-----------|

- a. Total Construction Cost Work Package GMP 10 - Contract 504179

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2. Hillcrest Reservoir and
Pump Station Replacement
Project Modification to
Contract 501033 Budget

Paul Ries

5 minutes

III. POLICY MATTERS

A. Lead Program Update

Alexis Woodrow

5 minutes

IV. EXECUTIVE UPDATE

A. CEO Update

B. CFO Update

C. Operations Update

V. BRIEFING PAPERS & REPORTS

A. Briefing Paper

1. Watershed Planning Organizational Program Quarterly Update

B. Report

VI. ADJOURNMENT

VII. TRUSTEE MATTERS

VIII. EXECUTIVE SESSION

The Board may adjourn the regular meeting and reconvene in executive session on topics authorized by
D.R.M.C Sec. 2-34.

A. Confidential Report

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: April 22, 2020

Board Item: II-A-1

2020 Main Replacements Contract 504267

Action by Consent

Individual Action

Purpose and Background:

As part of the continued effort to replace aging mains in the distribution system, Contract 504267 is for work to replace a total of 11,600 linear feet (L.F.) of aging distribution mains in three general locations. Leaks in these areas indicate that the mains are reaching the end of their useful service life. The mains being replaced in the Capitol Hill area include 3,677 L.F. in Marion Street from 14th Avenue to 10th Avenue and 1,320 L.F. in 14th Avenue from Corona Street to Humboldt Street. The mains being replaced in the Cherry Creek area include 2,532 L.F. in Jackson Street from Ellsworth Avenue to Dakota Avenue. Lastly, the mains being replaced in the Southglenn area of Centennial include 4,074 L.F. in Vine Circle and Vine Street from Easter Avenue to Geddes Avenue.

Budget and Schedule:

The total amount of this contract is \$5,223,780, and the term of the contract is April 22, 2020 to March 1, 2021. Funds for this contract will come from the 2020 budget for 2020 Main Replacements business unit, which has sufficient funds to pay the \$4,000,000 estimated to be needed in 2020. The remaining \$1,223,780 will be budgeted in the year 2021.

Selection of Business Partner:

Denver Water solicited bids from three general contractors on the prequalified contractor list under the civil pipelines discipline. This contract was a restricted bid process using invitations to bid on the QuestCDN platform. On April 2, 2020 bids were received from three general contractors. BT Construction, Inc. was selected based on the lowest cost bid.

S/MWBE Information:

The Minority and Women-owned Business Enterprise goal established for this project is 8% participation. BT Construction, Inc. has proposed 8.5% participation.

Recommendation:

It is recommended that the Board approve Contract 504267 with BT Construction, Inc. for 2020 Main Replacements for the contract period April 22, 2020 through March 1, 2021 for a total contract amount not to exceed \$5,223,780.

Approvals:

- | | |
|---|--|
| <input checked="" type="checkbox"/> James S. Lochhead, CEO/Manager | <input type="checkbox"/> Brian D. Good, Chief Administrative Officer |
| <input type="checkbox"/> Julie Anderson, Chief of Staff | <input type="checkbox"/> Mike King, Chief External Affairs Officer |
| <input type="checkbox"/> Jessica R. Brody, General Counsel | <input checked="" type="checkbox"/> Robert J. Mahoney, Chief Engineering Officer |
| <input checked="" type="checkbox"/> Angela C. Bricmont, Chief Financial Officer | <input type="checkbox"/> Thomas J. Roode, Chief Operations Officer |

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DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: April 22, 2020

Board Item: II-A-2

Appointment to the Citizens Advisory Committee Home Builders Association of Metro Denver Representative

Action by Consent

Individual Action

Purpose and Background:

Denver Water's Citizens Advisory Committee (CAC) is a 10-member volunteer committee that advises Denver Water staff and the Board of Water Commissioners (Board) on a variety of issues while encouraging and coordinating public participation in the organization's policymaking process.

The CAC was created as a result of the 1979 Foothills Agreement that, among other terms of the agreement, required Denver Water to form a citizens group charged with representing public interests in specific categories of stakeholder groups, including a representative from the Home Builders Association (HBA) of Metro Denver. The CAC recommends candidates to the Board and the Board has appointing authority for the CAC.

The term for the outgoing HBA representative, John Stafford, ended in January 2020. CAC relies on HBA members soliciting potential candidates to represent their perspective, and Jim Fitzmorris, who has been an active member of HBA for over 30 years was recommended by the outgoing representative. A brief statement of the candidate's interest, as well as his resume are attached.

Recommendation:

The CAC is recommending the Board appoint Jim Fitzmorris for a three-year term for the HBA of Metro Denver representative.

Approvals:

- | | |
|--|---|
| <input checked="" type="checkbox"/> James S. Lochhead, CEO/Manager | <input type="checkbox"/> Brian D. Good, Chief Administrative Officer |
| <input type="checkbox"/> Julie Anderson, Chief of Staff | <input checked="" type="checkbox"/> Mike King, Chief External Affairs Officer |
| <input type="checkbox"/> Jessica R. Brody, General Counsel | <input type="checkbox"/> Robert J. Mahoney, Chief Engineering Officer |
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DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: April 22, 2020

Board Item: II-B-1

Total Construction Cost Work Package GMP 10 for Northwater Treatment Plant Contract 504179

Action by Consent

Individual Action

Purpose and Background:

The purpose of this board item is to execute the final Total Construction Cost (TCC) Work Package (WP), also known as Guaranteed Maximum Price (GMP) 10, under the construction services agreement with Kiewit Infrastructure Co. (Contract 503388) in support of advancing the Northwater Treatment Plant (NTP) project through construction. The work for GMP 10 includes:

- All remaining work previously contracted under GMPs 1A, 1B, 2C, 3, 4A, 4B, 4C, 5A, 5B, 6, and 7, shall be combined and rolled into GMP 10. Select CMAR labor and equipment originally contracted on a time and materials basis will be transitioned to lump sum in order to transfer risk to the CMAR based on 18 months of field experience associated with these items.
- All work anticipated to be required under the Site Finishes WP 8 (previously GMP 8) and Moffat Improvements WP 9 (previously GMP 9). This work is included within the GMP 10 contract value as allowances, until the work is bid and awarded to subcontractors. The scope remains under redesign and is too far in the future to contract currently without undue escalation risk. The budget includes direct cost, allowances, and contingencies, which will be distributed into the appropriate categories prior to start of the work and reported to the Board.
- All remaining work not yet contracted under one of the aforementioned GMPs but required to form a complete Project. This generally includes additional survey labor and equipment, equipment salvage value associated with previous purchases, additional duration for crane rental and operation, and the addition of a Certified Welding Inspector to the third-party quality control team.

The GMP 10 amendment also incorporates the Project Substantial Completion and Project Final Completion dates into the Contract.

Budget and Schedule:

The TCC baseline budget is \$414,567,509, which includes an Owner contingency of \$20,000,000 and Contractor contingency of \$28,000,000. The cost of GMP 10 is \$352,997,801 which includes all Owner and Contractor contingencies and allowances. The TCC summary is listed below, which includes GMP 10, early procurement costs within the Pre-Construction Contract, work billed against previously contracted GMPs, and the GMP 2A/2B Early Works Construction Contract, is \$405,055,139, which is below the baseline budget and the current estimate at completion (EAC).

Included in Total Construction Cost		
Total Construction Cost	Procurement Costs from Design Contract	\$ 2M
	Early Works	\$ 12.7M
	Billings for GMPs to date	\$ 37.3M
	GMP10	\$ 353M
	EAC	~ \$ 405M

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This amendment funds extension of the target milestone dates (November 8, 2023 and January 11, 2024 for Substantial and Final Completion, respectively) within Contract 503388 to actual Project Substantial and Final Completion dates, which are approximately three months later than the previously established targets. This change has been presented to the Board previously as differing site conditions impacts to the early works construction under GMP2A/2B pushed commencement dates later for subsequent GMPs. The early works construction under GMP2A/2B will remain under a separate Contract (Contract 503448) and is expected to be completed by summer 2020.

The NTP business unit for 2020 through 2024 includes sufficient funds for GMP 10.

Contractor Contingency

As part of GMP 10, Kiewit Infrastructure Co. continues assuming risks previously allocated as contractor contingency in prior GMP amendments. These risks have been divided into seven discrete categories, including construction administration (such as builder's risk insurance deductibles), subcontractor coordination, scope gaps, startup (such as temporary pipe and pumps to facilitate commissioning), weather-related schedule impacts, material and equipment issues, and market conditions. These risks have been carried as Contractor contingency in the amount of \$12,083,664. When combined with Contractor contingency expended to date, this results in a total Contractor contingency allocation of \$12,757,450 out of an overall \$28,000,000 budget.

No further allocation of contractor contingency is anticipated until WPs 8 and 9 are awarded, at which time the funds allocated to the budgetary allowance may be distributed to Contractor and Owner contingencies, allowances, and direct cost.

Allowances

Approximately 28 discrete risks, along with the budgetary values for WPs 8 and 9, have been carried as allowances in GMP 10. These risks are generally categorized as authority having jurisdiction, code, and certification changes; scope changes related to spare parts and additional manufacturer services; staffing-related, such as relocation and subsistence costs; temporary scope such as construction trailers and fit-out, temporary lighting and fencing, and removal of temporary utilities; and site logistics and utilities support items such as reconnection of permanent power and communications to existing facilities. These 28 discrete risks result in allowances allocated within GMP 10 of \$9,163,993.

Allowance allocation for WPs 8 and 9 bidding and negotiation total an additional \$18,646,628, resulting in a total GMP10 allowance allocation of \$27,810,621.

It should be noted that although the NTP Team has attempted to quantify allowances to the greatest extent possible, Denver Water retains the risk of any allowance overruns and underruns. Per the contract, allowances will be reconciled via change order at the completion of the work, with any unspent funds returned to the Owner. The NTP Team will report to the Board on allowance estimates at completion as the project progresses through construction, and as specific risks allocated as allowances are closed.

Owner Contingency

Consistent with prior GMP amendments, Denver Water continues to assume risks associated with tariffs, Owner-directed schedule changes, design changes, differing site conditions, site security and conflicts with other Denver Water projects, permitting delays and rework, and surrounding property impacts. GMP 10 includes a \$13,545,486 allocation of Owner contingency from previous GMPs. This allocation, along with previous expenditures and the GMP 2A/2B allocation, results in \$15,486,600 of Owner contingency allocated from the \$19,000,000 Owner contingency budget. No further allocation of Owner contingency is anticipated until such time as WPs 8 and 9 are negotiated, at which time a portion of the funds allocated to allowance may be reallocated to Owner contingency.

Selection of Business Partner:

Kiewit Infrastructure Co. was previously selected through a competitive selection process and contracted through Contract 503388 executed by the Board on September 26, 2018. Subcontractors and suppliers providing services under GMP 10 were selected through competitive procurement and quality-based selection, as detailed in past amendment board items. No additional work is being contracted through GMP 10, outside of WPs 8 and 9, which have not yet been awarded to subcontractors and suppliers. The NTP Team plans to keep the Board apprised as components of these WPs are negotiated and redistributed from allowances to direct costs and/or contingencies.

S/MWBE Information:

The Minority and Women-owned Business Enterprise (MWBE) participation goal for the TCC was established by the Board at 8%. As such, the MWBE goal for GMP 10 is 8%. This participation assumes approximately \$1,200,000 MWBE participation within WPs 8 and 9. Once negotiated, actual participation for these aspects of work will be presented to the Board.

Recommendation:

It is recommended that the Board approve proposed Contract 504179 with Kiewit Infrastructure Co. for GMP 10 for the contract period of April 22, 2020 to March 23, 2024, with a total not-to-exceed cost of \$352,997,801 including contingencies and allowances as detailed herein. Concurrent with this Contract amendment, it is recommended that the Board approve the TCC be amended into Contract 503388 with a value of \$405,055,139 with a project Substantial Completion date of February 12, 2024 and a project Final Completion date of March 23, 2024.

Approvals:

- | | |
|---|--|
| <input checked="" type="checkbox"/> James S. Lochhead, CEO/Manager | <input type="checkbox"/> Brian D. Good, Chief Administrative Officer |
| <input type="checkbox"/> Julie Anderson, Chief of Staff | <input type="checkbox"/> Mike King, Chief External Affairs Officer |
| <input type="checkbox"/> Jessica R. Brody, General Counsel | <input checked="" type="checkbox"/> Robert J. Mahoney, Chief Engineering Officer |
| <input checked="" type="checkbox"/> Angela C. Bricmont, Chief Financial Officer | <input checked="" type="checkbox"/> Thomas J. Roode, Chief Operations Officer |

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: April 22, 2020

Board Item: II-B-2

Hillcrest Reservoir and Pump Station Replacement Project Modification to Contract 501033 Budget

Action by Consent

Individual Action

Purpose and Background:

The Hillcrest Reservoir and Pump Station Replacement project consists of the demolition of two existing 15-million-gallon rectangular storage tanks, a 12,000 square foot pump station, switch gear, switchyard, and pumps. The existing structures have had multiple issues with expansive soils causing permanent damage over the past 50 years. The demolished infrastructure will be replaced with three 15-million-gallon post-tensioned tanks, a 16,000 square foot pump station with 11 large pumps, switch gear, and a switch yard.

On November 4, 2015, the Board approved Contract 501033, previously known as 15979A, with MWH Constructors, Inc. as the Construction Manager at Risk (CMAR) for the Hillcrest Reservoir and Pump Station project for \$100,000,000 along with an additional \$2,000,000 in Owner's contingency. Final contract costs, determined as Guaranteed Maximum Prices (GMPs), were negotiated and agreed upon with Denver Water (Owner) for each of the proposed five work packages identified in the table below.

On August 14, 2019, the Board approved an additional \$1,500,000 amending the total budget to \$103,500,000. In addition, the Board was presented with additional asbestos abatement costs estimated in the range of \$2,000,000 to \$4,000,000. The abatement of the existing basins, sampling plan and materials mitigation plans are complete, and the costs have been finalized.

This Hillcrest board item is recommended for approval to increase the not-to-exceed project budget to \$106,200,000 and for the final asbestos abatement costs totaling \$2,889,574. A summary of the abatement items is described below, and the cost table outlines the associated change order costs totaling \$2,889,574.

Existing basins asbestos abatement cost

The additional abatement cost for this item totals \$1,623,818 which is an overrun to the original GMP Allowance in Work Package 3 for asbestos abatement of \$439,240, estimated in 2016. There are several unforeseen conditions that led to the higher than anticipated costs. Additional containment, labor, and equipment were required by the Colorado Department of Public Health and Environment (CDPHE) to obtain the abatement permit. Additional asbestos was found inside the existing box conduit and the top construction joint between the basins, both of which were unknown and inaccessible prior to demolition. In addition, Metro Wastewater changed their discharge policy which previously allowed filtered abatement water into the sanitary sewers in 2019. This policy change after bid required filtered water to be hauled to a regulated hazardous dump site. The additional cost for this work is \$1,623,818.

Transite asbestos panel disturbance cost

During basin demolition, approximately 200 linear feet of transite containing 20% asbestos was disturbed and potentially crushed and backfilled around the new tanks. The CDPHE considered this a spill, initiating an extensive asbestos sampling and materials mitigation plan. The extensive asbestos sampling and materials mitigation plan has been completed and all areas are clear. The additional cost for this work is \$1,265,756.

The total cost for the two asbestos items above is \$2,889,574.

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The total awarded CMAR GMP for all work packages is \$97,583,485. This includes an underrun of \$1,200,000 of Work Package 3 at completion. The change orders, in addition to the total awarded CMAR GMP, require a total GMP of \$104,160,918. To reconcile the \$2,889,574 in change orders to the scope, an additional \$2,700,000 is requested to fund Work Package 3. The Table summarizes the requested modification to Contract 501033.

**Hillcrest Reservoir and Pump Station
Work Package and Contract Summary Table**

Work Package/Scope Amendment Description	Approved Budget	Awarded or Closed GMP
WP 1 - Pipe Procurement	\$2,413,740	\$1,373,895
WP 2 - Pipe Install	\$11,420,000	\$7,025,442
WP 3 - Tanks	\$59,966,420	\$56,511,119
WP 4 - Pump Station	\$23,800,000	\$30,880,274
WP 5 - Phase 1: Happy Canyon Site Restoration	\$1,199,840	\$1,909,864
WP 5 - Phase 2: Pump Station Site Restoration	\$1,200,000	\$1,042,891
Amendments & Reconciliation	\$1,500,000	\$3,727,859
WP 1 through 5 - Contract Underrun to Completion		(\$1,200,000)
Total CMAR GMP	\$101,500,000	\$101,271,344
Change Order – Existing Basins Abatement		\$1,623,818
Change Order – Transite Asbestos Sampling & Abatement		\$1,265,756
Change Order Total		\$2,889,574
Required Total GMP		\$104,160,918
Additional Funds Required - \$2,700,000 rounded Offsets the \$2.89M in asbestos change orders		\$2,660,918
Estimate at Completion	\$104,200,000	
Owner's Contingency	\$2,000,000	
Not to Exceed Project Budget	\$106,200,000	

Note:

As of the March 2020 Pay Application, WP 3 - Tanks is underrunning its awarded GMP contract amount of \$56,551,119 by \$1,200,000.

Budget and Schedule:

The total amount of this project budget increase request is \$2,700,000 and the term of the contract is unchanged. These additional funds will be budgeted and used in the 2020 budget.

Selection of Business Partner:

MWH Constructors, Inc. was selected as the CMAR through a quality-based selection process which included six proposers. The original CMAR contract was awarded November 4, 2015 in the amount of \$100,000,000. The contract was amended to \$101,500,000 on August 14, 2019.

S/MWBE Information:

The Minority and Women-owned Business Enterprise goal for the overall project is 5% and MWH Constructors, Inc. is currently realizing a 7.8% participation.

Recommendation:

It is recommended that the Board approve this request for additional funds and modify the budget for Contract 501033 with MWH Constructors, Inc. for the Hillcrest Reservoir and Pump Station Replacement project within the original contract period of November 4, 2015 through September 1, 2020 for an addition of \$2,700,000 for a total contract budget amount of \$104,200,000 plus use of previously-approved Owner's contingency of \$2,000,000 for a total not to exceed budget of \$106,200,000.

Approvals:

- | | |
|---|--|
| <input checked="" type="checkbox"/> James S. Lochhead, CEO/Manager | <input type="checkbox"/> Brian D. Good, Chief Administrative Officer |
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| <input type="checkbox"/> Jessica R. Brody, General Counsel | <input checked="" type="checkbox"/> Robert J. Mahoney, Chief Engineering Officer |
| <input checked="" type="checkbox"/> Angela C. Bricmont, Chief Financial Officer | <input type="checkbox"/> Thomas J. Roode, Chief Operations Officer |

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: April 22, 2020

Board Item: V-A-1

Briefing Paper for Watershed Planning Organizational Program Quarterly Update

Strategic Plan Alignment

The Watershed Planning Program supports the Excellent Operations Perspective through all three objectives within the Goal of, “strategically aligning our projects and programs to provide the best value to our customers.”

Lenses: Customer Centric Industry Leader Long-Term View

- Watershed planning is **customer-centric** and meets the needs of customers; 97% of whom see protecting healthy watersheds as an important Denver Water service according to the 2017 customer survey.
- Denver Water is an **industry leader** in forest management and wildfire risk reduction. This approach will move Denver Water into a new era of leadership in source water protection.
- Watershed planning will occur on a rotating basis across the collection systems with a **long-term**, 20-year planning horizon, to identify threats and opportunities.

Summary

This briefing paper provides an update on the Watershed Planning Organizational Program. The last update was provided on October 24, 2018. A key milestone achieved since the last update is the completion of the first inventory, assessment, and prioritization for two critical watersheds: The Upper South Platte and Upper Blue River. Work began mid-2019 on the expansion of this assessment to Bear Creek and Chatfield watersheds for a complete South Collection System assessment. The next Board update is scheduled for August, after the completion of this assessment, and will include a presentation on the deliverables, tools, and impacts of the work to-date.

In 2008, after two major wildfires in the Upper South Platte River watershed, a white paper delivered to the Denver Board of Water Commissioners provided the first framework for a Watershed Planning Program, which included two phases for source water protection. The first phase led to the From Forests to Faucets Partnership (Partnership) with the United States Forest Service to reduce the risk of catastrophic wildfires. The Partnership expanded in 2017 to include the Colorado State Forest Service and the Natural Resources Conservation Service to implement projects on non-federal land. The Partnership has been successful in reducing risk through forest treatments and paved the way for other utilities, counties, and communities to address risk. The second phase recommended investigation into, and mitigation of, non-fire risks such as: mine drainage, failing septic systems, and land disturbances from agriculture and development.

The Watershed Planning Program expanded in 2018 through the support of the Executive Team recognizing Watershed Planning as an Organizational Priority. Because of the size and varying characteristics of each source water watershed, a phased approach was created (Figure 1 in attachment). The adaptive management framework divides the cyclical effort into two phases. The first phase is identifying risks and water quality concerns to prioritize the areas and issues to address. The second phase is to develop an action plan to provide a 20-year time horizon for projects, budget estimates, partners, external funding opportunities, benefits of the projects, and a framework for evaluating overall progress towards addressing priorities.

The phased geographic approach began in 2018 with the inventory, assessment, and prioritization of the Upper South Platte River and Upper Blue River watersheds. In August 2019, in consideration of the potential for future Colorado River curtailment scenarios, the Action Plan was delayed and the geographic scope was expanded to include Bear Creek and Chatfield watersheds to create a full South Collection System inventory, assessment, and prioritization for sources that could be relied upon during a curtailment (Figure 2 in attachment). The inventory, assessment, and prioritization for Bear Creek and Chatfield will be completed in July 2020. The Action Plan for the South Collection System will begin in fall 2020 and will be completed within 18 months. The planning effort will then begin for the North Collection System.

Background

The mission of the Watershed Planning Program is to:

Provide source water protection through collaborative watershed asset management strategies to maintain high quality raw water and plan for current and future watershed risks.

The goals of the Watershed Planning Program are to:

- *Identify, assess, and prioritize watershed assets, including natural assets such as forests and man-made assets such as reservoirs and conveyance systems, both concrete and earthen.*
- *Implement proactive, strategic watershed programs and projects for long-term protection of watershed assets; implement reactive, strategic projects when necessary.*
- *Communicate results of assessments and projects internally and, as appropriate, externally to facilitate effective implementation.*
- *Anticipate the needs of other Denver Water sections and divisions to support effective decision making for watershed assets.*
- *Consider community and environmental stewardship to foster collaborative, multi-benefit outcomes when opportunities arise.*

The Watershed Planning Program will achieve these goals through an ongoing effort to develop a framework that will be updated and amended into the future as needs and priorities change. The first five years of planning will establish the foundation for the program by identifying watershed risks, assessing water quality, identifying priorities, and developing initial plans to address priorities. Updates to priorities, programs, projects, and communication strategies will be based on best available science, risk and water quality assessments, evaluations of program effectiveness, and organizational priorities.

Budget

The estimated budget for the South Collection System Watershed Planning effort is \$700,000 over four years (2018 – 2021). In 2018 and 2019 this effort was included in the Environmental Planning business unit and, as of 2020, will be within the Watershed Planning business unit. The Upper South Platte and Blue River inventory, assessment, and prioritization was completed under the original estimated budget of \$250,000 in 2019 for \$233,000. The expansion to Bear Creek and Chatfield watersheds and the creation of a complete South Collection System inventory, assessment, and prioritization was projected to cost \$150,000, but cost savings identified during 2019 reduced the budget to \$127,000. The Action Plan budget is \$300,000 with \$100,000 of that amount in the approved 2020 budget. With \$40,000 in cost savings thus far, the new projected total budget for the South

Collection System Watershed Plan is \$660,000. Additional costs savings will be investigated for the Action Plan.

Approach

Prior year (2019) key achievements include:

1. Identification of Denver Water's watershed values through the Watershed Steering Committee. These values provide a lens through which priorities are identified and provide a framework for partnership and funding opportunities (Figure 3 in attachment).

The three values are:

- Drinking Water Treatability
 - Infrastructure Protection
 - Community and Environmental Stewardship
2. Completion of the first inventory, assessment, and prioritization report. This 143-page report, focused on the Upper South Platte and Upper Blue River, is a repository of information and data visualization tools for future annual reports, TAP and Conduit articles, story maps, and resources for other organizational needs.
 3. The following priorities for the Upper South Platte and Upper Blue River watersheds were identified and are focused on areas that most impact Strontia Springs Reservoir (Figure 4 in attachment):
 - Wildfire Risk and Forest Health
 - Sediment to Strontia Springs
 - Abandoned Mine Land Drainage
 4. Creation of the following tools available to all Denver Water staff:
 - A watershed spatial inventory with over 50 GIS layers including weather stations, abandoned mines, geopolitical boundaries, monitoring locations, land ownership, land cover, and forest treatments.
 - A watershed document inventory on SharePoint. This inventory of over a hundred watershed-related documents can be filtered and searched by watershed, author, and watershed risk.
 - Water quality assessment results available for internal view through summary tables and maps, detailed spreadsheets, and a web-based, interactive tool.

First quarter 2020 key achievements include:

1. Initial set-up and training for transfer of the open source water quality database developed by LRE to Denver Water's platform.
2. Integrated 10 years of Bear Creek Watershed Association data into the database and water quality assessment.
3. Integrated reservoir data into the database and water quality assessment.
4. Interviews with staff across the organization to create a spreadsheet of accomplishments and opportunities within the South Collection System.

Future 2020 updates:

1. August 12th: Board Presentation
2. November 4th: Board Briefing Paper

Owner(s)

Alison Witheridge and Christina Burri, External Affairs

Attachments

2020 Q1 Attachments (two pages of figures as noted in text)

Respectfully submitted,

Alison Witheridge, Watershed Scientist

Mike King, Chief External Affairs Officer