AGENDADenver Board of Water Commissioners

Denver Water Administration Building 1600 West 12th Avenue Denver, CO Board Room, Third Floor

Wednesday, August 28, 2019 9:00 a.m.

I. INTRODUCTORY BUSINESS

A. Call to Order and Determination of Quorum

B. 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
- Citizen Advisory Committee Communications

C. Ceremonies, Awards and Introductions

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.

- Cherry Creek Galleries Surplus Property Donation to the City and County of Denver and Arapahoe County
- 2. Upper South Platte Watershed Inventory and Prioritization, First Amendment to Contract 503252

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B. Individual Approval Items

 Appointment to the Citizens Advisory Committee Distributor Relations Representative Mike King 5 minutes

2. Three Amendments for Northwater Treatment Plant – Contracts 503736 (GMP 1B), 503448 (GMP 2A/2B), and 503839 (GMP 4A) Pete McCormick 20 minutes

3. Design of Lupton Lakes Inlet and Outlet Facilities – Contract 504142

Devin Shable

10 minutes

 Resolution Authorizing Acquisition of Property via Eminent Domain for the Lupton Lakes Inlet/Outlet Facility at Weld County Road 8 and the South Platte River

 Intergovernmental Agreement with Colorado Parks and Wildlife concerning the Williams Fork Restoration Project – Contract 504062

Jessica Alexander 10 minutes

III. POLICY MATTERS

A. OCR Update Bob Mahoney 10 minutes

B. 10-Year Financial PlanAngela Bricmont 15 minutes

IV. EXECUTIVE UPDATE

- A. CEO Update
- **B. CFO Update**
- C. Operations Update

V. BRIEFING PAPERS & REPORTS

A. Briefing Papers

- 1. Water Efficiency Plan Update
- **B.** Reports

VI. ADJOURNMENT

VII. TRUSTEE MATTERS

I. ACTION ITEMS

A. Action Items as Trustee

1. Minutes from June 26, 2019

B. Action Items as Plan Sponsor and or Trustee

 2019 Denver Water Delegation Resolution Regarding the Kris Bates 5 minutes Retirement Program

C. Action Items as Plan Sponsor

1. Amendment of the Investment Policy Statement for the Supplemental Retirement Plans (DC Plan)

Usha 5 minutes Sharma

II. INFORMATION ITEMS

A. Information Items as Trustee

1. The Employees Retirement Plan – Callan's 1Q 2019 Alexander 10 minutes
Performance Report Browning

B. Information Items as Plan Sponsor

 Meeting as Plan Sponsor: 401(k) Plan and 457 Plan – Ellwood 4Q 2018 Performance Report

C. Information Items as Plan Sponsor and or Trustee

 1. 1Q 2019 Performance Report and Due Diligence Report for DB Plan, 401(k) and 457 Plan

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 D.R.M.C. Sec. 2-34

Meeting Date: August 28, 2019 Board Item: II-A-1

Cherry Creek Galleries Surplus Property Donation to the City and County of Denver and Arapahoe County

⊠Action by Consent	□Individual Action

Purpose and Background:

On April 11, 2018, the Board declared 26 acres of the 34-acre Cherry Creek Galleries property to be surplus. Denver Water retained 8.62 acres where the Cherry Creek Galleries' wellfield is located. The City and County of Denver assisted Denver Water's ability to maximize use of the retained parcel by becoming a co-applicant to rezone the site from Open Space – C (Conservation) to Open Space – B (Recreation) with waivers, which allows for a number of major utility functions to support Denver Water operations. The rezoning was approved by City and County of Denver's City Council in June 2019.

The surplus property is largely encumbered by the Cherry Creek floodplain and bisected by the jurisdictional boundary of Arapahoe County and the City and County of Denver. The surplus property's eroded creek banks will be improved as part of the Flood Control District's Cherry Creek Corridor Improvements project and ultimately opened to the public as a recreation amenity. Denver Water's staff has determined that the best disposal option for the surplus parcel is donation to the respective counties for stormwater and open space purposes. Once donated, the City and County of Denver and Arapahoe County will take on this additional asset with immediate responsibility for stream repair funding, unauthorized camping patrol, vegetation maintenance, and pest control.

In the quitclaim deeds, Denver Water will donate 18.9 acres to City and County of Denver and 7.1 acres to Arapahoe County along the jurisdictional boundary with these pertinent aspects:

- Property is being conveyed as-is.
- Property is deed restricted for floodplain protection, storm drainage, open space or park purposes.
- · Denver Water retains all existing water rights.
- Property will be improved in conjunction with the Flood Control District's Cherry Creek Corridor Improvements project.

Budget and Schedule:

There is no budgetary impact for this item.

Recommendation:

It is recommended that the Board approve the quitclaim deeds donating portions of the Cherry Creek Galleries property to the City and County of Denver and Arapahoe County.

☐ James S. Lochhead, CEO/Manager	$\hfill \square$ Brian D. Good, Chief Administrative Officer
☐ Julie Anderson, Chief of Staff	☐ Mike King, Chief External Affairs Officer
☐ Jessica R. Brody, General Counsel	⊠ Robert J. Mahoney, Chief Engineering Officer
☐ Angela C. Bricmont, Chief Financial Officer	☐ Thomas J. Roode, Chief Operations Officer
☐ Gail Cagle, Chief Human Resources Officer	



Meeting Date: August 28, 2019 Board Item: II-A-2

Upper South Platte Watershed Inventory and Prioritization, First Amendment to Contract 503252

⊠Action by Consent	□Individual Action

Purpose and Background:

In 2018, Denver Water created a Watershed Planning framework to guide investments and partnerships to protect Denver Water's raw water supply and collection system infrastructure, as well as to foster community and environmental stewardship efforts. Using an adaptive, phased approach, watersheds within Denver Water collection systems are undergoing a planning effort to inventory resources, assess water quality and watershed health, prioritize areas for treatment, and develop targeted action plans. Because 80% of Denver Water's supply is from the Upper South Platte and Upper Blue River watersheds, these were the first watersheds selected for the planning effort.

The Upper South Platte and Upper Blue River Collection System Inventory, Assessment, and Prioritization, Contract 503252, is near completion. Several internal tools were developed including a watershed spatial inventory (in GIS), a watershed document inventory (in SharePoint), and a water quality database combining up to 20 years of data from Denver Water, EPA, and the Colorado Data Sharing Network. Results of the water quality assessment were synthesized and are available in multiple formats and levels of detail to Denver Water staff. Organizational priorities and initiatives, watershed values, and the results of the water quality assessment and risk inventories guided the draft priorities for this geographic area.

Originally, the second phase of the watershed planning effort, an Action Plan for this geographic area, was scheduled to begin in the second half of 2019. However, to address long-range planning priorities in the Integrated Resource Plan and to support projects identified to minimize potential Colorado River Curtailment impacts, the Action Plan will be delayed by one year and the Upper South Platte and Upper Blue River Inventory, Assessment, and Prioritization will be expanded to Bear Creek and Chatfield watersheds using the budgeted funds for the Action Plan. The expansion is a one-year effort and will provide a complete assessment of raw water available to Foothills and Marston Water Treatment Plants. Development of the Action Plan for the entire South System will then begin third quarter 2020.

Budget and Schedule:

The original contract amount was \$250,000 with a contract term of August 3, 2018 to August 31, 2019. The total amount of this contract with the amendment is \$360,000 and the term of the contract is August 3, 2018 to August 31, 2020. Funds for this service/contract will come from the 2019 budget for Environmental Planning, which has sufficient funds to pay the remainder of the existing scope and expanded scope of work.

In 2018, approximately \$57,000 was billed to the original contract. It is anticipated that approximately \$243,000 will be expended in 2019 to finish the existing scope (\$183,000) and start work on the Bear Creek and Chatfield assessment (\$60,000). The remaining \$60,000 will be budgeted in year 2020.

Selection of Business Partner:

The competitive selection process was used to hire Leonard Rice Consulting Engineers, Inc. in 2018. The original contract expires August 31, 2019. This amendment will continue this collaborative effort between Leonard Rice and Denver Water.



<u>S/MWBE Information</u>:
There was no S/MWBE established for this contract.

Recommendation:

It is recommended that the Board approve the First Amendment to Contract 503252 with Leonard Rice Consulting Engineers, Inc. for an extension of the contract period through August 31, 2020 and for an addition of \$110,000 for a total amended contract amount not to exceed \$360,000.

	\square Brian D. Good, Chief Administrative Officer
☐ Julie Anderson, Chief of Staff	oxtimes Mike King, Chief External Affairs Officer
☐ Jessica R. Brody, General Counsel	☐ Robert J. Mahoney, Chief Engineering Officer
☑ Angela C. Bricmont, Chief Financial Officer	☐ Thomas J. Roode, Chief Operations Officer
☐ Gail Cagle, Chief Human Resources Officer	

Meeting Date: August 28, 2019 Board Item: II-B-1

Appointment to the Citizens Advisory Committee Distributor Relations Representative

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☐Action by Consent	

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 on a variety of issues while encouraging and coordinating public participation in the organization's policy-making process.

The committee 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 one representative from a Denver Water distributor. The Board has appointing authority for the CAC.

The CAC distributor representative, Josh Baile, who worked for Willows Water District, has taken a new job and vacated his seat on the committee. Applications to fill the vacant distributor representative position on the committee were solicited at the regularly occurring distributor forum and the CAC received one application. The CAC interviewed the applicant, Alyssa Quinn of Platte Canyon Water and Sanitation District on June 20, 2019 and voted to nominate her to fill this position for the three-year term.

Alyssa Quinn's application is attached for reference.

Budget and Schedule:

There is no budgetary impact for this item.

S/MWBE Information:

S/MWBE is not applicable for this item.

Recommendation:

It is recommended the Board support the committee's nomination and appoint Alyssa Quinn to the CAC.

	☐ Brian D. Good, Chief Administrative Officer
☐ Julie Anderson, Chief of Staff	
☐ Jessica R. Brody, General Counsel	☐ Robert J. Mahoney, Chief Engineering Office
☐ Angela C. Bricmont, Chief Financial Officer	$\hfill\Box$ Thomas J. Roode, Chief Operations Officer
☐ Gail Cagle, Chief Human Resources Officer	



Meeting Date: August 28, 2019 Board Item: II-B-2

Three Amendments for Northwater Treatment Plant Contracts 503736 (GMP 1B), 503448 (GMP 2A/2B), and 503839 (GMP 4A)

	-uuy
☐Action by Consent	

Purpose and Background:

The purpose of this board item is to present three contract amendments for construction of Guaranteed Maximum Price (GMP) Work Packages to advance the Northwater Treatment Plant (NTP) project. The purpose of these amendments are as follows:

- Contract 503736 (GMP 1B) First amendment is required to promote consistency with other GMPs executed to date and incorporate fees, bonds, and insurance (referred to as markups) in accordance with the rates established in the contract to cover the \$1,500,000 in owner contingency originally allocated to GMP 1B. GMP1B was the first GMP executed under the Construction Management Agreement (Contract 503388) that included allocation of owner contingency. This contingency allocation originally excluded markups, where subsequently executed GMPs include markups covering any allocation of owner contingency.
- Contract 503448 (GMP 2A/2B) Eighth amendment is required to fund outstanding changes related
 to differing site conditions encountered in the field, which exceed the amount of owner contingency
 remaining within the allocation to GMP 2A/2B. The differing site conditions include unanticipated
 conditions related to the 84-inch connection to the Ralston Outlet Works Valve House, initially
 constructed in the 1930s, as well as earthmoving and soil stabilization measures related to the
 second slope failure that occurred on site in May 2019.
- Contract 503839 (GMP 4A) Second amendment is needed to accelerate limited scopes of construction work from future GMP Work Packages. Specific items include construction of a segment of 4-inch potable waterline, a 16-inch raw waterline, and a permanent roadway. All three items are located north of the proposed clearwells and earlier construction allows for improved flow of traffic around the site throughout construction. The pipeline work was originally planned to be constructed in GMP 4C Yard Pipe, Structures Concrete, Excavation, Site Backfill All Remaining. The roadway work was anticipated to be constructed in GMP 8 Site Finishes. In addition to improving traffic flow, accelerating this work also balances resources, reduces escalation risk, and helps to offset remaining work to be completed during the project's peak construction timeline of 2021-2022.

Budget and Schedule:

- Contract 503736 (GMP 1B) The total amount of this GMP 1B amendment is \$110,769.60, resulting in a revised GMP 1B contract total of \$48,495,203.60. There is no impact to the schedule for completion of GMP 1B resulting from this amendment. Funds for this amendment will come from the 2019 budget for the NTP business unit, which has sufficient funds to pay the \$20,000 estimated to be needed in 2019. The remaining \$90,769.60 will be budgeted in years 2020 through 2023.
- Contract 503448 (GMP 2A/2B) The total amount of this GMP 2A/2B amendment is \$1,618,025.37, resulting in a revised GMP 2A/2B contract total of \$12,731,617.55. There is no impact to the schedule for completion of GMP 2A/2B resulting from this amendment. Funds for this amendment will come from the 2019 budget for the NTP business unit, which has sufficient funds to pay the \$1.618,025.37 estimated to be needed in 2019.
- Contract 503839 (GMP 4A) The total amount of this GMP 4A amendment is \$921,593.12, which
 includes \$19,313.46 in contractor contingency and no owner contingency, resulting in a revised
 GMP 4A contract total of \$14,424,747.89. Shifting this scope of work from future GMPs will result in
 a commensurate reduction in estimates at completion for GMP 4C and GMP 8. Contractor



contingency for the accelerated work covers Kiewit Infrastructure Co.'s risks related to dipping bedrock, weather, escalation, and potential discovery of unknown existing utilities. There is no impact to the schedule for completion of GMP 4A resulting from this amendment. Funds for this amendment will come from the 2019 budget for the NTP business unit, which has sufficient funds to pay the \$850,000.00 estimated to be needed in 2019. The remaining \$71,593.12 will be budgeted in year 2020.

The project's estimated costs remain within the approved project budget.

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. The GMP 1B amendment is limited to markups on previously allocated owner contingency and yields no additional work. The GMP 2A/2B amendment work will be completed using a combination of subcontractors previously procured by Kiewit Infrastructure Co. through competitive bids for GMP 2A/2B. The GMP 4A amendment work will be completed using a combination of Kiewit Infrastructure Co.'s self-performance and suppliers that were procured by Kiewit Infrastructure Co. through competitively bid contracts.

S/MWBE Information:

The Minority and Women-owned Business Enterprise (MWBE) participation fees for the GMPs referenced in this Board Item will remain unchanged. Based on the increased MWBE participation on other previously contracted GMPs, NTP remains on track to meet or exceed the overall 8% goal for construction.

Recommendation:

It is recommended that the Board approve the following:

- The proposed first amendment to Contract 503736 for \$110,769.60 for a total not-to-exceed GMP 1B cost of \$48,495,203.60;
- The proposed eighth amendment to Contract 503448 for \$1,618,025.37 for a total not-to-exceed GMP 2A/2B cost of \$12,731,617.55; and
- The proposed second amendment to Contract 503839 for \$921,593.12 for a total not-to-exceed GMP 4A cost of \$14,424,747.89.

☑ James S. Lochhead, CEO/Manager	☐ Brian D. Good, Chief Administrative Officer
☐ Julie Anderson, Chief of Staff	☐ Mike King, Chief External Affairs Officer
☐ Jessica R. Brody, General Counsel	⊠ Robert J. Mahoney, Chief Engineering Officer
☑ Angela C. Bricmont, Chief Financial Officer	$\ oxdot$ Thomas J. Roode, Chief Operations Officer
☐ Gail Cagle, Chief Human Resources Officer	

Meeting Date: August 28, 2019 Board Item: II-B-3

Design of Lupton Lakes Inlet and Outlet Facilities Contract 504142

☐Action by Consent	⊠ Individual Action

Purpose and Background:

The Lupton Lakes Complex is an off channel raw water storage facility that will occupy two aggregate mines to the east of the South Platte River. The complex consists of two cells referred to as the North Cell and the South Cell located south of Fort Lupton, Colorado near the intersection of U.S. Highway 85 and Weld County Road 8 (see attached vicinity map). Aggregate mining is currently being performed in the complex's South Cell by Martin Marietta Materials, Inc. When complete, the complex will store approximately 10,100 acre-feet of water. The reservoirs will be used for water rights exchanges by conveying water between the reservoirs and the South Platte River. Hydraulic facilities need to be designed and constructed to provide infrastructure to perform the exchanges. The hydraulic facilities include an inlet and outlet structure at the river, flow metering vault, pipelines, pump station, and inlet and outlet structures in each reservoir.

This phase of the project includes consulting engineering services to create a master plan of all hydraulic facilities and 100% design of hydraulic facilities that require property acquisition. The objective is to design the facilities that require property acquisition to ensure the reservoir complex is not stranded from the South Platte River. Specifically, this phase includes 100% design of the river inlet/outlet structure, river pipeline, wetwell for the future pump station, and drain/fill pipelines to each cell. This phase also includes master planning of the mechanical, electrical, and water quality components associated with these facilities to the extent necessary to identify, if any, property acquisition is required. This contract is for 100% design through bidding with the option to amend for services during construction.

Budget and Schedule:

The total amount of this contract is \$896,106 and the term of the contract is August 28, 2019 to December 11, 2020. Funds for this contract will come from the 2019 budget for the design of Lupton Lakes inlet and outlet facilities business unit, which has sufficient funds to pay the \$225,000 estimated to be needed in 2019. The remaining \$671,106 will be budgeted in 2020.

Selection of Business Partner:

A Request for Proposals was advertised on the Denver Water website and sent individually to 14 firms. Two proposals were received on July 22, 2019 and reviewed and scored by a team of Denver Water evaluators in accordance with the quality-based selection criteria listed in the Request for Proposals with the price assessed for reasonableness. AECOM achieved the highest score, with an associated price of \$896,106.

S/MWBE Information:

The Minority and Women-owned Business Enterprise participation goal established for this design project is 5% participation. AECOM was able to obtain 3% participation through geotechnical field services.

Recommendation:

It is recommended that the Board approve Contract 504142 with AECOM for the Design of Lupton Lakes Inlet and Outlet Facilities project for the contract period August 28, 2019 to December 11, 2020 for a total contract amount not to exceed \$896,106.



Approvals: □ James S. Lochhead, CEO/Manager □ Julie Anderson, Chief of Staff □ Jessica R. Brody, General Counsel □ Angela C. Bricmont, Chief Financial Officer □ Gail Cagle, Chief Human Resources Officer

Meeting Date: August 28, 2019 Board Item: II-B-4

Resolution Authorizing Acquisition of Property via Eminent Domain for the Lupton Lakes Inlet/Outlet Facility at Weld County Road 8 and the South Platte River

☐ Action by Consent	⊠Individual Action

Purpose and Background:

The Lupton Lakes Complex is an off-channel raw water storage facility that will occupy two aggregate mines to the east of the South Platte River. The complex consists of two cells referred to as the North Cell and the South Cell located south of Fort Lupton, Colorado, and is generally bounded by U.S. Highway 85 to the west, Weld County Road 27 and the Fulton Ditch Lateral to the east, Weld County Road 8.5 to the north, and Weld County Road 6.25 to the south.

An inlet/outlet facility is required from the storage cells to the South Platte River, and the window of opportunity to construct this facility is closing due to surrounding development. The inlet/outlet facility will require necessary property interests to construct, occupy and maintain the river inlet/outlet structure and associated appurtenances. These properties are approximately located at Weld County Road 8 running from Highway 85 to the South Platte River. A portion of the proposed inlet/outlet facility is located on private lands which need to be acquired using eminent domain.

As the design phase of the project is developing, the Board's staff has determined that the process of acquiring the necessary private lands should begin.

Budget and Schedule:

Based on preliminary estimates, funds will come from the 2019 budget for the Lupton Lakes Inlet/Outlet Facility at Weld County Road 8 and the South Platte River business unit, which has sufficient funds for the cost of these acquisitions.

S/MWBE Information:

Small/Minority and Women-owned Business Enterprise goals are not applicable for this item.

Recommendation:

It is recommended that the Board adopt the attached resolution authorizing negotiations for the acquisition of lands for the Lupton Lakes Inlet/Outlet Facility at Weld County Road 8 and the South Platte River.

	☐ Brian D. Good, Chief Administrative Officer
☐ Julie Anderson, Chief of Staff	☐ Mike King, Chief External Affairs Officer
☐ Jessica R. Brody, General Counsel	⊠ Robert J. Mahoney, Chief Engineering Office
☑ Angela C. Bricmont, Chief Financial Officer	☐ Thomas J. Roode, Chief Operations Officer
☐ Gail Cagle. Chief Human Resources Officer	





Board Resolution

TITLE: ACQUISITION OF VARIOUS PROPERTY INTERESTS FOR THE LUPTON LAKES INLET/OUTLET FACILITY AT WELD COUNTY ROAD 8 AND THE SOUTH PLATTE RIVER

ADOPTED AND APPROVED ON AUGUST 28, 2019 BY	Y THE CITY AND COUNTY OF DENVER
ACTING BY AND THROUGH ITS BOARD OF WATER	COMMISSIONERS

Paula Herzmark, Board President	•	James S. Lochhead, CEO/Manager

WHEREAS, the City and County of Denver, acting by and through its Board of Water Commissioners (the "Board"), a home rule municipal corporation of the State of Colorado, owns, operates and maintains the municipal water works system and plant of the City and County of Denver; and

WHEREAS, the Board finds it necessary to acquire various property interests ("Interests") in the real property located in Weld County, State of Colorado and approximately described in the attached Exhibit A for the Project, specifically for the Lupton Lakes Inlet/Outlet facility, including pipelines, structures and associated appurtenances located at approximately Weld County Road 8 and the South Platte River.

NOW, THEREFORE, BE IT RESOLVED:

- 1. The Project is for a public purpose and use;
- 2. The Board requires the above described Interests, and such Interests are necessary for the Project;
- 3. The Attorneys of the Board's Office of General Counsel and staff of the distribution and property management section of the Board's Engineering Division ("Staff") are authorized to pursue negotiations with the owners of the Interests;
- 4. The Staff are authorized to amend legal descriptions or the extent of the Interests to be taken as the design is refined, without further action of the Board.

Meeting Date: August 28, 2019 Board Item: II-B-5

Intergovernmental Agreement with Colorado Parks and Wildlife Concerning the Williams Fork River Restoration Project Contract 504062

Contract Co-TOCE		
☐ Action by Consent	☑ Individual Action	

Purpose and Background:

The Williams Fork River Restoration Project (Mitigation Project) serves as compensatory mitigation for the Gross Reservoir Expansion Project (or Moffat Collection System Project) required by the Section 404 Permit issued by the U.S. Army Corps of Engineers. Located in Grand County, the Mitigation Project includes stream rehabilitation of the Williams Fork River on Denver Water property, above and below the Williams Fork Reservoir, for a total of 2.08 river miles.

Through collaboration with Colorado Parks and Wildlife, Grand County, and Learning By Doing, Denver Water plans to relocate a portion of the river restoration further downstream near the Williams Fork's confluence with the Colorado River, located on the Kemp Breeze State Wildlife Area (SWA). The Mitigation Project's total stream miles and nature of the restoration activities will remain unchanged, the only change is to relocate approximately 0.86 mile of the river restoration. The restoration activities are designed to repair the ecological functions of this degraded stretch of the river through the manipulation of the physical characteristics of the riverbed, which will improve the habitat for fish and aquatic insects.

Restoration of the Williams Fork River on the Kemp Breeze SWA will not only allow Denver Water to meet the Mitigation Project requirements in its Section 404 Permit, but it will provide additional benefits including public fishing access. It will enable Colorado Parks and Wildlife to meet its management objective of improving the trout fishery at this location by providing year-round adult trout habitat, quality spawning habitat, and a recruitment source of juvenile trout for the Colorado River.

This Intergovernmental Agreement before the Board outlines the roles and responsibilities between the parties to enable Denver Water to perform the river restoration and post-construction monitoring on the Kemp Breeze SWA. The restoration work on the Kemp Breeze SWA is planned for fall 2019.

Budget and Schedule:

There is no budgetary impact for this item.

S/MWBE Information:

S/MWBE is not applicable for this item.

Recommendation:

It is recommended that the Board approve Intergovernmental Agreement 504602 with Colorado Parks and Wildlife for construction and monitoring of the Williams Fork River Restoration Project on the Kemp Breeze SWA.

Approvals:

☑ James S. Lochhead, CEO/Manager	
☐ Julie Anderson, Chief of Staff	☐ Robert J. Mahoney, Chief Engineering Office
☑ Jessica R. Brody, General Counsel	☐ Gail Cagle, Chief Human Resources Officer
☐ Angela C. Bricmont, Chief Financial Officer	$\hfill\square$ Thomas J. Roode, Chief Operations Office
☐ Brian D. Good. Chief Administrative Officer	

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Meeting Date: August 28, 2019 Board Item: V-A-1

Briefing Paper for Water Efficiency Plan Update

Strategic Plan Alignment

Lenses: igtimes Customer Centric igtimes Industry Leader igtimes Long-Term View

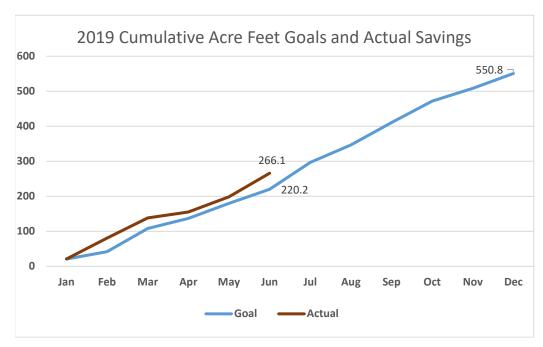
The Water Efficiency Plan falls under the Excellent Operations perspective of Denver Water's Strategic Plan and supports our objective of having a visionary, adaptable long-range planning approach that considers the challenges of a warming climate and Colorado River issues while ensuring diversity in supply and delivery and efficiency in our customers' water use.

Summary

The Water Efficiency Plan incorporates a portfolio of programs that can be adjusted as needed to respond to factors such as drought, Colorado River Curtailment, code changes, customer participation, and program cost. The Water Efficiency Plan is being implemented by offering specific solutions to customers whose water use is above efficiency benchmarks that were presented in December 2017. The five-year program goal is to save approximately 3,500 acre-feet (AF) at a total cost of approximately \$6.7M.

The first year of Denver Water's five-year Water Efficiency Plan was 2018. Actual water savings were 614 AF, which exceeded projected water saving. Total spending in 2018 was \$1.33M, resulting in a cost per AF of \$2,161.

Actual water savings in 2019 are currently exceeding projections. Total 2019 program spending is projected at \$1.9 Million.



Background

Water savings are measured by calculating the difference between total consumption in the same customer set before and after they have implemented a water savings tactic. For example, ultra high efficiency toilets rebate savings are measured by the



aggregate change in consumption from all participating customers from the year prior to installation compared to the year after installation.

Gallons saved per toilet rebate =

Total winter use of participants post rebate - Total winter use of all participants pre rebate

Total toilets rebated

This methodology is reviewed and validated every three years to ensure accuracy. The next review is scheduled for 2020.

Budget

The total program cost was estimated at \$6.7M and the remaining costs will be budgeted into future budget cycles through 2022.

Approach

A summary of each tactic's 2018 performance is attached. Milestones achieved in 2019 are as follows:

- Expanded email communication from 20,000 to 100,000 single family residential
 customers showing how their water use compares to water efficiency benchmarks
 and providing suggestions for improving/maintaining efficiency. This foundational
 program directs customers to educational materials and incentives based on
 individual water use efficiency. It can be used to communicate any efficiency
 program, expanded to non-single family residential customers, and used for other
 critical communications such as drought restrictions.
- Eliminated incentive for Garden in a Box program and achieved target customer distribution goal.

Remaining 2019 goals:

- Initiate water budget based rates pilot. Completed scope of work for developing a water budget based rate structure.
- Complete fixture retrofit projects in 2019 and 2020 for highly inefficient multifamily and low income customers by replacing inefficient fixtures. Contract modification may be required in 2020.
- Pilot irrigation audits for highly inefficient single family residential customers.
- Incorporate system development charge credit pilot efficiency standards into the City and County of Denver's green stretch codes. This is expected to increase adoption of water efficiency measures and alternative water sources at new developments.

Owner(s) Abigail Antolovich and Jeff Teiral - External Affairs

Attachments Water Efficiency Plan Detail

Respectfully submitted,