

AGENDA

Denver Board of Water Commissioners

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

Wednesday, October 12, 2016 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
2. 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.

1. Minutes from September 14, 2016 – Open and Executive
2. Minutes from September 15, 2016 – Executive
3. Minutes from September 26, 2016 – Executive
4. Minutes from September 28, 2016 – Open and Executive
5. Contract 13949A Fourth Amendment to Agreement with Weed Wrangler, Inc.
6. Contract 15886A Second Amendment for Boring Services
7. Contract 16713A with Injury to Action
8. Contract 16345A Amendment No. 1 with Ames Construction, Inc. for the Moffat Collection System Vasquez-St. Louis Division Vasquez Canal Piping

9. Contract 7804B Intergovernmental Agreement (IGA) with the City of Aurora for Sharing the Cost of the Strontia Springs Dam Emergency Reservoir Drainage System (ERDS) Rehabilitation Project
10. Contract 15782A with Sturgeon Electric Company, Inc. for Dillon Dam Hydropower Switchgear and Protective Relay Replacement
11. Contract 16801A with Sturgeon Electric Company, Inc. for Einfeldt Pump Station Standby Generator Replacement
12. Ratification of Construction Contracts Change Orders and Amendments to Contract/Agreements

B. Individual Approval Items

1. North Water Treatment Plant Update	Peter McCormick	10 minutes
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- a. Contract 16676A, Amendment No. 2 with Jacobs Engineering Group Inc. for North System Renewal Water Treatment Plant (Northwater Treatment Plant) Owner's Representative Services
- b. Contract 16911A with Brown and Caldwell for North System Renewal Water Treatment Plant (Northwater Treatment Plant) Design Package #6 – Post-Tensioned Water Storage Tanks
- c. Contract 16912A with Kiewit Infrastructure Co. for North System Renewal Water Treatment Plant (Northwater Treatment Plant) Construction Manager-at-Risk (CMAR) Design Phase Services

III. POLICY MATTERS

IV. EXECUTIVE UPDATE

A. CEO Update

B. CFO Update

C. Operations Update

V. BRIEFING PAPERS & REPORTS

A. Briefing Paper

1. Enterprise Risk Management

B. Report

1. 2015-2018 (“On-Call”) General Engineering, Construction Management, and Planning Services Contracts
2. Contract 15630B Update on Contracts for the Operations Complex Redevelopment (OCR) Project
3. Status of Contract Work and Consulting Services
4. Reporting of Staff Administered Construction Contract Contingencies and Allowances

VI. ADJOURNMENT

VII. TRUSTEE MATTERS

VIII. EXECUTIVE SESSION

The Board may adjourn the regular meeting and reconvene in executive session on topics authorized by C.R.S. Sec. 24-6-402 or D.R.M.C Sec. 2-34.

- A. Confidential Report § 24-6-402(4)

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12th, 2016

Board Item: II-A-5

Fourth Amendment to Agreement 13949A with Weed Wrangler, Inc.

Action by Consent

Individual Action

Summary:

Denver Water is required to manage noxious weeds on their properties through the Colorado Department of Agriculture's, Colorado Noxious Weed Act. Weed Wrangler has been spraying noxious weeds in the Kassler and Bob Taylor Eco Area since 2012. In 2016, Waterton Canyon and Platte Canyon Reservoir were identified as properties needing additional noxious weed treatment. These properties require additional funding for these necessary weed treatments.

Budget Information:

The total amount of this contract is \$122,000 and the term of the contract is 3/25/2012 to 11/30/2016. Funds for this service contract will come from the 2016 budget BU 1004503200, Recreation Contract Services, which has sufficient funds to pay the estimated additional \$24,000 needed in 2016.

Selection of Business Partner:

In 2012, Denver Water sought quotes from vendors for the containment of noxious weeds. It was deemed that Weed Wranglers, Inc. was the best value for Denver Water. The original term for Agreement No. 13949A was from March 15, 2012 through March 15, 2014. The Agreement has been amended three times for time extensions and to add additional funds. An amendment is being recommended to add funds to cover the remaining balance owed to the Contractor due to additional properties being sprayed in 2016 by Weed Wranglers, Inc. This service is currently being re-bid as RFP No.16850A.

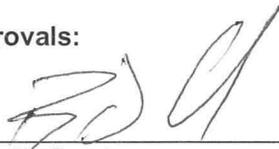
S/MWBE Information:

Not applicable

Recommendation:

It is recommended that the Board approve the Fourth Amendment to Agreement 13949A with Weed Wrangler, Inc. for noxious weed spraying on Denver Water's Waterton Canyon and Platte Canyon properties. This contract period will be completed November 30, 2016, with an additional \$24,000 in funding for a total amended contract amount not to exceed \$122,000.

Approvals:



Brian D. Good
Chief Administrative Officer



Angela Bricmont
Chief Financial Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager

Second Amendment for Boring Services Contract # 15886A

 Action by Consent Individual Action

Summary:

Denver Water requires a contractor to perform boring services for both planned and emergency street work. As part of service line replacement, Denver Water digs trenches which can impact large trees, porches, walls and building structures. Utilizing boring services minimizes the damage to customer property and reduces the time required to complete the job, further reducing customer impact and freeing internal resources for use on other jobs. Denver Water crews evaluate the potential cost of trenching versus boring on each job and select the method that will be the least costly and have the lowest customer impact.

Boring machine usage has recently increased because of the decision to replace lead services from the main to the house. The number of service lines replaced did not change, but the service line footage doubled, accelerating contract usage. Under a new Lead Program Denver Water's scope may be reduced, or these costs will be recovered from the customer. Additionally, Denver Water is preparing to pilot a different approach by leasing a boring machine to be used by Denver Water crews for some jobs. If the pilot is successful this is anticipated to reduce the amount spent on this contract once employees are trained and the use of the equipment is implemented.

Budget Information:

The total amount of this contract is \$550,000.00, and the term of the contract is May 1, 2015 to April 30, 2017. Funds for this service/contract will come from the 2016 budget for WD Construction & Maintenance, Main Improvements and Main Replacements, which have sufficient funds to pay the \$150,000.00 estimated to be needed in 2016. The remaining \$150,000.00 will be budgeted in year 2017.

Selection of Business Partner:

Denver Water issued an Invitation for Bids (IFB) in April 2015 for Directional Drilling Services. The IFB was posted on Rocky Mountain E-Purchasing System (BidNet), Denver Water's website and was sent via direct e-mail to the SBE Bid Hotline list. Denver Water received two bids, one of which was from an SBE. No MWBE bids were received. Drilltech Directional Services was the lowest bidder and is also an SBE.

S/MWBE Information:

For 2016 O&M has set an overall 15% target for MWBE participation in contracts.

Recommendation:

It is recommended that the Board approve the Second Amendment to Contract #15886A with Drilltech Directional Services for boring services for an addition of \$300,000.00 for a total amended contract amount not to exceed \$550,000.00.

Approvals:

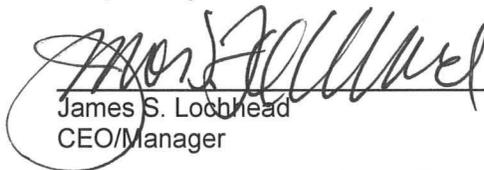


Thomas J. Roode
Chief Operations Maintenance Officer



Angela Bricmont
Chief Financial Officer

Respectfully submitted,



James S. Loohead
CEO/Manager

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-7

Injury to Action Contract # 16713A

Action by Consent

Individual Action

Summary:

As part of the strategic initiatives to reduce preventable injuries at Denver Water, the Safety Value stream has reviewed many options to reach this goal. Injury to Action is currently working in other utilities and has measurable success in reducing strain/sprain and slips, trips and fall type of injuries. These types of injuries comprise of approximately 60% of all Denver Water injuries. This contract consist of on the job observation, hands on education, development and delivery of a long-term industrial ergonomic program and embed the culture of safety for employees both at work and at home.

Budget Information:

The total amount of this contract is \$207,000, and the term of the contract is October 1, 2016 to September 30, 2019. Funds for this service/contract will come from the 2016 budget for Distribution Mains, which has sufficient funds to pay the \$25,000 estimated to be needed in 2016. The remaining \$182,000 will be budgeted in years 2017-2019

Selection of Business Partner:

In June 2016, Denver Water issued a Request for Proposal (RFP) for an Ergonomics Program via the Denver Water public website, Rocky Mountain E-Purchasing System (Bidnet), and direct email to the SBE/MWBE chambers e-mail list. Of the three companies submitting proposals, none were SBE/MWBE.

The selection committee evaluated each proposal based on the company and its staff's experience, service level, understanding of the work, references and pricing. This is a new service to Denver Water. Based on these criteria, the evaluation team identified Injury To Action as the most qualified vendor for this work.

Recommendation:

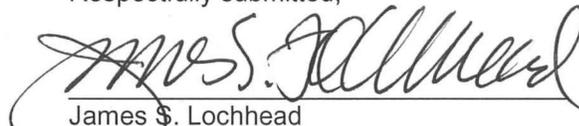
It is recommended that the Board approve Contract number 16713A with Injury to Action for Industrial Ergonomic Services for the contract period October 1, 2016 through September 30, 2019 for a total contract amount not to exceed \$207,000.

Approvals:



Gail Cagle
Chief Human Resource Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager



Angela Brimont
Chief Financial Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-8

Contract 16345A, Amendment No. 1 with Ames Construction, Inc., for the Moffat Collection System Vasquez-St. Louis Division Vasquez Canal Piping

Action by Consent

Individual Action

Summary:

The Vasquez Canal collects water on the north side of Denver Water's system near Winter Park. The existing Vasquez Canal has developed significant deterioration to the concrete canal liner since the 1930s. The deterioration has resulted in extensive maintenance and the need for this rehabilitation project. This year's Vasquez Canal Piping Project consists of removing approximately 1,976 feet of existing canal and replacing it with 114-inch diameter concrete pipe, and associated site restoration. Amendment No. 1 will provide Source of Supply (SOS) Operations useable material, salvaged from the existing covers, which are taking up a large area on Denver Water's property, and also install the remainder of the Owner-furnished pipe in lieu of stockpiling it for next summer.

This Amendment includes the following:

- Installing an additional 64 feet of Owner-furnished, 114-inch concrete pipe that was previously fabricated. Work includes demolition of the existing canal, installation of the new concrete pipe, road restoration, and seeding.
- Provide labor and equipment to crush existing concrete canal covers and stockpile onsite for use by SOS. These covers have been stored on Denver Water's property from the previous phases of canal replacement.

Budget Information:

Amendment No. 1 is \$203,252, bringing the new total for this contract to \$2,206,408.40. The term of the contract is May 25, 2016 to October 28, 2016. The 2016 budget for Vasquez Canal Piping Business Unit includes sufficient funds for this amended contract amount.

Selection of Business Partner:

Competitive bids for the Vasquez Canal Piping Project were received on May 11, 2016. Four Contractors submitted bids. The bids were evaluated and Ames Construction, Inc. was selected as the lowest responsible bidder. Ames Construction, Inc. will complete the project in October 2016.

Recommendation:

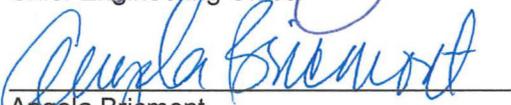
It is recommended that the Board approve Amendment No. 1 to Contract 16345A with Ames Construction, Inc.

Approvals:

Respectfully submitted,


Robert J. Mahoney
Chief Engineering Officer


James S. Lochhead
CEO/Manager


Angela Brimont
Chief Finance Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-9

Contract 7804B Intergovernmental Agreement (IGA) with the City of Aurora for Sharing the Cost of the Strontia Springs Dam Emergency Reservoir Drainage System (ERDS) Rehabilitation Project

Action by Consent

Individual Action

Summary:

The Strontia Springs Dam and Reservoir is located on the South Platte River in Waterton Canyon upstream of Chatfield Reservoir. The dam is a 299-foot high concrete dam that diverts water from the South Platte River to the Foothills Water Treatment Plant. The City of Aurora also has an intake tower for their water supply in the reservoir. Water is also released from the Strontia Springs Reservoir to maintain stream flow requirements on the South Platte River and to provide water to the Marston Water Treatment Plant via Conduit No. 20. At the bottom of the Strontia Springs Dam is a 4-foot by 4-foot steel-lined outlet channel called the Emergency Reservoir Drainage System (ERDS). The ERDS includes two bonneted gate valves and has a branch to a 1.0 MW hydropower turbine. The purpose of the ERDS is to sluice the sediment from the reservoir and to allow the reservoir to be fully drained, as well as supply water to the hydropower unit.

Currently, the ERDS is inoperable as one of the bonneted gate valves failed in the closed position. The inoperability of the ERDS presents an operational and dam safety issue since sediment is accumulating at the inlet to the ERDS, partially blocking the inlet, and the reservoir cannot be fully drained in the event it needs to be drained. The Strontia Springs Dam ERDS Rehabilitation project will fully refurbish the ERDS and its associated valves to restore the condition of the ERDS to a like new state and return operability of the system to the original condition.

Contract 7804B is an Intergovernmental Agreement (IGA) for sharing the cost of the Strontia Springs Dam ERDS Rehabilitation project between Denver Water and the City of Aurora, and it is a separate agreement from the original Foothills Agreement (Contract 7804A) between Denver Water and the City of Aurora for sharing the cost to operate and maintain the Strontia Springs Dam and Reservoir. The First Amendment to the Foothills Agreement stipulates that projects at the Strontia Springs site that cost in excess of \$100,000 require a separate agreement between Denver Water and the City of Aurora for the terms of sharing the project costs. This IGA states that Denver Water and the City of Aurora are responsible for 84.27 percent and 15.73 percent, respectively, of the applicable cost of the construction and professional services associated with the Strontia Springs Dam ERDS Rehabilitation project, which is estimated to be \$4,150,000.

Budget Information:

The Board approved the \$4,150,000 project expenditure on March 9, 2016. This IGA provides reimbursement to Denver Water for 15.73% of actual project costs.

Recommendation:

It is recommended that the Board approve Contract 7804B with the City of Aurora for the Intergovernmental Agreement for Sharing the Cost of the Strontia Springs Dam Emergency Reservoir Drainage System (ERDS) Rehabilitation Project for repayment of 15.73 percent of the applicable cost of the construction and professional services associated with the Strontia Springs Dam ERDS Rehabilitation project.

Approvals:



Robert J. Mahoney
Chief Engineering Officer



Angela Bricmont
Chief Finance Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-10

Contract 15782A with Sturgeon Electric Company, Inc. for Dillon Dam Hydropower Switchgear and Protective Relay Replacement

Action by Consent

Individual Action

Summary:

Built in 1986, the Dillon Hydropower facility is a 2 Megawatt generator that produces power which is sold to Xcel and ultimately used in the mountain town areas of Silverthorne and Dillon. The turbine is fed from the outlet works of the Dillon Dam and feeds into the Blue River. Over the last five years the reliability of the facility has been declining due to the age of the operating components and must be replaced. The existing equipment to be replaced can no longer be serviced because replacement parts can no longer be procured due to their age. The existing electrical distribution gear does not meet Denver Water's or the industry's standards for electrical safety practices and pose a life and safety hazard for Denver Water personnel. By replacing the existing distribution gear and protective relays we will increase the safety and reliability of the Dillon Dam hydropower unit for the next 25 years.

On September 27, 2016, bids were received for the Dillon Dam Hydropower Switchgear and Protective Relay Replacement project. The contract includes providing all necessary labor, equipment, and materials to install new electrical distribution switchgear, protective relays, and hydropower operation equipment to bring the Dillon Hydropower unit up to Denver Water's safety and operation standards.

Budget Information:

The Contract work will begin in 2016 and will be completed in 2018. The 2016-2018 Capital Improvement Plan budget for the Dillon Hydropower - Hydro Protective Relays Replacement Business Unit includes sufficient funds for the estimated \$3,598,367.

Selection of Business Partner:

Denver Water solicited proposals from three Contractors on the Prequalified Contractors List and received two proposals. This Contract was a highly restricted proposal process using Instruction to Proposers on the QuestCDN platform. Sturgeon Electric Company, Inc. was deemed the most qualified proposer which includes a price of \$3,598,367.

S/MWBE Information:

The Minority and Women Business Enterprise (MWBE) goal established for this construction project is 3% participation. Sturgeon Electric Company, Inc. Achieved 3.13% participation.

Recommendation:

It is recommended that the Board approve Contract 15782A with Sturgeon Electric Company, Inc. for Dillon Dam Hydropower Switchgear and Protective Relay Replacement for the contract period October 12, 2016 to November 23, 2018 for a total contract amount not to exceed \$3,598,367.

Denver Water aspires to be the best water utility in the nation.

Integrity :: Vision :: Passion :: Excellence :: Respect



Approvals:

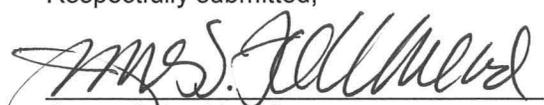


Robert J. Mahoney
Chief Engineering Officer



Angela Bricmont
Chief Finance Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-11

Contract 16801A with Sturgeon Electric Company, Inc. for the Einfeldt Pump Station Standby Generator Replacement

Action by Consent

Individual Action

Summary:

The Einfeldt Pump Station (originally University Park Pump Station) is a historic pump station built in 1911. The natural gas standby generator located at this Pump Station was irreparably damaged when Conduit No. 66 broke in 2012 and the Pump Station was flooded. Currently, there is a trailer-mounted, portable, diesel generator at the Pump Station which needs to be replaced with a more reliable, permanently installed natural gas standby generator as requested by the Denver Fire Department.

On September 27, 2016, proposals were received for the Einfeldt Pump Station Standby Generator Replacement project. Through this Contract, a new permanent standby power source will increase Pump Station reliability and safety. In addition, the sump pumps in the Pump Station and the Conduit No. 13 Valve Vault, as well as the pumps and air compressor for the hydraulic accumulator system that is used to open and close the discharge valves, will be powered from to the standby generator to ensure operation in the event of a power failure. This contract includes providing all the necessary labor, equipment and materials for the addition of the new standby generator as well as modifications to the sump pumps, accumulator system, and natural gas piping for this new generator.

Budget Information:

The Contract work will begin in 2016 and will be completed in 2017. The 2016-2017 Capital Improvement Plan budget for the Einfeldt Standby Generator Business Unit includes sufficient funds for the estimated \$314,579.93.

Selection of Business Partner:

Denver Water solicited proposals from four Contractors on the Prequalified Contractors List. This Contract was a restricted proposal process using Invitation to Proposers on the QuestCDN platform. Three General Contractors submitted proposals. Sturgeon Electric Company, Inc., was deemed the most qualified proposer which includes a price of \$314,579.93.

S/MWBE Information:

The Minority and Women Business Enterprise (MWBE) goal established for this construction project is 3% participation. Sturgeon Electric Company, Inc., achieved 3.1% MWBE participation.

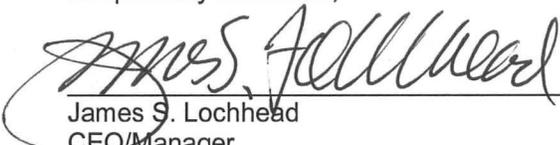
Recommendation:

It is recommended that the Board approve Contract 16801A with Sturgeon Electric Company, Inc. for the Einfeldt Pump Station Standby Generator Replacement for the contract period October 12, 2016 to July 19, 2017 for a total contract amount not to exceed \$314, 579.93.

Approvals:


Robert J. Mahoney
Chief Engineering Officer

Respectfully submitted,


James S. Lochhead
CEO/Manager


Angela Brimont
Chief Finance Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-A-12

Ratification of Construction Contracts Change Orders and Amendments to Contracts/Agreements

Action by Consent

Action

Information

Summary:

The attached are Construction Contracts Change Orders and Amendments to Contracts/Agreements for Board ratification for August and September 2016.

Approvals:


Robert J. Mahoney
Chief Engineering Officer

Respectfully submitted,

James S. Lochhead
CEO/Manager


Angela Bricmont
Chief Financial Officer

DENVER WATER

NORTHWATER TREATMENT PLANT (NTP)



NTP Design Package #6 & CMAR Agreement, and OR Amendment

Board Meeting, October 12, 2016

NTP - Board Action

- Approval of Agreements
 - II-B-1-a: OR – Amendment No. 2
 - Approve Architectural and HVAC design programming for 0-20% with Jacobs Engineering
 - II-B-1-b: DP#6 – Post-Tensioned Water Storage Tanks
 - Approve Agreement for 0-20% with Brown and Caldwell
 - II-B-1-c: CMAR – Design Phase Services Agreement
 - Approve Agreement for 0-20% with Kiewit Infrastructure Co.
- Northwater Treatment Plant (NTP)
 - NSRWTP is only used on advertisements and contracts until design procurement ends (March 2017) for consistency

NTP – OR Amendment No. 2

Preliminary Design 0-20%

OR		DP#2	TOTAL
Architectural and HVAC Programming		*Sustainability Analysis	\$271,153 (8% MWBE)
Amendment No. 2	Contingency	Release of Pre-Approved Contingency	
\$249,895	\$0	*\$21,258	
*MWBE Firm			

NTP – DP#6 – Post-Tensioned Water Storage Tanks

Preliminary Design 0-20%

Base Contract	Contingency (5%)	Total Contract
\$319,315	\$15,966	\$335,280

MWBE Goal*	MWBE Participation*	Total MWBE Participation
2-4%	0%	\$0

SBE Goal**	SBE Participation**	Total SBE Participation
0%	32.8%	\$104,853

*MWBE Goal is for the 0 – 100% design (Preliminary and Final Design).

**Bates Engineering is pending SBE certification.

NTP – CMAR – Design Phase Services

Preliminary Design 0-20%

Base Contract	Contingency (0%)	Total Contract
\$1,056,864	\$0	\$1,056,864

Phase	MWBE Goal	MWBE Participation	Total MWBE Participation
Design	0%	0%	\$0
Construction	Work with DW and OR to develop meaningful project delivery and support	Assist in MWBE Plan development for construction. Engage local community to increase opportunity for participation	8-12% total through CMAR Work Packages

NTP – Preliminary Design Contracts and Budget

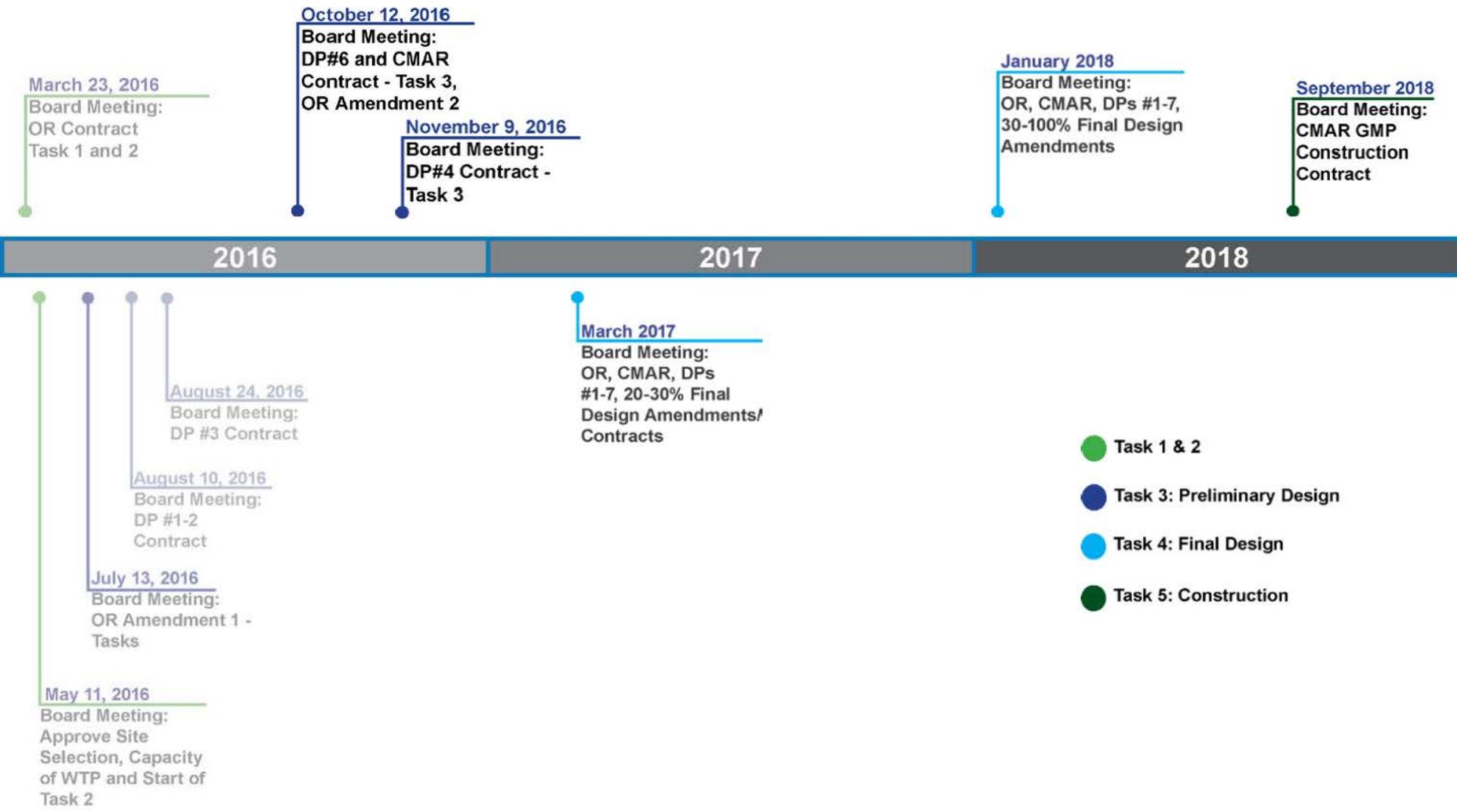
Task 3				
Design Contract	Executed Contracts	October 12, 2016 Contracts	Total Contracts	Budget
OR	\$2,712,196	\$249,895 ¹	\$2,962,091	\$3,000,000
1 - Site and Civil	\$1,050,137	-	\$1,050,137	\$1,107,000
2 - Treatment Process	\$2,040,814	-	\$2,040,814	\$2,590,000
3 - Electrical, I&C	\$1,798,675	-	\$1,798,675	\$1,658,000
4 - Ancillary Treatment	-	-	-	\$700,000
5 - Architectural, HVAC	-	See Note 1	See Note 1	\$800,000
6 - Post-Tensioned Tanks	-	\$335,280	\$335,280	\$520,000
7 - Moffat Improvements	-	-	-	\$600,000
CMAR	-	\$1,056,864	\$1,056,864	\$1,000,000
TOTAL	\$7,601,822	\$1,642,039	\$9,243,861	\$11,975,000

¹ Award of DP#5 has been delayed to poor RFP response. OR and DP#2 Contracts are being amended to cover only key aspects of the 20% programming design that was planned to be provided by DP#5. New DP#5 request for proposals will be released for inclusion in Task 4a - Final Design (20% - 30%), 4b (30% - 100%).

NTP – Design Cost and MWBE Goals

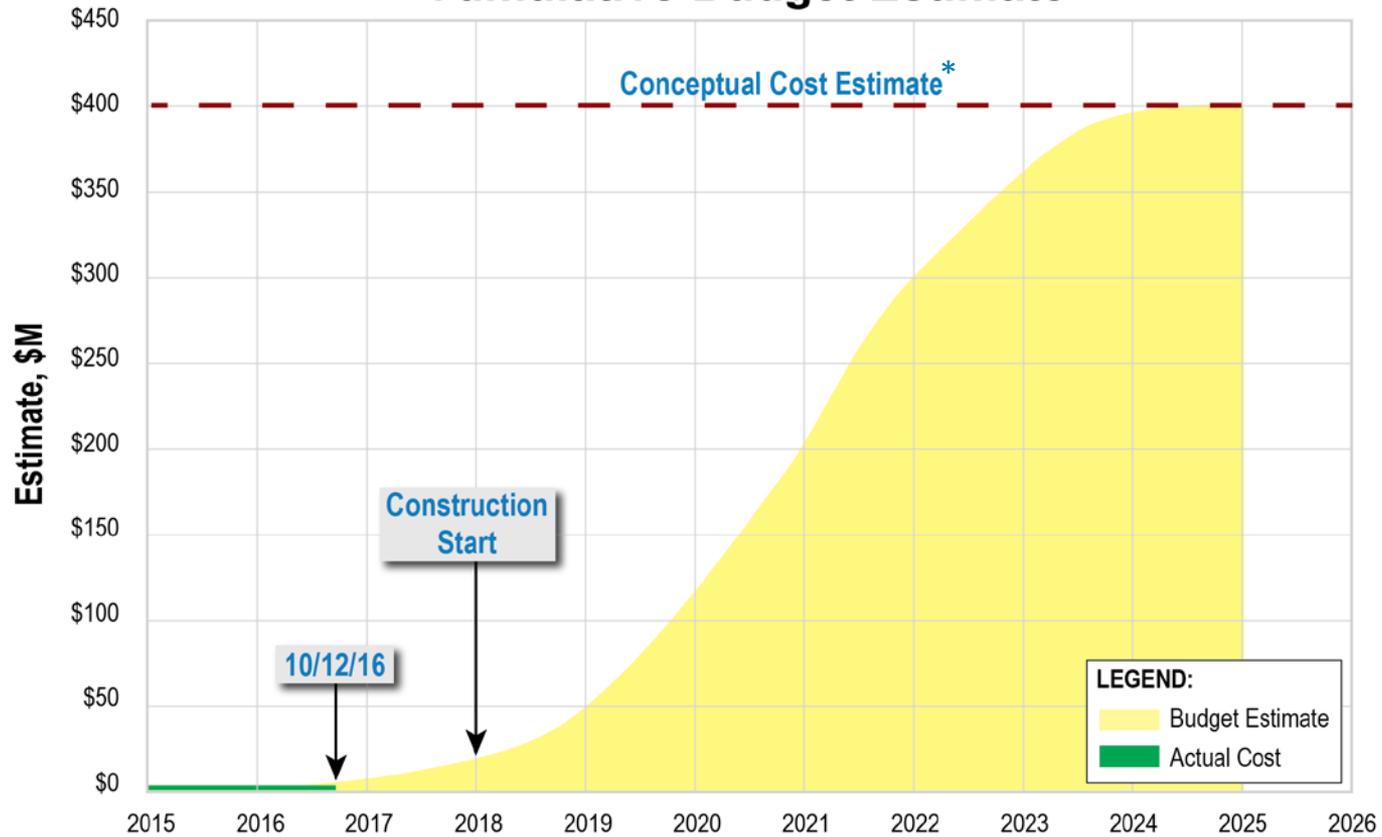
Design Package	Total Design MWBE Goals		MWBE Participation 0-20%	
OR	0%	\$0M	0%	\$0M
1 - Site and Civil	15%	\$0.5-1.0M	14.3%	\$0.15M
2 - Treatment Process	2-5%	\$0.2-0.5M	4.7%	\$0.09M
3 - Electrical, I&C	4-8%	\$0.3-0.7M	4.6%	\$0.08M
4 - Ancillary Treatment	2-5%	\$0.1-0.2M	TBD	TBD
5 - Architectural, HVAC	8-12%	\$0.3-0.4M	0%	\$0M
6 - Post-Tensioned Tanks	2-4%	\$0.1M	0%	\$0M
7 - Moffat Improvements	5-10%	\$0.1M	TBD	TBD
CMAR	0%	\$0M	0%	\$0M
TOTAL	4-8%	\$1.6-3.0M	4.2%	\$0.32M

NTP - Project Contract Schedule



NTP – Cost/Budget Projection

Cumulative Budget Estimate



*To be finalized in June 2017 at completion of 30% Design.

NTP Local Consulting Support

*Certified MWBE

JACOBS

 **Kiewit**

Brown AND Caldwell essential ingredients®

AECOM

ch2m

carollo
Engineers...Working Wonders With Water®

 **BLACK & VEATCH**
Building a world of difference.™

SWANSON RINK

BATES
ENGINEERING

CDM Smith
listen. think. deliver.

Program Net, Inc.

K+A KUMAR & ASSOCIATES, INC.
Denver (HQ) | Colorado Springs | Fort Collins | Parker | Glenwood Springs | Frisco/Silverthorne

*  **SMALL HYDRO CONSULTING, LLC**

*  **PK Electrical, Inc.**

* **digstudio** LANDSCAPE ARCHITECTURE
URBAN DESIGN • PLANNING

*  **ambient energy**
impact. collaborate. innovate.

*  **EES**

* **SSG** MEP

NTP - Board Action

- Approval of Agreements
 - II-B-1-a: OR – Amendment No. 2
 - Approve Architectural and HVAC design programming for 0-20% with Jacobs Engineering
 - II-B-1-b: DP#6 – Post-Tensioned Water Storage Tanks
 - Approve Agreement for 0-20% with Brown and Caldwell
 - II-B-1-c: CMAR – Design Phase Services Agreement
 - Approve Agreement for 0-20% with Kiewit Infrastructure Co.

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-B-1-a

Contract 16676A, Amendment No. 2 with Jacobs Engineering Group Inc. for North System Renewal Water Treatment Plant (a.k.a. Northwater Treatment Plant) Owner's Representative Services

Action by Consent

Individual Action

Summary:

The North System Renewal Water Treatment Plant (NSRWTP), soon to be renamed Northwater Treatment Plant, is a new 150 million gallons per day (MGD) facility to be constructed on Denver Water's Ralston Reservoir property north of Golden on Colorado State Highway 93. Denver Water has engaged an Owner's Representative (OR) to jointly manage and execute the design and delivery of the NSRWTP. Denver Water is also engaging a Design Team to jointly execute the design of the NSRWTP. The Design Team's responsibilities are selectively scoped and contracted in specific Design Packages (DPs) #1-7. The DPs and general scope of work are outlined below.

- DP #1 – Site and Civil Improvements
- DP #2 – Treatment Process Systems and Structures
- DP #3 – Electrical, Instrumentation & Control Systems
- DP #4 – Ancillary Treatment Process Systems and Structures
- **DP #5 – Architectural and Building Systems**
- DP #6 – Post-Tensioned Water Storage Tanks
- DP #7 – Moffat Facility Improvements

The DP #5 Consultant will be responsible for the design of the architectural, heating, ventilation and air conditioning (HVAC) components of the entire project. However, due to the lack of competitive response for the DP #5 Request for Proposals (RFP), the project team recommends the DP #5 design standards and sustainability evaluation scope of work still be completed prior to 20% design completion, using resources from the OR team and an MWBE firm from DP #2.

The purpose of this Board Item is to execute Amendment No. 2 to the NSRWTP OR contract for \$249,895.00 to provide architectural and HVAC project programming to supplement the zero-to-20% design standards and sustainability evaluation scope of work previously planned for DP #5. The work being covered by the DP #2 team is being administered with Leadership Team approval through the DP #2 contingency for \$21,258.00. The budget for DP #5 to provide the zero-to-20% scope of work was \$800,000.00. Since DP #5 was not awarded, the evaluations and programming scope has been temporarily assigned to the OR and DP #2 to maintain the critical path schedule.

Denver Water intends to re-advertise a revised RFP for DP #5 in early 2017 in preparation for the next phase of design, Task 4 – Final Design.

NSRWTP Project Delivery Tasks	
Major Tasks	Current Schedule
Task 1: Mobilization of Owner's Rep	Complete
Task 2: Design Phase Service Procurement (Design Team and CMAR)	In-progress
Task 3: Preliminary Design (0 to 20% completion) Board Workshop at 20% Design Milestone	8/2016 – 3/2017 (in progress)
Task 4: Final Design (20 to 100% completion through bidding) Finalize Project Budget at 30% Design Milestone	3/2017 – 2018-2021 (varies)
Task 5: Construction	2018 – 2023
Task 6: Transfer of Facility Ownership	2023

Budget Information:

The total amount of this amendment is \$249,895.00 and the contract period of the amendment is October 12, 2016 to March 31, 2017. Funds for this service/contract will come from the 2016 budget for *North System Renewal Water Treatment Plant Upgrades Business Unit*, which has sufficient funds to pay the \$100,000.00 estimated to be needed in 2016. The remaining \$149,895.00 is budgeted in 2017.

Selection of Business Partner:

On March 23, 2016, the Board approved the contract for Tasks 1 and 2 with the NSRWTP OR to develop the project management plan, structure, document management systems and assist Denver Water with the hiring and selection of the design team and Construction Manager-At-Risk (CMAR). On July 13th, Amendment No.1 was issued, as planned, for Task 3 – Preliminary Design Phase Services. Amendment No. 2 (Task 3 DP #5 supplemental design programming support) is additional work to the OR scope of work to help complete design standard development and sustainability evaluations. Denver Water expects to reissue an RFP for DP #5 in early 2017, so that DP #5 can begin work on the project at the 20% project milestone

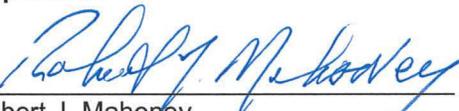
S/MWBE Information:

There was no goal established for this amendment as Denver Water negotiated the scope with the OR team. Some additional sustainability evaluations were assigned to DP #2 to help cover the architectural and HVAC programming, and provide an opportunity for participation. The DP #2 MWBE scope change is being covered by the previously approved design contingency; however, the participation of \$21,258.00 as part of this task equates to 8% MWBE participation for the zero-to-20% design phase. Note that participation is being obtained on Design Packages and goals will be established for the construction phase.

Recommendation:

It is recommended that the Board approve Amendment No. 2 to Agreement No. 16676A with Jacobs Engineering Group Inc., for DP #5 supplemental design programming support for an extension of the contract period through March 31, 2017 and for an addition of \$249,895.00 for a total amended contract amount not to exceed \$3,702,091.00.

Approvals:

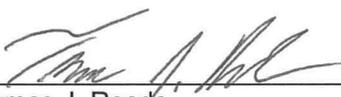


Robert J. Mahoney
Chief Engineering Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager



Thomas J. Roode
Chief Operations and Maintenance Officer



Angela Bricmont
Chief Finance Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-B-1-b

Contract 16911A with Brown and Caldwell for North System Renewal Water Treatment Plant (a.k.a. Northwater Treatment Plant) Design Package #6 – Post-Tensioned Water Storage Tanks

Action by Consent

Individual Action

Summary:

The North System Renewal Water Treatment Plant (NSRWTP), soon to be renamed Northwater Treatment Plant, is a new 150 million gallons per day (MGD) facility to be constructed on Denver Water's Ralston Reservoir property north of Golden on Colorado State Highway 93. Denver Water is engaging a Design Team to jointly execute the design of the NSRWTP. The Design Team's responsibilities are selectively scoped and contracted in specific Design Packages (DPs) #1-7. The DPs and general scope of work are outlined below.

- DP #1 – Site and Civil Improvements
- DP #2 – Treatment Process Systems and Structures
- DP #3 – Electrical, Instrumentation & Control Systems
- DP #4 – Ancillary Treatment Process Systems and Structures
- DP #5 – Architectural and Building Systems
- **DP #6 – Post-Tensioned Water Storage Tanks**
- DP #7 – Moffat Facility Improvements

The DP #6 Consultant will be responsible for design of the post-tensioned clearwell storage tanks, and development of the design guidance document for the preliminary design phase services for the NSRWTP.

Denver Water has negotiated the scope and fee for DP #6 through a 20-percent level of design and will continue in a phased contract approach for future design milestones, based on the project schedule and performance. Each subsequent phase will be brought to the Board for consideration and approval.

NSRWTP Project Delivery Tasks	
Major Tasks	Current Schedule
Task 1: Mobilization of Owner's Rep	Complete
Task 2: Design Phase Service Procurement (Design Team and CMAR)	In-progress
Task 3: Preliminary Design (0 to 20% completion) Board Workshop at 20% Design Milestone	8/2016 – 3/2017 (in progress)
Task 4: Final Design (20 to 100% completion through bidding) Finalize Project Budget at 30% Design Milestone	3/2017 – 2018-2021 (varies)
Task 5: Construction	2018 – 2023
Task 6: Transfer of Facility Ownership	2023

Budget Information:

The total amount of this contract is \$335,280.00 which includes \$15,966.00 (5%) contingency that requires Project Leadership Team approval prior to starting any contingency-based work. The contract period of the contract is October 12, 2016 to March 31, 2017. Funds for this service/contract will come from the 2016 budget for *North System Renewal Water Treatment Plant Upgrades Business Unit*, which has sufficient funds to pay the \$130,000.00 estimated to be needed in 2016. The remaining \$205,280.00 is budgeted in 2017.

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Selection of Business Partner:

On July 20, 2016, Denver Water distributed a Request for Proposals (RFP) to the select prequalified firms (due to the specialized nature of post-tensioned tank design) listed below:

- Bates Engineering, Inc.
- Brown and Caldwell
- SDG, Inc.

A mandatory pre-proposal meeting was held at Denver Water's Board Room on August 17, 2016 and all three firms attended. Two proposals were received, one from Brown and Caldwell with Bates Engineering, Inc. as a subconsultant and the other from SDG, Inc. Both proposals were reviewed and evaluated by a team of Engineering and Operations Division staff and a quality-based selection was made and documented. Denver Water evaluated the proposal to ensure the approach and rates are appropriate for the scope of work and that the proposed firm had the capabilities and resources to support the overall NSRWTP Project.

Denver Water determined the Brown and Caldwell proposal best met the evaluation criteria and provides Denver Water with the most value and lowest risk for the complicated post-tensioned tank design for the NSRWTP. The negotiated rates and fee are presented here for Board approval.

S/MWBE Information:

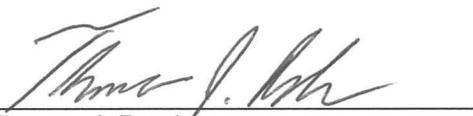
The MWBE goal for DP #6 Task 3 - Preliminary Design was 2-4%. This goal was determined to be unachievable by Denver Water for Task 3, given the limited (and reduced) scope of work and highly specialized engineering experience. The Brown and Caldwell team is expected to have 32.8% Small Business Enterprise (SBE) participation following certification of Bates Engineering, Inc. with the City and County of Denver, and will work with Denver Water to identify meaningful opportunities for future Tasks.

Recommendation:

It is recommended that the Board approve Agreement 16911A with Brown and Caldwell for DP #6 – Post-Tensioned Water Storage Tank design for the NSRWTP for the contract period October 12, 2016 to March 31, 2017 for a total contract amount not to exceed \$335,280.00.

Approvals:


Robert J. Mahoney
Chief Engineering Officer


Thomas J. Roode
Chief Operations and Maintenance Officer

Respectfully submitted,


James S. Lochhead
CEO/Manager


Angela Bricmont
Chief Finance Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: II-B-1-c

Contract 16912A with Kiewit Infrastructure Co. for North System Renewal Water Treatment Plant (a.k.a. Northwater Treatment Plant) Construction Manager-at-Risk (CMAR) Design Phase Services

Action by Consent

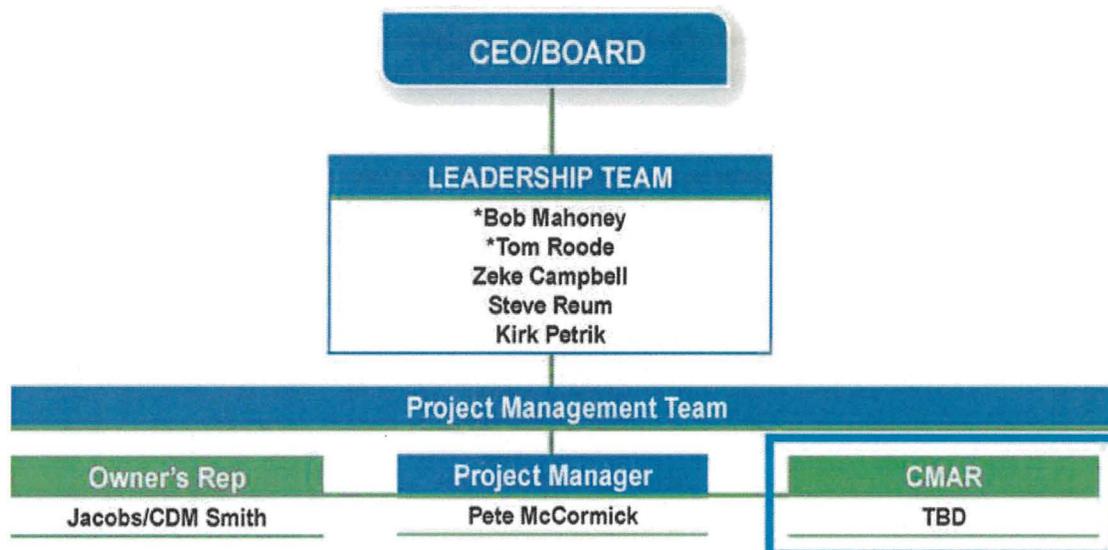
Individual Action

Summary:

The North System Renewal Water Treatment Plant (NSRWTP), soon to be renamed Northwater Treatment Plant, is a new 150 million gallons per day (MGD) facility to be constructed on Denver Water's Ralston Reservoir property north of Golden on Colorado State Highway 93. Denver Water is engaging a CMAR to jointly manage and execute the delivery of the NSRWTP.

The CMAR's responsibilities are separated into two distinct contracts; Design Phase Services and Construction Phase Services. Design Phase Services include project management support, open-book estimating, constructability, value engineering and safety reviews, construction Work Package breakdown, startup, testing and commissioning planning, and review of Design Package Consultant deliverables. Denver Water will have the option to extend the CMAR's commitment through project construction with a CMAR Construction Phase Services Agreement.

Denver Water's Engineering Division, the Owner's Representative (OR) and the CMAR will be jointly responsible for the successful execution and delivery of the NSRWTP Project. The project management organization is outlined below.



*Co-Chairs

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Denver Water has negotiated the scope and fee for the CMAR Design Phase Services through a 20-percent level of design and will continue in a phased contract approach for future design milestones, based on the project schedule and performance. Each subsequent phase will be brought to the Board for consideration and approval.

NSRWTP Project Delivery Tasks	
Major Tasks	Current Schedule
Task 1: Mobilization of Owner's Rep	Complete
Task 2: Design Phase Service Procurement (Design Team and CMAR)	In-progress
Task 3: Preliminary Design (0 to 20% completion) Board Workshop at 20% Design Milestone	8/2016 – 3/2017 (in progress)
Task 4: Final Design (20 to 100% completion through bidding) Finalize Project Budget at 30% Design Milestone	3/2017 – 2018-2021 (varies)
Task 5: Construction	2018 – 2023
Task 6: Transfer of Facility Ownership	2023

Budget Information:

The total amount of this contract is \$1,056,864 and the contract period of the contract is October 12, 2016 to May 20, 2017. Funds for this service/contract will come from the 2016 budget for *North System Renewal Water Treatment Plant Upgrades Business Unit*, which has sufficient funds to pay the \$350,000 estimated to be needed in 2016. The remaining \$706,864 is budgeted in 2017.

Selection of Business Partner:

On Thursday, May 19, 2016, and again on Thursday, May 26, 2016, a Request for Qualifications (RFQ) was posted to Denverwater.org, publically advertised in the Daily Construction Journal, and 500 firms from Denver Water's engineering contact list were also directly notified by mass email. Seventeen firms attended the non-mandatory Pre-Qualifications conference held on Thursday, May 26, 2016. On Thursday, June 16, 2016, Denver Water received two (2) Statement of Qualifications (SOQs) from the following firms:

- Kiewit Infrastructure Co. (Kiewit)
- MWH Constructors (MWHC)

On Tuesday, July 5, 2016, a Request for Proposals (RFP) was electronically distributed to Kiewit and MWHC. Both firms attended the Mandatory Pre-Proposal conference held on Tuesday, July 12, 2016, at the NSRWTP project site (Ralston). On Tuesday, August 2, 2016 Denver Water received two Proposals from the pre-qualified firms.

Denver Water extensively evaluated the CMAR proposals, references, conducted team interviews and one-on-one management team meetings to discuss the project structure and delivery options, key project personnel, rate and fee structures. Denver Water determined the Kiewit Infrastructure Co. team provides Denver Water with the most flexibility in delivery options and a competitive rate and fee structure, both of which maximize Denver Water's ability to return value to the project and minimize project and budget risks. The negotiated rates and total fee are presented here for Board approval.

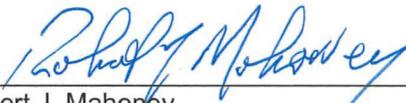
S/MWBE Information:

There was no MWBE goal for the CMAR team, however the CMAR, OR and Denver Water are collaborating on a strategy to develop strong participation goals for the actual project construction, which the CMAR will administer.

Recommendation:

It is recommended that the Board approve Agreement 16912A with Kiewit Infrastructure Co. for CMAR Design Phase Services for the NSRWTP for the contract period October 12, 2016 to May 20, 2017 for a total contract amount not to exceed \$1,056,864.

Approvals:

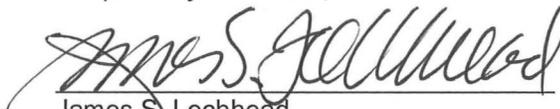


Robert J. Mahoney
Chief Engineering Officer



Thomas J. Roodé
Chief Operations and Maintenance Officer

Respectfully submitted,



James S. Lochhead
CEO/Manager



Angela Brimont
Chief Finance Officer

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: V-A-1

Briefing Paper Enterprise Risk Management

Action by Consent

Action

Information

Summary:

The purpose of this paper is to provide an overview of enterprise risk management, describe the roles and responsibilities in the implementation of risk management, share examples of what other organizations are doing with respect to risk management, and provide recommendations of how to best implement an effective enterprise risk management program at Denver Water.

Definition of Enterprise Risk Management:

Enterprise Risk Management (ERM) is an integrated process of identifying, assessing, managing, and monitoring risks that could prevent an organization from achieving its objectives and mission. Risk management also includes identification and implementation of opportunities that can benefit an organization.

Some ERM programs are more complex than others, but good programs share common traits such as linking risk identification to strategic planning, considering both the downsides and upsides of risks, and quantifying risks through some sort of scoring system. Potential benefits of ERM include: higher likelihood of achieving business objectives, improved business controls and a reliable basis for decision making and planning.

Evolution of Enterprise Risk Management:

Risk management programs were implemented in the private sector a few decades ago, evolving into enterprise risk management programs due to their recognition as best practice as well as competitive market forces. Although ERM programs have matured in the private sector, the concept remains nascent in the public sector. The absence of market competition and the essential nature of services most public entities provide have contributed to the slow evolution of enterprise risk management in the public space. Does this mean that the enterprise risk management is less important in public sector? No. In fact, risk management is arguably more critical in the public sector due to limited resources and the political scrutiny these organizations receive. However, most risk management in the public sector has been siloed, with risks addressed on an exposure-by-exposure basis within departments and with limited coordination across the organization.

Denver Water has maintained a risk management program for well over two decades but the strategy has been predominantly to transfer risks to insurance companies and to self-insure where it made financial sense. Denver Water's non-insured risks were managed using the silo method. An internal assessment of enterprise risk management started in 2011, with a more formal program starting in 2014.

Risk Categories:

Risks can be categorized in several different ways. In a broad context, they may be classified as internal and external risks, and at a granular level, they are broken down into several sub-categories such as political, social, economic, technological, environmental, personnel, infrastructure, etc. Public sector organizations, such as water utilities, face a multitude of risks which could interfere with meeting the organization's mission and goals. For example, utilities are constantly experiencing pressure from internal forces, such as aging workforce, limited budget and inability to attract talent, as well as external forces such as regulatory changes, aging infrastructure, asset failure, climate change, and public opinion.

Enterprise Risk Management Tools and Techniques:

There are several industry standards available for ERM implementation but most organizations adopt one of the two prominent systems: ISO 31000, developed by the International Organization for Standardization, and COSO's Risk Management Framework, developed by the Committee of Sponsoring Organizations of the Treadway Commission. These standards provide a framework to manage risks in an integrated manner. Implementation of an ERM is generally started by interviewing key stakeholders and asking them to identify the top risks in their area of responsibility or the organization as a whole. Each identified risk is evaluated and scored in terms of probability of occurrence and its consequence. The risks are then prioritized and mitigation strategies developed.

In 2011, Denver Water staff analyzed both ISO 31000 and COSO's Risk Management Framework and recommended loose adoption of ISO 31000, keeping initial implementation of ERM simple and using the standard as a general, high-level guideline. In addition, Denver Water has relied heavily on information shared by Miller-Coors, San Francisco Public Utilities and more recently, Merrick & Company, in the development of its ERM program. At Denver Water, the Board, executive team, senior leaders and subject matter experts identify key risks that are categorized according to their respective likelihood of occurrence and consequence using a 'Heat Map' model. The most significant risks are then transferred to a risk register and risk owners assigned to each risk. The risk owners are continuously developing and implementing mitigation plans, as appropriate, to eliminate, reduce or minimize the likelihood or consequences of each risk occurring. The highest priority risks have been shared with the Board. A copy of the current risk register is attached to this paper.

Now that the initial implementation is in place and as Denver Water's risk management program matures, more pieces of the framework can be implemented and staff can, if desired, adhere more closely to the ISO standards.

Roles and Responsibilities:

An integrated, enterprise approach to risk management calls for greater engagement of senior management and the Board to help facilitate evaluation and management of risks in a holistic context. This approach provides efficient allocation of an organization's limited resources. Everyone in the entity has some responsibility for enterprise risk management. The chief executive officer is ultimately responsible and should assume ownership of ERM implementation. Other members of the executive team support the entity's risk management philosophy, promote compliance with its risk appetite, and manage risks within their spheres of responsibility, consistent with the organization's risk tolerance. A risk officer, chief financial officer, internal auditor, and others usually have key support responsibilities. The personnel in the organization are responsible for executing ERM in accordance with established directives and protocols. The board or governing body provides important oversight to ERM and approves the entity's risk tolerance. Staff provides periodic reports to the board apprising them of the most significant risks and the actions management has taken regarding each identified risk. Boards

should engage by asking questions to understand risks and support addressing of the most business critical risks with needed resources. Boards should also hold executive staff accountable for periodic review of risks and execution of risk-mitigation strategies. A number of external parties, such as customers, vendors, business partners, external auditors, regulators, and financial analysts often provide information useful to implementing ERM, but they are not responsible for the effectiveness of, nor are they a part of, the program.

At Denver Water, the purchase and renewal of insurance policies as well as the contract for insurance advisory services are approved by the Board. In addition, the Board has been engaged in identifying key risks for the organization and has been apprised on a regular basis of top risks on the “Heat Map” and the actions taken by management to address those risks.

Benchmarking:

Staff has conducted outreach to other organizations regarding their ERM programs and the level of involvement of their boards in risk management program. However, since public sector adoption of risk management has been slower than in the private sector, it has been difficult to find information from utilities. San Francisco Public Utilities has a mature risk identification and assessment framework but staff has struggled to get participation from their executive staff and governing body. A poll of organizations who are members of the Risk and Insurance Management Society (RIMS), revealed that board involvement at organizations ranges from only having their board approve insurance policies and related contracts, to more in-depth engagement including review of the risk management framework and top risks for the organization. The responses revealed that frequency of staff updates to the governing bodies ranges from two to four times a year. In addition, the structure and management of ERM by staff differ by organization. Some companies have a dedicated risk manager or even chief risk officer; others have formal or ad-hoc risk committees.

In the private sector, specifically publicly-traded companies, market share is used extensively to assess the impact of risks. For example, risks are evaluated based on their likelihood of occurrence and potential impact (positive or negative) to market share. Those with the biggest impact are addressed first. In the public sector, risks are evaluated based on things like community safety or impact of service delivery.

Since ERM in the public space is still fairly new, there is no meaningful benchmarking data available to compare the effectiveness of ERM programs. Staff has asked industry experts for possible metrics and has identified two, both of which are insurance-related. The most common metric for property insurance is the cost of insurance per \$100 of insured asset replacement value. For workers' compensation, the experience modifier is a standard used by industry to set insurance premiums based on previous loss experience.

Summary and Next Steps:

The term ‘Enterprise Risk Management’ is defined as an integrated way to manage risks. And while there are several industry standards available for implementation of ERM, there are no cookie-cutter models. Each ERM plan needs to be tailored to the culture of the organization implementing it. Some organizations start with a full-fledged implementation program including the use of risk managers and risk management software while others take a more informal approach and start on a smaller scale. The common factor in all ERM implementations, whether big or small, is the establishment of a framework. ERM is not a project, but a process of continuous improvement in which an organization integrates risk management with strategy-setting to improve the effectiveness of its risk management capabilities over time. Research indicates that it generally takes three to five years to establish an effective ERM program.

The ERM program at Denver Water is still at an early stage. As staff continues work on establishing an effective ERM program we recommend the following actions:

- Document and adopt a policy/philosophy and potentially a procedure related to ERM. The policy should outline roles and responsibilities and identify the Board's desired level of involvement in identifying and updating/assessing organizational risks.
- Maintain the current approach of ERM managed by a small staff committee (as opposed to a full-time risk manager)
- Continue to conduct an annual update of organizational risks
- Conduct a quarterly review and discussion of risks and countermeasures with the executive team
- Provide semi-annual updates to the Board

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 12, 2016

Board Item: V-B-1

2015-2018 (“On-Call”) General Engineering, Construction Management, and Planning Services Contracts

Denver Water’s Engineering Division is utilizing a variety of firms for (“On-Call”) General Engineering Design Services and Construction Management Services. A summary of the work contracted (versus expended) from **September 2015 through September 2016**, is provided on Exhibit 1 (attached).

The On-Call contracting mechanism provides for expedited contract execution, allowing a quick turnaround by consultant teams.

1. Total Number of GES/CM Firms:	82
2. Number of GES/CM Contracts (September 2015 to Date):	72
3. Total Amount of On-Call Contracts (September 2015 to Date):	\$2,871,951.39
4. Average Cost for On-Call Contracts:	\$39,888.21
5. Total MWBE/SBE for On-Call Contracts (September 2015 to Date):	\$964,222.57

S/MWBE Contracts	MWBE Firms	MWBE Amount (\$)	
MWBE	Harris Kocher Smith (HKS)	8,530.00	
MWBE	Kumar & Associates, Inc.	155,665.00	
MWBE	Pinyon Environmental, Inc.	19,095.00	
MWBE	WaterPlans, Inc.	<u>39,480.00</u>	<u>Subtotal \$222,770.00</u>
SBE	BBC Research & Consulting	110,040.00	
SBE	Canterbury Construction Management Services	7,303.32	
SBE	Infrastructure & Marine Consultants, LLC	128,828.50	
SBE	Lintjer + Haywood Architects, P.C.	30,255.00	
SBE	Providence Infrastructure Consultants, Inc.	92,028.00	
SBE	QualCorr Engineering Corporation	71,835.00	
SBE	RJH Consultants, Inc.	49,981.00	
SBE	Short and Brennan Architects	72,446.75	
SBE	Tumbleweed Electric	79,700.00	
SBE	Vista Engineering	<u>99,035.00</u>	<u>Subtotal \$741,452.57</u>
	Total MWBE/SBE Awarded		\$964,222.57
	Total GES/CM Agreements Awarded		\$2,871,951.39
	Percent of MWBE/SBE Awarded		33.57%

Important Notes:

1. Unlike the On-Call consultant design service task orders, construction management task orders will often exceed \$100,000.00. Board approval will be obtained on all task orders over \$100,000.00.

Approvals:



Robert J. Mahoney
Director of Engineering

Respectfully submitted,



James S. Lochhead
CEO/Manager



Angela Brimont
Chief Finance Officer

Operations Complex Redevelopment Project
Exhibit A: Mortenson Construction Contracts

Contract	Execution Date	Estimated Cost	Actual Cost
Contract 15630B – Work Package No. 1 General Conditions	August 2015	\$12,289,777.00	\$12,289,777.00
Contract 15630D – Work Package No. 3 Phase I Demolition	August 2015	\$868,926.00	\$1,440,796.37
Contract 15630A – CMAR Base Contract	November 2015	\$0.00	\$0.00
Contract 15630C – Work Package No. 2 Materials Lab	December 2015	\$350,692.00	\$266,225.00
Contract 15630B – Work Package No. 1A Site Work & Utilities	August 2016	\$21,338,645.00	\$24,227,536.00
Contract 15630E – Work Package No. 4 Operations Buildings	August 2016	\$43,032,765.00	\$43,535,620.00
Subtotal to Date		\$77,880,805.00	\$81,759,954.37
Contract 15630F – Work Package No. 5 Phase II Demolition	TBD	\$560,430.00	-
Contract 15630G – Work Package No. 6 Phase II Construction (Admin., Parking, Wellness)	TBD	\$72,012,201.00	-
Contract 15630G – Work Package No. 6A 3 Stone, Wash, Water Distribution	TBD	\$6,458,333.00	-
Total		**\$156,911,769.00	-

**Construction cost only, does not include other (soft) project costs

Project Contingency Report

(3rd Quarter Update, 2016)

Ashland Reservoir Replacement - Construction

Updated September 2016

1. Contingency for WP 1 Construction (David Wilson)

Change Order / Amendment	Description	Cost of Change	Remaining Contingency
	Board Approved Contingency (Board Mtg 2/13/13) - Contract #14063B		\$750,000.00
CO No. 1	Additional work to complete the disconnect and abandonment of conduit No. 23 and other miscellaneous items.	\$28,008.09	\$721,991.91
CO No. 2	Modify the permanent and temporary dewatering system; remove previously unidentified asphalt under the west reservoir; and other miscellaneous items.	(\$6,929.03)	\$728,920.94
CO No. 3	Adjustments to the underdrain under reservoir No. 2; modify the backfill around the 16 inch drainline to flowfill; and other miscellaneous items.	\$23,812.84	\$705,108.10
CO No. 4	Time Extension	\$0.00	\$705,108.10
CO No. 5	Adjustments to the underdrain under reservoir No. 1 and miscellaneous items.	(\$7,179.18)	\$712,287.28
CO No. 6	Nitrile seals, Conduit 3 cleanup and misc. electrical items	\$222,668.52	\$489,618.76
AM No. 1	Perform asbestos abatement in the east reservoir	\$22,121.96	\$467,496.80
	Total spent against contingency:	\$282,503.20	

2. Market Price Adjustment Allowance (David Wilson)

Change Order / Amendment	Description	Cost of Change	Remaining Contingency
	Board approved Market Price Adjustment Allowance (Board Mtg 2/13/13) - Contract #14063B		\$3,000,000.00
	Nothing spent at this time.		

14454A - Early Work Package Contract Amount: \$158,566.00
 14063A - CMAR Contract Amount: \$3,483,518.00
 14063B - WP1 Contract Amount: \$32,660,383.00

Conduit 16 Replacement & Conduit 22 Abandonment - Design

Updated September, 2016

1. Allowance for Supplemental Services (Jim Light)

Invoice number	Description	Cost of Change	Remaining Contingency
	Board Approved Allowance (Board Mtg 3/29/13) - Contract #14978A (Included in Original Contract Price)		\$200,000.00
1	Hazen Contamination research/coordination	\$3,360.00	\$196,640.00
2	Additional costs for geotechnical investigation at Hazen contamination site	\$9,470.00	\$187,170.00
3	Additional geotechnical investigation at Applewood Shopping Center for possible tunnel extension	\$17,524.00	\$169,646.00
4	Line-work for 360 DW crossing agreements	\$4,000.00	\$165,646.00
5	Additional survey and utility locates for the State Highway 58 revision	\$3,200.00	\$162,446.00
6	Preparation of Section 404 Permit Pre-Construction Notification (PCN)	\$4,000.00	\$158,446.00
7	Preparation of a Cultural Resource Assessment (field survey) of the construction corridor	\$6,500.00	\$151,946.00
8	Preparation of a Geotechnical Investigation Report (GIR) for the McIntyre Street Crossing	\$2,971.00	\$148,975.00
9	Hydraulic Transient Modeling Analysis	\$15,000.00	\$133,975.00
10	CDPHE Dewatering Permit assistance	\$31,851.00	\$102,124.00
	Total spent against contingency:	\$97,876.00	

2. Contingency Fund (Jim Light)

Change Order / Amendment	Description	Cost of Change	Remaining Contingency
	Board Approved Contingency (Board Mtg 3/29/13) - Contract #14978A		\$300,000.00
Amendment No. 4	Revised Corrosion Protection design, Labor for development of a new design package, Property assistance for two new vault sites, and additional Public Involvement Services	\$133,430.00	\$166,570.00
	Total spent against contingency:	\$133,430.00	

Original Contract Amount:	\$5,526,992.00
Amendment No. 1	\$0.00
Amendment No. 2	\$0.00
Amendment No. 3	\$135,056.00
Amendment No. 4	<u>\$133,430.00</u>
Current Contract Amount	<u>\$5,795,478.00</u>

Operations Complex Redevelopment - Construction

Updated September, 2016

1. Owner's Unallocated Contingency (Jeremy Ross)

Change Order / Amendment	Description	Cost of Change	Remaining Contingency
	Board Approved Owner Contingency (Board Mtg 5/27/15) - Contract #15630A - G		\$5,000,000.00
Pending	Removal of ash on site, removal of contamination of north properties, increase in materials lab cost, miscellaneous unknown utility removals, central utility plant increase, bldg. dept. revisions	\$1,911,326.00	\$3,088,674.00
	Total spent against contingency:	\$1,911,326.00	