

AGENDA ITEM SUMMARY

February 16, 2016

City Council

STAFF

Kevin Gertig, Utilities Executive Director
Mike Beckstead, Chief Financial Officer

SUBJECT

Second Reading of Ordinance No. 016, 2016, Appropriating Prior Year Reserves in the Water Fund for a Project to Repair a Piped Section of the Michigan Ditch Tunnel Project.

EXECUTIVE SUMMARY

This Ordinance, unanimously adopted on First Reading on February 9, 2016, appropriates funds for the repair of a piped section of the Michigan Ditch near Cameron Pass in eastern Jackson County. The Ditch experienced a catastrophic failure in June 2015, when the mountainside on which the Ditch is constructed slid downhill several feet. As a result, the Ditch is currently not able to deliver the majority of the decreed water to Joe Wright Reservoir, which are released to meet City water supply needs either directly or by exchange. Repairing the Ditch and restoring deliveries to Joe Wright Reservoir is essential to ensure that the City fully utilizes its valuable Michigan Ditch supplies. Engineering assessments have been completed with the recommended mitigation being a tunnel. The total mitigation cost is \$8.25M of which \$700K has already been spent on the assessment and preliminary design. The 2015-16 Budget process appropriated \$1.25M toward the Michigan Ditch based on previous smaller landslides and additional funds for general source of supply and water production replacement projects of which \$766,695 was allocated to this project. This appropriation ordinance is for the remaining \$6,300,000 of necessary funds to build the tunnel. The Water Enterprise Fund has already contributed its annual limit of 0.5% of its budgeted operating revenues. Thus, no additional appropriation to APP is allowed in 2016 from the Water Enterprise Fund for this or any other appropriation request.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

ATTACHMENTS

1. First Reading Agenda Item Summary, February 9, 2016 (w/o attachments) (PDF)
2. Ordinance No. 016, 2016 (PDF)

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February 9, 2016

City Council

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Kevin Gertig, Utilities Executive Director
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SUBJECT

First Reading of Ordinance No. 016, 2016, Appropriating Prior Year Reserves in the Water Fund for a Project to Repair a Piped Section of the Michigan Ditch Tunnel Project.

EXECUTIVE SUMMARY

The purpose of this item is to appropriate funds for the repair of a piped section of the Michigan Ditch near Cameron Pass in eastern Jackson County. The Ditch experienced a catastrophic failure in June, 2015, when the mountainside on which the Ditch is constructed slid downhill several feet. As a result, the Ditch is currently not able to deliver the majority of the decreed water to Joe Wright Reservoir, which are released to meet City water supply needs either directly or by exchange. Repairing the Ditch and restoring deliveries to Joe Wright Reservoir is essential to ensure that the City fully utilizes its valuable Michigan Ditch supplies. Engineering assessments have been completed with the recommended mitigation being a tunnel. The total mitigation cost is \$8.25M of which \$700K has already been spent on the assessment and preliminary design. The 2015-16 Budget process appropriated \$1.25M toward the Michigan Ditch based on previous smaller landslides and additional funds for general source of supply and water production replacement projects of which \$766,695 was allocated to this project. This appropriation ordinance is for the remaining \$6,300,000 of necessary funds to build the tunnel.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

BACKGROUND / DISCUSSION

The capital project under consideration is the repair of the Michigan Ditch, located near Cameron Pass in eastern Jackson County. The Ditch (which includes both open and piped sections and is approximately six miles long), captures water from the upper part of the Michigan River basin. The Ditch transports water over Cameron Pass and into the Poudre River basin. Michigan Ditch diversions are stored in Joe Wright Reservoir for future release.

Use of Michigan Ditch Supplies

The Ditch is a critical component of Fort Collins Utilities' raw water supply delivery system. Michigan Ditch water supplies are utilized to fulfill the City's obligations related to a reuse agreement (Reuse Plan) that also includes the Water Supply and Storage Company (WSSC) and Platte River Power Authority (PRPA). Approximately 2,500 acre-feet (AF) of reusable water from the Michigan Ditch and Joe Wright Reservoir system is needed each year to meet the City's requirements for the Reuse Plan. This water is used through the City and the reusable effluent it generates at the Drake Water Reclamation Facility is provided to PRPA for power plant cooling. In turn, PRPA provides Windy Gap water to the City which is used to support a large commercial customer. Through the provisions of the Reuse Plan, the City essentially gets a second use of the Michigan Ditch supplies that result in an additional 2,300 AF of available supplies each year. In most years, an

additional 2,000 to 3,000 AF of water yield is typically available for City uses from the Michigan Ditch/Joe Wright Reservoir system.

Michigan Ditch supplies are also utilized to meet obligations related to a Joint Operations Plan (JOP) between Fort Collins, Greeley, and WSSC. This plan obligates the City to release approximately 900 AF at 3 cubic feet per second (cfs) per day from November through March, with releases made from Joe Wright Reservoir and Chambers Lake. The JOP was implemented by involved parties to enhance the aquatic environment in the Poudre River below the high mountain reservoirs of the involved parties.

The reusable water from the Michigan Ditch/Joe Wright Reservoir system is extremely valuable to the City. The market value of the Michigan Ditch/Joe Wright Reservoir system supplies are approximately \$180M. While short periods of no supply from the Michigan Ditch would likely not have a great impact (unless there are severe drought conditions), multi-year outages could have serious consequences and liabilities. If the Ditch cannot divert water, the Utilities would need to rely on other reusable sources, if and when available. If not available, the City would be unable to fulfill its obligations under the Reuse Plan and would not be able to receive an additional 2,300 AF of water to meet City demands.

Michigan Ditch Slide

An active landslide on a piped section of the Michigan Ditch moved several feet since summer 2014 and has separated joints in the 54 inch ductile iron pipeline that delivers flows to Joe Wright Reservoir. The pipeline cannot be repaired in its current location as the active landslide will continue to impact its alignment.

The pictures attached show the extent of the damage caused by the slide.

Utilities staff and its consultants evaluated three potential options for a long term mitigation of the slide utilizing a Multi-Criteria Decision Analysis (MCDA). Evaluation criteria included cost, constructability, longevity, operation and maintenance requirements, permitting feasibility, and public perception. The results of the MCDA indicated that a tunnel is the preferred mitigation option. The tunnel will be placed in stable bedrock behind the landslide, which increases its longevity and lowers risk of failure. This is also the preferred option of the State Land Board, the permitting authority for the project.

Risk Management

The proposed tunneling option carries inherent risks, in part due to the nature of tunneling operations and also due to the remote and high altitude location of the Michigan Ditch. In order to identify and mitigate potential risks, the project team developed a risk register. The risk register documents identified risks and options for mitigating those risks. In addition, the team conducted a robust geotechnical investigation (a test bore was drilled behind the landslide to determine the location and composition of the hard rock behind the slide) to minimize risks specifically associated with tunneling operations. This approach significantly reduces but does not eliminate risks associated with the repair project.

CITY FINANCIAL IMPACTS

The estimated cost of the proposed tunnel and all associated construction activities is \$8,247,931. Prior appropriations in the amount of \$2,016,695 have been made to fund maintenance and repair of the section of the Ditch impacted by the landslide. As the table shows, of these funds \$1.3M remains available for the tunnel's construction leaving the need for an additional appropriation of \$6.3M before construction can commence on the tunnel.

Project Costs

Preliminary Analysis and Test Boring (Actual)	\$707,931
Tunnel Construction and Project Management (Estimated)	\$7,540,000
	\$8,247,931

Previous Appropriations

2015 Budget	\$500,000
2016 Budget	\$750,000
Source of Supply	\$666,695
Water Production Replacement	\$100,000
	\$2,016,695

Expenses to date

Preliminary Analysis and Test Boring	\$707,931
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Available Balance

\$1,308,764

Additional Funding Required

\$6,231,236

Appropriation Request	\$6,300,000
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As of the end of 2014 the Water Enterprise Fund had \$65.5M in working capital of which \$4.7M was unappropriated in excess of the minimum required reserves. During the 2015-16 budget process it was expected that an additional \$3.0M would be added to the reserves in 2015. While operating revenues through November 2015 were \$1.2M under budget, one-time revenues exceeded the budget by \$3.1M and operating expenses were below budget by \$2.4M. Based on this data through November it is expected that unappropriated reserves will increase by \$4.5M in 2015 resulting in the Fund having more than \$9M of working capital available for appropriation.

The Council Finance Committee discussed the project and funding options at the November 2015 meeting. CFC was fully supportive of the need to repair the ditch and restore the City's ability to use the Michigan ditch water asset. Two alternatives for funding were discussed, 1) debt financing using water revenue bonds or 2) using available working capital currently within the water fund.

The 10 year capital improvement plan (CIP) and the subsequent strategic financial plan (SFP) are the basis for debt issuance and rate increase recommendations. Costs associated with annual maintenance and repair of the section of Ditch impacted by the landslide have been included in the CIP, however a catastrophic failure was not anticipated and therefore are not included in the current CIP. Staff is working to update both the CIP and SFP but this work will not be completed until later this year. Given that staff cannot address long term questions on the impact on rates of all water capital and borrowing requirements over the next 10 years until

these plans are updated, CFC recommended use available working capital for Michigan ditch repairs and then evaluating funding options for future needs after the CIP and SFP have been updated.

BOARD / COMMISSION RECOMMENDATION

At its January 21, 2016 meeting, the Water Board voted unanimously to support this appropriation. **(Attachment 4)**

ATTACHMENTS

1. Site map (PDF)
2. Photos (PDF)
3. Sustainability Assessment Summary and Tool (PDF)
4. Water Board minutes (draft), January 21, 2016 (PDF)
5. Powerpoint presentation (PDF)

COPY

ORDINANCE NO. 016, 2016
OF THE COUNCIL OF THE CITY OF FORT COLLINS
APPROPRIATING PRIOR YEAR RESERVES IN THE WATER FUND FOR A PROJECT
TO REPAIR A PIPED SECTION OF THE MICHIGAN DITCH TUNNEL PROJECT

WHEREAS, the City owns the Michigan Ditch and certain water rights associated therewith, by which the City conveys water tributary to the Michigan River and the North Platte River Basin across Cameron Pass and into Joe Wright Creek and the Cache la Poudre River Basin for the City's use, storage, reuse, and subsequent use, including in conjunction with the City's partners, such as the Platte River Power Authority; and

WHEREAS, the Michigan Ditch is a critical component of Fort Collins Utilities' raw water supply delivery system; and

WHEREAS, a piped portion of the Michigan Ditch has experienced a significant failure resulting from the mountainside on which the ditch is constructed being the location of a landslide; and

WHEREAS, the City has consequently not been able to utilize the Michigan Ditch and certain water rights associated therewith to their full capacity, which may have various and significant adverse impacts on the City if not addressed in a timely and comprehensive manner; and

WHEREAS, Fort Collins Utilities has reviewed various potential methods to address the issued faced at the Michigan Ditch, with the input from the Colorado State Board of Land Commissioners, which is the permitting authority, and has determined that the construction of a tunnel to the repair the Michigan Ditch is the preferred option; and

WHEREAS, the estimated cost of the proposed tunnel and all associated construction activities is \$8,247,931; and

WHEREAS, previous appropriations of funds in the amount of \$2,016,695 have been made to fund maintenance and repair of the potion of the Michigan Ditch impacted by the landslide; and

WHEREAS, the remaining funding required for the estimated cost of the proposed tunnel and all associated construction activities is approximately \$6,300,000, to be appropriated out of Water Fund prior year reserves; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council to appropriate by ordinance at any time during the fiscal year such funds for expenditure as may be available from reserves accumulated in prior years, notwithstanding that such reserves were not previously appropriated; and

WHEREAS, Article V, Section 10, of the City Charter authorizes the City Council to transfer by ordinance any unexpended and unencumbered appropriated amount or portion thereof from one fund (project) to another fund (project), provided that the purpose for which the transferred funds are to be expended remains unchanged; and

WHEREAS, City staff have determined that the appropriations as described herein are available and previously unappropriated in the Water Fund.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated for expenditure from prior year reserves in the Water Fund the sum of SIX MILLION THREE-HUNDRED THOUSAND DOLLARS (\$6,300,000) for the Michigan Ditch Tunnel Project.

Introduced, considered favorably on first reading, and ordered published this 9th day of February, A.D. 2016, and to be presented for final passage on the 16th day of February, A.D. 2016.

Mayor

ATTEST:

City Clerk

Passed and adopted on final reading on the 16th day of February, A.D. 2016.

Mayor

ATTEST:

City Clerk