



REGULAR MEETING AGENDA

CALL TO ORDER

NEW EMPLOYEE INTRODUCTIONS

APPROVAL OF MINUTES – 2/21/2018

CITIZENS REPORT (*See procedural instructions on the following page.)

INFORMATIONAL ITEMS

1. Electric Legislative Update – Kim O’Field
2. Water Legislative Update – Ryan Van Pelt
3. Water Supply Update – Ryan Van Pelt
4. Financial Report Update – Jim Lees

CONSENT AGENDA

5. Contract Amendment for HDR Engineering – Tanner Randall

REGULAR AGENDA

6. Raw Water 10-Year Financial Plan Update – Jim Lees

STAFF REPORTS

7. 2017 Efficiency Works Program Results & Third Party Evaluation Results – Adam Perry, Platte River Power Authority
8. LED Streetlights – Christine Schraeder
9. Leak Detection Program – Roger Berg
10. Big Thompson River Corridor Master Plan – Chris Carlson

COMMISSION & COUNCIL REPORTS

DIRECTOR’S REPORT

ADJOURN

*** Citizens Report Procedures**

Anyone in the audience may address the LUC on any topic relevant to the commission. If the topic is a Consent Agenda item, please ask for that item to be removed from the Consent Agenda; pulled items will be heard at the beginning of the Regular Agenda. If the topic is a Regular Agenda item, members of the public will be given an opportunity to speak to the item during the Regular Agenda portion of the meeting before the LUC acts upon it. If the topic is a Staff Report item, members of the public should address the LUC during this portion of the meeting; no public comment is accepted during the Staff Report portion of the meeting.

Anyone making comment during any portion of tonight's meeting should identify himself or herself and be recognized by the LUC chairman. Please do not interrupt other speakers. Side conversations should be moved outside the Service Center Board Room. Please limit comments to no more than three minutes.

Notice of Non-Discrimination

The City of Loveland is committed to providing an equal opportunity for services, programs and activities and does not discriminate on the basis of disability, race, age, color, national origin, religion, sexual orientation or gender. For more information on non-discrimination or for translation assistance, please contact the City's Title VI Coordinator at TitleSix@cityofloveland.org or 970-962-2372. The City will make reasonable accommodations for citizens in accordance with the Americans with Disabilities Act (ADA). For more information on ADA or accommodations, please contact the City's ADA Coordinator at adacoordinator@cityofloveland.org or 970-962-3319.

Notificación en Contra de la Discriminación

"La Ciudad de Loveland está comprometida a proporcionar igualdad de oportunidades para los servicios, programas y actividades y no discriminar en base a discapacidad, raza, edad, color, origen nacional, religión, orientación sexual o género. Para más información sobre la no discriminación o para asistencia en traducción, favor contacte al Coordinador Título VI de la Ciudad al TitleSix@cityofloveland.org o al 970-962-2372. La Ciudad realizará las acomodaciones razonables para los ciudadanos de acuerdo con la Ley de Discapacidades para americanos (ADA). Para más información sobre ADA o acomodaciones, favor contacte al Coordinador de ADA de la Ciudad en adacoordinator@cityofloveland.org o al 970-962-3319".

Commission Members Present: Dan Herlihey (arrived at 5:13 PM) Dave Kavanagh, David Schneider, Gary Hausman (Chair), Gene Packer, Larry Roos, John Butler, Randy Williams, Sean Cronin, Alternate Stephanie Fancher-English

Council Liaison: Steve Olson

City Staff Members Present: Alan Krcmarik, Alicia Calderon, Allison Bohling, Bob Miller, Brieana Reed-Harmel, Chris Giesting, Christine Schraeder, Cree Goodwin, Daniel Daneshka, Derek Turner, Greg George, Gretchen Stanford, Jim Lees, Joe Bernosky, John Beckstrom, Kim O'Field, Leslie Moening, Larry Howard, Michelle Erickson, Nathan Alburn, Roger Berg, Ryan Van Pelt, Tanner Randall

Guest Attendance: Bruce Croissant, Dick Mallot, Fred Garcia, Jane Clevenger, Jess Delgado, Nancy Garcia, Patrick Eitenbichler, Sharolyn Eitenbichler

CALL TO ORDER: Gary Hausman called the meeting to order at 4:01 pm.

Gretchen Stanford announced her resignation.

APPROVAL OF MINUTES: Hausman asked for a motion to approve the minutes of the January 17, 2018 meeting.

Motion: John Butler made the motion.

Second: Dave Schneider seconded the motion. The minutes were approved unanimously.

CITIZENS REPORT

Item 1: Solar Generation – Patrick Eitenbichler

INFORMATIONAL ITEMS

Item 2: Cyber Security – Cree Goodwin

This is a brief description of the current Cyber Security Policy for both the Power and Water divisions.

Informational Item only. No action required.

Item 3: Electric Legislative Update – Kim O'Field

This item and the attachment are intended to give a brief update on electric-related legislation at both the state and federal level. Loveland Water and Power works closely with Platte River Power Authority (PRPA) and its sister cities but relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

Informational Item only. No action required.

Item 4: Water Legislative Update – Ryan Van Pelt

This item is intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland Water and Power relies primarily on the Colorado Water Congress (CWC) for information on water-related legislation.

Informational Item only. No action required.

Item 5: Water Supply Update – Ryan Van Pelt

Raw water supply update.

Informational Item only. No action required.

CONSENT AGENDA**Item 6: Namaqua Pump Stations Improvements and Raw Water Bypass – Leslie Moening**

The purpose of this item is to award a construction contract to the lowest qualified bidder for the Namaqua Pump Stations Improvements and Raw Water Bypass.

Recommendation: Adopt a motion to award the contract for the Namaqua Pump Stations Improvements and Raw Water Bypass to Lillard & Clark Construction Company, Inc. in an amount not to exceed \$879,000.00 and authorize the City Manager to execute the contract on behalf of the City.

Motion: John Butler made the motion to accept consent agenda items as written.

Second: Dave Schneider seconded the motion. The motion was approved unanimously.

REGULAR AGENDA**Item 7: Acquisition of additional storage and revised Third Amendment to Fifth Interim Agreement for Windy Gap Firming Project – Ryan Van Pelt**

The City of Longmont is nearing approval of sale to Platte River Power Authority of 2,000 acre-feet of additional storage capacity in the Windy Gap Firming Project (Chimney Hollow Reservoir). Because PRPA has authority to commit to 16,000 acre-feet of storage capacity, it has offered to the City of Loveland the ability to acquire 136 acre-feet of storage capacity which it will hold after the acquisition from Longmont. The revised storage capacity amounts based on the pending transactions from Longmont to PRPA, and PRPA to Loveland, are reflected in a proposed revised Third Amendment to the Fifth Interim Agreement between the Municipal Subdistrict, Northern Colorado Water Conservancy District Windy Gap Firming Project Water Activity Enterprise and the City of Loveland (Fifth Interim Agreement). The Fifth Interim Agreement is necessary to continue development of the Project into detailed engineering design including preparation of plans and specifications, planning and implementation of required mitigation and enhancement measures and related activities. Approval of this proposed Third Amendment would approve the City's additional storage capacity and allocation of funding according to the revised pro-rata storage entitlement in the Project.

Recommendation: Approve a motion recommending the City Manager execute an agreement necessary to acquire an additional 136 acre-feet of storage capacity in the Windy Gap Firming Project (Chimney Hollow Reservoir).

Motion: John Butler made the motion.

Second: Dave Schneider seconded the motion. The motion was approved unanimously.

Recommendation: Approve a motion recommending that City Council adopt a resolution directing the Mayor to execute the revised Third Amendment to the Fifth Interim Agreement between the Municipal Subdistrict, Northern Colorado Water Conservancy District Windy Gap Firming Project Water Activity Enterprise and the City of Loveland.

Motion: John Butler made the motion.

Second: Dave Schneider seconded the motion. The motion was approved unanimously.

Item 8: Consideration of PRPA Notice of Transfer for Windy Gap Units – Proposed Executive Session pursuant to City Charter Section 4-4(c) and Section 24-6-402(4)(a)(e) & (g), C.R.S. – Derek Turner

Pursuant to the December 14, 2017 Agreement Regarding Exercise of Rights of First Refusal to Acquire Windy Gap Water Units from Platte River Power Authority, the City received on January 5, 2018 a Notice of Transfer of Windy Gap Units by PRPA, initiating a 63-day period during which the City of Loveland must exercise or waive its right of first refusal to the units proposed for transfer.

Recommendation: Move that the Commission vote to recess into executive session, under Section 4-4(c) of the City of Loveland Charter and section 24-6-402(4)(a), (e), and (g), Colorado Revised Statutes for the following purposes:

- (1) Consideration of the purchase, acquisition, lease, transfer, or sale of any real, personal or other property interest;
- (2) To discuss matters and determine positions that are the subject of negotiation and are required by law to be kept confidential;
- (3) Review and consider documents protected by the mandatory nondisclosure provisions of the Colorado Open Records Act

Motion: John Butler made the motion.

Second: Randy Williams seconded the motion. The motion was approved unanimously.

Recommendation: Move that the Commission recess from the executive session.

Motion: John Butler made the motion.

Second: Gene Packer seconded the motion. The motion was approved unanimously.

Recommendation: Adopt a Motion Recommending that the City Manager waive the City's right of first refusal for the Windy Gap Units that are the subject of the January 5, 2018 Notice of Transfer.

Motion: John Butler made the motion.

Second: Dave Schneider seconded the motion. The motion was approved unanimously.

Item 9: Northern Water Invitation to Bid on 75 acre-feet of C-BT Water – Joe Bernosky

Northern Colorado Water Conservancy District (Northern Water) is accepting sealed bids to apply for up to seventy-five (75) acre-foot units of Colorado-Big Thompson Project water.

Recommendation: Adopt a motion declining participation in the Northern Water Invitation to Bid on 75 acre-feet of C-BT Water.

Motion: John Butler made the motion.

Second: Dan Herlihey seconded the motion. The motion was approved unanimously.

STAFF REPORTS**Item 10: PVREA Surcharge Recalculation – Briana Reed-Harmel and Alicia Calderón**

This item will give a brief background on the electric service takeovers from Poudre Valley Rural Electric Cooperative (PVREA) and a description of the recalculation of surcharge amount owed to PVREA conducted in 2017.

Staff item only. No action required.

Item 11: Preliminary 2017 Financial Report – Jim Lees

This item summarizes the monthly and year-to date Preliminary financials for December 2017.

Staff item only. No action required.

Item 12: Unified Development Code Project – Greg George

Greg George from Public Works gave a brief presentation on the Unified Development Code Project.

Staff item only. No action required.

Item 13: 2018 Goals – Joe Bernosky

This item is to establish 2018 Goals for Staff and the LUC.

Staff item only. No action required.

COMMISSION/COUNCIL REPORTS**Item 14: Commission/Council Reports**

Discuss events that the Loveland Utility Commission Board members attended, special topics and any City Council items related to the Water and Power Department from the past month.

City Council Report:***City Council Study Session - January 23***

Proposed procedure for the January 30 study session on municipal broadband service.

City Council Study Session – January 30

Municipal Broadband Service

City Council Regular Meeting – February 6

Municipal Broadband Service

City Council Special Meeting & Study Session – February 13

Appointment of Joseph J. Bernosky to serve as the appointed director from Loveland on the PRPA board of directors

City Council Regular Meeting – February 20

Municipal Broadband Service

Commission Report:

Dan Herlihey: Nothing to report.

Dave Kavanagh: Discussed a broadband conference he went too and summarized what he learned. Asked Krcmarik, about how bonds for broadband may affect the power division. Discussion ensued about potential options.

Dave Schneider: Mentioned that he appreciates the proactive changes to the budget process, and Councils increased analysis.

Gene Packer: Summarized his experience from the Colorado Water Congress and Poudre Water Congress.

Gary Hausman: Asked about how self-generation customers are effected by power outages. Staff stated that, should be there any fluctuation in frequency from the inverters they will shut down. Each house also has a manual shut off.

John Butler: Nothing to report.

Larry Roos: Summarized his experience from the Colorado Water Congress.

Randy Williams: Requested that LWP bring more items in front of LUC about broadband as it progresses.

Sean Cronin: Recommended, *Water and Power a California Heist* on Netflix.

Stephanie Fancher-English: Nothing to report.

DIRECTOR'S REPORT

Item 15: Director's Report – Joe Bernosky

ADJOURN The meeting was adjourned at 7:30 pm. The next LUC Meeting will be March 21, 2018 at 4:00 pm.

Respectfully submitted,

Allison Bohling
Recording Secretary
Loveland Utilities Commission

**ITEM TITLE:**

Electric Legislative Update

DESCRIPTION:

This item and the attachment are intended to give a brief update on electric-related legislation at both the state and federal level. Loveland Water and Power works closely with Platte River Power Authority (PRPA) and its sister cities but relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

SUMMARY:**State Update:**

Please see Attachment A for the Legislative Tracking Sheet of current state bills from CAMU.

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

 Attachment A: Legislative Tracking Sheet

Attachment A



Colorado Association of Municipal Utilities 2018 State Legislative Tracking Sheet

HB18-1061 **No Encryption Of Dispatch Radio Communications**

Comment:

Position: **Monitor**

Short Title: No Encryption Of Dispatch Radio Communications

Sponsors: K. Van Winkle

Summary: The bill states that each entity of the state government and each entity of the government of each city, county, and city and county (government entity) shall broadcast its dispatch radio communications without encryption such that the communications may be monitored by commercially available radio receivers and scanners; except that:

A government entity may encrypt tactical radio communications or investigative radio communications so long as the encryption is necessary to preserve the tactical integrity of an operation, protect the safety of law enforcement officers or other emergency responders, or prevent the destruction of property; and

An investigative unit of a government entity engaged in the investigation of criminal conduct or potential criminal conduct may encrypt its radio communications.

Any government entity that encrypts any of its dispatch radio communications shall disclose on its public website and make available for public inspection a list of its radio communication channels, a description of the functions allocated to those channels, and an indication of which of the channels are always encrypted or sometimes encrypted. In describing the functions of the channels, the government entity shall indicate whether each channel is used for

tactical radio communications or investigative radio communications.

Any person has standing to bring an action for injunctive relief in district court against any sheriff, chief of police, fire chief, or other administrative head of any government entity for an allegedly unlawful encryption of dispatch radio communications.

Any person who monitors dispatch radio communications of a government entity for the purpose of perpetrating or attempting to perpetrate criminal activity or assisting another person in the furtherance of criminal activity commits a class 3 misdemeanor.

(Note: This summary applies to this bill as introduced.)

Status: 1/10/2018 Introduced In House - Assigned to State, Veterans, & Military Affairs
1/18/2018 House Committee on State, Veterans, & Military Affairs Postpone Indefinitely

Amendments:

Bill Version: Introduced

HB18-1085

Health Effects Industrial Wind Turbines

Comment:

Position: **Monitor**

Short Title: Health Effects Industrial Wind Turbines

Sponsors: P. Lundeen

Summary: The bill requires the department of public health and environment to research and compile information on the health effects of noise and stray voltage from industrial wind energy turbines on humans and animals. The department must report research results to the general assembly by January 1, 2020, and present the report to a joint legislative committee of reference. The research and reporting requirements are repealed July 1, 2020.

(Note: This summary applies to this bill as introduced.)

Status: 1/18/2018 Introduced In House - Assigned to Transportation & Energy
2/8/2018 House Committee on Transportation & Energy Postpone Indefinitely

Amendments:

Bill Version: Introduced

HB18-1107**Prewire Residence For Electric Vehicle Charging Port****Comment:****Position:** **Monitor****Short Title:** Prewire Residence For Electric Vehicle Charging Port**Sponsors:** M. Weissman / K. Priola

Summary: Under existing law, builders must offer a 'solar prewire' option to purchasers of certain newly constructed residences. The bill applies a similar requirement to facilitate the installation of electric vehicle charging systems by purchasers of new residences, both in traditional detached, single-family homes and also in buildings that contain owner-occupied condominium units.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 1/18/2018 Introduced In House - Assigned to Transportation & Energy
 2/8/2018 House Committee on Transportation & Energy Refer Unamended to House Committee of the Whole
 2/13/2018 House Second Reading Passed - No Amendments
 2/14/2018 House Third Reading Passed - No Amendments
 2/21/2018 Introduced In Senate - Assigned to Transportation

Amendments:**Bill Version:** Reengrossed**HB18-1128****Protections For Consumer Data Privacy****Comment:****Position:** **Monitor****Short Title:** Protections For Consumer Data Privacy**Sponsors:** C. Wist | J. Bridges / K. Lambert | L. Court

Summary: Except for conduct in compliance with applicable federal, state, or local law, the bill requires public and private entities in Colorado that maintain paper or electronic documents (documents) that contain personal identifying information (personal information) to develop and maintain a written policy for the destruction and proper disposal of those documents. Entities that maintain, own, or license personal information, including those that use a nonaffiliated third party as a service provider, shall implement and maintain reasonable security procedures for the personal information. The notification laws

governing disclosure of unauthorized acquisitions of unencrypted and encrypted computerized data are expanded to specify who must be notified following such unauthorized acquisition and what must be included in such notification.

(Note: This summary applies to this bill as introduced.)

Status: 1/19/2018 Introduced In House - Assigned to State, Veterans, & Military Affairs
2/14/2018 House Committee on State, Veterans, & Military Affairs Refer Amended to Appropriations

Amendments: [Amendments](#)

Bill Version: Pre-Amended

HB18-1215 **Safe Disposal Naturally Occur Radioactive Material**

Comment:

Position: **Monitor**

Short Title: Safe Disposal Naturally Occur Radioactive Material

Sponsors: J. Arndt

Summary: Current law allows the state board of health to adopt rules concerning the disposal of naturally occurring radioactive materials (NORM) only after the federal environmental protection agency (EPA) has adopted rules concerning the disposal of NORM. The EPA has not adopted the rules. The bill:

Requires the state board to adopt rules for the disposal of NORM and technologically enhanced NORM (TENORM); and

While the state board is conducting its rule-making investigation, temporarily prohibits the disposal of oil and gas exploration and production waste (EP waste) with potentially high concentrations of radionuclides at a facility that is not specifically approved and designated to receive the waste unless:

The generator of the waste has sampled and tested the EP waste on a per-shipment basis or in a representative and statistically valid manner approved by the state board; and

The results of the test indicate that the EP waste contains low levels of TENORM.

A generator of EP waste must file reports with the state board.

(Note: This summary applies to this bill as introduced.)

Status:

2/5/2018 Introduced In House - Assigned to Health, Insurance, & Environment

Amendments:

Bill Version: Introduced

HB18-1239 **Sunset Environmental Management System Permit Program**

Comment:

Position: **Monitor**

Short Title: Sunset Environmental Management System Permit Program

Sponsors: L. Landgraf / R. Scott

Summary: **Sunset Process - House Health, Insurance, and Environment Committee.** The bill implements the recommendations of the sunset review and report on the environmental management system permit program by allowing the program to repeal.
(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 2/12/2018 Introduced In House - Assigned to Health, Insurance, & Environment
 2/22/2018 House Committee on Health, Insurance, & Environment Refer Unamended to House Committee of the Whole
 2/27/2018 House Second Reading Laid Over to 02/28/2018 - No Amendments
 2/28/2018 House Second Reading Passed - No Amendments
 3/1/2018 House Third Reading Laid Over to 03/02/2018 - No Amendments
 3/2/2018 House Third Reading Laid Over to 03/05/2018 - No Amendments
 3/5/2018 House Third Reading Passed - No Amendments

Amendments:

Bill Version: Reengrossed

HB18-1270 **Public Utilities Commission Evaluation Of Energy Storage Systems**

Comment:

Position: **Monitor**

Short Title: Public Utilities Commission Evaluation Of Energy Storage Systems

Sponsors:	C. Hansen J. Becker / J. Tate
Summary:	The bill directs the public utilities commission to adopt rules establishing mechanisms for the procurement of energy storage systems by investor-owned electric utilities, based on an analysis of costs and benefits as well as factors such as grid reliability and a reduction in the need for additional peak generation or transmission capacity. The information supplied by the utilities must include appropriate data and must specify interconnection points to enable independent evaluation. (<i>Note: This summary applies to this bill as introduced.</i>)
Status:	3/6/2018 Introduced In House - Assigned to Transportation & Energy
Amendments:	
Bill Version:	Introduced

HB18-1271	Public Utilities Commission Electric Utilities Economic Development Rates
------------------	--

Comment:	
Position:	Monitor
Short Title:	Public Utilities Commission Electric Utilities Economic Development Rates
Sponsors:	M. Gray Y. Willett / J. Tate
Summary:	The bill allows the public utilities commission to approve, and electric utilities to charge, economic development rates, which are lower rates for commercial and industrial users who locate or expand their operations in Colorado so as to increase the demand by at least 3 megawatts. To qualify for the economic development rates, these users must demonstrate that the cost of electricity is a critical consideration in their decision where to locate or expand their business and that the availability of lower rates is a substantial factor. The rates may be offered for up to 10 years.

The bill also authorizes the expansion of a voluntary renewable energy program or service offering as necessary to meet the needs of a commercial or industrial customer that makes a capital investment of \$250 million or more, requires the expansion in order to remain as a customer of a utility, or is a new customer.

Utilities that offer economic development rates shall not cross-subsidize the economic development rates by raising rates on other customers, and a utility bears the burden of proof on this issue in any proceeding before the commission.

(Note: This summary applies to this bill as introduced.)

Status: 3/6/2018 Introduced In House - Assigned to Transportation & Energy

Amendments:

Bill Version: Introduced

HB18-1274 **Reduce Greenhouse Gas Emissions by 2050**

Comment:

Position:

Short Title: Reduce Greenhouse Gas Emissions by 2050

Sponsors: K. Becker | J. Bridges / A. Kerr

Summary: The bill requires that, by the year 2050, statewide greenhouse gas emissions be reduced by at least 80% of the levels of greenhouse gas emissions that existed in the year 2005.
(Note: This summary applies to this bill as introduced.)

Status: 3/7/2018 Introduced In House - Assigned to Transportation & Energy

Amendments:

Bill Version: Introduced

HB18-1281 **Public Utilities Commission Ethics And Improved Public Information Reporting**

Comment:

Position:

Short Title: Public Utilities Commission Ethics And Improved Public Information Reporting

Sponsors: D. Esgar

Summary: **Section 2** of the bill prohibits a person from serving on the public utilities commission if he or she:

Has, within the immediately preceding 4 years, served as an officer or director of a regulated utility; or

Has or acquires any official relation to, or financial interest in, a regulated utility.

Section 3 encourages the director of the commission to assign employees to temporary training and development sessions with other state agencies, particularly those with which the commission has frequent interaction, to improve the employees' substantive expertise and familiarity with the operations of those agencies. Section 3 also requires the director to keep written and audio records of the commission's proceedings and make them publicly available online.

In addition, section 3 expressly authorizes the executive director of the department of regulatory agencies (of which the commission is a part) to request that the state auditor conduct performance audits of the commission and its staff and operations.

Section 4 directs the commission to adopt rules concerning conflicts of interest, incompatible activities, and ex parte communications.

Section 1 makes conforming amendments.
(*Note: This summary applies to this bill as introduced.*)

Status: 3/7/2018 Introduced In House - Assigned to Transportation & Energy

Amendments:

Bill Version: Introduced

SB18-003

Colorado Energy Office

Comment:

Position: **Monitor**

Short Title: Colorado Energy Office

Sponsors: R. Scott / C. Hansen | J. Becker

Summary: The Energy Office has negotiated compromise language with Senate sponsors and the measure passed the Senate Committee with bipartisan support. Discussion will now focus on funding solutions. However, we are anticipating additional challenges to making changes to the CEO mission once the bill reaches the House.

Status: 1/10/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
1/18/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended to Appropriations
2/14/2018 Senate Committee on Appropriations Refer Unamended to Senate Committee of the Whole
2/16/2018 Senate Second Reading Laid Over Daily - No Amendments

2/21/2018 Senate Second Reading Passed with Amendments -
Committee, Floor
2/22/2018 Senate Third Reading Passed - No Amendments
2/27/2018 Introduced In House - Assigned to Transportation &
Energy

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-009 **Allow Electric Utility Customers Install Energy Storage Equipment**

Comment: **The bill only applies to IOUs.**

Position: **Monitor**

Short Title: Allow Electric Utility Customers Install Energy Storage Equipment

Sponsors: S. Fenberg | K. Priola / F. Winter | P. Lawrence

Summary: The bill declares that consumers of electricity have a right to install, interconnect, and use energy storage systems on their property, and that this will enhance the reliability and efficiency of the electric grid, save money, and reduce the need for additional electric generation facilities.

The bill directs the Colorado public utilities commission to adopt rules governing the installation, interconnection, and use of customer-sited energy storage systems.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status: 1/10/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
1/25/2018 Senate Committee on Agriculture, Natural Resources, & Energy Lay Over Unamended - Amendment(s) Failed
2/1/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended to Senate Committee of the Whole
2/7/2018 Senate Second Reading Passed with Amendments -
Committee, Floor
2/8/2018 Senate Third Reading Passed - No Amendments
2/13/2018 Introduced In House - Assigned to Transportation & Energy
2/21/2018 House Committee on Transportation & Energy Refer Unamended to House Committee of the Whole
2/26/2018 House Second Reading Passed - No Amendments
2/27/2018 House Third Reading Laid Over to 02/28/2018 - No Amendments

2/28/2018 House Third Reading Laid Over to 03/01/2018 - No Amendments
 3/1/2018 House Third Reading Laid Over to 03/02/2018 - No Amendments
 3/2/2018 House Third Reading Laid Over to 03/05/2018 - No Amendments
 3/5/2018 House Third Reading Passed - No Amendments

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-047 **Repeal Tax Credits Innovative Vehicles**

Comment:

Position: **Monitor**

Short Title: Repeal Tax Credits Innovative Vehicles

Sponsors: V. Marble / L. Saine

Summary: The bill repeals the income tax credits for innovative motor vehicles and innovative trucks for purchase and leases entered into on or after January 1, 2019.

For the 2018-19 state fiscal year and each fiscal year thereafter through the 2020-21 state fiscal year, the bill requires the state controller to credit an amount of tax revenue estimated to be retained by the repeal of the income tax credits to the highway users tax fund.

(Note: This summary applies to this bill as introduced.)

Status: 1/10/2018 Introduced In Senate - Assigned to Finance
 2/6/2018 Senate Committee on Finance Refer Unamended to Appropriations

Amendments:

Bill Version: Introduced

SB18-064 **Require 100% Renewable Energy By 2035**

Comment: **This bill is a messaging bill and CAMU will oppose. The rate setting language pertaining to municipal net metering violates the State Constitution.**

Position: **Oppose**

Short Title: Require 100% Renewable Energy By 2035

Sponsors: M. Jones / M. Foote

Summary: The bill updates the renewable energy standard to require that all electric utilities, including cooperative electric associations and municipally owned utilities, derive their energy from 100% renewable sources by 2035. It also eliminates the installation caps on customer DG and infringes upon municipal rate making in the Net Metering language.

Status: 1/12/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
2/1/2018 Senate Committee on Agriculture, Natural Resources, & Energy Postpone Indefinitely

Amendments:

Bill Version: Introduced

SB18-117 **Collect Long-term Climate Change Data**

Comment:

Position: **Monitor**

Short Title: Collect Long-term Climate Change Data

Sponsors: K. Donovan / C. Hansen

Summary: The bill requires the department of public health and environment to collect and report on greenhouse gas emissions data.

(Note: This summary applies to this bill as introduced.)

Status: 1/29/2018 Introduced In Senate - Assigned to State, Veterans, & Military Affairs
2/13/2018 Senate Committee on State, Veterans, & Military Affairs Postpone Indefinitely

Amendments:

Bill Version: Introduced

SB18-128 **Legislative Approval For State Agency Fee Increase**

Comment:

Position: **Monitor**

Short Title: Legislative Approval For State Agency Fee Increase

Sponsors: B. Gardner / L. Liston

Summary: Beginning September 1, 2018, the bill requires all state agency fee increases to start on July 1 of a given year, with the exception of an

emergency fee increase. A state agency shall not increase a fee unless:

On or before the February 1 prior to the starting date of the increase, the state agency submits a fee increase proposal, which includes specified information, to the joint budget committee;

A majority of the members on the joint budget committee approve the fee increase as it is described in the fee increase proposal and without alteration; and

A grant of authority to the state agency for the fee increase is included in authorizing legislation, which is enacted and becomes law.

A state agency may adopt an emergency fee increase that does not meet these conditions, but on or before the next February 1 the state agency is required to submit a fee increase proposal for the emergency fee. If this fee increase proposal is approved by the joint budget committee and included in authorizing legislation, then the state agency may continue to impose the increased fee.

If a grant of authority for the associated emergency fee increase is not included in the next possible authorizing legislation, then the state agency is required to lower the fee to the amount it was prior to the increase and refund the increased amount of the fee to the fee payer. If a refund is impossible, then the state agency is required to immediately reduce the fee from its original amount by an amount equal to the emergency fee increase and keep it at that level until the amount of the lost revenue offsets the additional revenue from the increased fee. Thereafter, the fee may return to its original amount.

If a state agency adopts a fee increase after April 1, 2018, but prior to September 1, 2018, the fee increase is treated like an emergency fee for which the state agency is required to submit a fee increase proposal.

(Note: This summary applies to the reengrossed version of this bill as introduced in the second house.)

Status:

1/29/2018 Introduced In Senate - Assigned to Finance
 2/13/2018 Senate Committee on Finance Refer Unamended to Senate Committee of the Whole
 2/16/2018 Senate Second Reading Laid Over Daily - No Amendments
 2/20/2018 Senate Second Reading Passed - No Amendments
 2/21/2018 Senate Third Reading Passed - No Amendments
 2/26/2018 Introduced In House - Assigned to State, Veterans, & Military Affairs

Amendments:

Bill Version: Reengrossed

SB18-167

Enforce Requirements 811 Locate Underground Facilities

Comment:

Position: **Neutral**

Short Title: Enforce Requirements 811 Locate Underground Facilities

Sponsors: R. Scott | K. Donovan / F. Winter | L. Saine

Summary: Current law requires a person, before conducting an excavation, to contact a nonprofit notification association (comprised of all owners and operators of underground facilities) by dialing '811' to learn the location of underground facilities in the excavation project area. The owners and operators must then accurately mark the location of their facilities. Violations of the excavation damage prevention law are enforced exclusively through civil actions initiated by damaged parties to collect specified civil penalties and damages. In 2016, the United States department of transportation's pipeline and hazardous materials safety administration (PHMSA) conducted an adequacy evaluation of Colorado's enforcement of its excavation damage prevention law and determined that the enforcement is inadequate, which may eventually result in the withholding of federal funds from Colorado.

The bill creates the underground damage prevention safety commission (commission) as an independent agency within the department of labor and employment. The commission has rule-making and enforcement authority regarding the excavation damage prevention law and is required to enter into a memorandum of understanding with the notification association to facilitate implementation and administration of the law. The notification association is required to provide administrative support to the commission in performing its duties.

A review committee of the commission initially determines whether a violation of the law has occurred and, if appropriate, recommends remedial action, potentially including a fine. Fines range from \$250 for a single minor violation within the previous 12 months to \$75,000 for a fourth major violation within the previous 12 months. The full commission is bound by the review committee's determination of facts but determines the final agency action regarding alleged violations. Fines are credited to the damage prevention fund, which the commission will use to develop educational programming, including by making grants, that is designed to improve worker and public safety relating to excavation and underground facilities.

Current law allows only an excavator to submit a location request to the notification association. The bill authorizes a licensed professional engineer designing excavation to submit a location request. The engineer is required to ensure that the engineering plans meet certain standards established by the American Society of Civil Engineers for defining the accuracy of an underground facility location. The notification association will collect a fee for each location request, which is deposited in the safety commission fund and used to pay the commission's expenses.

Current law creates 2 tiers of membership in the notification association. Tier 2 members are limited members with limited benefits and include certain special districts, local governments, cable television providers, and small telecommunications providers; tier 1 members are full members with full benefits, and tier 1 consists of all other owners and operators. If, after receiving a location request, the notification association determines that a tier 1 member owns or operates the underground facilities, the notification association contacts the tier 1 member to arrange for the marking of the underground facilities. If a tier 2 member owns or operates the underground facilities, the excavator must contact the tier 2 member to arrange for the marking of the underground facilities. Effective January 1, 2021, all underground facility owners and operators are full members of the notification association with full benefits, and excavators will no longer need to contact the owners or operators to arrange for the marking.

All new underground facilities installed on or after January 1, 2020, must be electronically locatable when installed. Home rule local governments are not subject to the commission's enforcement authority, but the governing body of a home rule local government is required to either adopt a similar enforceable damage prevention safety program or waive its exemption and delegate its damage prevention enforcement authority to the commission.

Information regarding the location of underground facilities is exempt from the 'Colorado Open Records Act', pursuant to the existing exemption for specialized details of critical infrastructure.

(Note: This summary applies to this bill as introduced.)

Status:	2/12/2018 Introduced In Senate - Assigned to Transportation 2/22/2018 Senate Committee on Transportation Refer Amended to Finance 3/1/2018 Senate Committee on Finance Refer Amended to Appropriations
Amendments:	Amendments
Bill Version:	Pre-Amended

SJM18-002

Eliminate Energy Subsidies

Comment:**Position:** **Monitor****Short Title:** Eliminate Energy Subsidies**Sponsors:** M. Jones / M. Foote**Summary:** *** No bill summary available *****Status:** 1/12/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
1/25/2018 Senate Committee on Agriculture, Natural Resources, & Energy Postpone Indefinitely**Amendments:****Bill Version:** Introduced

**ITEM TITLE:**

Water Legislative Update

DESCRIPTION:

This item is intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland Water and Power relies primarily on the Colorado Water Congress (CWC) for information on water-related legislation.

SUMMARY:

The Second Regular Session of the 71st Colorado General Assembly convened on January 10, 2018 and will run through May 9, 2018. The Colorado Water Congress, through its State Affairs Committee, is currently tracking Colorado state house and senate bills related to water. This committee meets each Monday morning during the legislative session. After a bill is introduced, they cover that bill at the next committee meeting to learn about it. Usually, this committee votes on whether to take a position on the bill at the following State Affairs Committee meeting. The voting may be delayed another week if more time is needed on a bill. For CWC to take a position on a bill, the bill must have at least a 2/3 vote from the State Affairs Committee. Once CWC takes a position, they then advocate on behalf of their members to policy makers. Of the state bills that CWC takes a position, their success rate in either killing bills that they oppose or passing bills that they support is eight-five percent.

While the state legislature is in session, each month in the LUC packet there will be a Bill Summary Sheet (See Attachment A) which gives a brief summary of each bill being tracked by CWC and a Bill Status Sheet (See attachment B) that will show how far along each bill is that CWC has taken a position to support, oppose or monitor. For additional information on a particular bill, please click on the hyperlink in the left most column of the Bill Status Report. Once a bill is killed in a committee or lost in a floor vote, it will be removed from this list.

The Colorado Water Congress, through its Federal Affairs Committee, provides the principal voice of Colorado's water community on federal issues that may affect Colorado or that are important to its members. The Federal Affairs Committee works closely with the National Water Resource Association (NWRA), a federation of state water organizations concerned with appropriate management, conservation and use of water resources. In the Federal Affairs section of the CWC website it lists a brief description of some key federal legislative items they are tracking such as infrastructure funding, water transfer rule legislation, endangered species, and the water rights protection act. They are also interested in the following Colorado priorities: U.S. Bureau of Reclamation Colorado River Basin Study, Colorado River Drought Contingency Planning, and National Resource Conservation Service (NRCS) Funding for Manual Snow Course Measurement.




The Colorado Municipal League provides a voice to Colorado's cities and towns. Please see attachment C for their 2018 federal legislative priorities, which include protecting municipal bonds from federal income tax which directly affects how utilities can finance large infrastructure projects.

Please visit www.cowatercongress.org if you would like additional information regarding federal or state bills related to water and www.cml.org for state and federal bills related to municipal cities and towns.

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

-  Attachment A: CWC, State Affairs Committee, Water Bill Status Sheet
-  Attachment B: Colorado Water Bill Summary
-  Attachment C: 2018 Federal Legislative Priorities of the Colorado Municipal League

Colorado Water Congress 2018 Bill Status Sheet

Bill No.	Short Title	CWC Position	First House					Second House					First House Repass	Conference Committee	Governor
			Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading			
HB18-1008	Mussel-Free Colorado Act	16-Jan	10-Jan	22-Jan	31-Jan	26-Feb	27-Feb								
HB18-1053	Reclaimed Water Use for Marijuana Cultivation	16-Jan	10-Jan	29-Jan	Ap										
HB18-1069	Reclaimed Water Use for Toilet Flushing	22-Jan	10-Jan	29-Jan	Ap										
HB18-1073	Water District Ability Contract Water Assets	5-Feb	16-Jan	29-Jan	7-Feb	12-Feb	13-Feb	21-Feb	1-Mar Ag						
HB18-1093	Reclaimed Water Use for Edible Crops	5-Feb	18-Jan	29-Jan	23-Feb Ap	27-Feb	5-Mar								
HB18-1147	Sunset Process Weather Modification	5-Mar	31-Jan	22-Feb HIE		Ap									
HB18-1151	Colorado Water Conservation Board Approve Deficit Irrigation Pilot Projects	5-Mar	31-Jan	26-Feb Ag	1-Mar	5-Mar									
HB18-1199	Aquifer Storage-and-recovery Plans	26-Feb	5-Feb	26-Feb Ag	1-Mar	5-Mar									
HB18-1201	Severance Tax Voter-approved Revenue Change	26-Feb	5-Feb	9-Apr F											
HB18-1215	Safe Disposal Naturally Occur Radioactive Material	12-Mar	5-Feb												
HB18-1249	Anvil Points Federal Mineral Lease Distribution	12-Mar	21-Feb	5-Mar F											

Attachment A

			First House					Second House							
Bill No.	Short Title	CWC Position	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	Introduced	1st Committee	2nd Committee	2nd Reading	3rd Reading	First House Repass	Conference Committee	Governor
SB18-019	Expanded Duration for CWRPDA Revolving Loans	16-Jan	10-Jan	18-Jan Ag		23-Jan	24-Jan	26-Jan	12-Feb	15-Feb		16-Feb			1-Mar
SB18-038	Reclaimed Water Use on Industrial Hemp	16-Jan	10-Jan	18-Jan Ag	Ap										
SB18-041	Authorize Water Use Incidental Sand & Gravel Mines	16-Jan	10-Jan	18-Jan Ag		23-Jan	24-Jan	26-Jan	12-Feb	15-Feb		16-Feb			1-Mar
SB18-134	Public Utilities Commission Deregulate Nonprofit Water Utilities	20-Feb	29-Jan	8-Feb Ag	13-Feb	13-Feb	14-Feb	20-Feb	12-Mar Ag						
SB18-143	Parks and Wildlife Measures to Increase Revenue	26-Feb	29-Jan	13-Feb	6-Mar Ap										
SB18-167	Enforce Requirements 811 Locate Underground Facilities		12-Feb	22-Feb TE	1-Mar F	Ap									
SB18-170	Reservoir Releases for Fish and Wildlife Mitigation	26-Feb	21-Feb	28-Feb Ag	5-Mar										
SB18-176	Board Meeting Dates Southwestern Water Conservation District	5-Mar	21-Feb	28-Feb Ag	5-Mar										
SJM18-004	Memorialize Former Congressman Ray Kogovsek	12-Feb	5-Feb				6-Feb	6-Feb				9-Feb			12-Feb
SJR18-003	Water Projects Eligibility Lists	16-Jan	12-Jan				17-Jan	26-Jan					2-Feb		13-Feb

[illegible]

Bill did not go to second committee or no action required (black)			HIE= Health, Insurance, and Environment											
			J = Judiciary											
<u>CWC POSITION</u>			LG = Local Government Committee											
Bill scheduled for activity in CWC State Affairs (yellow)			SVMA = State, Veterans, and Military Affairs Committee											
Support (green)			TE = Transportation and Energy Committee											
Oppose (orange)			UA = Upon Adjournment											
Amend (blue)			UR = Upon Recess											
Monitor, Neutral, No Position														

Attachment B

Colorado Water Congress

HB18-1008

Mussel-free Colorado Act

Position: **Support**

Calendar Notification: Thursday, March 8 2018
SENATE FINANCE COMMITTEE
Upon Adjournment SCR 357
(2) in senate calendar.

News:

Audio, Floors and Committees:

Sponsors: D. Esgar | J. Arndt / K. Donovan | D. Coram

Status: 1/10/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
1/22/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to Finance
1/31/2018 House Committee on Finance Refer Unamended to Appropriations
2/23/2018 House Committee on Appropriations Refer Unamended to House Committee of the Whole
2/26/2018 House Second Reading Special Order - Passed with Amendments - Committee
2/27/2018 House Third Reading Passed - No Amendments
3/5/2018 Introduced In Senate - Assigned to Finance

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-10

Amendments: [Amendments](#)

Bill Version: Pre-Amended

HB18-1053

Reclaimed Water Use For Marijuana Cultivation

Position: **Support**

Calendar Notification: NOT ON CALENDAR

News:

Audio, Floors and Committees:**Sponsors:** J. Arndt | C. Hansen / K. Donovan

Status: 1/10/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
 1/22/2018 House Committee on Agriculture, Livestock, & Natural Resources Lay Over Unamended - Amendment(s) Failed
 1/29/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to Appropriations

Fiscal Notes: [Fiscal Note](#)**Date Introduced:** 2018-01-10**Amendments:** [Amendments](#)**Bill Version:** Pre-Amended

HB18-1069 **Reclaimed Water Use For Toilet Flushing**

Position: **Support****Calendar Notification:** NOT ON CALENDAR**News:****Audio, Floors and Committees:****Sponsors:** J. Arndt | D. Thurlow / D. Coram

Status: 1/10/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
 1/29/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to Appropriations

Fiscal Notes: [Fiscal Note](#)**Date Introduced:** 2018-01-10**Amendments:** [Amendments](#)**Bill Version:** Pre-Amended

HB18-1073 **Water District Ability Contract Water Assets**

Position: **Support**

Calendar Notification: Tuesday, March 6 2018
 GENERAL ORDERS - SECOND READING OF BILLS -

CONSENT CALENDAR
(2) in senate calendar.

News:**Audio, Floors and Committees:**

Sponsors: M. Gray / B. Gardner

Status: 1/16/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources + Finance
1/29/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Unamended to Finance
2/7/2018 House Committee on Finance Refer Unamended to House Committee of the Whole
2/12/2018 House Second Reading Passed with Amendments - Floor
2/13/2018 House Third Reading Passed - No Amendments
2/21/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
3/1/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Unamended - Consent Calendar to Senate Committee of the Whole

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-16

Amendments: [Amendments](#)

Bill Version: Reengrossed

HB18-1093

Reclaimed Water Use For Edible Crops

Position: **Support**

Calendar Notification: NOT ON CALENDAR

News: [House Passes Arndt's Bill Implementing CO Water Plan](#)

Audio, Floors and Committees:

Sponsors: J. Arndt / D. Coram

Status: 1/18/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
1/29/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to Appropriations
2/23/2018 House Committee on Appropriations Refer Amended to House Committee of the Whole
2/27/2018 House Second Reading Laid Over to 02/28/2018 - No Amendments

2/28/2018 House Second Reading Passed with Amendments - Committee
 3/1/2018 House Third Reading Laid Over to 03/02/2018 - No Amendments
 3/2/2018 House Third Reading Laid Over to 03/05/2018 - No Amendments
 3/5/2018 House Third Reading Passed - No Amendments

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-18

Amendments: [Amendments](#)

Bill Version: Pre-Amended

HB18-1147 **Sunset Process Weather Modification**

Position: **Support**

Calendar Notification: NOT ON CALENDAR

News:

Audio, Floors and Committees:

Sponsors: J. Ginal | K. Ransom / D. Coram

Status: 1/31/2018 Introduced In House - Assigned to Health, Insurance, & Environment
 2/22/2018 House Committee on Health, Insurance, & Environment Refer Unamended to Appropriations

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-31

Amendments:

Bill Version: Introduced

HB18-1151 **Colorado Water Conservation Board Approve Deficit Irrigation Pilot Projects**

Position: **Neutral**

Calendar Notification: Tuesday, March 6 2018
 THIRD READING OF BILLS - FINAL PASSAGE
 (10) in house calendar.

News:

Audio, Floors and Committees:**Sponsors:** J. Arndt | M. Catlin / L. Crowder

Status: 1/31/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
 2/26/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to House Committee of the Whole
 3/1/2018 House Second Reading Laid Over to 03/02/2018 - No Amendments
 3/2/2018 House Second Reading Laid Over to 03/05/2018 - No Amendments
 3/5/2018 House Second Reading Passed with Amendments - Committee

Fiscal Notes: [Fiscal Note](#)**Date Introduced:** 2018-01-31**Amendments:** [Amendments](#)**Bill Version:** Pre-Amended

HB18-1199**Aquifer Storage-and-recovery Plans**

Position: **Support**

Calendar Notification: Tuesday, March 6 2018
 THIRD READING OF BILLS - FINAL PASSAGE
 (11) in house calendar.

News:**Audio, Floors and Committees:****Sponsors:** M. Catlin | B. McLachlan / D. Coram

Status: 2/5/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources
 2/26/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Amended to House Committee of the Whole
 3/1/2018 House Second Reading Laid Over to 03/02/2018 - No Amendments
 3/2/2018 House Second Reading Laid Over to 03/05/2018 - No Amendments
 3/5/2018 House Second Reading Passed with Amendments - Committee

Fiscal Notes: [Fiscal Note](#)**Date Introduced:** 2018-02-05

Amendments: [Amendments](#)
Bill Version: Pre-Amended

HB18-1201 **Severance Tax Voter-approved Revenue Change**

Position: **Monitor**
Calendar Monday, April 9 2018
Notification: Finance
 1:30 p.m. Room LSB-A
 (1) in house calendar.
News:
Audio, Floors and
Committees:
Sponsors: D. Thurlow / D. Coram
Status: 2/5/2018 Introduced In House - Assigned to Finance +
 Appropriations
Fiscal Notes:
Date Introduced: 2018-02-05
Amendments:
Bill Version: Introduced

HB18-1215 **Safe Disposal Naturally Occur Radioactive Material**

Position: **Deliberating**
Calendar Thursday, March 22 2018
Notification: Health, Insurance, & Environment
 1:30 p.m. Room 0107
 (3) in house calendar.
News:
Audio, Floors and
Committees:
Sponsors: J. Arndt
Status: 2/5/2018 Introduced In House - Assigned to Health, Insurance, &
 Environment
Fiscal Notes:
Date Introduced: 2018-02-05
Amendments:
Bill Version: Introduced

HB18-1249**Anvil Points Federal Mineral Lease Distribution**

Position:	Deliberating
Calendar Notification:	NOT ON CALENDAR
News:	
Audio, Floors and Committees:	
Sponsors:	B. Rankin / K. Lundberg
Status:	2/21/2018 Introduced In House - Assigned to Finance
Fiscal Notes:	Fiscal Note
Date Introduced:	2018-02-21
Amendments:	
Bill Version:	Introduced

SB18-019**Expanded Duration For Colorado Water Resources And Power Development Authority Revolving Loans**

Position:	Support
Calendar Notification:	NOT ON CALENDAR
News:	
Audio, Floors and Committees:	
Sponsors:	K. Donovan D. Coram / C. Hansen J. Arndt
Status:	<p>1/10/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy</p> <p>1/18/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Unamended to Senate Committee of the Whole</p> <p>1/23/2018 Senate Second Reading Passed - No Amendments</p> <p>1/24/2018 Senate Third Reading Passed - No Amendments</p> <p>1/26/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources</p> <p>2/12/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Unamended to House Committee of the Whole</p> <p>2/15/2018 House Second Reading Passed - No Amendments</p> <p>2/16/2018 House Third Reading Passed - No Amendments</p> <p>2/22/2018 Signed by the President of the Senate</p> <p>2/23/2018 Sent to the Governor</p>

2/23/2018 Signed by the Speaker of the House
3/1/2018 Governor Signed

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-10

Amendments:

Bill Version: Signed Act

SB18-038 **Reclaimed Water Use On Industrial Hemp**

Position: **Support**

Calendar Notification: NOT ON CALENDAR

News:

Audio, Floors and Committees:

Sponsors: K. Donovan | D. Coram / D. Esgar | Y. Willett

Status: 1/10/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
1/18/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended to Appropriations

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-10

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-041 **Authorize Water Use Incidental Sand And Gravel Mines**

Position: **Support**

Calendar Notification: NOT ON CALENDAR

News:

Audio, Floors and Committees:

Sponsors: D. Coram | R. Baumgardner / L. Saine | J. Arndt

Status: 1/10/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy

1/18/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended - Consent Calendar to Senate Committee of the Whole

1/23/2018 Senate Second Reading Passed with Amendments - Committee

1/24/2018 Senate Third Reading Passed - No Amendments

1/26/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources

2/12/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Unamended to House Committee of the Whole

2/15/2018 House Second Reading Passed with Amendments - Committee

2/15/2018 House Second Reading Passed - No Amendments

2/16/2018 House Third Reading Passed - No Amendments

2/22/2018 Signed by the President of the Senate

2/23/2018 Sent to the Governor

2/23/2018 Signed by the Speaker of the House

3/1/2018 Governor Signed

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-10

Amendments: [Amendments](#)

Bill Version: Signed Act

SB18-134 **Public Utilities Commission Deregulate Nonprofit Water Utilities**

Position: **Monitor**

Calendar Notification: Monday, March 12 2018
Agriculture, Livestock, & Natural Resources
1:30 p.m. Room 0107
(2) in house calendar.

News:

Audio, Floors and Committees:

Sponsors: J. Cooke / J. Arndt

Status: 1/29/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
2/8/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended - Consent Calendar to Senate Committee of the Whole
2/13/2018 Senate Second Reading Passed with Amendments - Committee
2/14/2018 Senate Third Reading Passed - No Amendments

2/20/2018 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-29

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-143 **Parks And Wildlife Measures To Increase Revenue**

Position: **Support**

Calendar Notification: Tuesday, March 6 2018
SENATE APPROPRIATIONS COMMITTEE
8:35 AM SCR 357
(3) in senate calendar.

News:

Audio, Floors and Committees:

Sponsors: S. Fenberg | D. Coram / J. Arndt | J. Wilson

Status: 1/29/2018 Introduced In Senate - Assigned to Finance
2/13/2018 Senate Committee on Finance Refer Amended to Appropriations

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-01-29

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-167 **Enforce Requirements 811 Locate Underground Facilities**

Position: **Deliberating**

Calendar Notification: NOT ON CALENDAR

News:

Audio, Floors and Committees:

Sponsors: R. Scott | K. Donovan / F. Winter | L. Saine

Status:

2/12/2018 Introduced In Senate - Assigned to Transportation
 2/22/2018 Senate Committee on Transportation Refer Amended to Finance
 3/1/2018 Senate Committee on Finance Refer Amended to Appropriations

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-02-12

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-170 **Reservoir Releases For Fish And Wildlife Mitigation**

Position: **Support**

Calendar Notification: Tuesday, March 6 2018
 THIRD READING OF BILLS - FINAL PASSAGE
 (5) in senate calendar.

News:

Audio, Floors and Committees:

Sponsors: J. Sonnenberg / C. Hansen | H. McKean

Status: 2/21/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
 2/28/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Amended to Senate Committee of the Whole
 3/5/2018 Senate Second Reading Passed with Amendments - Committee

Fiscal Notes: [Fiscal Note](#)

Date Introduced: 2018-02-21

Amendments: [Amendments](#)

Bill Version: Pre-Amended

SB18-176 **Board Meeting Dates Southwestern Water Conservation District**

Position: **Support**

Calendar Notification: Tuesday, March 6 2018
 THIRD READING OF BILLS - FINAL PASSAGE - CONSENT CALENDAR
 (2) in senate calendar.

News:**Audio, Floors and Committees:****Sponsors:** D. Coram / B. McLachlan | M. Catlin

Status: 2/21/2018 Introduced In Senate - Assigned to Agriculture, Natural Resources, & Energy
 2/28/2018 Senate Committee on Agriculture, Natural Resources, & Energy Refer Unamended - Consent Calendar to Senate Committee of the Whole
 3/5/2018 Senate Second Reading Passed - No Amendments

Fiscal Notes: [Fiscal Note](#)**Date Introduced:** 2018-02-21**Amendments:****Bill Version:** Engrossed

[SJM18-004](#) Memorialize Former Congressman Ray Kogovsek

Position: **Support****Calendar Notification:** NOT ON CALENDAR**News:****Audio, Floors and Committees:****Sponsors:** L. Garcia / D. Esgar

Status: 2/5/2018 Senate Third Reading Laid Over Daily - No Amendments
 2/5/2018 Introduced In Senate - Assigned to
 2/6/2018 Senate Third Reading Passed - No Amendments
 2/6/2018 House Third Reading Laid Over Daily - No Amendments
 2/6/2018 Introduced In House - Assigned to
 2/7/2018 House Third Reading Laid Over to 02/08/2018 - No Amendments
 2/8/2018 House Third Reading Laid Over to 02/09/2018 - No Amendments
 2/9/2018 House Third Reading Passed - No Amendments
 2/12/2018 Signed by the Speaker of the House
 2/12/2018 Signed by the President of the Senate

Fiscal Notes:**Date Introduced:** 2018-02-05**Amendments:****Bill Version:** Resolution/Memorial

SJR18-003**Water Projects Eligibility Lists**

Position:	Support
Calendar Notification:	NOT ON CALENDAR
News:	
Audio, Floors and Committees:	
Sponsors:	R. Baumgardner / J. Arndt
Status:	1/12/2018 Senate Third Reading Laid Over Daily - No Amendments 1/12/2018 Introduced In Senate - Assigned to 1/17/2018 Senate Third Reading Passed - No Amendments 1/22/2018 Introduced In House - Assigned to 1/24/2018 House Committee on Agriculture, Livestock, & Natural Resources Refer Unamended to House Committee of the Whole 1/29/2018 House Third Reading Passed - No Amendments 2/1/2018 Signed by the President of the Senate 2/2/2018 Signed by the Speaker of the House 2/6/2018 Sent to the Governor 2/13/2018 Governor Signed
Fiscal Notes:	
Date Introduced:	2018-01-12
Amendments:	
Bill Version:	Resolution/Memorial

LOCAL CONTROL & HOME RULE

The Colorado Municipal League is a strong advocate for the state's tradition of local control and constitutional principle of home rule, both of which allow cities and towns maximum flexibility and discretion in municipal finance, implementation of local policy, and delivery of public services. Local control should remain local and home rule should stay at home. Neither should be centralized at the Statehouse.

Municipal government is the cornerstone of good government in Colorado, and the League values the partnership that exists with state and federal officials. The citizens who municipal officials represent are the same as those represented by legislators. The policies legislators enact affecting municipalities must be implemented by municipal leaders and local taxpayers. To maintain the strength of this partnership, CML urges legislators to consider the impacts of decisions on the municipalities in their respective districts.

AFFORDABLE HOUSING

CML supports the continuation of the state low income housing tax credit that is administered through the Colorado Housing & Finance Authority. CML also supports legislation that creates a continuous funding source for affordable and attainable housing for Colorado's citizens.

BROADBAND

With voters in 86 municipalities and 30 counties having overwhelmingly voted to exempt themselves from the requirements of SB 05-152, CML supports legislation freeing up revenue to bring fast, reliable broadband to underserved areas of the state.

MARIJUANA

CML supports maximum local control of medical and recreational marijuana issues. CML supports legislation committing more state resources and personnel to mitigate the impact of gray and black market marijuana activity.

MUNICIPAL COURTS

After the adoption of HB 16-1309, which mandated defense counsel at first appearance in certain municipal cases, CML worked with Gov. John Hickenlooper's office and the Joint Budget Committee to fund the state mandate. CML supports legislation that creates a state program in the Department of Local Affairs to administer \$2 million to fund the mandate.

Restorative justice has proven to be an important tool to reduce recidivism in the state criminal justice system. CML supports state assistance for municipal courts to expand their use of restorative justice.

OIL AND GAS

CML recognizes the importance of cooperation between the state regulatory bodies, industry, and municipal interests. Ensuring adequate public safety in

and around oil and gas operations is paramount to the health and welfare of Colorado's residents and environment, as well as the long-term vitality of the industry. CML urges the General Assembly to resist preemptions of traditional municipal authority, and where such authority may need clarification, the League looks forward to working with the General Assembly.

PERA

CML supports passage of legislation in 2018 that will allow PERA to become fully funded in all divisions in 30 years or less. However, the League believes a lighter touch is appropriate with the more stable Local Government Division — for which CML will oppose higher employer contributions, support equal employee contributions for new and current employees, and support a reduction of the proposed additional employee contribution for employees. CML retains discretion to oppose an automatic ratchet-up contribution mechanism that would unnecessarily create another automatic trigger affecting budget and revenue, create budgetary impacts when local governments need more control over costs, and bypass the legislative process that should be part of any potential increase in the expenditure of taxpayer dollars.

PUBLIC SAFETY

CML supports the preservation of the Wildfire Risk Reduction Grant Program that currently provides much needed funding to local governments, nonprofits, and homeowners' associations for the mitigation of flammable materials in residential communities.

SEVERANCE TAX & FEDERAL MINERAL LEASE

CML supports referring a severance tax deburring question to voters to protect revenues vital to impacted municipalities as well as water, wildlife,

and conservation programs in the Department of Natural Resources. CML opposes reductions of severance tax and federal mineral lease revenue to municipalities and the appropriation of local governments' energy impact or direct distribution revenue to finance state programs and administrative costs of state government.

TAX AUTHORITY

On average, 70 percent of municipal tax revenues are derived from sales and use taxes. CML discourages state sales tax exemptions that negatively impact statutory municipalities and cities without any local input. CML supports the state as a partner with the business community and municipalities that self-collect their sales and use taxes, but opposes any efforts to undermine constitutionally-granted municipal home rule authority. CML and self-collecting municipalities have participated in good faith with the 2017 Legislative Sales Tax Task Force, understanding that simplification efforts being explored will not impair the authority to set tax policy, administration, and audit in home rule municipalities.

Property taxes are important to municipal governments as well. Proposals in the General Assembly to alter the property tax base, most notably by eliminating the business personal property tax, must be "backfilled" by the state, otherwise local government tax revenues will be reduced significantly.

TRANSPORTATION

Colorado's transportation system of roadways and transit is a state and local network vital to Colorado's future. Municipal officials support increased state transportation and transit funding that includes the return of an equitable portion of new revenue to cities, towns, and counties. A statewide solution includes planning and funding for all public roads, not just state highways.



EMPOWERED CITIES & TOWNS, UNITED FOR A STRONG COLORADO

The Colorado Municipal League (CML) is a nonprofit, nonpartisan organization that has served and represented Colorado's cities and towns since 1923. As such, CML is a reliable source of information about legislative issues and their impact on Colorado's cities and towns and their residents.

269 cities and towns are members of the League, and policies are determined by members though the CML Policy Committee and the CML Executive Board.

FOR MORE INFORMATION

COLORADO MUNICIPAL LEAGUE

1144 Sherman Street, Denver, CO 80203

(p) 303-831-6411 / 866-578-0936 • (f) 303-860-8175

www.cml.org



QUESTIONS ABOUT MUNICIPAL POLICY?

CML employs four full-time advocates to assist in development and communication of policies. They closely watch proposed legislation and work with legislators to understand municipal impacts.



KEVIN BOMMER

Deputy Director

kbommer@cml.org



MORGAN CULLEN

Legislative & Policy Advocate

mcullen@cml.org



DIANNE CRISWELL

Legislative Counsel

dcriswell@cml.org



MEGHAN DOLLAR

Legislative & Policy Advocate

mdollar@cml.org

**ITEM TITLE:**

Water Supply Update

DESCRIPTION:

Raw water supply update.

SUMMARY:

NRCS Colorado SNOTEL Snow Water Equivalent (SWE) Map:

- Indicates the South Platte Basin is at 82% of Median SWE (1981-2010)
- Overall Statewide we are currently at 67% of Median SWE

Locations of Bear Lake & Lake Irene SNOTEL Sites:

- Bear Lake SNOTEL site is in the upper Big Thompson River Basin
- Lake Irene SNOTEL site is in the upper Colorado River Basin

Bear Lake NRCS SNOTEL Site:

- First Graph shows the SWE from October 2017 through March 13, 2018 (red) compared to 2002, 2015, 2016, 2017, and the 30-year Median (1981-2010)
- As of March 13, 2018, the SWE was 10.7 inches
- Second Graph shows the entire snow accumulation and melt-off period from October through mid-June
- For 2018 thus far, the SWE accumulation is trending between the 30-year median SWE and the 2002 drought. However, it shows a relatively steep slope upwards starting in February with the recent snow accumulation.
- SWE usually peaks out in April, so we could still more snow accumulation from Spring snow events.

Northern Native Supplies Report:

- SWSI – Northern Water Surface Supply Index (consolidates reservoir storage, SWE, and precipitation)
- SWSI Graph Indicates District 4 (Thompson River Basin) is currently at an index value of +2, or “Above Normal Supply”
- The map “Departure from Normal Precipitation (in.) – February 2018” shows the watershed above the Northern Front Range, particularly in Rocky National Park area, with a “Near Normal” condition with a range of approximately 0.0 to -0.3.
- The local storage volume of the Thompson River Basin is at 123% of average.





Next Two Graphs - NRCS SNOTEL as of January 8, 2018

- Lake Irene SWE at 15.9 inches, or 74% of Median
- Bear Lake SWE at 10.7 inches, or 78% of Median

RECOMMENDATION:

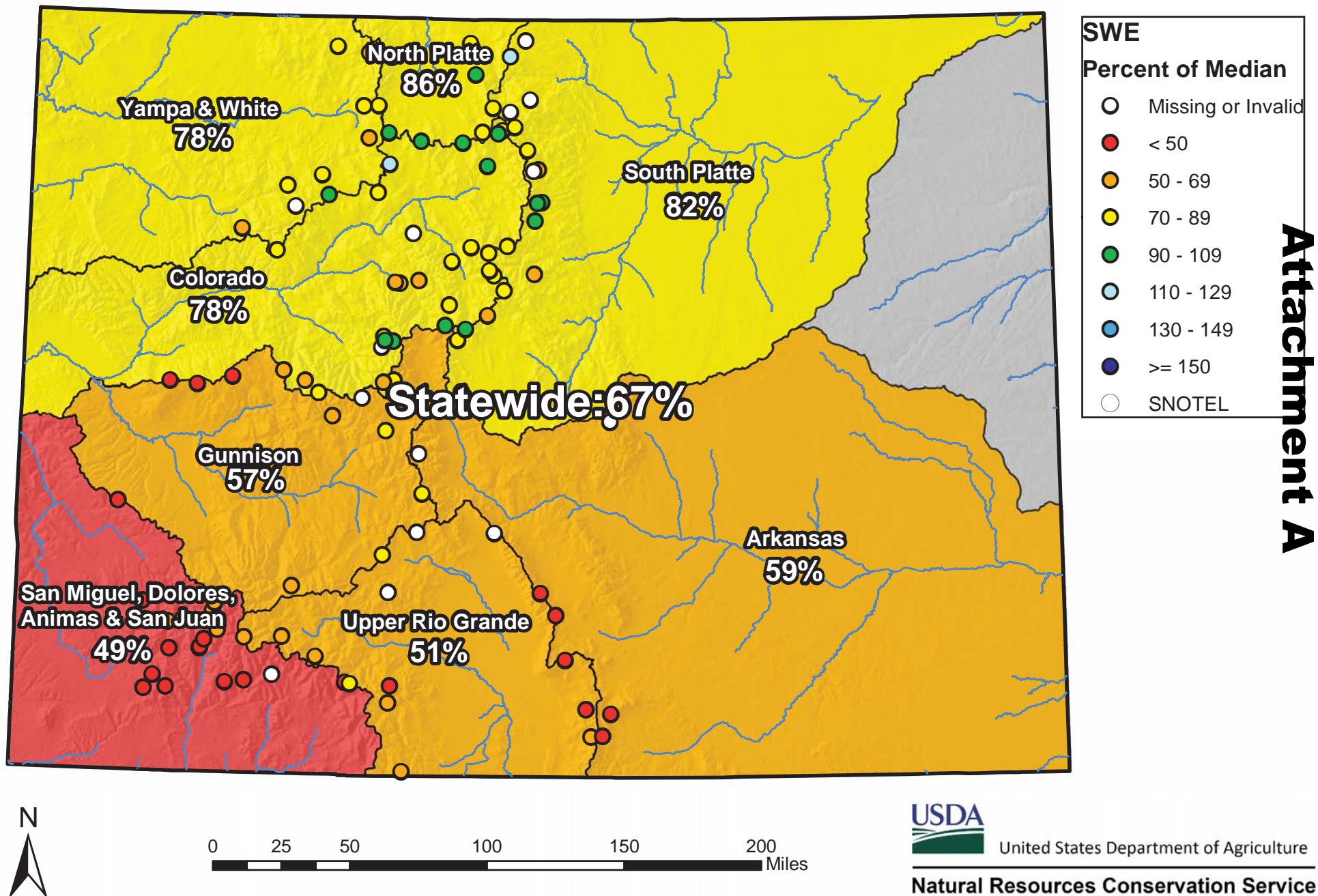
Information item only. No action required.

ATTACHMENTS:

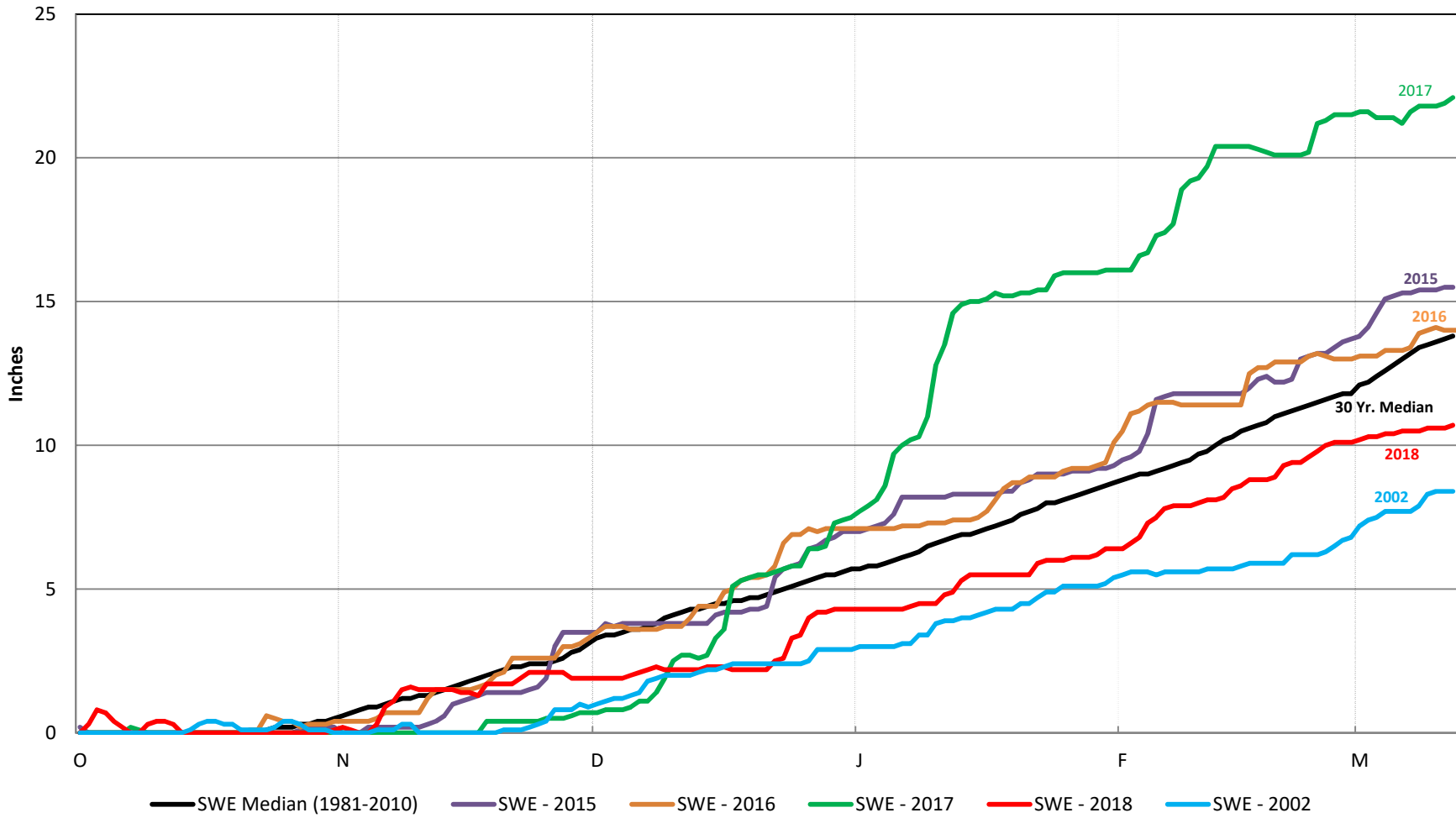
-  Attachment A: Colorado SNOTEL Update Map
-  Attachment B: Snow-Water Equivalent at Bear Lake
-  Attachment C: Native Water Supplies Report
-  Attachment D: Snowpack and Streamflow Comparisons from Northern Water

Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

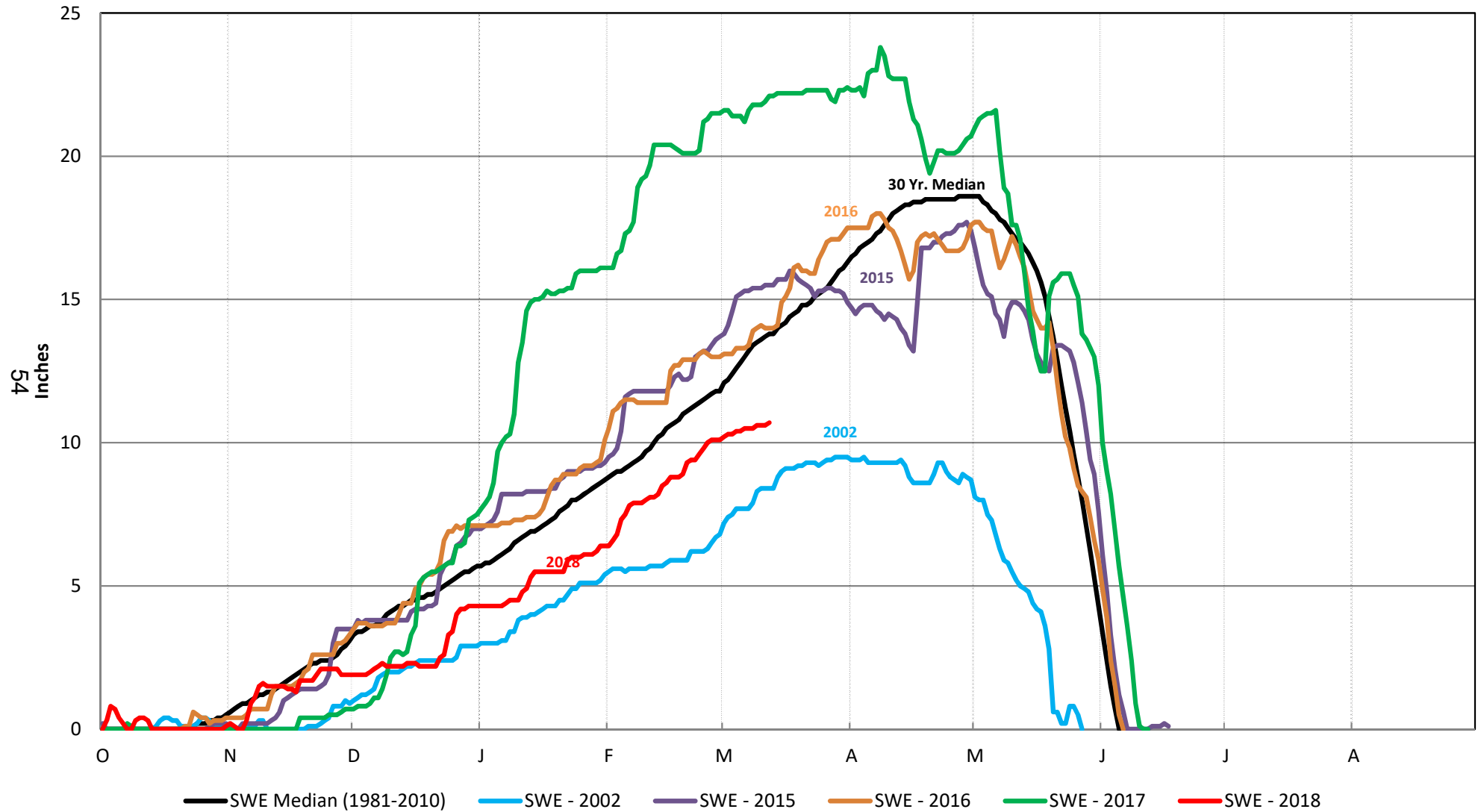
Current as of Mar 13, 2018



Snow - Water Equivalent at Bear Lake as of March 12, 2018



Snow - Water Equivalent at Bear Lake as of (see date in upper right hand corner)



3

Attachment C

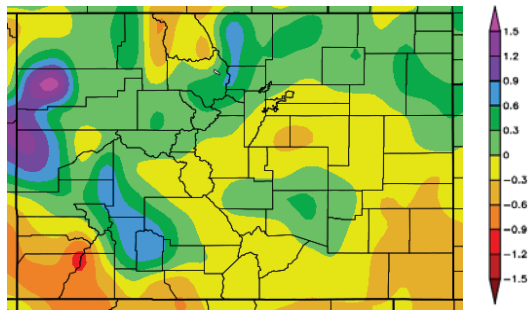
Native Water Supplies Report March 1, 2018

Northern Water Surface Water Supply Index

Current Value= 2.10



Departure from Normal Precipitation (in.) - February 2018



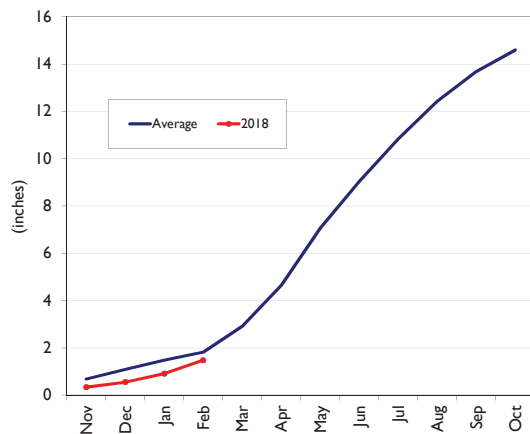
map source: NOAA Regional Climate Center

The Northern Water Surface Water Supply Index (SWSI) consolidates reservoir storage, streamflow (or Snow Water Equivalent during the winter), and precipitation into a single index value which ranges between -4.2 and +4.2.

The SWSI scale can be subjectively described as follows:

SWSI	Designation
+4	Abundant Supply
+2	Above Normal Supply
0	Near Normal
-2	Moderate Drought
-4	Severe Drought

District Mean Areal Precipitation - Cumulative Year to Date



Local Storage Summary

(acre-feet)	March 1	Average	% Average
Districts 1, 2 & 64 (So Platte)	263,941	233,171	113%
District 3 (Poudre)	162,218	128,801	126%
District 4 (Thompson)	85,666	69,725	123%
District 5 (St. Vrain & Left Hand)	44,920	41,655	108%
District 6 (Boulder Creek)	23,807	18,969	126%
Total Native Storage	580,552	492,320	118%

February Precipitation Summary

(inches)	Feb	YTD
District Mean Areal Precipitation*	0.57	1.48
Key Northern Water Weather Stations		
Fort Collins	0.57	1.48
Greeley	0.67	2.07
Longmont	0.76	2.18
Fort Morgan	0.37	0.81
Sterling	0.54	1.37

*computed using CoCoRaHS and Northern Water stations.

Attachment D

Snowpack and Streamflow Comparisons March 1, 2018



Snow Water Content

% of Average

Colorado's Statewide Snowpack	72%
Upper Colorado River ⁽¹⁾	85%
South Platte Tributaries ⁽²⁾	84%

Snow-Water Content Comparisons (inches)

Watershed	March 1, 2018 Snow-Water Content			March 1 Comparative Snow-Water Content			
	2018	Average	% Avg	2017	2016	2015	2002
Blue River	10.1	11.4	89%	127%	96%	110%	71%
Upper Colorado River	10.4	12.7	83%	134%	91%	95%	65%
Willow Creek	7.6	8.6	89%	154%	105%	77%	63%
Fraser River	9.4	11.7	80%	114%	101%	102%	67%
Poudre River	9.9	11.4	87%	122%	85%	90%	63%
Big Thompson River	9.4	11.5	81%	148%	95%	108%	59%
St. Vrain River	7.0	9.0	78%	158%	103%	119%	50%
Boulder Creek	8.3	9.1	91%	140%	103%	112%	54%

Apr-Jul Maximum, Minimum

and Most Probable Streamflow Forecasts (1000 af)

Watershed	Forecast Minimum	Most Probable	Forecast Maximum	Apr-Jul Avg ⁽³⁾	Most Prob % Average
Blue River	165	234	315	275	85%
Upper Colorado River	139	191	252	220	87%
Willow Creek	25	40	59	47	85%
Fraser River	64	96	133	117	82%
Poudre River	113	203	292	225	90%
Big Thompson River	54	78	118	90	87%
St. Vrain River	47	74	110	88	84%
Boulder Creek	35	49	69	54	91%
South Platte Tributaries		404		457	88%

Precipitation within District Boundaries ⁽⁴⁾

	Totals	Average	% Average
February	0.57	0.34	168%
Nov-Feb	1.48	1.82	81%

(1) Includes the Colorado, Willow Creek, Fraser and Blue River Watersheds

(2) Includes the Poudre, Big Thompson, Saint Vrain and Boulder Creek Watersheds

(3) Average for the period 1981-2010

(4) Computed using CoCoRaHS and Northern Water Stations

Snow Update

Based on Data from NRCS SNOTEL Sites

3/7/2018

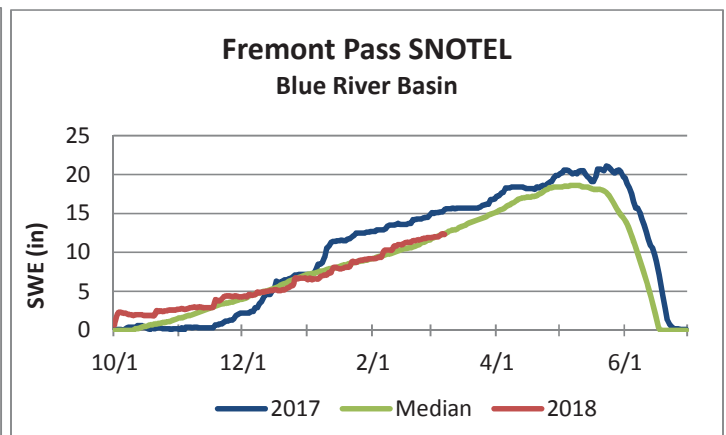
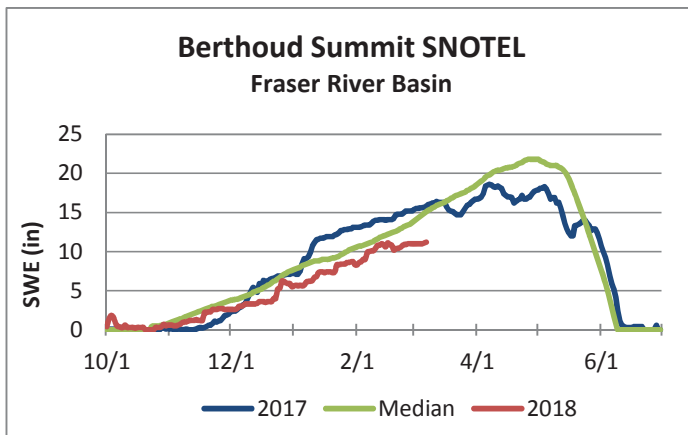
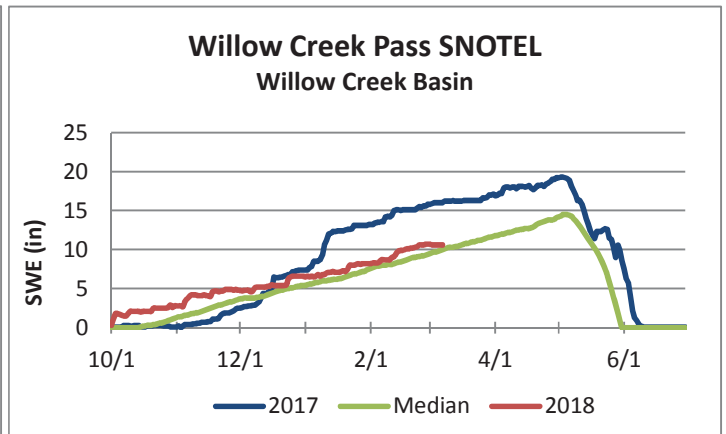
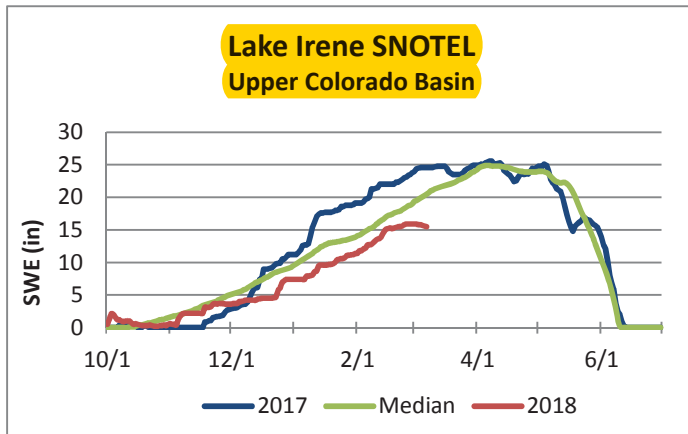
Upper Colorado River Basin						
Station Name	Basin	Elevation (ft)	Snow Water Equivalent (SWE)			
			Current (in)	Last Year (in)	Median (in) ¹	Current as % of Median
Berthoud Summit	Fraser	11,300	11.2	15.8	15.1	74%
Fool Creek	Fraser	11,150	15.7	18.3	--	--
Fremont Pass	Blue	11,400	12.3	15.5	12.4	99%
Grizzly Peak	Blue	11,100	12.5	20.8	13.8	91%
High Lonesome	Upper Colorado	10,620	11	16.4	--	--
Hoosier Pass	Blue ²	11,400	11.1	13.3	11.4	97%
Jones Pass	Fraser ²	10,400	9.7	13.3	10.4	93%
Lake Irene	Upper Colorado	10,700	15.5	24.6	20.5	76%
Never Summer	Willow Creek ²	9,540	14.5	20.8	16.6	87%
Phantom Valley	Upper Colorado	9,030	8.1	13.1	8.6	94%
Stillwater Creek	Upper Colorado	8,720	6.2	11.2	7.1	87%
Willow Creek Pass	Willow Creek	9,540	10.6	16.0	10	106%

¹ Median Snow Water Equivalent (1981-2010)

² SNOTEL stations are outside of, but near the basin.

Notes:

- Fool Creek Station began data collection October 2011; there is not enough data to compute a median.
- High Lonesome Station began data collection October 2013; there is not enough data to compute a median.



Snow Update

Based on Data from NRCS SNOTEL Sites

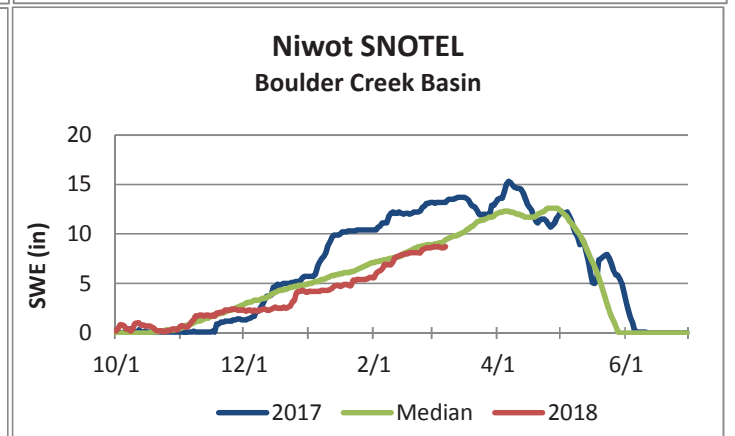
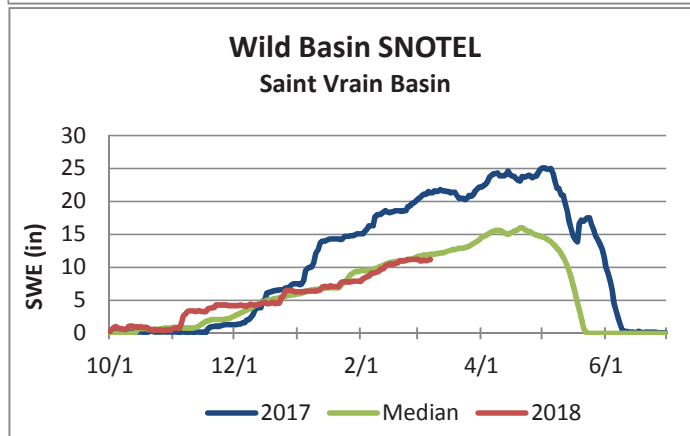
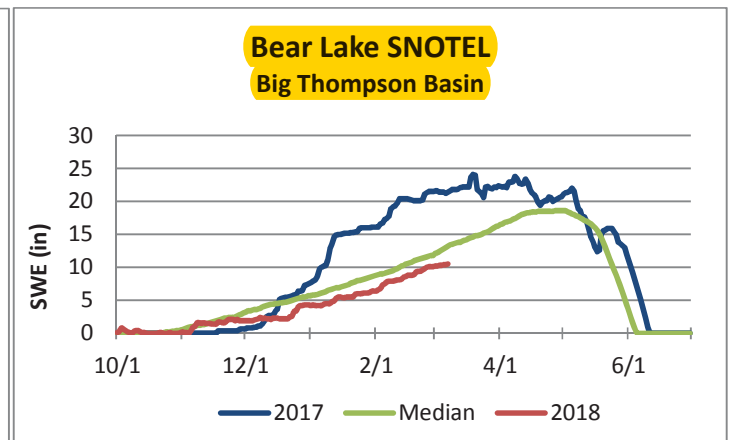
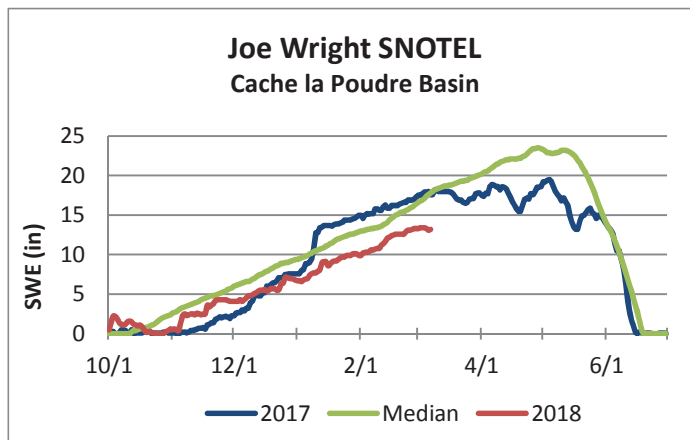
3/7/2018

South Platte River Basin						
Station Name	Basin	Elevation (ft)	Snow Water Equivalent (SWE)			
			Current (in)	Last Year (in)	Median (in) ¹	Current as % of Median
Bear Lake	Big Thompson	9,500	10.5	21.4	13.2	80%
Copeland Lake	Saint Vrain	8,600	2.7	9.0	4.4	61%
Deadman Hill	Cache la Poudre	10,220	16	18.6	12.7	126%
Hourglass Lake	Cache la Poudre	9,380	8.2	11.1	--	--
Joe Wright	Cache la Poudre	10,120	13.2	17.6	17.8	74%
Lake Eldora	Boulder Creek	9,700	8.8	13.2	9.6	92%
Niwot	Boulder Creek	9,910	8.7	13.2	9.4	93%
University Camp	Boulder Creek	10,300	12	17.6	11.8	102%
Wild Basin	Saint Vrain	9,560	11.2	21.3	12	93%
Willow Park	Big Thompson	10,700	11.3	15.9	13.4	84%

¹ Median Snow Water Equivalent (1981-2010)

Notes:

-Hourglass Lake Station began data collection October 2008; there is not enough data to compute a median.



ITEM TITLE:

Financial Report Update

DESCRIPTION:

This item summarizes the monthly and year-to date Preliminary financials for February 2018.

SUMMARY:





The February 2018 financial reports are submitted for Commission review. The following table summarizes the sales and expense results for the month of February, and the February Year-To-Date results in comparison to the same periods from 2017. The summarized and detailed monthly financial statements that compare February Year-To-Date actuals to the 2018 budgeted figures are attached.

		February				February Year-To-Date					
		2018	2017	\$ Ovr/(Und)	% Ovr/(Und)			2018	2017	\$ Ovr/(Und)	% Ovr/(Und)
				vs. 2017	vs. 2017					vs. 2017	vs. 2017
WATER											
Sales		\$889,719	\$743,578	\$146,141	19.7%			\$1,747,822	\$1,584,836	\$162,986	10.3%
Operating Expenses		\$791,617	\$820,952	(\$29,335)	-3.6%			\$2,532,044	\$1,671,731	\$860,312	51.5%
Capital (Unrestricted)		\$38,158	\$22,247	\$15,911	71.5%			\$43,170	\$28,259	\$14,911	52.8%
WASTEWATER											
Sales		\$1,035,224	\$850,484	\$184,740	21.7%			\$2,047,900	\$1,838,736	\$209,164	11.4%
Operating Expenses		\$612,638	\$452,151	\$160,486	35.5%			\$1,245,796	\$1,076,045	\$169,751	15.8%
Capital (Unrestricted)		\$620,088	\$34,531	\$585,556	1695.7%			\$635,288	\$63,180	\$572,108	905.5%
POWER											
Sales		\$6,454,284	\$4,670,602	\$1,783,682	38.2%			\$11,694,959	\$9,913,320	\$1,781,639	18.0%
Operating Expenses		\$4,424,758	\$4,802,082	(\$377,324)	-7.9%			\$9,100,703	\$5,332,675	\$3,768,028	70.7%
Capital (Unrestricted)		\$934,389	\$29,431	\$904,958	3074.8%			\$1,412,381	\$1,053,049	\$359,332	34.1%

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

-  Attachment A: City of Loveland Financial Statement-Raw Water
-  Attachment B: City of Loveland Financial Statement-Water
-  Attachment C: City of Loveland Financial Statement-Wastewater
-  Attachment D: City of Loveland Financial Statement-Power

Attachment A

City of Loveland
Financial Statement-Raw Water
For Period Ending 02/28/2018 **Preliminary**

	*	TOTAL BUDGET FYE 12/31/2017	*	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1 REVENUES & SOURCES	*		*				
2 High Use Surcharge	*	74,667	*	(6,480)	12,444	(18,924)	-152.1%
3 Raw Water Development Fees/Cap Rec Surcharge	*	514,952	*	57,984	85,826	(27,842)	-32.4%
4 Cash-In-Lieu of Water Rights	*	527,084	*	0	87,848	(87,848)	-100.0%
5 Native Raw Water Storage Fees	*	31,598	*	14,630	5,266	9,364	177.8%
6 Loan Payback from Water	*	32,500	*	0	5,417	(5,417)	-100.0%
7 Raw Water 1% Transfer In	*	491,220	*	52,435	53,219	(784)	-1.5%
8 Interest on Investments	*	351,950	*	31,794	58,658	(26,864)	-45.8%
9 TOTAL REVENUES & SOURCES	*	2,023,971	*	150,362	308,678	(158,316)	-51.3%
10 OPERATING EXPENSES	*		*				
11 Loan to Water	*	0	*	0	0	0	0.0%
12 Windy Gap Payments	*	7,100	*	0	0	0	0.0%
13 TOTAL OPERATING EXPENSES	*	7,100	*	0	0	0	0.0%
14 NET OPERATING REVENUE/(LOSS) (excl depr)	*	2,016,871	*	150,362	308,678	(158,316)	-51.3%
15 RAW WATER CAPITAL EXPENDITURES	*	5,564,900	*	0	896,400	(896,400)	-100.0%
16 ENDING CASH BALANCES	*		*				
17 Total Available Funds	*		*	18,072,871			
18 Reserve - Windy Gap Cash	*		*	0			
19 Reserve - 1% Transfer From Rates	*		*	6,099,727			
20 Reserve - Native Raw Water Storage Interest	*		*	1,624,217			
21 TOTAL RAW WATER CASH	*		*	25,796,815			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING:

Attachment B

City of Loveland
Financial Statement-Water
For Period Ending 02/28/2018 - Preliminary

	TOTAL BUDGET FYE 12/31/2017	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1 **UNRESTRICTED FUNDS**	*	*			
2 REVENUES & SOURCES	*	*			
3 Water Sales	16,373,998	1,747,822	1,773,982	(26,160)	-1.5%
4 Raw Water Transfer Out	(491,220)	(52,435)	(53,219)	784	-1.5%
5 Wholesale Sales	161,307	17,047	26,884	(9,837)	-36.6%
6 Meter Sales	94,722	14,392	15,788	(1,396)	-8.8%
7 Interest on Investments	89,770	3,982	14,962	(10,980)	-73.4%
8 Other Revenue	1,408,745	39,730	140,112	(100,382)	-71.6%
9 Federal and State Grants	0	75,804	0	75,804	0.0%
10 Internal Loan Monies Received	750,000	750,000	125,000	625,000	500.0%
11 External Loan Monies Received	0	0	0	0	0.0%
12 TOTAL REVENUES & SOURCES	18,387,322	2,596,342	2,043,509	552,833	27.1%
13 OPERATING EXPENSES	*	*			
14 Source of Supply	2,810,906	83,207	444,655	(361,448)	-81.3%
15 Treatment	3,833,608	462,222	686,170	(223,948)	-32.6%
16 Distribution Operation & Maintenance	4,231,148	493,469	696,548	(203,079)	-29.2%
17 Administration	2,517,512	76,085	424,085	(348,000)	-82.1%
18 Customer Relations	421,932	40,055	70,740	(30,685)	-43.4%
19 PILT	1,111,790	118,677	111,180	7,497	6.7%
20 1% for Arts Transfer	73,314	3	0	3	0.0%
21 Services Rendered-Other Departments	1,480,676	248,470	248,470	0	0.0%
22 Internal Loan Debt Expense	827,500	795,300	137,916	657,384	476.7%
23 External Loan Debt Expense	1,015,150	214,556	169,192	45,364	26.8%
24 TOTAL OPERATING EXPENSES	18,323,536	2,532,044	2,988,956	(456,912)	-15.3%
25 NET OPERATING REVENUE/(LOSS)(excl depr)	63,786	64,298	(945,447)	1,009,745	-106.8%
26 CAPITAL EXPENDITURES	3,174,083	43,170	298,828	(255,658)	-85.6%
27 ENDING CASH BALANCE (31% OF OPER EXP)	*	5,591,086			100
28 WATER DEBT FUNDS ENDING CASH BALANCE	*	(28,164)			100
29 MINIMUM BALANCE (15% OF OPER EXP)	*	2,748,530			
30 OVER/(UNDER) MINIMUM BALANCE	*	2,842,556			
31 **RESTRICTED FUNDS**	*	*			
32 REVENUES & SOURCES	*	*			
33 SIF Collections	6,168,963	232,725	798,380	(565,655)	-70.9%
34 SIF Interest Income	51,660	4,712	8,610	(3,898)	-45.3%
35 SIF Federal and State Grants	0	75,804	0	75,804	0.0%
36 Internal Loan Monies Received	0	0	0	0	0.0%
37 TOTAL SIF REVENUES & SOURCES	6,220,623	313,240	806,990	(493,750)	-61.2%
38 SIF Capital Expenditures	7,527,489	23,054	1,180,322	(1,157,268)	-98.0%
39 1% for Arts Transfer	38,462	0	0	0	0.0%
40 Legal Agreements & Shared Costs	276,440	17,885	40,104	(22,219)	-55.4%
24 TOTAL OPERATING EXPENSES	7,842,391	40,939	1,220,426	(1,179,487)	-96.6%
25 NET OPERATING REVENUE/(LOSS)(excl depr)	(1,621,768)	272,302	(413,436)	1,179,487	-165.9%
41 SIF ENDING CASH BALANCE	*	3,584,545			100
42 TOTAL ENDING CASH BALANCE	*	9,175,630			
NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING:					
43 Water Treated at WTP (in million gallons)	*	397			
44 Water Sold To Customers (in million gallons, includes Ranch Water & Hydrant Sales)	3,745	305	314	(10)	-3.1%

Attachment C

City of Loveland-LIVE Financial Statement-Wastewater For Period Ending 02/28/2018 - Preliminary

	TOTAL BUDGET			OVER	
	FYE 12/31/2017	YTD ACTUAL	YTD BUDGET	<UNDER>	VARIANCE
1 **UNRESTRICTED FUNDS**	*	*			
2 REVENUES & SOURCES	*	*			
3 Sanitary Sewer Charges	12,620,160	2,047,900	2,088,146	(40,246)	-1.9%
4 High Strength Surcharge	393,240	67,617	53,530	14,087	26.3%
5 Interest on Investments	88,800	15,275	14,800	475	3.2%
6 Other Revenue	763,090	16,714	124,538	(107,824)	-86.6%
7 Bond Proceeds	15,659,620	3,270,837	0	3,270,837	0.0%
8 Federal Grants	0	0	0	0	0.0%
9 State Grants	0	0	0	0	0.0%
10 TOTAL REVENUES & SOURCES	29,524,910	5,418,342	2,281,014	3,137,328	137.5%
11 OPERATING EXPENSES	*	*			
12 Treatment	4,325,025	554,551	770,581	(216,030)	-28.0%
13 Collection System Maintenance	3,389,678	333,686	596,059	(262,373)	-44.0%
14 Administration	1,734,963	52,072	279,442	(227,370)	-81.4%
15 Customer Relations	50,855	6,928	9,365	(2,437)	-26.0%
16 PILT	910,940	148,086	145,750	2,336	1.6%
17 1% for Arts Transfer	255,989	8,466	10,066	(1,600)	-15.9%
18 Services Rendered-Other Departments	758,706	127,723	127,723	0	0.0%
19 Debt Service	88,819	14,283	14,804	(521)	-3.5%
20 TOTAL OPERATING EXPENSES	11,514,975	1,245,796	1,953,790	(707,994)	-36.2%
21 NET OPERATING REVENUE/(LOSS)(excl depr)	18,009,935	4,172,547	327,224	3,845,323	1175.1%
22 CAPITAL EXPENDITURES	24,902,628	635,288	1,095,552	(460,264)	-42.0%
23 ENDING CASH BALANCE (49% OF OPER EXP)		5,591,086			100
24 WASTEWATER DEBT FUNDS ENDING CASH BALANCE		12,789			100
25 MINIMUM BALANCE (15% OF OPER EXP)		1,727,246			
26 OVER/(UNDER) MINIMUM BALANCE		3,863,840			
27 **RESTRICTED FUNDS**	*	*			
28 REVENUES & SOURCES	*	*			
29 SIF Collections	2,386,151	151,305	215,984	(64,679)	-29.9%
30 SIF Interest Income	89,010	11,506	14,836	(3,330)	-22.4%
31 SIF Bond Proceeds	8,691,380	2,004,707	0	2,004,707	0.0%
32 TOTAL SIF REVENUES & SOURCES	11,166,541	2,167,518	230,820	1,936,698	839.1%
33 SIF Capital Expenditures	17,573,793	391,235	1,171,220	(779,985)	-66.6%
34 1% for Arts Transfer	177,664	3,154	10,778	(7,624)	-70.7%
35 Debt Service	49,406	8,754	8,234	520	6.3%
20 TOTAL OPERATING EXPENSES	17,800,863	403,144	1,190,232	(787,088)	-66.1%
21 NET OPERATING REVENUE/(LOSS)(excl depr)	(6,634,322)	1,764,374	(959,412)	2,723,786	-283.9%
SIF ENDING CASH BALANCE		3,584,545			100
TOTAL ENDING CASH BALANCE		9,175,630			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING 28,956,676

36 Wastewater Treated at WWTP (in million gallons)	N/A	338	N/A		
37 Wastewater Billed To Customers (in million gallons)	1,768	284	294	(10)	-3.3%

Attachment D

City of Loveland
Financial Statement-Power
For Period Ending 2/28/2018 - Preliminary

	* TOTAL BUDGET *	* YTD ACTUAL *	YTD BUDGET	OVER <UNDER>	VARIANCE
UNRESTRICTED FUNDS					
1 REVENUES & SOURCES:					
2 Electric revenues	\$65,421,010	\$11,694,959	\$10,863,230	\$831,729	7.7%
3 Wheeling charges	\$260,000	\$39,337	\$43,333	(\$3,997)	-9.2%
4 Interest on investments	\$258,420	\$18,993	\$43,070	(\$24,077)	-55.9%
5 Aid-to-construction deposits	\$1,530,000	\$98,741	\$255,000	(\$156,259)	-61.3%
6 Customer deposit-services	\$310,000	\$31,121	\$51,667	(\$20,545)	-39.8%
7 Late Payment Penalty Fees	\$450,000	\$80,070	\$75,000	\$5,070	6.8%
8 Connect Fees	\$170,000	\$23,360	\$28,333	(\$4,973)	-17.6%
9 Services rendered to other depts.	\$0	\$0	\$0	\$0	0.0%
10 Other revenues	\$306,230	\$75,840	\$51,038	\$24,801	48.6%
11 Federal Grants	\$365,000	\$0	\$60,833	(\$60,833)	-100.0%
12 State Grants	\$61,000	\$0	\$10,167	(\$10,167)	-100.0%
13 Year-end cash adjustments	\$0	\$0	\$0	\$0	0.0%
14 TOTAL REVENUES & SOURCES	\$69,131,660	\$12,062,420	\$11,481,672	\$580,749	5.1%
15 OPERATING EXPENSES:					
16 Hydro oper. & maint.	\$1,309,821	\$1,787	\$201,511	(\$199,724)	-99.1%
17 Solar oper.& maint.	\$90,000	\$850	\$13,846	(\$12,996)	-93.9%
18 Purchased power	\$44,079,146	\$6,840,880	\$7,493,455	(\$652,575)	-8.7%
19 Distribution oper. & maint.	\$5,617,230	\$770,223	\$864,189	(\$93,966)	-10.9%
21 Customer Relations	\$1,528,241	\$72,590	\$235,114	(\$162,524)	-69.1%
22 Administration	\$3,732,454	\$136,567	\$574,224	(\$437,657)	-76.2%
23 Payment in-lieu-of taxes	\$4,579,440	\$810,719	\$764,766	\$45,952	6.0%
24 1% for Arts Transfer	\$83,488	\$1,982	\$13,942	(\$11,961)	-85.8%
25 Services rendered-other depts.	\$2,767,799	\$465,106	\$461,300	\$3,806	0.8%
26 TOTAL OPERATING EXPENSES (excl depn)	\$63,787,619	\$9,100,703	\$10,622,348	(\$1,521,645)	-14.3%
27 NET OPERATING REVENUE/(LOSS) (excl depn)	\$5,344,041	\$2,961,718	\$859,324	\$2,102,394	\$0
28 CAPITAL EXPENDITURES:					
29 General Plant/Other Generation & Distribution	\$7,181,090	\$876,896	\$1,107,592	(\$230,696)	-20.8%
30 Aid-to-construction	\$1,110,000	\$489,231	\$170,769	\$318,462	186.5%
31 Service installations	\$310,000	\$46,254	\$47,692	(\$1,438)	-3.0%
32 TOTAL CAPITAL EXPENDITURES	\$8,601,090	\$1,412,381	\$1,326,053	\$86,328	6.5%
33 ENDING CASH BALANCE (23% of Oper Exp)		\$14,377,374			
34 MINIMUM BAL. (23% of OPER EXP excl depn/chg 2017)		\$14,671,152			
35 OVER/(UNDER) MINIMUM BALANCE		(\$293,779)			
RESTRICTED FUNDS					
37 PIF Collections	\$3,115,400	\$585,972	\$519,233	\$66,738	12.9%
38 PIF Interest Income	\$12,350	\$6,449	\$2,058	\$4,391	213.3%
39 Water Loan Payback	\$795,000	\$795,300	\$0	\$795,300	0.0%
40 Federal Grants	\$0	\$0	\$0	\$0	0.0%
41 State Grants	\$0	\$0	\$0	\$0	0.0%
42 TOTAL REVENUES	\$3,922,750	\$1,387,721	\$521,292	\$866,429	166.2%
43 PIF Feeders	\$2,550,000	\$56,301	\$392,308	(\$336,007)	-85.6%
44 PIF Substations & Solar	\$600,000	\$0	\$100,000	(\$100,000)	-100.0%
45 TOTAL EXPENDITURES	\$3,150,000	\$56,301	\$492,308	(\$436,007)	-88.6%
46 ENDING PIF CASH BALANCE		\$4,793,806			
47 TOTAL ENDING CASH BALANCE		\$19,171,179			
NOTE: YTD ACTUAL does NOT include encumbrances totalling \$4,971,008					
48 Energy Purchased (in million kWh) from PRPA	744	122	120	1	-2.4%
49 Energy Sold to Customers (in million kWh)	715	122	125	(3)	-2.3%

**ITEM TITLE:**

Contract Amendment (#2) for HDR Engineering

DESCRIPTION:

This item is for the approval of the second amendment to the contract that HDR has for the Boyd Parallel Interceptor (W1601H) and Morning Drive 30" Waterline Phase 1 & 2 (W1705D) projects. HDR is currently finishing the Final Design phase services for both of the projects. This amendment will cover the construction management services that HDR will provide for both projects.

SUMMARY:

The City's largest sanitary sewer basin drains to one main interceptor which the City refers to as the Old Boyd Basin Interceptor. The existing 24" Interceptor is currently out of capacity and a parallel 24" sanitary sewer has been planned to convey a portion of the existing basin flows along with flows from all future basin development. The proposed new interceptor will be approximately 6,700 linear feet (LF) and will commence north of E. Eisenhower Blvd. on the south side of the Greeley Loveland Canal. The sanitary sewer will cross the Canal and proceed in a northerly direction through Cheyenne St., W. 17th St., Boise Ave., Silver Leaf Dr., and Madison Ave where it terminates south of 29th St (see attached map in Figure 1 for proposed route). The design and subsequent construction is complicated by the Canal crossing, tight corridors, other utilities, and affects to traffic.

The City continues to see increased water demand. Evidence of this are production records at the WTP as well as longer run times on pumps and tank fluctuation levels. The City's gravity pressure zone is fed from two water storage tanks. One of these water tanks, the 4 MG 29th St. water tank also serves as the suction source of water for the City's largest pressure zone (P1). Additionally in the coming years it will also serve as the suction source of water for the P2 pressure zone. Given that a great deal of the City's water demand is met through this water tank and nearby pump station it is important that a consistent water supply network be in place. Therefore a 30" diameter master planned waterline is to be extended from near the Morning Dr. Pump Station to the 29th St. tank. This waterline will provide redundancy as well as be utilized to meet high flow demand. See attached map in Figure 2 for route.

HDR soon will complete the Final Design of each of the projects listed above. At that point the project will shift to construction with the City's previously hired Construction manager at Risk (CMaR), Connell Resources. During the construction phase of the project HDR will provide services during construction that include reviewing and approving submittals, making critical inspections, answer Request for Information (RFI's) from the contractor, review change orders, and prepare the record drawings at the conclusion of the project.




The Construction Management amendment totals \$217,575 (24" Boyd Sewer = \$129,750 and the 30" Morning Dr. Water = \$87,825). When combined with the final design efforts that have occurred on the two projects the contract total will be \$749,975. With over \$8 million being spent on construction the ratio of design fee to construction costs is well below industry average.

Per Municipal Code 3.12.060A and 3.12.060B, the LUC must approve Water and Power contracts above \$500,000 or any change order that causes a contract to equal or exceed \$500,000 and which, when combined with all previous change orders, equals or exceeds 20% of the original contract amount.

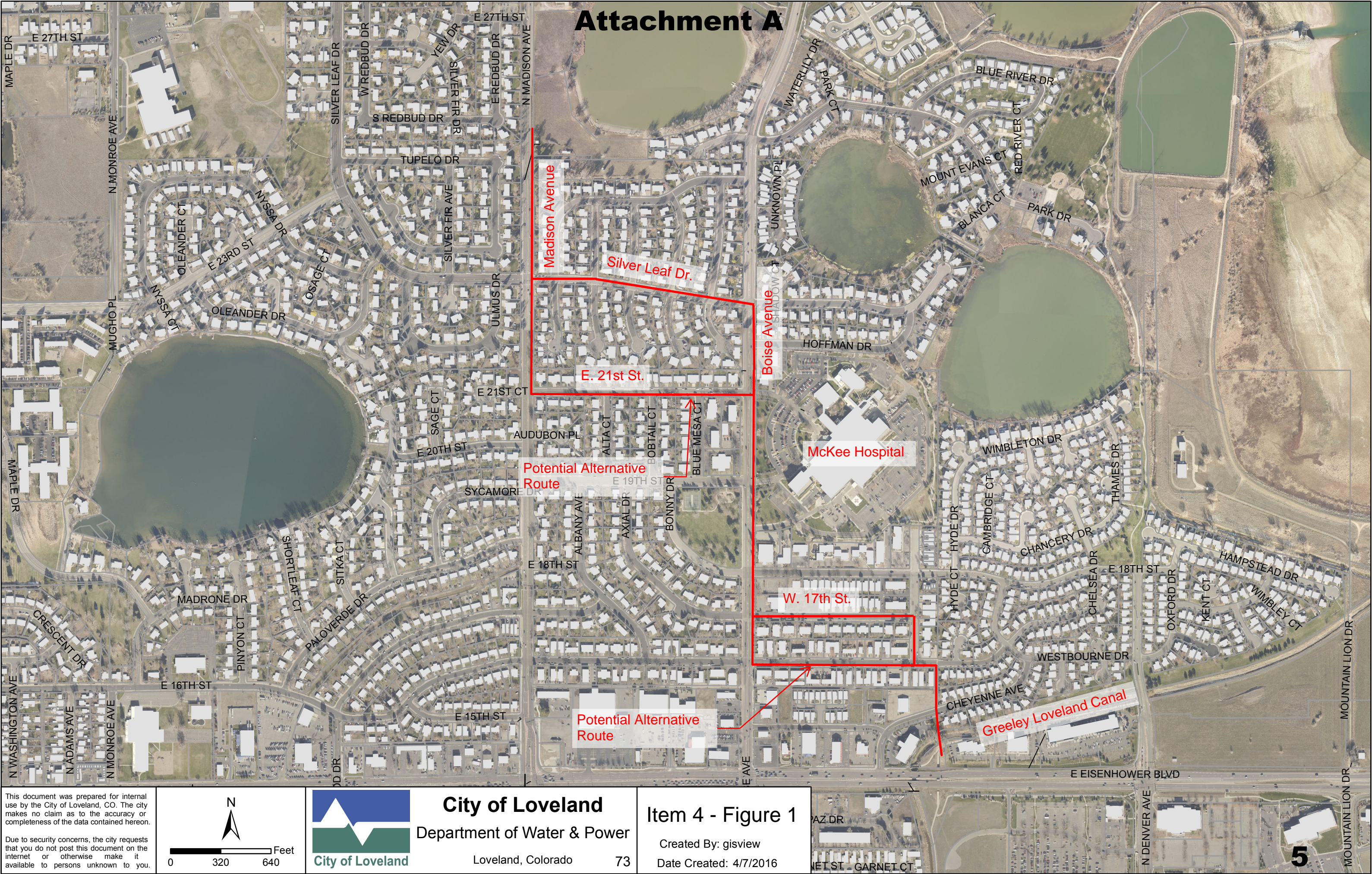
RECOMMENDATION:

Adopt a motion recommending that the LUC approve the change order to the contract for *Final Design of the Boyd Parallel Interceptor and Morning Drive 30" Waterline Phase 2* with HDR to increase the not-to-exceed amount to \$749,975 and authorize the City Manager to sign the change order on behalf of the City.

ATTACHMENTS:

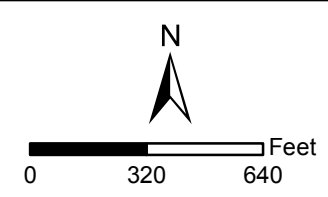
-  Attachment A: Figure 1: 24" Boyd Parallel Sanitary Sewer Route
-  Attachment B: Figure 2: 30" Morning Drive Waterline Extension Route
-  Attachment C: HDR Final Design Scope and Fee

Attachment A



This document was prepared for internal use by the City of Loveland, CO. The city makes no claim as to the accuracy or completeness of the data contained hereon.

Due to security concerns, the city requests that you do not post this document on the internet or otherwise make it available to persons unknown to you.



City of Loveland
Department of Water & Power
Loveland, Colorado

Item 4 - Figure 1
Created By: gisview
Date Created: 4/7/2016

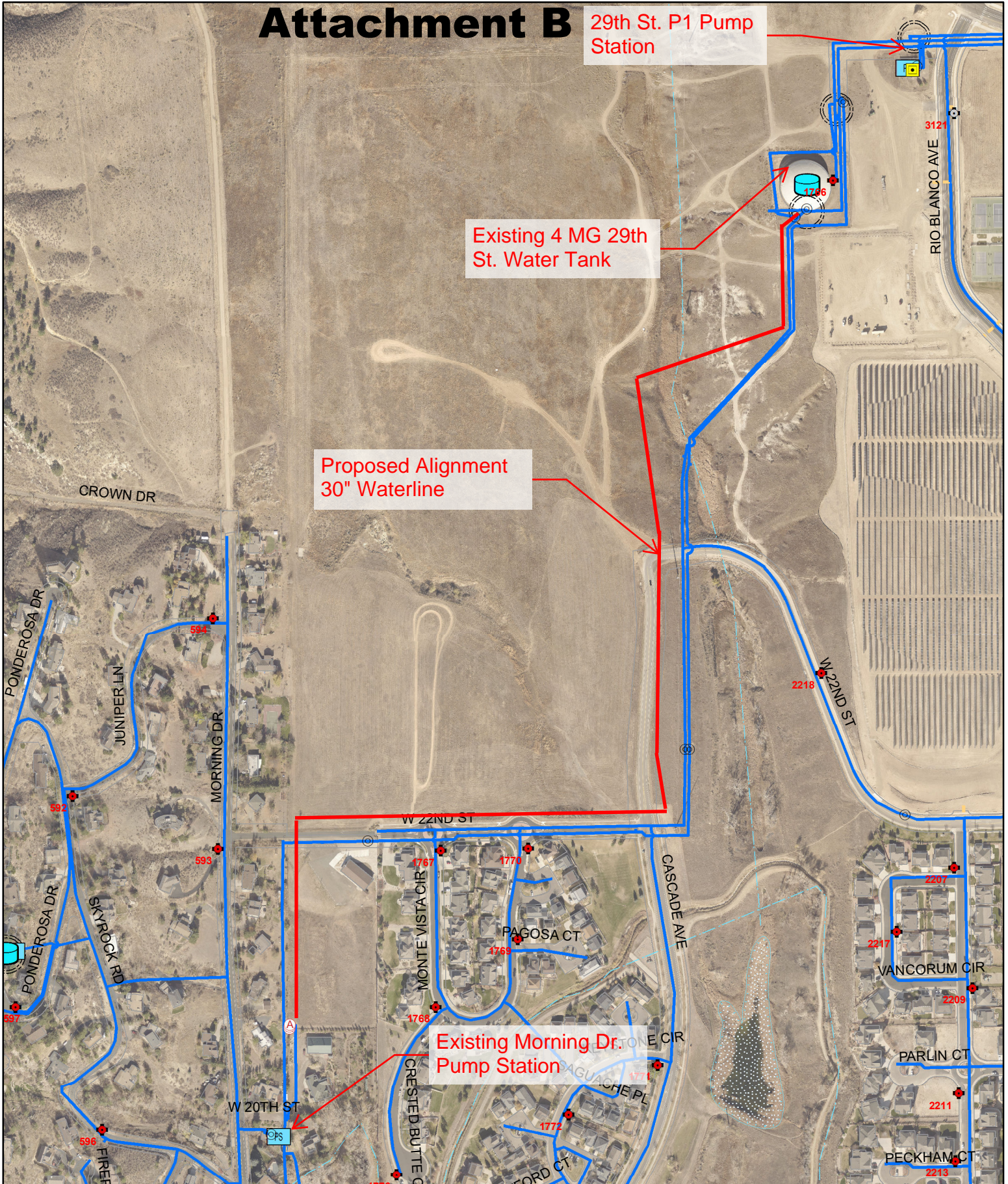
Attachment B

29th St. P1 Pump Station

Existing 4 MG 29th St. Water Tank

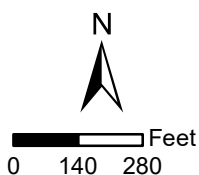
Proposed Alignment 30" Waterline

Existing Morning Dr. Pump Station



This document was prepared for internal use by the City of Loveland, CO. The city makes no claim as to the accuracy or completeness of the data contained hereon.

Due to security concerns, the city requests that you do not post this document on the internet or otherwise make it available to persons unknown to you.



City of Loveland

Department of Water & Power

75

Loveland, Colorado

Item 4 - Figure 2

Created By: gisview

Date Created: 10/9/2017

5

Attachment C

SCOPE OF WORK Amendment 2

CITY OF LOVELAND AND HDR ENGINEERING, INC.

Boyd Parallel Interceptor and Morning Drive 30" Waterline (Phase 2) Project

PROJECT BACKGROUND AND OBJECTIVES

The City's largest collection basin (Boyd) is at capacity in certain segments due to recent development and unplanned connections in the northwest part of the City. A parallel Boyd Interceptor is planned to alleviate the capacity limitations. The parallel interceptor will be approximately 24-inches in diameter and 6,300 feet long. A diversion structure will be utilized to split flow, provide operational flexibility, and assist with future maintenance.

The City utilizes a 24-inch steel pipeline to convey flow from the Morning Drive Pump Station to the 29th Street Steel Tank. This pipeline was installed in the early 1960's and is not sufficient for planned flows to the proposed developments. A parallel 30-inch diameter waterline is proposed to meet the upcoming demands. The City previously installed a segment of 30-inch pipe in 2011 however there wasn't sufficient funding to complete the project. This project will extend the previous segment of pipe to the 29th Street Tank which is approximately 4,200 feet in length. A secondary part of the project will be to install cathodic protection on the existing 24-inch line.

HDR is to provide preliminary design, final design and construction phase services for the Boyd Parallel Interceptor and Phase 2 of the Morning Drive 30" Waterline. The project will be broken into three phases: Phase I– Preliminary Design, Phase II – Final Design and Bidding, and Phase III – Construction. The following scope of work presents the services that HDR will provide. This amendment to the initial scope of work will add in the Phase III services.

PHASE I – PRELIMINARY DESIGN

See the original contract for the scope of work and required deliverables for the Phase I (Preliminary Design)

PHASE II – FINAL DESIGN

See the Amendment 1 for the scope of work and required deliverables for the Phase II (Final Design)

PHASE III – CONSTRUCTION PHASE SERVICES

Engineer shall perform services during the construction phase of the project. By performing these services, Engineer shall not have authority or responsibility to supervise, direct or control the Contractor's work or the Contractor's means, methods, techniques, sequences or procedures of construction. Engineer shall not have authority or responsibility for safety precautions and programs incident to the Contractor's work or for any failure of the Contractor to comply with

laws, regulations, rules, ordinances, codes or orders applicable to the Contractor furnishing and performing the work.

TASK SERIES 800 – BOYD CONSTRUCTION ADMINISTRATION SERVICES

Task 801 – Boyd Construction Administration and Meetings

This task includes the administrative tasks to be performed throughout the Construction Phase including:

- Attending a preconstruction conference and construction meetings on a weekly basis. Up to 36 total meetings will be attended by HDR's Project Manager and Project Engineer.
- Maintain and transmit project files to City.
- Give written notifications of observations regarding defects or deficiencies in the Contractor's work relating to compliance with contract documents.
- Prepare meeting notes and maintaining the action item log.
- Prepare monthly invoices and monitoring of the budget and schedule.

The Construction Phase is anticipated to be nine (9) months in duration. If Contractor's approach to the project requires more than 9 months completing the project, the additional work related to this task shall be considered as Additional Services.

Task 802 – Boyd Shop Drawing and O&M Review

Review drawings and other data submitted by the Contractor as required by the construction contract documents. Engineer's review shall be for general conformity to the construction contract documents and shall not relieve the Contractor of any of his contractual responsibilities. Such reviews shall not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.

Based on Engineer's experience with projects of similar size and scope, it is assumed that Contractor shall prepare 20 original shop drawing submittals with 5 requiring re-submittal. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in pre-screening manufacturer and supplier information, and the Contractor's approach to packaging shop drawings. It is understood that the exact scope of shop drawing review services is still somewhat undefined.

If the Contractor's approach to the project requires more than 25 shop drawings (20 original plus 5 re-submittals) the additional work shall be considered as Additional Services.

Task 803 – Boyd Contractor Requests for Information (RFIs)

Interpret construction contract documents when requested by the City or the Contractor. Requests for clarification or information shall be in writing and copies of Engineer's response shall be distributed to the City.

Based on Engineer's experience with projects of similar size and scope, it is assumed that Contractor will submit 10 RFIs. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in reviewing the Contract Documents, and the discovery of unexpected site conditions. It is understood that the exact scope of RFI services is still somewhat undefined. Engineer has budgeted 40 total hours to respond to RFIs. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 804 – Boyd Specialty Work Observations

This task includes 24 total hours, for on-site specialty observations and consultation services as required or requested by the City. It is understood that the actual level of effort required for these observations is dependent upon the Contractor's means and methods, expertise and diligence in executing the work. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 805 – Boyd Claim Requests and Change Order Review

Assist with claims relating to the acceptability of the work or the interpretation of the requirements of the construction contract documents and review City or Contractor requests for project changes. It is understood that the exact scope of Claim Requests and Change Order Review services is somewhat undefined. Engineer has budgeted 16 total hours for assistance with Claim or Change Order reviews. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 806 – Boyd Construction Record Drawings

Upon completion of the project, revise the construction drawings and produce a set of Construction Record Drawings. Submit an electronic copy created in a City supported version of CAD.

Task Series 800 – Deliverables

- Shop drawings and O&M's review comments (electronic)
- Construction Record Drawings (electronic)
- Weekly Meeting Notes
- Monthly Invoices

Task Series 800 – Key Assumptions

- Construction duration as stated above.
- City will contract with and pay for a materials testing agency to perform any required testing. Materials testing frequency and location will be directed by the Resident Project Representative (RPR) and coordinated with the Contractor.
- The City will serve as RPR.
- The following is a listing of the roles and responsibilities assumed of the RPR:

- Serve as liaison to Contractor by working principally with Contractor's superintendent. Assist in interpreting the construction contract documents.
- Advise Contractor immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved.
- Monitor changes in the apparent integrity of the site (such as differing subsurface and physical conditions, existing structures, and encounters with unexpected site utilities) resulting from construction-related activities.
- Investigate pertinent site conditions when Contractor maintains that differing subsurface and physical conditions have been encountered, and document actual site conditions. Provide review and analysis of Contractor claims for differing subsurface and physical conditions.
- Inspect materials, equipment, and supplies delivered to the worksite. Reject materials, equipment, and supplies which do not conform to the construction contract documents.
- Observe field tests of soils, equipment, structures, pipe and appurtenances. Review the resulting testing reports to assure conformity with the contract specifications, informing City of results as appropriate.
- Schedule and conduct coordination meetings with the Contractor.
- Review contractor pay applications and make recommendation for payment.
- Report to the City and Engineer any work which is known to be defective, or which fails any required inspections or tests. Damaged or unapproved work or materials and equipment shall be reported to the City prior to final payment. Provide ongoing review of Contractor's as-built documentation.
- Maintain a photograph file for the project and provide same to the City and Engineer upon project completion. The Photo records shall include a description with the date, time and location of the photo.
 - Maintain a daily diary or log book of events at the job site, including the following information:
 - Days the Contractor worked on the job site.
 - Contractor and subcontractor personnel on job site.
 - Construction equipment on the job site.
 - Observed delays and causes.
 - Weather conditions.
 - Data relative to claims.
 - Daily activities.
 - Observations pertaining to the progress of the work.
 - Materials received on job site.
- Maintain a marked set of drawings and specifications at the job site based on personal observations and data provided by the Contractor. Provide the drawings to the Engineer for the Construction Record Drawings.

TASK SERIES 900 – MORNING DRIVE (PHASE 2) CONSTRUCTION ADMINISTRATION SERVICES

Task 901 – Morning Drive Construction Administration and Meetings

This task includes the administrative tasks to be performed throughout the Construction Phase including:

- Attending a preconstruction conference and construction meetings on a weekly basis. Up to 16 total meetings will be attended by HDR's Project Manager and Project Engineer.
- Maintain and transmit project files to City.
- Give written notifications of observations regarding defects or deficiencies in the Contractor's work relating to compliance with contract documents.
- Prepare meeting notes and maintaining the action item log.
- Prepare monthly invoices and monitoring of the budget and schedule.

The Construction Phase is anticipated to be four (4) months in duration. If Contractor's approach to the project requires more than 4 months completing the project, the additional work related to this task shall be considered as Additional Services.

Task 902 – Morning Drive Shop Drawing and O&M Review

Review drawings and other data submitted by the Contractor as required by the construction contract documents. Engineer's review shall be for general conformity to the construction contract documents and shall not relieve the Contractor of any of his contractual responsibilities. Such reviews shall not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.

Based on Engineer's experience with projects of similar size and scope, it is assumed that Contractor shall prepare 20 original shop drawing submittals with 5 requiring re-submittal. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in pre-screening manufacturer and supplier information, and the Contractor's approach to packaging shop drawings. It is understood that the exact scope of shop drawing review services is still somewhat undefined.

If the Contractor's approach to the project requires more than 25 shop drawings (20 original plus 5 re-submittals) the additional work shall be considered as Additional Services.

Task 903 – Morning Drive Contractor Requests for Information (RFIs)

Interpret construction contract documents when requested by the City or the Contractor. Requests for clarification or information shall be in writing and copies of Engineer's response shall be distributed to the City.

Based on Engineer's experience with projects of similar size and scope, it is assumed that Contractor will submit 5 RFIs. The actual quantity is dependent upon Contractor's means and methods for executing the work, Contractor's diligence in reviewing the Contract Documents, and the discovery of unexpected site conditions. It is understood that the exact scope of RFI services is still somewhat undefined. Engineer has budgeted 20 total hours to respond to RFIs. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 904 – Morning Drive Specialty Work Observations

This task includes 40 total hours, for on-site specialty observations and consultation services as required or requested by the City. It is understood that the actual level of effort required for these observations is dependent upon the Contractor's means and methods, expertise and diligence in executing the work. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 905 – Morning Drive Claim Requests and Change Order Review

Assist with claims relating to the acceptability of the work or the interpretation of the requirements of the construction contract documents and review City or Contractor requests for project changes. It is understood that the exact scope of Claim Requests and Change Order Review services is somewhat undefined. Engineer has budgeted 8 total hours for assistance with Claim or Change Order reviews. If Engineer exhausts this budget then additional work related to this task shall be considered as Additional Services.

Task 906 – Morning Drive Construction Record Drawings

Upon completion of the project, revise the construction drawings and produce a set of Construction Record Drawings. Submit an electronic copy created in a City supported version of CAD.

Task Series 900 – Deliverables

- Shop drawings and O&M's review comments (electronic)
- Construction Record Drawings (electronic)
- Weekly Meeting Notes
- Monthly Invoices

Task Series 900 – Key Assumptions

- Construction duration as stated above.
- City will contract with and pay for a materials testing agency to perform any required testing. Materials testing frequency and location will be directed by the Resident Project Representative (RPR) and coordinated with the Contractor.
- The City will serve as RPR.
- The following is a listing of the roles and responsibilities assumed of the RPR:
 - Serve as liaison to Contractor by working principally with Contractor's superintendent. Assist in interpreting the construction contract documents.
 - Advise Contractor immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved.
 - Monitor changes in the apparent integrity of the site (such as differing subsurface and physical conditions, existing structures, and encounters with unexpected site utilities) resulting from construction-related activities.
 - Investigate pertinent site conditions when Contractor maintains that differing subsurface and physical conditions have been encountered, and document actual

- site conditions. Provide review and analysis of Contractor claims for differing subsurface and physical conditions.
- Inspect materials, equipment, and supplies delivered to the worksite. Reject materials, equipment, and supplies which do not conform to the construction contract documents.
 - Observe field tests of soils, equipment, structures, pipe and appurtenances. Review the resulting testing reports to assure conformity with the contract specifications, informing City of results as appropriate.
 - Schedule and conduct coordination meetings with the Contractor.
 - Review contractor pay applications and make recommendation for payment.
 - Report to the City and Engineer any work which is known to be defective, or which fails any required inspections or tests. Damaged or unapproved work or materials and equipment shall be reported to the City prior to final payment. Provide ongoing review of Contractor's as-built documentation.
 - Maintain a photograph file for the project and provide same to the City and Engineer upon project completion. The Photo records shall include a description with the date, time and location of the photo.
 - Maintain a daily diary or log book of events at the job site, including the following information:
 - Days the Contractor worked on the job site.
 - Contractor and subcontractor personnel on job site.
 - Construction equipment on the job site.
 - Observed delays and causes.
 - Weather conditions.
 - Data relative to claims.
 - Daily activities.
 - Observations pertaining to the progress of the work.
 - Materials received on job site.
 - Maintain a marked set of drawings and specifications at the job site based on personal observations and data provided by the Contractor. Provide the drawings to the Engineer for the Construction Record Drawings.

The changes described above result in an increase to the total contract amount of \$217,575 for a new total contract value of \$749,975.

All other provisions of the Agreement shall remain the same.

City of Loveland Boyd Interceptor Parallel and Morning Drive 30" Waterline (Phase 2) Final Design		Technical Specialist (Gossett)	Project Manager (Pool)	Interceptor Lead (Bradney)	Waterline Lead (Limke)	Staff Engineer (Khanzadeh)	CP Engineer (Smith)	CADD (Hicks)	Project Accountant	Admin Assistant	HDR Hours	HDR Labor	Printing & Supplies	Vehicle Mileage / Travel	HDR Total Expenses	HDR Fee
Hourly Billing Rate		\$ 250.00	\$ 190.00	\$ 120.00	\$ 140.00	\$ 100.00	\$ 150.00	\$ 135.00	\$ 115.00	\$ 85.00						
TASK SERIES 800 - BOYD INTERCEPTOR CONSTRUCTION PHASE SERVICES																
801	Construction Administration and Meetings		216	288					27		531	\$ 78,705		\$ 5,400	\$ 5,400	\$ 84,105
802	Shop Drawing and O&M Review		25	50		30				25	130	\$ 15,875	\$ 150		\$ 150	\$ 16,025
803	Contractor RFI's		16	24							40	\$ 5,920			\$ -	\$ 5,920
804	Specialty Work Observations	24									24	\$ 6,000			\$ -	\$ 6,000
805	Claim Requests and Change Order Review		12	4							16	\$ 2,760			\$ -	\$ 2,760
806	Construction Record Drawings		16	30				60			106	\$ 14,740	\$ 200		\$ 200	\$ 14,940
	Sub-total	24	285	396	0	30	0	60	27	25	847	\$ 124,000	\$ 350	\$ 5,400	\$ 5,750	\$ 129,750
TASK SERIES 900 - MORNING DRIVE (PHASE 2) CONSTRUCTION PHASE SERVICES																
901	Construction Administration and Meetings		96		128		8		12		244	\$ 38,740		\$ 2,400	\$ 2,400	\$ 41,140
902	Shop Drawing and O&M Review		25		75	30	8			25	163	\$ 21,575	\$ 150		\$ 150	\$ 21,725
903	Contractor RFI's		8		12						20	\$ 3,200			\$ -	\$ 3,200
904	Specialty Work Observations	16					24				40	\$ 7,600			\$ -	\$ 7,600
905	Claim Requests and Change Order Review		4		4						8	\$ 1,320			\$ -	\$ 1,320
906	Construction Record Drawings		16		30			40			86	\$ 12,640	\$ 200		\$ 200	\$ 12,840
	Sub-total	16	149	0	249	30	40	40	12	25	561	\$ 85,075	\$ 350	\$ 2,400	\$ 2,750	\$ 87,825
Hours		40	434	396	249	60	40	100	39	50	1,408	\$ 209,075				
Fee (rounded)		\$10,000	\$82,460	\$47,520	\$34,860	\$6,000	\$6,000	\$13,500	\$4,485	\$4,250		\$ 209,075	\$ 700	\$ 7,800	\$ 8,500	\$ 217,575

NOTES

1 See scope of services for fee assumptions

Boyd Total (Sewer) \$ 129,750
Morning Drive Total (Water) \$ 87,825

**ITEM TITLE:**

Raw Water 10-Year Financial Plan Update

DESCRIPTION:

The purpose of this item is to seek direction from the LUC on changes to make to the Raw Water 10-Year Financial Plan in response to a significant increase in the estimated cost of the Windy Gap Firming Project.

SUMMARY:

Staff is currently in the process of working on the 2019 Budget and 10-Year Financial Plans. For the Raw Water 10-Year Plan, updated information was received recently that makes a profound impact on the fund balance over the 10-year timeframe. The cost estimate for the Windy Gap Firming Project (WGFP), or Chimney Hollow Reservoir, that was used for developing last year's Raw Water 10-Year Plan was received about a year-and-a-half ago. That estimated total project cost was \$400 million, and based on Loveland's 10.50% share in the project (9,451 acre-feet / 90,000 total acre-feet), this meant that Loveland's total project cost was estimated at \$42 million. Taking into account projected costs through the end of 2018, this meant Loveland's share that would need to be available at the time of awarding the construction contract in 2019 was \$38.6 million. Staff was projected needing to borrow \$16.5 million in order to have the full \$38.6 million available.

At this year's February and March meetings of the participants in the WGFP, an updated estimated total project cost of \$575 million was presented. Based on Loveland's new higher 10.65% share in the project (9,587 acre-feet / 90,000 total acre-feet) due to the recently added 136 acre-feet, Loveland's total project cost is now estimated at \$61.2 million. Taking into account projected costs through the end of 2018, this means Loveland's share that would need to be available at the time of awarding the construction contract in 2019 is \$55.6 million. Staff is now projecting needing to borrow \$37.6 million in order to have the full \$55.6 million available. The increase in annual debt service payments in going from a \$16.5 million loan to a \$37.6 million loan will have a profound impact on the Raw Water fund balance from 2020 forward, with the debt service increasing from \$1.1 million per year to \$2.0 million per year. The debt service on the Colorado Water Conservation Board loan will not begin until the project reaches "substantial completion", which is projected to be 2023, so that delay will provide some temporary cost relief. In addition to the increased debt service, each participant in the joint borrowing will have to have funds set aside for what are called a Step-up Provision and a Debt Service Reserve Fund. These are funds that are reserved to be called upon in the event that one of the participants defaults on their annual debt service payment, and the Step-up and the Reserve Fund are bonding requirements. For Loveland, the amount that would be needed to satisfy both the Step-up Provision and the Debt Service Reserve Fund is \$1.8 million. So, staff is recommending that a minimum fund balance of \$2.5 million be maintained throughout the loan period.

In order to address the reduction in fund balance as a result of the higher estimated cost for the WGFP, and, therefore, higher debt service payments, there are four options available, each of which could be chosen, or some combination of the four, along with the Staff Recommendation:

- 1) Increase the amount of Water Sales transferred to the Raw Water Fund, currently at 3% of Water Sales

STAFF RECOMMENDATION: Since the needs are still great in the Water Utility for rehabilitation and replacement capital, especially of water lines, we would rather not take more funds away from Water.

2) Reduce the level of participation in the WGFP

STAFF RECOMMENDATION: Council direction is to participate up to the level of 10,000 acre-feet of storage in the Project. The City has researched other options for storage in our basin and found costs to be greater than for the Chimney Hollow Project. There is unlikely to be another storage project available to the City in the future, so staff recommends the City should move ahead with its current subscription of 9,587 acre-feet in the Project.

3) Take out the Downstream Storage Purchase

STAFF RECOMMENDATION: The current projected site is advantageously located downstream of the wastewater treatment plant, and upstream of the Hillsborough Ditch diversion, above which the City's required returns to the river must be made according to the terms of its decrees. The site is available at this time, and can be developed as needed in the future. Staff recommends proceeding with negotiation and acquisition of downstream storage.

4) Reduce the amount of C-BT purchases



STAFF RECOMMENDATION: By targeting purchases during economic downturns, more units may be acquired using available funds. A proposed budget illustrates spending on CBT water during three years out of the next ten, which keeps the fund balance in the black. Staff recommends using this approach.

Attached, you will find two versions of the Raw Water 10-Year Plan. With the first one, titled "With Original C-BT Assumptions", there are 10 years of C-BT purchases programmed in at \$500,000 per year (consistent with last year's 10-Year Plan); and with the second version, titled "With Adjusted C-BT Assumptions", only three years of C-BT purchases are programmed in at \$500,000 per year in years 2020-2022 (the City's Budget Division is projecting an economic downturn in 2020, so, we're looking at that year as a possibility for lower C-BT prices). In the version with original C-BT assumptions, the fund balance gets down to the \$1.8 million mark by 2023 and gets worse from there going forward. In the version with adjusted C-BT assumptions, the fund balance stays above \$2.8 million for the entire 10-year period. The version with adjusted C-BT assumptions is what Staff recommends. With the reduction in the Raw Water fund balance resulting from the increased cost estimate for the WGFP, something has to give, and we believe that reducing C-BT purchases has the least amount of downside of the four options.

RECOMMENDATION:

Give direction to Staff to develop the 2019 Raw Water 10-Year Financial Plan with C-BT purchases only built in for 2020-2022 at \$500,000 per year, in order to address the reduction in fund balance caused by higher debt service payments as a result of the increased estimated cost for the Windy Gap Firming Project.

ATTACHMENTS:

-  Attachment A: Raw Water 10-Year Financial Plan With Original C-BT Assumptions
-  Attachment B: Raw Water 10-Year Financial Plan With Revised C-BT Assumptions

Attachment A

LOVELAND WATER AND POWER
RAW WATER FUNDING
FINANCIAL FORECAST
2019-2028

With Original CBT Assumptions

			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	A	% of Water Sales Transferred to Raw Water Fund
			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	B	Future Raw Water Prj's % growth/year
			2.00%	2.50%	3.00%	3.25%	3.50%	3.75%	3.75%	3.75%	3.75%	3.75%	C	Interest on Investments
			0.00%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	D	Inflation Rate on Water & Wastewater Specific Projects
			1.99%	0.00%	1.60%	2.10%	2.10%	2.10%	1.70%	1.70%	1.70%	1.70%	E	Growth from New Development
			9.00%	8.00%	8.00%	8.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	F	Water Sales Rate Increase
			-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	G	Usage Increase / (Decrease) Per Customer
			7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	H	Payment in Lieu of Taxes (PILT)
			0.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	I	General Inflation Rate

	Final 2017	Budget 2018	Forecast 2018	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	A	B	C	D	E	F	G	H	I
1 BEGINNING BALANCE	\$21,360,637	\$25,517,761	\$25,517,761	\$21,558,514	\$4,515,594	\$3,772,721	\$3,183,348	\$2,667,043	\$1,858,291	\$1,079,380	\$320,280	(\$416,448)	(\$1,112,452)									
2 Hi-Use Surcharge	\$138,206	\$74,667	\$74,667	\$73,118	\$73,120	\$74,290	\$75,850	\$77,440	\$79,070	\$80,410	\$81,780	\$83,170	\$84,580					Y				
3 Raw Water Devlpmt Fees/Cap Rec Srchg	362,217	513,926	462,533	484,188	363,141	368,951	400,699	409,114	417,705	424,806	432,028	439,372	446,842					Y				
4 Cash-in-Lieu	120,972	527,084	210,834	227,167	227,170	230,800	235,650	240,600	245,650	249,830	254,080	258,400	262,790					Y				
5 Native Raw Water Storage Fees Received	489,608	31,598	31,598	196,876	196,880	200,030	204,230	208,520	212,900	216,520	220,200	223,940	227,750					Y				
6 Transfer from General Funds	3,078	1,026	1,026	1,026	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030									
7 Revenue Transfer from Water Rates	445,202	491,220	491,220	491,220	528,060	576,120	631,420	663,620	697,470	730,250	764,570	800,510	838,130									
8 Water Loan Payments Received	4,161,687	32,500	0	0	0	0	0	0	0	0	0	0	0									
9 Interest on Investments	223,485	351,950	175,975	215,585	112,890	113,180	103,460	93,350	69,690	40,480	12,010	0	0			Y						
10 External Loan Received - Joint Financing	0	0	0	27,880,000	0	0	0	0	0	0	0	0	0									
11 External Loan Received - CWCB	0	0	0	9,680,000	0	0	0	0	0	0	0	0	0									
12 Total Revenues	\$5,944,456	\$2,023,971	\$1,447,853	\$39,249,180	\$1,502,291	\$1,564,401	\$1,652,339	\$1,693,674	\$1,723,515	\$1,743,326	\$1,765,698	\$1,806,422	\$1,861,122									
13 Operating Expenses																						
14 Windy Gap Annual Administration Fee	7,044	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100									
15 External Loan Payment - Joint Financing	0	0	\$0	0	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054									
16 External Loan Payment - CWCB	0	0	\$0	0	0	0	0	500,272	500,272	500,272	500,272	500,272	500,272									
17 TOTAL OPERATING EXPENSES (excl depn)	\$7,044	\$7,100	\$7,100	\$7,100	\$1,502,154	\$1,502,154	\$1,502,154	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426									
18 NET OPERATING REVENUE/(LOSS) (excl depn)	\$5,937,412	\$2,016,871	\$1,440,753	\$39,242,080	\$137	\$62,247	\$150,185	(\$308,752)	(\$278,911)	(\$259,100)	(\$236,728)	(\$196,004)	(\$141,304)									
19 FOOTNOTE: Depreciation Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0									
20 Capital Expenditures																						
21 Windy Gap Firming (W038AA)	(1,260,713)	(1,500,000)	(1,500,000)	(55,560,000)	0	0	0	0	0	0	0	0	0				Y					
22 Future Water Court Transfer Actions	0	(100,000)	(100,000)	(100,000)	(105,200)	0	0	0	0	0	0	0	0				Y					
23 Purchase CBT Water	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)				Y					
24 Downstream Storage	(19,575)	(3,300,000)	(3,300,000)	0	0	0	0	0	0	0	0	0	0				Y					
25 Downstream Storage - Armoring	0	0	0	(125,000)	(137,810)	(151,620)	(166,490)	0	0	0	0	0	0									
26 Downstream Storage - Phase 2 Design/SDC	0	0	0	0	0	0	0	0	0	0	0	0	0				Y					
27 Downstream Storage - Phase 3 Construction	0	0	0	0	0	0	0	0	0	0	0	0	0									
28 Total Capital Expenditures	(\$1,780,288)	(\$5,400,000)	(\$5,400,000)	(\$56,285,000)	(\$743,010)	(\$651,620)	(\$666,490)	(\$500,000)	(\$500,000)	(\$500,000)	(\$500,000)	(\$500,000)	(\$500,000)									
29 Ending Balance Raw Water	\$25,517,761	\$22,134,632	\$21,558,514	\$4,515,594	\$3,772,721	\$3,183,348	\$2,667,043	\$1,858,291	\$1,079,380	\$320,280	(\$416,448)	(\$1,112,452)	(\$1,753,756)									

Attachment B

LOVELAND WATER AND POWER
RAW WATER FUNDING
FINANCIAL FORECAST
2019-2028

With Adjusted CBT Assumptions

			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	A	% of Water Sales Transferred to Raw Water Fund
			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	B	Future Raw Water Prj's % growth/year
			2.00%	2.50%	3.00%	3.25%	3.50%	3.75%	3.75%	3.75%	3.75%	3.75%	C	Interest on Investments
			0.00%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	D	Inflation Rate on Water & Wastewater Specific Projects
			1.99%	0.00%	1.60%	2.10%	2.10%	2.10%	1.70%	1.70%	1.70%	1.70%	E	Growth from New Development
			9.00%	8.00%	8.00%	8.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	F	Water Sales Rate Increase
			-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	G	Usage Increase / (Decrease) Per Customer
			7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	H	Payment in Lieu of Taxes (PILT)
			0.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	I	General Inflation Rate

	Final 2017	Budget 2018	Forecast 2018	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	A	B	C	D	E	F	G	H	I
1 BEGINNING BALANCE	\$20,860,637	\$25,517,761	\$25,517,761	\$22,058,514	\$5,520,594	\$4,802,841	\$4,244,378	\$3,762,553	\$3,492,141	\$3,274,500	\$3,097,710	\$2,965,132	\$2,880,318									
2 Hi-Use Surcharge	\$138,206	\$74,667	\$74,667	\$73,118	\$73,120	\$74,290	\$75,850	\$77,440	\$79,070	\$80,410	\$81,780	\$83,170	\$84,580					Y				
3 Raw Water Devlpmt Fees/Cap Rec Srchg	362,217	513,926	462,533	484,188	363,141	368,951	400,699	409,114	417,705	424,806	432,028	439,372	446,842					Y				
4 Cash-in-Lieu	120,972	527,084	210,834	227,167	227,170	230,800	235,650	240,600	245,650	249,830	254,080	258,400	262,790					Y				
5 Native Raw Water Storage Fees Received	489,608	31,598	31,598	196,876	196,880	200,030	204,230	208,520	212,900	216,520	220,200	223,940	227,750					Y				
6 Transfer from General Funds	3,078	1,026	1,026	1,026	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030									
7 Revenue Transfer from Water Rates	445,202	491,220	491,220	491,220	528,060	576,120	631,420	663,620	697,470	730,250	764,570	800,510	838,130									
8 Water Loan Payments Received	4,161,687	32,500	0	0	0	0	0	0	0	0	0	0	0									
9 Interest on Investments	223,485	351,950	175,975	220,585	138,010	144,090	137,940	131,690	130,960	122,790	116,160	111,190	108,010			Y						
10 External Loan Received - Joint Financing	0	0	0	27,880,000	0	0	0	0	0	0	0	0	0									
11 External Loan Received - CWCB	0	0	0	9,680,000	0	0	0	0	0	0	0	0	0									
12 Total Revenues	\$5,944,456	\$2,023,971	\$1,447,853	\$39,254,180	\$1,527,411	\$1,595,311	\$1,686,819	\$1,732,014	\$1,784,785	\$1,825,636	\$1,869,848	\$1,917,612	\$1,969,132									
13 Operating Expenses																						
14 Windy Gap Annual Administration Fee	7,044	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100									
15 External Loan Payment - Joint Financing	0	0	\$0	0	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054	1,495,054									
16 External Loan Payment - CWCB	0	0	\$0	0	0	0	0	500,272	500,272	500,272	500,272	500,272	500,272									
17 TOTAL OPERATING EXPENSES (excl depn)	\$7,044	\$7,100	\$7,100	\$7,100	\$1,502,154	\$1,502,154	\$1,502,154	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426	\$2,002,426									
18 NET OPERATING REVENUE/(LOSS) (excl depn)	\$5,937,412	\$2,016,871	\$1,440,753	\$39,247,080	\$25,257	\$93,157	\$184,665	(\$270,412)	(\$217,641)	(\$176,790)	(\$132,578)	(\$84,814)	(\$33,294)									
19 FOOTNOTE: Depreciation Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0									
20 Capital Expenditures																						
21 Windy Gap Firming (W038AA)	(1,260,713)	(1,500,000)	(1,500,000)	(55,560,000)	0	0	0	0	0	0	0	0	0				Y					
22 Future Water Court Transfer Actions	0	(100,000)	(100,000)	(100,000)	(105,200)	0	0	0	0	0	0	0	0				Y					
23 Purchase CBT Water	0	(500,000)	0	0	(500,000)	(500,000)	(500,000)	0	0	0	0	0	0				Y					
24 Downstream Storage	(19,575)	(3,300,000)	(3,300,000)	0	0	0	0	0	0	0	0	0	0				Y					
25 Downstream Storage - Armoring	0	0	0	(125,000)	(137,810)	(151,620)	(166,490)	0	0	0	0	0	0									
26 Downstream Storage - Phase 2 Design/SDC	0	0	0	0	0	0	0	0	0	0	0	0	0				Y					
27 Downstream Storage - Phase 3 Construction	0	0	0	0	0	0	0	0	0	0	0	0	0									
28 Total Capital Expenditures	(\$1,280,288)	(\$5,400,000)	(\$4,900,000)	(\$55,785,000)	(\$743,010)	(\$651,620)	(\$666,490)	\$0	\$0	\$0	\$0	\$0	\$0									
29 Ending Balance Raw Water	\$25,517,761	\$22,134,632	\$22,058,514	\$5,520,594	\$4,802,841	\$4,244,378	\$3,762,553	\$3,492,141	\$3,274,500	\$3,097,710	\$2,965,132	\$2,880,318	\$2,847,024									

**ITEM TITLE:**

2017 Efficiency Works Program Results & Third Party Evaluation Results – Adam Perry, Platte River Power Authority

DESCRIPTION:

Platte River Power Authority staff will present Loveland's 2017 energy efficiency (aka Efficiency Works) program results and the findings of their third party evaluation of energy efficiency programs.

SUMMARY:

The purpose of this presentation is to provide LUC with an update on the results of energy efficiency program activities in Loveland during 2017 and to provide an overview of an independent evaluation of energy efficiency programs that was completed during 2017 for program years 2014 through 2016. The executive summary of the evaluator's report is included as an attachment, and the entire report (which is approximately 350 pages) is available in electronic or print form upon request.

RECOMMENDATION:

Information item only. No action required.

ATTACHMENTS:

Attachment A: Research Into Action's Executive Summary

Energy Efficiency Programs Evaluation

Executive Summary of the Final Report

December 21, 2017



Prepared by



2500 30th Street, Suite 207
Boulder, CO 80302
www.apexanalyticsllc.com



3934 NE Martin Luther King Jr. Blvd., Suite
300
Portland, Oregon 97212
www.researchintoaction.com



1845 Tyler Ave
Louisville, Colorado 80027
www.mesapointenergy.com

Final Report

Energy Efficiency Programs Evaluation

December 21, 2017

Prepared By:
Research Into Action, Inc.
Apex Analytics, LLC
Mesa Point Energy



www.researchintoaction.com

PO Box 12312
Portland, OR 97212

3934 NE Martin Luther King Jr. Blvd., Suite 300
Portland, OR 97212

Phone: 503.287.9136
Fax: 503.281.7375

Contact:
Jane S. Peters, President
Jane.Peters@researchintoaction.com

Executive Summary

The Platte River Power Authority (Platte River), working with Fort Collins Utilities (Utilities), tasked Research Into Action and its partners, Apex Analytics and Mesa Point Energy, with evaluating their residential and commercial energy efficiency programs. The evaluation focused on the programs Platte River and Utilities identified as high-priority for 2017 research in initial discussions. These programs include:

- › The components of the Efficiency Works Homes program (audit, direct install, rebates)
- › Midstream lighting
- › The components of the Efficiency Works Business program (audits, rebates, and Building Tune-Up).

Platte River administers the evaluated programs in all four of its owner municipalities: Estes Park, Fort Collins, Longmont, and Loveland. This study aggregates data from the four cities to present findings for Platte River as a whole. Because the study was conducted in partnership with Fort Collins Utilities, the body of the report presents findings for the City of Fort Collins alone, as well as aggregate findings for the four Platte River cities, including Fort Collins.

The evaluation focused on program years 2014, 2015 and 2016. Over the three-year period, the evaluated programs, combined, accounted for 100% of Platte River's reported gross electric savings and 98% of program spending (including both incentives and administrative costs).

Below, we present key findings from the impact and process evaluations, along with conclusions and recommendations, organized by program.

Programs Evaluated

A brief description of each evaluated program is below, the body of the report presents detailed evaluation findings for each program, and each program-focused chapter begins with a more detailed description.

- › **Efficiency Works Business** seeks to increase energy efficiency in commercial buildings. The program incorporates three elements: ASHRAE Level 1 audits to help customers identify energy efficiency opportunities, incentives to reduce the cost of efficient equipment or improvements, and retro-commissioning through the Building Tune-Up offering.
- › **Efficiency Works Homes** focuses on household energy savings while also supporting improved indoor air quality. The program provides home efficiency audits to identify and prioritize energy efficiency improvements, in which the auditor may also install lighting products and small domestic hot water devices (showerheads and aerators).¹ The program offers rebates for 23

¹ Prior to 2017, all participants in Efficiency Works for Homes were required to have a home efficiency audit. In 2017, the program dropped this requirement for participants interested in replacing HVAC equipment only.

individual home improvements involving the building envelope and mechanical systems. In 2015, the program began experimenting with a streamline delivery path, designed to simplify the decision-making and upgrade process for participants using standardized pricing and grouping measures into packages.

- › **Midstream Retail Lighting** works with lighting retailers and manufacturers to increase consumer adoption of efficient lighting by offering general advertising, in-store signage, sales associate training, and instant customer incentives through price markdowns on qualified lighting products.

Evaluation Objectives

Platte River Power Authority, in partnership with Fort Collins Utilities, conducted this evaluation to independently verify program outcomes and identify opportunities for program improvement. To this end, the process and impact evaluations addressed certain common research questions for all programs. **Table ES-1** lists these questions.

Table ES-1: Research Objectives to Be Addressed Across Programs

Evaluation Type	Common Research Questions
Impact	<p>How much savings (kWh, kW, therms, water, etc.) has the program generated (gross savings)? How much of those savings are attributable to the program (net savings)?</p> <p>How do the program's costs compare to its savings? Provide the information to report cost effectiveness from various perspectives and the relative impact of each program on the portfolio cost effectiveness.</p> <p>What assumptions and methods does the program use to estimate energy savings, and how could they be improved to increase the accuracy of those estimates?</p>
Process	<p>What value, including non-energy benefits, do customers find in the program? How satisfied are customers with the program? Does participation influence customer satisfaction with Fort Collins Utilities or other Platte River Power Authority utility clients?</p> <p>What motivates customers and/or trade allies to participate in the program?</p> <p>What barriers prevent additional customers and/or trade allies from participating in the program?</p> <p>What opportunities exist to streamline program processes (both internal and customer-facing)?</p>

In addition to these common research questions, through conversations with Platte River and Utilities staff, the evaluation team identified a variety of specific research questions that expanded on these topics and tailored them to the needs of the individual programs. These detailed research objectives are listed in Section **Error! Reference source not found.** and in the chapters presenting detailed, program-level findings in the body of the report.

Research Approach

Six key evaluation activities inform the findings presented in this report:

- › **Surveys:** The evaluation team surveyed:
 - 272 residents of the Platte River owner municipalities that participated in Efficiency Works Homes (a 20% response rate)
 - 90 businesses and organizations in the Platte River owner municipalities that participated in the Efficiency Works Business program (a 14% response rate)
 - 953 residents of the Platte River owner municipalities that had not recently participated in Efficiency Works Homes (a 9% response rate)
- › **In-depth interviews:** The evaluation team conducted in-depth interviews with 28 market actors involved in delivery of the evaluated programs, including auditors, installation contractors, lighting retailers, and lighting manufacturers.
- › **Database review:** For each evaluated program, the evaluation team reviewed program tracking data to ensure the program was tracking the fields necessary to evaluate energy savings and to identify inconsistent or missing data.
- › **Project file review:** For a representative sample of projects, the evaluation team reviewed supplemental information to the program tracking data to assess the savings calculations.
- › **Engineering review:** The evaluation team reviewed the engineering calculations and assumptions used to estimate energy savings for each of the evaluated programs and identify opportunities to bring assumptions in-line with industry best practice.
- › **Site visits:** The evaluation team visited 20 of the sampled project sites to confirm that measures had been installed as described in the program tracking database and project documentation.

Both in selecting projects for detailed evaluation review and in conducting surveys with program participants and non-participants, the evaluation team drew sufficient samples to provide estimates at 90% confidence with 10% precision across the four Platte River owner municipalities.

Definitions

This report uses the following terms:

- › **Ex ante gross savings:** Savings values reported by the program implementer, calculated using engineering or deemed methods (on a measure, project, or program level). Values reflect all installations through the program, without consideration of program influence.
- › **Ex post gross savings:** The gross savings values calculated by the evaluator based on evaluation findings, also called verified savings.
- › **Ex ante net savings:** Savings values reported by the program implementer, adjusted to consider the influence of the program on the installation (program attribution).

- › Ex post net savings: Verified gross savings adjusted to account for program attribution.
- › Realization rate: The ratio of ex post savings to ex ante savings ($RR = \text{Ex Post} / \text{Ex Ante}$). Typically calculated on gross savings values but can also be calculated from net savings. A realization rate greater than one indicates verified savings were greater than reported savings, while a value lower than one indicates verified savings were less than reported.
- › Net-to-gross: The net to gross ratio is the adjustment made to gross savings to account for program attribution. Two components, free ridership and spillover, determine the net to gross ratio, which is calculated as $NTG = 1 - \text{Free Ridership} + \text{Spillover}$.²
 - Free ridership represents projects that would have occurred without change in the absence of the program.
 - Spillover represents energy saving actions or measure installations influenced by the program that do not receive direct program incentives.

Results

This section summarizes findings from the impact and process evaluations. It begins with findings on program impacts at the portfolio and program levels, followed by key findings and conclusions and recommendations specific to each program, drawing on both impact and process evaluation activities.

Impact Evaluation

The verified annual electric kWh savings for the combined 2014-2016 program years were higher than the reported results for the portfolio. The verified residential portfolio returned 118% and commercial returned 103% of the gross reported annual electric savings. The three-year total annual electric kWh savings for the portfolio was over 65 million kWh, with the evaluated residential program impacts representing 17 percent and commercial 83 percent of the verified gross kWh savings. The sector and overall portfolio ex ante claimed and ex post verified gross savings are shown in **Table ES-2** below.

Table ES-2: Platte River 2014-2016 Gross Impacts

	Ex Ante Gross kWh savings	Ex Post Gross kWh savings	Gross kWh realization rate
Residential Portfolio	9,274,522	10,939,151	118%
Commercial Portfolio	53,189,153	54,537,080	103%
Overall Portfolio	62,463,675	65,476,231	105%

² A third component, market effects, is included in some net to gross calculations to account for changes in the marketplace for energy efficient devices resulting from the programs. Estimating market effects can be complex and resource-intensive, and this evaluation uses only free ridership and spillover in determining net savings values.

The net impact evaluation also returned verified realization rates that were higher than reported ex ante net annual electric energy savings. The verified annual electric kWh net savings across 2014-2016 program years were higher than reported results for the portfolio, with realization rates of 120% for the residential and 110% for the commercial portfolio. The three-year total annual electric kWh net savings for the portfolio was over 55 million kWh, with the evaluated residential program impacts representing 15% and commercial 85% of the verified net kWh savings. The sector and overall portfolio ex ante claimed and ex post verified net savings are shown in **Table ES-3** below.

Table ES-3: Platte River 2014-2016 Net Impacts

	Ex Ante Net kWh savings	Ex Post Net kWh savings	Net kWh realization rate
Residential Portfolio	6,839,302	8,175,324	120%
Commercial Portfolio	42,694,860	47,116,568	110%
Overall Portfolio Programs	49,534,162	55,291,892	112%

The evaluation team estimated the cost-effectiveness of the 2014-2016 programs using the leading cost effectiveness modeling tool, Integral Analytics “DSMore.” The focus of the cost-effectiveness testing was based on following three different cost-effectiveness perspectives, or tests (as defined by the California Standard Practice Manual):

- › Utility Cost Test (UCT)
- › Modified Total Resource Cost (TRC) test
- › Participant Cost Test (PCT)

A more detailed discussion of these tests and the cost-effectiveness analysis is included in Appendix A. The 2014-2016 residential programs portfolio was only cost effective (with benefits exceeding costs, or test ratio greater than or equal to 1.0) based on the participant cost test (PCT). The residential evaluated findings resulted in Utility Cost Test (UCT), Total Resource Cost (TRC), and Participant Cost Test (PCT) cost-effective ratios of 0.60, 0.47, and 2.08, respectively (**Table ES-4**). The 2014-2016 commercial programs portfolio were cost effective across all three perspectives. The evaluated commercial findings resulted in UCT, TRC, and PCT cost-effective ratios of 1.21, 1.49, and 5.36, respectively. Though it is complicated to compare cost effectiveness results across program administrators (due to different avoided cost assumptions, and accounting for and inclusion of both non-energy costs and benefits), the cost-effectiveness of the Platte River programs are lower than other jurisdictions the evaluation team has reviewed, primarily driven by the low avoided costs of \$32/MWH.

Table ES-4: Platte River 2014-2016 Portfolio Cost-Effectiveness Results

	UCT	TRC	PCT
Residential Portfolio	0.60	0.47	2.08
Commercial Portfolio	1.21	1.49	5.36
Overall Portfolio Programs	1.06	1.12	4.16

A review of the more granular program-level results shows that while the portfolio realization rates were close to the originally claimed (ex ante) values, individual program performance varied. The gross annual electric verified realization rates ranged from 93% for the Efficiency Works Homes Program to 121% for the Midstream Lighting Program. The Commercial Rebates component of the Efficiency Works Business program showed consistent verified savings, which was the primary driver of the 103% commercial gross realization rates, since it accounted for 97% of the Efficiency Works Business Program savings.

Table ES-5: Platte River Program-Level 2014-2016 Gross kWh Impacts

	Ex Ante Gross kWh savings	Ex Post Gross kWh savings	Gross kWh realization rate
Midstream Lighting	8,157,437	9,901,503	121%
Efficiency Works Homes	1,117,085	1,037,648	93%
Efficiency Works Business Rebates	50,810,668	52,316,731	103%
Efficiency Works Business BTU	2,378,485	2,220,349	93%
Overall Portfolio Gross Savings	62,463,675	65,476,231	105%

Table ES-6: Platte River Program-Level 2014-2016 Net kWh Impacts

	Ex Ante kWh savings	Ex Post kWh savings	kWh realization rate
Midstream Lighting	5,465,483	6,634,007	121%
Efficiency Works Homes	1,373,819	1,541,317	112%
Efficiency Works Business Rebates	40,839,641	45,149,339	111%
Efficiency Works Business BTU	1,855,218	1,967,229	106%
Overall Portfolio Gross Savings	49,534,162	55,291,892	112%

A review of the cost effectiveness at the program-level shows a greater divergence between programs than was the case for savings impacts. This is attributable to the inclusion of delivery and incentive costs and how cost-effectiveness is calculated. The Midstream Lighting program, which represented the majority (81%) of residential net electric kWh savings, did not have sufficient impact on the cost effectiveness of the residential portfolio to make the portfolio cost effective from the UCT and TRC

perspective. The Efficiency Works Homes program, which represented 19% of net verified annual electric savings, received the lowest cost effectiveness score among residential programs. The 2014-2016 Rebate component of the Efficiency Works Business Program was highly cost-effective, while the BTU component of the Efficiency Works Business was the lowest performing program of the portfolio. This likely reflects the higher cost of delivering these complex and customized projects. In total, the commercial portfolio generated just over \$2.5 million dollars in net UCT lifetime benefits less costs. Portfolio-wide, the 2014-2016 programs generated slightly under \$2 million in TRC benefits.

Table ES-7: Summary of 2014-2016 Program Level Cost-Effectiveness

	UCT	TRC	PCT
Midstream Lighting	2.43	1.01	3.52
Efficiency Works Homes	0.20	0.25	1.12
Commercial Rebates	1.26	1.58	5.75
Commercial BTU	0.22	0.18	0.89
Overall Portfolio Programs	1.06	1.12	4.16

Program Highlights and Recommendations

This section presents specific findings from the impact and process evaluations of each program.

Efficiency Works Business

The Efficiency Works Business program seeks to increase energy efficiency in existing commercial buildings. Customer engagement in the Efficiency Works Business program is heavily driven by a trade ally network, where many local trade allies build their business models around the incentive program offered through Efficiency Works.

Key Findings

- › **Overall, program savings as reported by the implementer are reliable and accurate, resulting in realization rates generally at or above one.** Interactions throughout the evaluation process indicate that program staff are dedicated and work hard to help ensure the program meets best practices.
- › **The program largely calculates reported savings values accurately in accordance with industry norms. For some projects, documentation of savings could be stronger.** In some cases, documentation and verification activities, especially for larger projects, more complex projects, custom projects, or measures with less certain savings, did not provide sufficient certainty that installation and operation occurred as anticipated. Program staff reported they have recently taken, and plan additional, steps to increase the consistency of documentation in the future.

- › **Program savings algorithms and deemed savings values are generally within industry norms but could be better organized and archived in one location to ensure proper savings calculations are being used.**
- › **Evaluation findings validate the program's assumed net-to-gross ratio.** The evaluation estimated a NTG ratio for Efficiency Works Business rebates of 0.863, an estimate very close to the value of 0.856 the program had used previously. This net-to-gross ratio reflects a free ridership rate of 26% based on participant survey data and an assumed spillover value of 12.7%, based on an in-depth analysis of commercial rebate program spillover the evaluation team conducted in another jurisdiction.
- › **Efficiency Works Business is largely trade ally driven.** The most common way participants found their contractor for the Efficiency Works project is through an existing relationship. At the same time, contractors reported most of their jobs come to them through prior customers or customer referrals. Those contractors who perform marketing (5 of 8) use energy efficiency as a primary message.
- › **A minority of participating businesses received an audit through the program.** Program documentation indicates 24% of participating businesses received an audit and contractors reported that even fewer of their rebated projects have had audits. Those participants that do receive audits are motivated to learn how they can save on their energy bills, reduce energy waste, corroborate what a contractor promised, or help the environment.
- › **The program has been influential in accelerating energy conservation among participating businesses.** Sixty-four percent of surveyed businesses reported purchasing and installing additional energy efficient equipment because of their experience with Efficiency Works. Almost two-thirds of those businesses (62%) rated their experience with Efficiency Works as very or extremely important on their decision to buy and install the additional energy efficiency items. Of the businesses that installed additional upgrades, roughly half applied for rebates.

Conclusions and Recommendations

Conclusion 1: Platte River is currently working to improve project file management, an effort that evaluation findings suggest will be beneficial in ensuring that the program's project files and data tracking systems are complete and uniform. In particular, the program administrators are currently working to provide complete project file management, including centrally tracking data on assessments and more consistently documenting QA inspections of completed projects.

Recommendation 1: Continue efforts to increase the detail and consistency of information tracked in the program database and collected in project files, including assessment and QA inspection data. Enhanced documentation and verification activities are particularly important for custom projects or other projects for which reliable savings values are not easily estimated.

Recommendation 2: Improve tracking and documentation of deemed savings values and sources of savings assumptions, regularly update this documentation as deemed values change and new technologies and offerings enter the program.

Conclusion 2: The program has not been capturing interactive energy savings for projects that impact the temperature in conditioned space, reducing the need for air conditioning or increasing the need for heating, and thus may not be claiming all of the energy savings resulting from Efficiency Works projects.

Recommendation 3: Include interactive savings resulting from reduced need for air conditioning or increased need for heating in estimates of energy savings for projects that reduce the use of energy in air-conditioned spaces.

Conclusion 3: Larger building rehabilitation and remodeling projects may present an opportunity for energy efficiency improvements that Efficiency Works for Business is not currently taking advantage of.

Recommendation 3: Identify and engage with contractors and other actors involved in planning and conducting remodeling projects in commercial buildings. Based on discussion with these market actors, Efficiency Works staff should consider how, if at all, they might modify the program to more effectively leverage existing remodeling projects.

Building Tune-Up

The Building Tune-Up (BTU) component of the Efficiency Works Business program provides retro-commissioning services through program-qualified Retro-commissioning Service Providers (RSPs). Retro-commissioning seeks to assist with equipment and system functionality and optimize integrated operation to reduce energy waste and improve building performance and occupant comfort. This program provides customers with expert building analysis and prescriptive services at a discount to help lower customers' energy and water costs. The BTU program utilizes the facility assessment component of Efficiency Works as a marketing and outreach channel for capturing customers; essentially a screening process to find invested and dedicated businesses. Additionally, the RSPs frequently bring projects into the program.

The BTU evaluation focused on verifying program savings and assumptions, as well as identifying opportunities to streamline program processes and overcome barriers to greater participation.

Key Findings

- › **Building operators at the visited sites had a very positive view of the program and the assistance they received.** Interviewed participants expressed similarly high levels of satisfaction with all elements of the program, including finding a contractor, the presentation of findings, retro-commissioning outcomes, and cost-sharing requirements.
- › **The evaluation noted incomplete documentation, uncertainties in project details, or inconsistencies between analysis results and reported savings.**
- › **Some of the sites did not implement or maintain all of the measures, and this was the primary driver of a realization rate lower than one.**
- › **The BTU program is complex, and this complexity may contribute to the BTU program's greater costs per unit of saved energy than the rebate component of Efficiency Works Business.**

- › **A lack of understanding of the value of retro-commissioning among business owners may prevent greater uptake of BTU.** This was according to participants, auditors, and retro-commissioning service providers.
- › **The level of documentation trade allies are required to provide to become an RSP and the low volume of retro-commissioning referrals through Building Tune-Up has frustrated some trade allies.**

Conclusions and Recommendations

Conclusion 1: The files for some BTU projects were not complete and providers used calculation tools and methodologies inconsistently.

Recommendation 1: Program staff should strive to provide consistent and clearly documented retro-commissioning measures and savings estimates.

Conclusion 2: A lack of awareness of the availability and benefits of retro-commissioning services are a barrier to greater uptake of BTU, but raising awareness will require a targeted approach.

Recommendation 2: Efficiency Works should investigate targeted approaches to raising awareness of retro-commissioning among those businesses with the greatest potential to benefit.

Conclusion 3: The BTU program includes some unnecessary complexity. Approaches and documentation have limited consistency across projects due to third-party control, and some analysis activities may not directly contribute to savings realization.

Recommendation 3: To reduce cost and increase cost effectiveness, program implementers should develop and implement program design changes to streamline the program administration, investigation, and implementation phases of the program.

Conclusion 4: There is a disconnect between RSP expectations upon entering the program and the actual volume of BTU projects available for RSPs.

Recommendation 4: Efficiency Works staff should review the role they expect RSPs to play in recruiting BTU projects, ensure that role is clearly communicated to RSPs and contractors considering becoming RSPs, and provide RSPs with resources to support their role.

Recommendation 5: Efficiency Works staff should consider whether there is sufficient potential in the retro-commissioning market to support the number of RSPs currently registered with the program.

Efficiency Works for Homes

The Efficiency Works for Homes program, which Fort Collins Utilities has offered since 2010, seeks to increase the energy efficiency and increase the indoor air quality, comfort, and safety of existing homes.

Key Findings

- › **The evaluation found a moderate level of free-ridership: 24% (64 of 268) of participants indicated they would have performed the home's retrofits in absence of the program.** Calculating the individual free-ridership and weighting across all participants by savings, leads to a 79% NTG ratio absent any spillover. This result was the same between audit-only direct install participants and that of prescriptive retrofit installations.
- › **Efficiency Works Homes participants indicated a strong degree of spillover:** 37% (98 of 268) participants indicated making additional efficient improvements to their homes outside of the program, and, of these 98 participants, 44% believed the program had an extremely or very strong influence on their decision, while another 31% believed the program had a somewhat important influence on their decision.
- › **The streamline path simplifies the decision-making process for participants, leading to greater uptake of measures, but contractors are dissatisfied with its current design.** Streamline path participants were more likely than standard path participants to be aware of available financing options and to report a clear understanding of next steps following the audit. At the same time, they were less likely to report that making the upgrades would require a great deal of effort. Contractors, however, expressed dissatisfaction with the administrative work required, the standardized pricing, and executing a scope of work they had not developed. None of the interviewed contractors wanted the number of streamline path projects they complete to increase.
- › **Difficulty accessing data increased the resources required to complete this evaluation and limited its ability to verify savings assumptions.** The process of extracting assessment files from the program's Salesforce database was resource intensive for the implementer, and extracting data from those files, in turn, was labor intensive for the evaluation team. The assessment files did not consistently and uniformly provide data on baseline conditions.

Conclusions and Recommendations

Conclusion 1: The streamline path eases the upgrade process for participants, increasing the likelihood they will install rebated measures, but, to be sustainable, it must more effectively work with contractors.

Recommendation 1: Investigate ways to increase contractor involvement in developing streamline path scopes of work and provide greater flexibility in standardized pricing while maintaining the streamline path's participant benefits. Efficiency Works staff should investigate other program administrators' approaches and gather contractor feedback on any proposed changes to the program.

Conclusion 2: Improved data tracking and an updated billing analysis provide opportunities to more effectively capture the full range of energy savings benefits the program achieves.

Recommendation 2: Develop systems to capture assessment data in a more systematic way and store the data in a more readily accessible electronic format. Capturing data in a uniform, consistent way and storing them in a more easily-accessible, electronic database format would

allow future evaluation efforts to conduct a more detailed, granular review of savings and assumptions.

Recommendation 3: Conduct an updated billing analysis, including a review of spillover savings from audit-only participants.

Midstream Retail Lighting

The Midstream Retail Lighting program provides point-of-purchase rebates for sales of energy efficient lighting products, including LED specialty and general service lamps and lighting controls, at national and local retailers. Advertising, in-store signage, sales-associate training, and instant customer incentives, ranging from \$1-\$3 for general service lamps, \$1-\$5 for specialty lamps, \$10 for occupancy sensors, and \$5 for dimmers, drive participation. To provide incentives, the Platte River Power Authority, in partnership with Fort Collins Utilities, also works with manufacturers to reduce the cost of the items by partially paying for them outright. Fort Collins Utilities launched the midstream retail lighting program in 2005, and in 2007 Platte River took over administration of the program and expanded it to all four owner municipalities.

Key Findings

- › **As one might expect in a successful mid- and upstream program, market actors higher in the supply chain saw greater value from program incentives than those closer to the end user.** Manufacturers recommended reinstating the incentive for A-line bulbs or increasing the incentive for specialty LED bulbs, as well as transitioning outreach to harder-to-reach populations, such as those in rural areas. Retailers, in contrast, perceived that the program had a relatively minor effect on sales of efficient bulbs, although local managers partially attributed their efficient bulb sales to corporate-level support for the technology.
- › **Participant survey findings suggest the market continues to shift toward LED bulbs, as more respondents purchased LEDs than other bulb types and those who purchased LEDs bought more of them.** Respondents who purchased lighting products more frequently reported purchasing standard LED bulbs (52%) compared to other standard bulbs (31-36%), as well as specialty LED bulbs (32%) compared to other specialty bulbs (12-18%). Respondents also reported purchasing a greater number of LED bulbs than CFLs or incandescent/halogen bulbs.
- › **The evaluation found higher gross savings than assumed for the Midstream Lighting program.** This was largely due to the higher baseline wattages for EISA exempt bulbs, as well as slightly higher annual hours of use. Overall, the program applied conservative values for the per-unit efficient light bulb savings estimates and relied on established secondary sources for their claimed savings.
- › **Given the lack of certainty with estimates for net-to-gross of midstream lighting programs, the evaluation team finds Platte River's ex ante net-to-gross ratio is appropriate but recommends a decreasing ratio for 2017 and beyond to reflect rapid market adoption of LEDs.** A review of secondary sources and a national lighting database found that estimates from multiple studies coalesced around the program's currently assumed net-to-gross ratio of 66-69%. Although market actor interviews and customer surveys varied in their assessment of the influence of program incentives, they do not provide reason to question this estimate.

- › **Uncertainty remains in key areas of controls' savings assumptions that should be researched if savings for this measure become large in the future.** First, there is an opportunity to update the underlying participant assumptions of controls placement, bulbs being controlled, number of bulbs per house, and bulbs per room type. This would require Platte River to conduct a residential saturation study. Second, the percent savings referenced in the evaluation literature do not appear to be adequately researched with field studies to determine actual savings. Although we do not recommend that Platte River undertake this research, Platte River should recognize the inherent uncertainty in these estimates.

Conclusions and Recommendations

Conclusion 1: Reflecting the volatility of the residential lighting market, market actors were divided on the continued need for program incentives to drive LED uptake, with manufacturers seeing them as necessary, retailers less so, and survey findings indicating a continuing shift toward LEDs. There are drawbacks to withdrawing incentives from the market too early as well as remaining in the market once it has transformed. In this type of volatile market, it can be beneficial for a program to target its interventions toward the market segments likely to be slowest to transform on their own.

Recommendation 1: Focus incentives and market intervention on retail channels that are most likely to serve hard-to-reach customers and closely monitor the market to consider reintroducing incentives for A-line LEDs.

Conclusion 2: Gathering additional product details from participating retailers would allow for more accurate savings estimates.

Recommendation 2: Require retailers to provide the data necessary to closely track lamps based on their baseline (e.g. EISA compliant or exempt).

Structure of This Report

The report begins with an introduction, describing the evaluation's scope and research objectives. Chapter Two describes the evaluation methodology. Each subsequent chapter focuses on one of the evaluated programs. Each program-specific chapter includes: a description of the program; research questions and approach; findings; and conclusions and recommendations. Each chapter further separates the approach and findings by process and impact. In addition, we include chapters on the best practices review and overarching conclusions and recommendations, both of which look at the portfolio as a whole. Survey instruments, interview guides, and raw frequencies are included in the appendices.

**ITEM TITLE:**

LED Streetlights

DESCRIPTION:

A brief description of why we made the choice to switch, a discussion of the technology differences, where we are with our build-out, and the challenges posed by information and miss-information.


SUMMARY:

This is a staff presentation about the City of Loveland's process and progress in developing our LED streetlight approach.

RECOMMENDATION:

Staff item only. No action required.

ATTACHMENTS:

 Attachment A: PowerPoint slides LED Lighting for Loveland



LED Lighting for Loveland



Christine Schraeder,
Electrical Engineer
Mar. 21 , 2018

Presentation Agenda

- ⌚ **Why LED?**
 - ⌚ How Safety Plays Into the Picture
 - ⌚ Where Cost Savings are Derived
- ⌚ **A Little About the Technology**
 - ⌚ CRI, CCT, and Foot-Candle
- ⌚ **Our Approach**
 - ⌚ From the Beginning...
 - ⌚ Where We are Now
- ⌚ **What's in the AMA Report?**
 - ⌚ Cautions and Recommendations
 - ⌚ Tone and Takeaways



Why LED?

Safety

- Visual acuity aids safety both on streets and adjoining walkways

Energy Savings

- The more we can stretch out our demand and usage, the less pressure we put on PRPA to grow its generation.

Standards

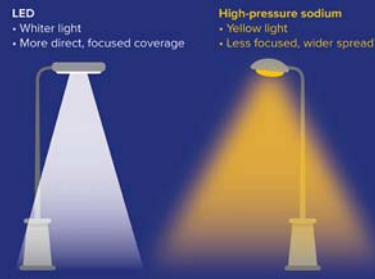
- Where our light belongs and how much we need
- LED Technology improves upon what we already know, but it changes the playing field
 - We used to talk about "watts"...

Longevity

- Yields dividends in both cost and crew safety



The Choice to Change



Public Safety Considerations

- Visual Acuity – Newfoundland or bear?

Night Sky and Light Pollution

- Loveland is the Gateway to Rocky Mountains
- We also enjoy our local natural habitat

Lineman Safety

- Longer life of lights means fewer truck-rolls and less exposure to traffic

Cost Considerations

- LEDs have greater up-front cost, but far less maintenance cost
- Fewer truck-rolls saves expensive maintenance cost



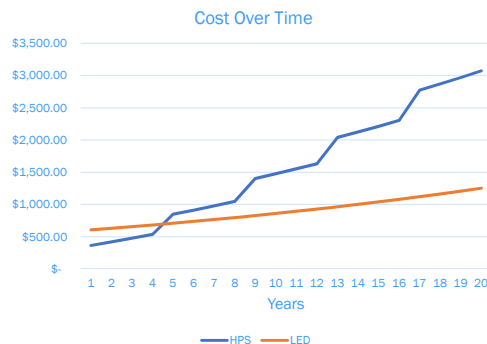
Metrics

Technology	Light Efficiency and Waste	Light and Energy Efficiency	Lifespan
LED	95% light; 5% heat	200 Lumens/Watt	>100,000 hours (22.8 years)
Metal Halide	24% light; 76% heat	75-100 Lumens/Watt	6-15,000 hours (1.4-3.4 years)
High Pressure Sodium	30% light; 70% heat	50-150 Lumens/Watt	~20,000 hours (4.5 years)
Fluorescent	5% light; 95% heat	50-70 Lumens/Watt	7-15,000 hours (1.6-3.4 years)

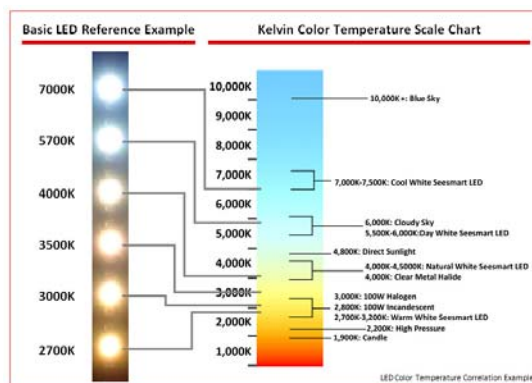
Charts to compare things

LED vs HPS Cost

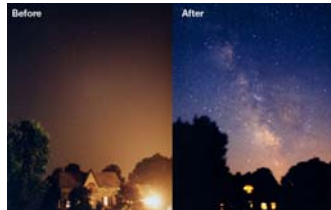
Break even at ~4+ years over 20 year lifespan



Color Range of Lighting Types



LED Technology



View from Mt. Wilson



2002



2012



CRI, CCT, and Foot-Candle

The three most relevant measures of a high or low quality light

CRI

Color Rendering Index

CRI is a measurement of a light's ability to reveal the actual color of objects as compared to an ideal light source (natural light).

Our LEDs are 75

HPS is 25

Metal Halide 60

Sunlight 100

CCT

Correlated color temperature

Color Temperature is a method to describe the characteristics of visible light from different emitters. CCT is a measure of light source **color appearance** defined by the proximity of the light source's **chromaticity** (due to hue and saturation).

Our LEDs are 3000K

HPS is 2700K

Metal Halide 4000K

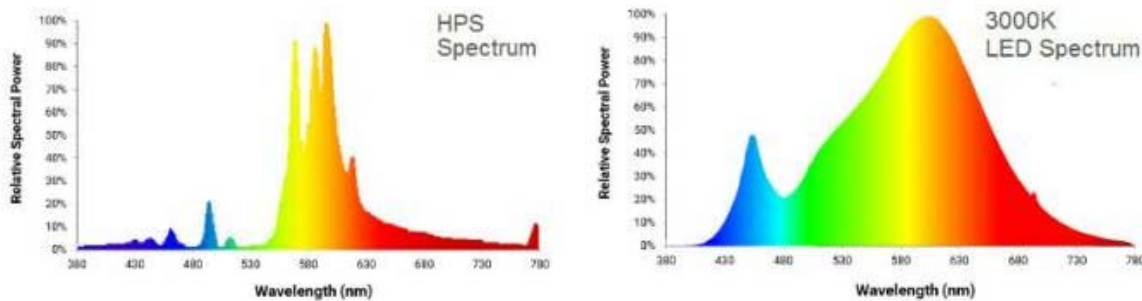
Sunlight is ~5780K

Foot-Candle

A foot-candle is a measure that describes the amount of light reaching a specified surface area as opposed to the total amount of light coming from a source (luminous flux). Foot-candles are measured in lumens per square foot as opposed to simply lumens. Simply measuring lumens is deceiving because light that is illuminating an irrelevant area (such as the ceiling) is not productively used. In fact, it's a waste.

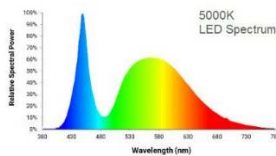


Light Spectrum



In technical terms, saturation is the expression of the bandwidth of light from a source.

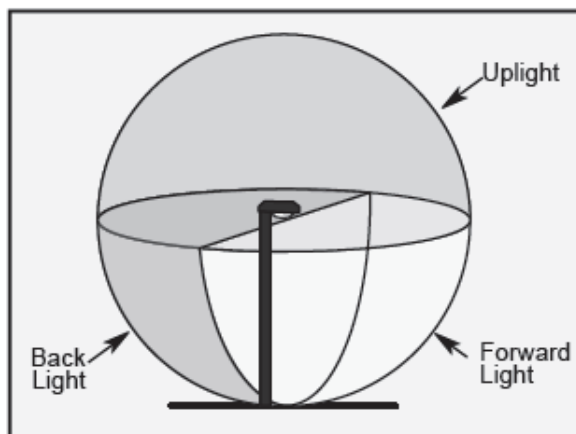
The term hue refers to the **color** of the image itself, while **saturation** describes the intensity (purity) of that hue. When **color** is fully **saturated**, the **color** is considered in purest (truest) version.



LOVELAND
UTILITIES COMMISSION

BUG Ratings

Backlight, Uplight, Glare



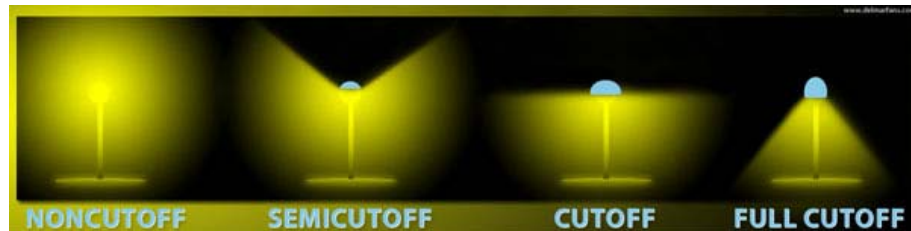
So far, glare has been the most challenging. Glare refers to the reflectance or directed light which makes it difficult to see. Glare in parking lots and on freeways can have serious risks when operating a vehicle.

Reducing brightness (intensity) and utilizing a specific type of lighting distribution tailored towards a certain application can immediately reduce glare.

At the moment, there is no requirement for the BUG rating system, but it is heading towards that direction for the future.

LOVELAND
UTILITIES COMMISSION

Lens Configuration



From the Beginning...



- 2009 – First test LED Cobra Heads installed in City
- 2013-14 – 90 piece pilot Cobra Head installation
 - Based on ease of installation, cost, light output and pattern, chose the first replacements for Cobra Heads
 - 2016 began change-out to LED for failures and new development. Ongoing...



- To date, we have LEDs installed in specific neighborhoods around town and in sections where the previous lights have failed and needed replacement
- We have replacements spec'ed for our post top lights for neighborhoods
- All of our specialty lights also have LED replacements spec'ed and will be changed out as failures arise or when it makes sense to replace an entire group.



What is the AMA Report?

- Published by the American Medical Association its full name is “Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting”
- The AMA report is a collection and thin analysis of many studies done that can be found in publications online.
- Studies published between 2005 – 2016, were selected from a search of the PubMed and Google Scholar databases
- Intended as “Guidance”, often taken as “Warning”
- Several recommendations made
 1. Maintain color temps at 3000K or lower
 2. Ensure there is no “uplight” to prevent night sky light pollution
 3. Ensure that light is placed where it is needed and nowhere else
 4. Limit exposure to blue spectrum to prevent disruption to physiological cycles



Looking ahead...

More Glare Reduction Strategies:

- Placement of light plate in fixture
- Angle of mounting the LED inside the plate
- Coated lenses – reduces glare, but also diminishes efficiency. Not widely available in street lighting
- Wave Guide technology -
 - <http://lighting.cree.com/why-cree-led/wavemax>
 - >300 lumens/watt
 - Greatly reduced glare





City Staff has read the AMA, along with many other studies and anecdotal accounts of the experiences from other utilities. From our own analysis, from the best practices communicated from other utilities, from the AMA report, and from the comments and opinions of our own community, we have developed our spec and selected our LED streetlights to comply with all that we have learned. In general terms, we have selected lights with:

- 3000K lamps
- Full Cut-off lenses
- Field-adjustable outputs
- House-side shields

To date, the majority of community response has been very positive. We continue to strive to accommodate the needs and requests of our citizens.



QUESTIONS?

**ITEM TITLE:**

Leak Detection Program

DESCRIPTION:

Leak detection program update and review of new equipment.

SUMMARY:

Staff will provide a brief demonstration of the new Gutermann Inc. leak detection equipment and provide a verbal update on our leak detection program.

RECOMMENDATION:

Staff item only. No action required.

**ITEM TITLE:**

Big Thompson River Corridor Master Plan

DESCRIPTION:

In April 2017, the City of Loveland began preparing a Big Thompson River Corridor Master Plan with the primary purpose of capturing a long-term vision for nine miles of river corridor through the Loveland area. The Master Plan is intended to do the following: recommend projects that mitigate flood hazards and protect infrastructure, improve resiliency, restore natural river and floodplain functions, improve public recreation and interaction with nature, recommend how the City can better capitalize on its river as a valuable public amenity, and recommend how the City can best manage and maintain the river corridor. The entire master planning process was science based but driven by extensive community input. The Master Plan was completed in December and is now proceeding through a formal review, comment, and adoption process.

SUMMARY:

An overview of the Big Thompson River Corridor Master Plan will be presented to the Loveland Utilities Commission. The Master Plan's purpose, approach, public involvement process, and resulting vision for the corridor will be shared. This will include highlighting several key focus areas, such as the river reach between Railroad and St. Louis Avenues.

RECOMMENDATION:

Staff item only. No action required.

The purpose of this agenda item is to introduce the Commission to the Master Plan and to request feedback. The Commission will be asked to adopt a motion recommending that City Council adopt the Big Thompson River Corridor Master Plan at a subsequent meeting after Commissioners have had the opportunity to review the Master Plan in greater detail.

ATTACHMENTS:

 Attachment A: PowerPoint Slides

Additional project information, including the Master Plan document and Executive Summary, may be found at the project's website: www.ABetterBigT.com



Big Thompson River Corridor Master Plan



Chris Carlson, P.E., CFM
3/21/2018

Why a Big Thompson River Master Plan?



Master Plan's Purpose:

- 🌀 Capture a long term vision for the river corridor
- 🌀 Improve resiliency
- 🌀 Recommend projects that mitigate flood hazards, restore natural river & floodplain functions, and meet multiple objectives
- 🌀 Recommend how the City can better capitalize on its river – recreation, tourism, trails, redevelopment, etc.
- 🌀 Improve opportunities for public interaction with nature
- 🌀 Recommend how to best manage & maintain the river corridor



BIG THOMPSON RIVER CORRIDOR MASTER PLAN
STUDY LIMITS MAP



Science Based, Community Driven

- ☞ Reach “Fact Sheets”
- ☞ Baseline resiliency score cards
- ☞ Field investigations
- ☞ Gap analysis
- ☞ Engineering & planning
 - Hydrology & hydraulics
 - Water quality
 - Diversion dams
 - Fish and wildlife
 - Vegetation
 - Parks & recreation
 - Trails
 - Natural areas
 - Bridges and roads
 - Utilities
 - Buildings
 - Private property & infrastructure



Public Outreach & Involvement

- ☞ Booth at public events
- ☞ Property owner meetings
- ☞ Open City Hall survey
- ☞ Social media
- ☞ Website: www.ABetterBigT.com
- ☞ Open house & public meeting
- ☞ School presentations
- ☞ Technical Advisory Committee / Stakeholders
- ☞ Big Thompson Watershed Coalition (BTWC)
- ☞ City Update



Vision for the Corridor

- 🌀 A resilient, connected corridor
- 🌀 Comprehensive maintenance and management program
- 🌀 Improve flood conveyance / reduce hazards & risks
- 🌀 Preserve or restore ecological functions
- 🌀 Urban fishery – improve fishing
- 🌀 Continue open lands acquisition
- 🌀 Improve river access & water-based recreation
- 🌀 Regional corridor trail + neighborhood connections



Vision for the Corridor

- 🌀 Improve water quality
- 🌀 Open lands for wildlife & wildlife viewing
- 🌀 Downtown access –corridor connection
- 🌀 Corridor access for future developments
- 🌀 Redevelopment opportunities on Lincoln Ave./Hwy. 287
- 🌀 Growing community involvement – waterway clean-ups, education, nature walks, community events



Utilities

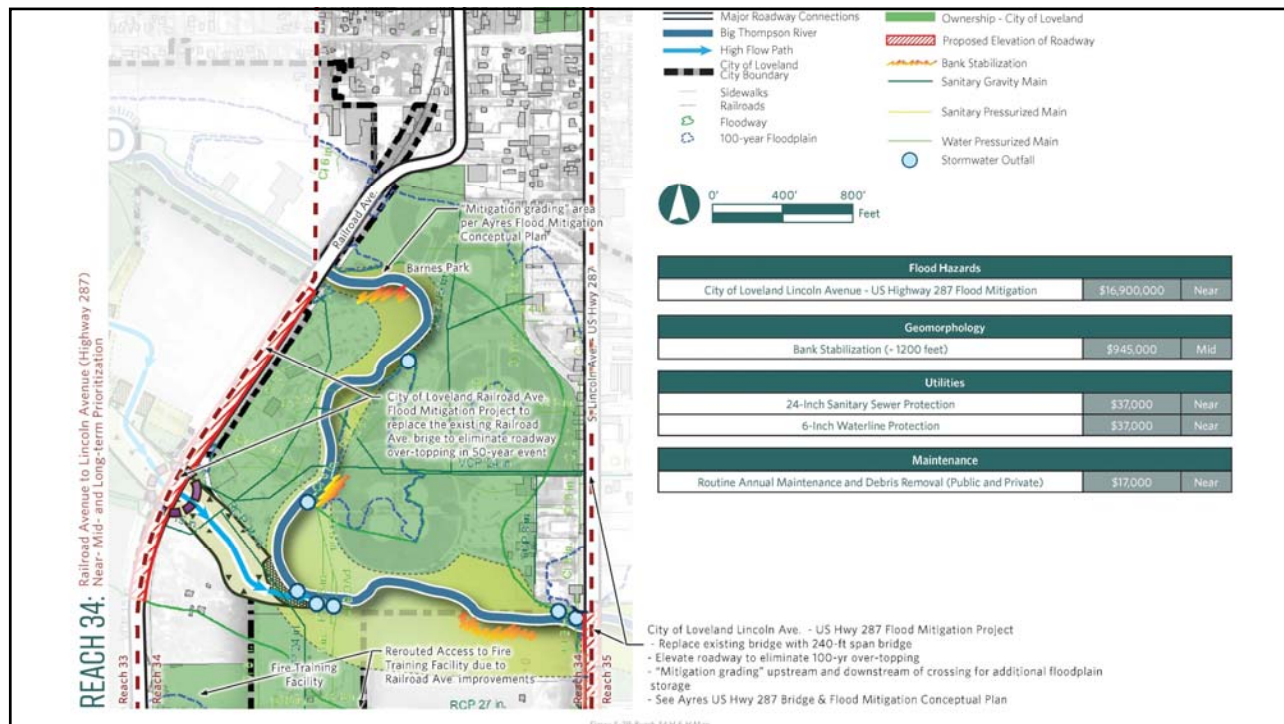
- ☞ Utilities follow the floodplain and cross the river
- ☞ Some are repaired and protected, others are not
 - ☞ 24" SS crossing in Fairgrounds Park (exposed concrete cap)
 - ☞ 6" CI waterline east of Dog Park – needs additional protection
 - ☞ Unknown protection at several utility crossings of the river
 - ☞ High risk for 16" waterline at Wilson Ave. and three 8" SS lines at Taft Ave.
- ☞ Storm sewer outfalls
- ☞ Water quality
 - ☞ Mariano Exchange Ditch



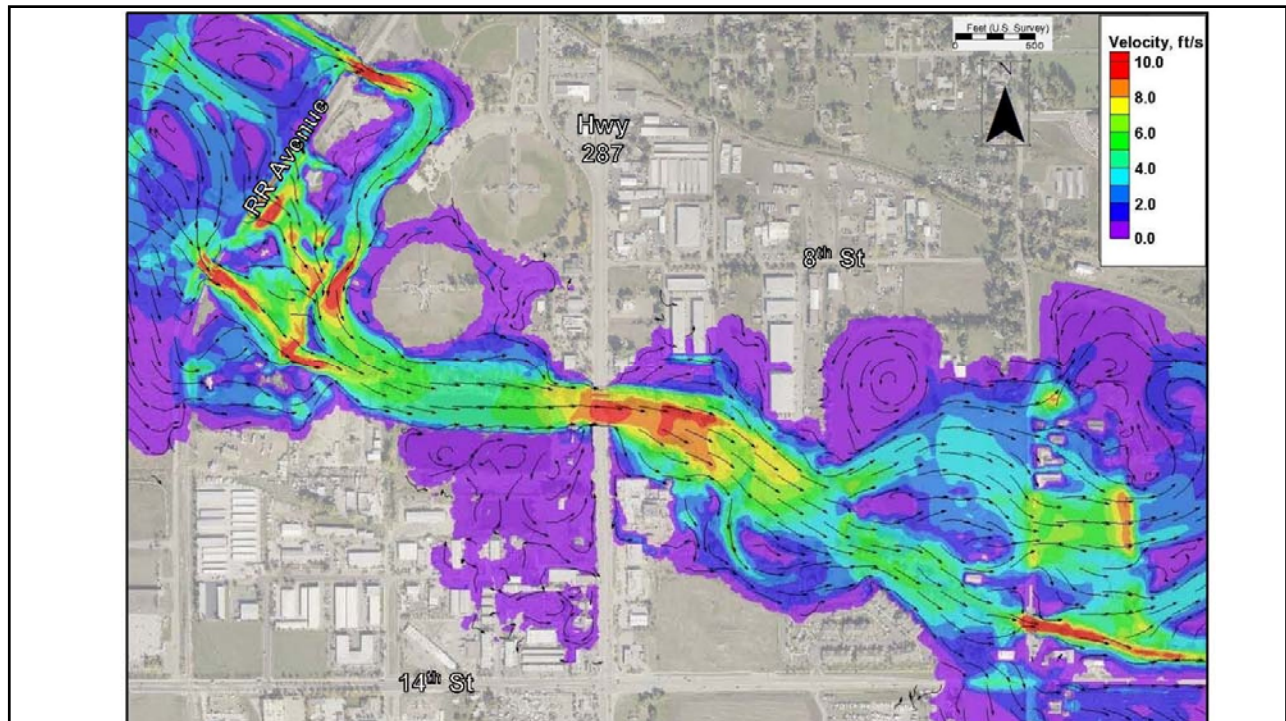
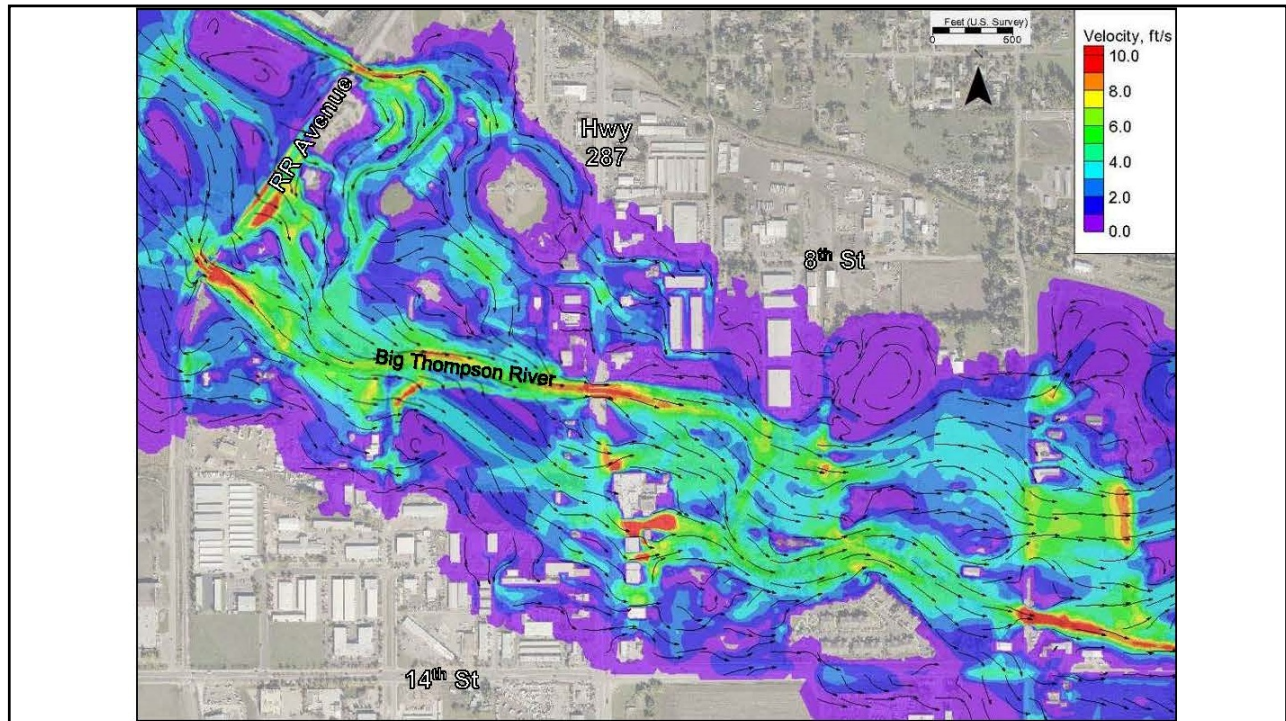
Example Project: Highway 287 Area

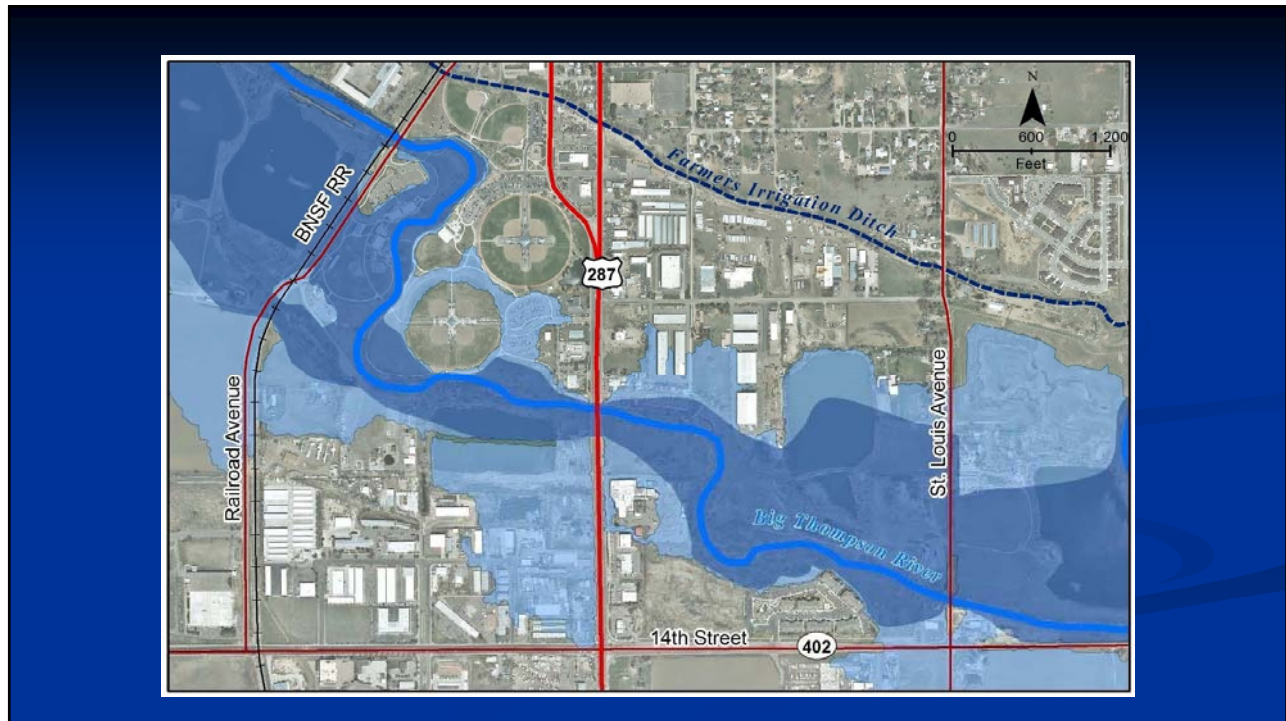
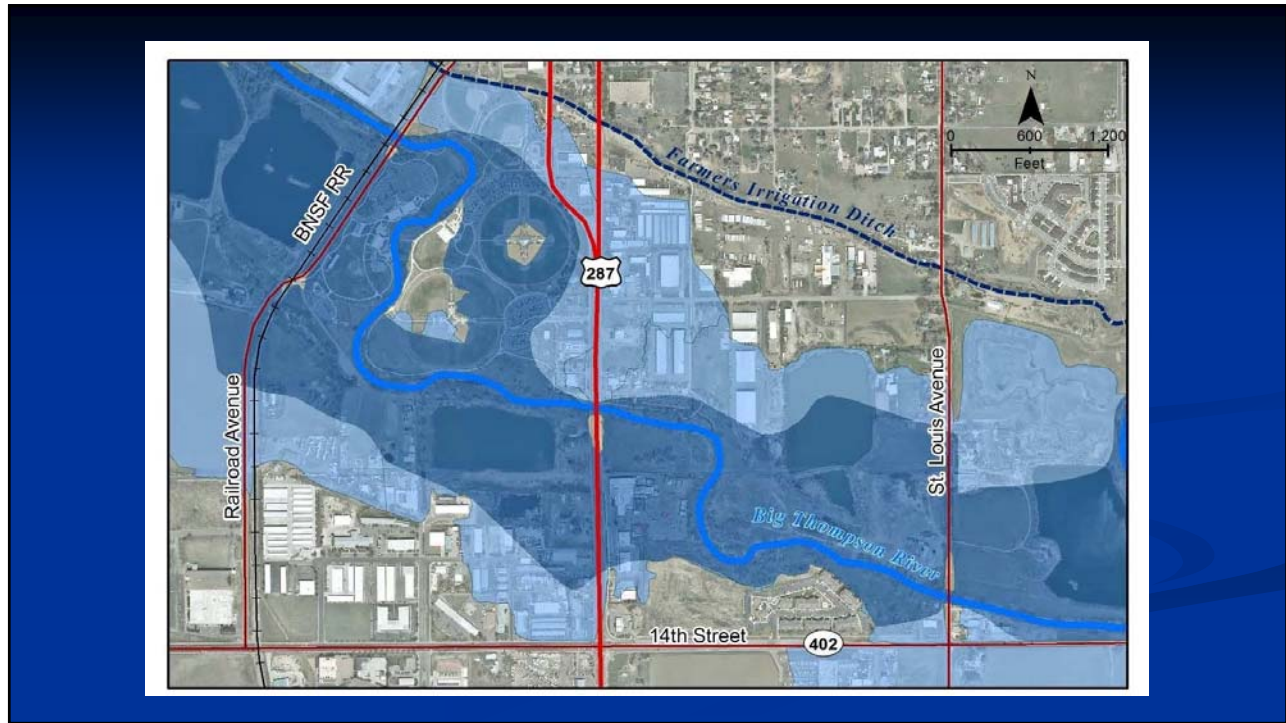
- ☞ Over \$9M in damages to public infrastructure
- ☞ Hwy. 287 closed & bridge damaged
- ☞ Businesses closed for months
- ☞ Gateway to Loveland
- ☞ Economic development potential
- ☞ Only 10-year storm existing bridge capacity











Hwy. 287 Area Project Benefits

- ☉ No. of insurable structures in the floodplain: 41% decrease (114 to 67)
- ☉ No. of insurable structures in the floodway: 66% decrease (35 to 12)
- ☉ No. of properties with improved development potential: 43
- ☉ Hydraulic capacity of the bridge: 4,500 increased to 20,000 cfs
- ☉ 100-year flow overtopping Hwy. 287: 0 cfs
- ☉ Increase in area available for ecological restoration & recreation: 17.4 acres
- ☉ Connect to downtown & southern gateway to Loveland





ITEM TITLE:

Commission & Council Report

SUMMARY:

Discuss events that the Loveland Utility Commission Board members attended, special topics and any City Council items related to the Water and Power Department from the past month.

-  City Council Report
-  Boards and Commission Summit - March 8, 2018

RECOMMENDATION:

Commission/Council report only.

**ITEM TITLE:**

Director's Report

GENERAL & PREVIOUS LUC MEETING FOLLOW UP ITEMS:

Response Letters: Please see Attachment A and Attachment B to review draft letters written on the LUC's behalf in support of the Regional Transmission Organization (RTO) and the Colorado Water Conservation Board (CWCB). LWP is requesting feedback on these letters from the LUC during the March 21, 2018 meeting.

EVENTS:

Please note the following events that LUC members may wish to attend:

Tour of Foundry Project: The Foundry, which represents the largest single downtown redevelopment project in the City's history, is well under way. If you are interested in peeking behind the fence, Economic Development is offering guided tours of the construction site on the following dates (subject to weather and other construction contingencies):

Friday, February 23, 2018

Friday, March 23, 2018

Friday, April 27, 2018

Friday, May 25, 2018

All tours start at 9 am at the back door of 320 N. Cleveland Ave. Keith Meyer, the City's onsite construction manager, will check you in, and provide you with the appropriate safety gear. He will also lead the tour. Space is limited to no more than 10 people per tour. If interested, please contact Mike Scholl at (970) 962-2607 or mike.scholl@cityofloveland.org with which tour date you are interested in attending.

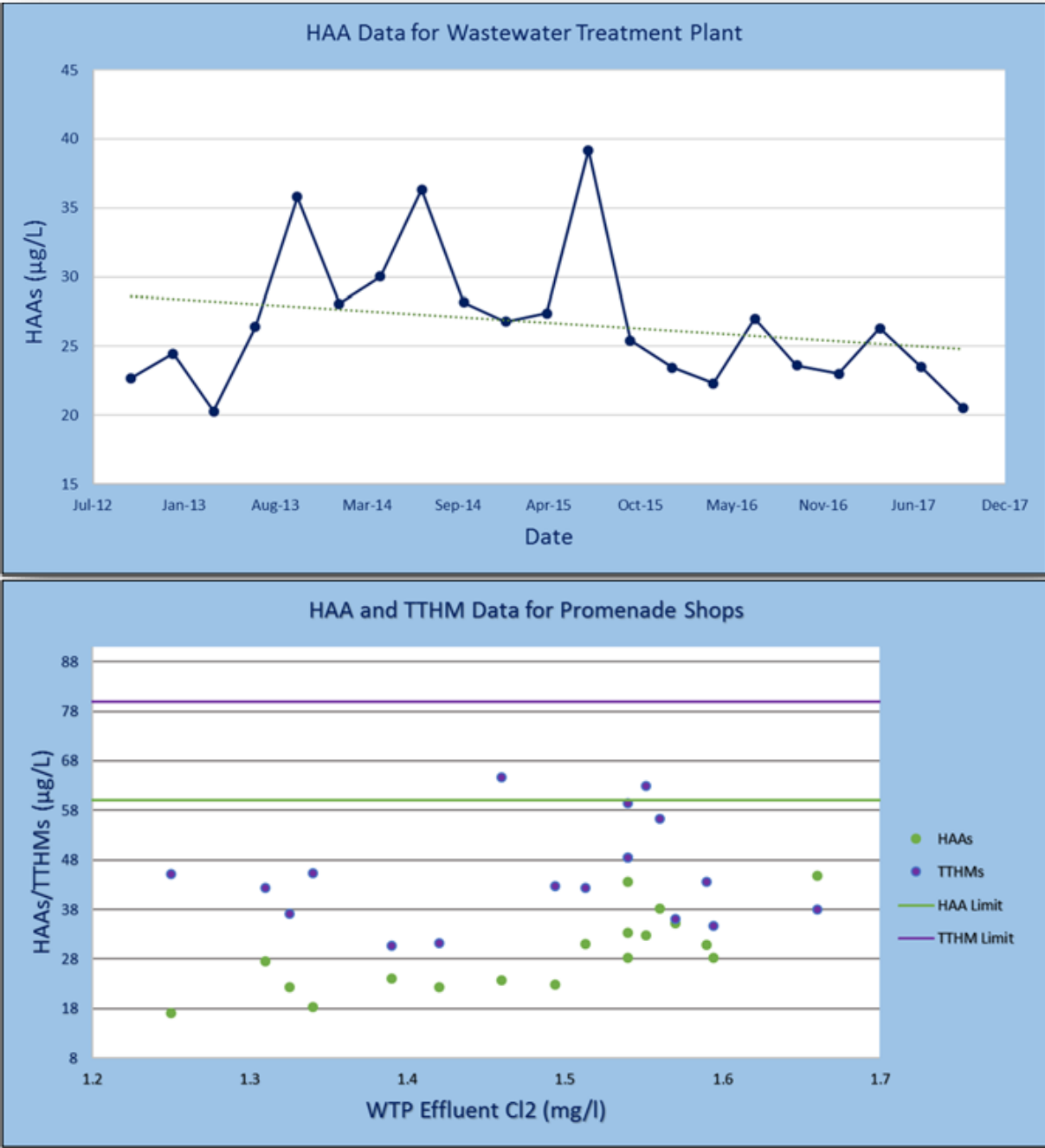
Northern Water Spring Water Users Meeting: Save the date for April 10, 2018. Learn more about the upcoming water season as well as receive updates on the projects Northern Water is pursuing during the 2018 Spring Water Users Meeting to be held at The Ranch in Loveland. At the meeting, staff will preview the Colorado-Big Thompson quota and the outlook for water supplies in 2018.

WATER UTILITIES DIVISION:

Evaluation of Potentially Harmful Compounds in the Drinking Water (DBPs): Disinfection by-products, or DBPs, are important compounds to monitor in chlorinated drinking water. Research has shown that these compounds may cause cancer or other negative health effects when consumed. DBPs are formed when a disinfectant, usually chlorine, reacts with the organics present in water. In the 1990s and early 2000s, the World Health Organization (WHO) and the Environmental Protection Agency (EPA) set guidelines for these possible toxic compounds. Quarterly sampling and analysis at various locations is required to ensure these guidelines are met by Loveland Water and Power.

The Water Quality Lab has data for these compounds dating back to 2008. Recently this data was compiled and graphs were created to find potential correlations between the DBP values and certain

parameters discharged by our Water Treatment Plant (WTP). The parameters used to create these graphs were chlorine dose, pH, alkalinity, and total organic carbon (TOC) in the effluent and source water. These graphs were created to evaluate if DBP levels in the distribution system have been increasing over time and to determine if these issues need to be addressed further. The WTP operators can use this as a tool to adjust chemical dosing and source water selection to reduce these compounds from forming in the distribution system if we begin to see an increase.



Wastewater Treatment Plant (WWTP) Biological Nutrient Removal and Digester Project: Over the last two months, Garney Construction has made significant progress on the WWTP Biological Nutrient Removal and Digester Project. The concrete walls are complete for each of the two new digester tanks (pictured below).



Both tanks have been successfully post-tensioned and crews prepare for the installation of the roof slab. Excavation activities are now underway for the new Return Activated Sludge (RAS) anoxic tank along the northwest side of the existing aeration basins (pictured below)



Two bypass pumping events were recently completed as part of the project. Garney successfully bypass pumped a combined 40 million gallons of incoming sewer over a period of eight days with no incident. More importantly, Garney worked closely with plant operators to maintain compliance with effluent discharge limits during these process interruptions. The project continues to be on schedule and on budget.

Lakeside Terrace Force Main: The Lakeside Terrace Lift Station was serviced by a 4-inch cast iron force main that was installed with the lift station in 1973. In 2016, the lift station was renovated and upgraded. While testing the pumps, a leak on the force main was discovered, which showed that the pipe was in poor condition and needed to be replaced. Over the last six weeks, Excavation & Construction Specialists, Inc., replaced the old cast iron force main with a 4- inch PVC pipe along 23rd Street SW just east of Ryan Gulch Reservoir. The force main trench has been patched with asphalt, and construction work on the project is complete. The final cost was approximately \$99,000. Photos are to the right and below.



Namaqua Hills Pump Station Improvements: The Water and Power Department recently bid a project designed to improve the Namaqua Hills pumps at Morning Drive Pump Station. These pumps serve approximately 121 homes in the Namaqua Hills Subdivision. The existing pumping componentry has reached obsolescence, and parts can no longer be obtained to repair them. Therefore, the City along with its civil engineering consultant HDR, have sized new vertical multi-stage pumps that will be staged in the existing pump station at Morning Drive. The City has contracted with Lillard Clark Construction Company, Inc., to start construction in Spring 2018. Upon completion, the new pumps and motor control center will provide consistent and reliable water service to customers in Namaqua Hills for years to come.



POWER OPERATIONS DIVISION:

Broadband Update: On November 3, 2015, 82% of Loveland citizens voted in support of Ballot Issue 2C. The passage of this ballot measure effectively overturned Loveland's restrictions imposed through Senate Bill 152 (SB 152) and allows the City of Loveland to investigate alternatives for promoting broadband options while considering the needs and desires of our community.

Staff engaged the services of Magellan Advisors to perform a feasibility analysis of various broadband models, including full retail, public-public partnership, and public-private partnership models. Three business models were identified as feasible for Loveland while also meeting City Council's broadband vision statements of:

- **City Wide Accessibility:** Service must be available to all homes, businesses, schools, non-profit groups, health service providers and other users within Loveland
- **Fast Speed:** Any broadband system must deliver symmetrical service at the rate of 1 gigabit per second. Consider future proofing for higher speeds when new technologies become available.
- **Reliable:** The service must accommodate diverse uses, from home entertainment, to business, education and health care, with high reliability
- **Affordable:** Our efforts have the goal of delivering broadband service to all at a reasonable cost, regardless of how broadband service is used.
- **Customer Service Excellence:** Provide consistent and reliable customer service.

The three models are defined by the following characteristics:

- **Retail Model:** The municipality owns, operates and delivers all services to users in the community, including residents, businesses, and community organizations. The municipality is responsible for all operations, customer service, billing, provisioning, and management of the broadband network and customers pay the municipality for services. The municipality collects all revenue and incurs all costs.
- **Public-Public Model:** The municipality owns, operates, and delivers all services to users in the community including residents, businesses, and community organizations. The municipality partners with other public organizations to fulfill supply or service contracts, which may include video content, Internet content, operations, and billing services, effectively "outsourcing" them to other public organizations that already maintain these capabilities. This allows the municipality to avoid certain capital or operating costs that are incurred by providing these services directly or in cases where the municipality does not have certain capabilities. The municipality collects all revenue and incurs all costs, a portion of which are paid to the public partner for the services provided.
- **Public Private Model:** The municipality creates a partnership with an existing broadband provider to jointly develop a broadband network. In most cases, the municipality is responsible for funding the fiber plant while the partner is responsible for funding the equipment and ongoing operations, customer service, billing, and maintenance. The partner provides all retail services to customers and customers interface directly with the provider, while the municipality maintains a position of a passive infrastructure owner. The private partner collects all revenues and incurs all costs. The private partner pays a portion of the revenue to the municipality, sufficient to repay its debt and any ongoing (minor) operating costs it may incur in the partnership.

At the February 6, 2018 meeting, City Council approved a resolution to support the recommendation of the Broadband Task Force which stated:

The Broadband Task Force recommends that the City of Loveland pursue community broadband through the retail or public-public model by taking the following actions:

- Establish the structure and governance of an enterprise utility;
- Further develop a detailed business implementation plan;
- Issue a Request for Proposal for a build-ready network design and complete same;
- Evaluate financing options;
- Immediately implement an aggressive community outreach and education effort; and
- Formally transition the existing Broadband Task Force into a City commission.

The Task Force further recommends that no efforts preclude future partnering options with public or private entities.

At the February 20, 2018 meeting, City Council approved on second readings, three ordinances to support the adopted resolution. These included:

- an ordinance to enact a supplemental budget and appropriation of \$2.5 million to develop a detailed business implementation plan, completion of a build-ready network design, evaluate financing options and implement community outreach and education;
- an ordinance to amend the electric enterprise code to include communications activities;
- an ordinance to enact the establishment of a Communications Advisory Board.

The appropriation request amount of \$2.5 million was determined based on the following estimated costs:

Tasks	Estimated Cost
Design of Build-Ready Network Design Work will Include:	\$2.2M
<ul style="list-style-type: none"> • Development of Network Layout • Field Walk-Out and Documentation • Preparation of Design by City's ESRI Based Design System and CAD Construction Drawings • Identify and Prepare Necessary Permits 	
Professional Services	\$300,000
<ul style="list-style-type: none"> • Education and Outreach • Financing Evaluation • Business Plan Development • Legal Counsel Assistance • Technical Support Consultants • Staff Hours and Other Miscellaneous Expenses 	\$50,000 \$30,000 \$30,000 \$50,000 \$70,000 \$70,000
Total	\$2.5M

Further formal actions will be required by Council as the details and structure of broadband services are solidified, including governance discussions. The actions and steps being taken now will allow the City to gain greater certainty of infrastructure costs and better understand financing options. The development of a more detailed business plan will also provide a better understanding of operating costs and structure to thoroughly understand risks and opportunities of broadband services within the community.

The network design suitable for solicitation of construction bids and sufficient for development of a bond offering, development of a detailed business plan, and evaluation of financing options are expected to take approximately four to six months. Education and outreach will be an ongoing effort. Structure and governance will require future discussions and decisions by City Council.

GENERATION, TRANSMISSION & NORTHERN COLORADO UTILITY REPORTS:

Northern Water Conservancy District: The minutes from the March 8, 2018 board meeting have not been posted yet. The next board meeting will be held on Thursday, April 12, 2018 at 9 am at Northern Water headquarters located at 220 Water Ave, Berthoud, CO 80513.

Platte River Power Authority (PRPA): The minutes from the February 22, 2018 meeting have not been posted yet. The next board meeting will be held on Thursday, March 29, 2018 at 9 am at PRPA headquarters located at 2000 E. Horsetooth Rd, Fort Collins, CO 80525. On February 21, 2018 PRPA issued a request for proposals (RFP) for at least 20 megawatts of new solar energy capacity that could be added to its system, which serves Estes Park, Fort Collins, Longmont and Loveland. The RFP also called for up to 5 megawatt-hours of energy storage capacity. Source: <https://www.prpa.org/news/platte-river-seeks-solar-power/>

Fort Collins Energy Board: The minutes from the February 8, 2018 meeting have not been posted. The next board meeting will be held on Thursday, April 12, 2018 at 5:30 pm at the Colorado River Community Room, 222 LaPorte Avenue, Fort Collins, CO.

UTILITY APPLICATION SERVICES:

CIS Replacement: We have selected our vendor and have moved on to the developing the SOW.

Project & Request Tracking: One of the Technology Roadmap recommendations was to establish a tracking system for our team's work. Since the beginning of 2017 we have configured Cityworks for this purpose. The big projects, tracked as work orders, are reported to, be approved and prioritized by our LWP Technology Steering Committee. There are currently 21 approved projects in our queue. The smaller, maintenance-type jobs are tracked as service requests. So far this year we have completed 20 requests within an average of 6.77 days. Here are the 2017 numbers broken down by type:

- Application Requests – 2.33 days
- Application Support – 13.38 days
- Data Requests – 6.58 days
- Hardware Support – 11.22 days
- Map Requests – 6.89 days
- Report Requests - 1.33 days

UTILITY ACCOUNTING:

Preliminary Financial Overview: 2017 was a mixed bag in terms of sales for the three Water and Power Utilities. Water sales came in at 2.6% above budget, or about \$382K. Wastewater sales were very close to budget, coming in within \$14K on an \$11.7 million budget. Power sales, however, came in under budget, with sales coming in 1.9% below budget, or \$1.2 million. According to the preliminary year-end financial statements, Water came out with a bottom-line favorable variance in comparison to budgeted revenues and expenditures of \$3.1 million, Wastewater had a favorable variance of \$5.0 million and Power had a favorable variance of \$12.5 million. Water's favorable variance is largely due to coming in under budget in the Source of Supply O&M area and in capital. There is a caveat for Wastewater and Power; these favorable outcomes are driven significantly by unspent capital budgets and flood appropriations. Wastewater was under budget by \$18.3 million in capital and was also under budget by \$15.6 million in revenue, both due to construction and loan proceeds for the Wastewater Treatment Plant Expansion Project not occurring until 2018. Power was under budget by \$2.2 million in capital, had \$3.0 million of FEMA and State reimbursements that were not budgeted and did not spend \$5.8 million of the budget for environmental restoration associated with the removal of Idylwilde Dam, the pipeline and the Power House.

Windy Gap Firing Project (aka Chimney Hollow Reservoir): At the February meeting of the Windy Gap Firing Project participants, there was a presentation done by Stantec Engineering, the design engineers for the project, that included an updated estimated cost for the project. The updated cost is \$575 million, which is up from the previous estimate of \$460 million from about a year-and-a-half ago. With Loveland's participation now encompassing 10.65% of the total project, this means that Loveland's estimated share in the total project cost is \$61 million. Staff is looking at the impact of this increase on the Raw Water 10-Year Financial Plan and evaluating options on how to best pay for it with a combination of cash funding and borrowing.

Poudre Valley REA (PVREA) Surcharge Payment: Due to some recent court rulings, City staff from several departments have been reviewing the process for remitting either 5% (for future customers) or 25% (for existing PVREA customers) of revenues to PVREA for a 10-year period as compensation for taking current or future customers from them as a result of annexation. The main question revolved around what the start date should be for the 10-year window of obligation. During this review process, it was determined that the City had not properly applied the start of the 10-year window to several properties that were previously in PVREA service territory. It was determined that the proper start date for the 10-year window should be the date where Loveland takes over as exclusive electric provider for the service territory instead of what had been used, which was the date of annexation. As a result of discovering the incorrect use of the starting date, a recalculation was done of what the City should have paid PVREA for the period from 2007-2016 instead of what was paid, and the recalculation showed that the City owes PVREA an additional \$227,000. This will be handled as a 2017 accounts payable and funds are available in the 2017 budget to cover this payment.

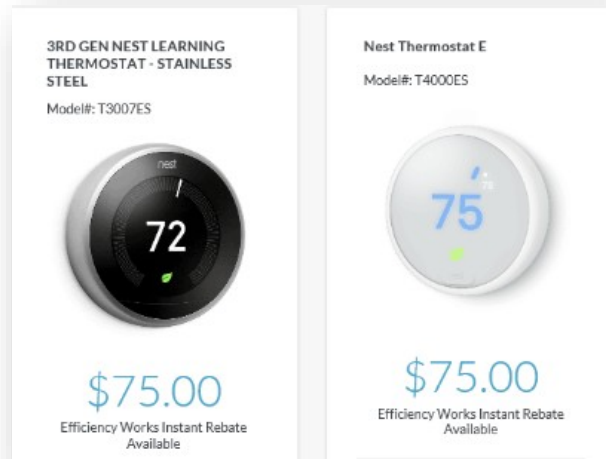
CUSTOMER RELATIONS:

Larimer County Conservation Corps (LCCC): The LCCC Water and Energy Assessment Program is approaching the halfway point in the season. Staff is working on promotion and outreach for the program. The LCCC group offers free home energy assessments and direct install of water and energy products for Loveland customers. Enrollment and additional information can be found at www.larimerworkforce.org/energy

Efficiency Works Homes: The Efficiency Works Homes program continues to transition to in- house. This month 53 trade allies came to Loveland for the Annual Contractors Meeting for program updates and feedback. Trade Ally, the contractor management portion of the iEnergy platform, has also been developed. Trade Ally will allow contractors to create customer facing profiles, manage workflows, submit documentation and find continuing education opportunities.

Efficiency Works Consumer Products: The pilot program called the “Shift Model” is designed to make it more likely that utility rebate money motivates customers to buy the higher-efficiency model. It does this by focusing on an appliance that is low-cost, inefficient and that makes up a large portion of a retailers’ sales. A more efficient alternative is identified, and a rebate is developed to cover most of the cost premium to shift the customers’ purchasing decision as well as the retailer’s stocking and selling practices. Efficiency Works is the first to implement this program with the help of the program’s developer, Efficiency for Everyone. During 2017, we worked with Sears Appliances on the pilot and have recently expanded the program to two more retailers.

Early results from the program were encouraging so, in 2018, the Shift Model is being expanded to new retailers in the Efficiency Works region, and Efficiency for Everyone is taking on new utility partners.



Starting in late 2017, Efficiency Works hired Simple Energy, which provides a digital customer engagement platform that can support utilities’ EE program implementation. Simple Energy will be providing Platte River and the municipalities with two online services: an Efficiency Works online store and Rebates-as a- Service (RaaS). The Efficiency Works online store will allow customers to purchase selected energy efficient products. The RaaS platform will support our ability to provide targeted, instant, in-store rebates for selected energy-efficient products in participating retailers. The program launched its first RaaS rebate for smart thermostats in late 2017 in Lowes Home Improvement stores, Lowes.com, and Nest.com platforms. 2018 will be the launch of the online Efficiency Works Store and additional products rebated through the RaaS platform in Lowes and additional retailers.

Efficiency Works Assessment Summit: Staff met with Longmont, Fort Collins, Nexant and Platte River to review rebate structure, evaluate measures and design training for contractors for 2018. We are also working on a few Efficiency Works projects that span more than one city.

Big Thompson Canyon: Staff continues to manage communication and problem resolution with canyon customers. Staff is also coordinating more closely with the power crews to establish pro- active communication for upcoming outages and sections of the rebuild.

Customer Experience Team: Staff continues to work with a team to improve the customer experience at the City’s Development Center. We will be participating in additional CRT meetings to facilitate new practices and offer feedback.

Media Training: Customer Relations staff hosted media training for Water and Power management and supervisory staff consisting of social media, print, and broadcast communications training. The general purpose of this training was to help staff feel more comfortable when communicating with media. Mock

interviews were conducted at the training session, so that when impromptu interviews occur on the job site, staff is better prepared.

Project Coordinator Selection: Staff participated on a panel and moved forward with PRPA and Nexant to hire a project coordinator for Efficiency Works Business.

Efficiency Works Contractor Training: Staff coordinated with Platte River and Fort Collins Utilities to present our contractor base the new rebates for 2018 and discussed new rules and marketing strategies.

Thompson School District Lighting: Staff is coordinating with PRPA in an effort through Efficiency Works to replace outdated inefficient lighting in auditoriums and theaters throughout the school district.

Efficiency Works Metrics: Staff is working with Platte River to establish metrics with which we can evaluate projects that might exceed our \$50K cap if they can provide increased energy savings and cost effectiveness. This is a new – and good – problem to have because the projects coming through the commercial program are significant in terms of savings and energy study.

Community Outreach: Loveland Water and Power will be attending the following upcoming events:

- Children's Day – March 9, 2018
- Community Stewardships Lecture Series: The Invasives are Coming! – March 13, 2018

Facebook Insights (February 2018):

- Reach (unique users) – 2,261 people
- Engagement (unique users) – 120 people
- Impressions (total count) – 5,153 people

Media:

- American Public Power Association – February 22, 2018: [Platte River RFP calls for solar power, storage proposals](#)
- WAPA *Energy Services Bulletin* – February 23, 2018: [Platte River RFP calls for solar power, storage](#)
- The Reporter Herald - March 6, 2018: [Loveland might allocate nearly \\$1M for next phase of Windy Gap Firming Project](#)
- The Reporter Herald - March 7, 2018: [Big Thompson Canyon power outages planned March 14, 22](#)

Attachment A

March XX, 2018

Jason Frisbie, General Manager
Platter River Power Authority
2000 East Horsetooth Road
Fort Collins, Colorado 80525-5721

Thank you for the December 13, 2017 presentation to the Loveland Utilities Commission (LUC) regarding Platte River Power Authority's (PRPA) Zero Net Carbon (ZNC) model. The LUC applauds PRPA's ongoing efforts to explore and integrate renewable power sources. The presentation also discussed the implications of PRPA joining a Regional Transmission Organization (RTO), specifically, that joining an RTO could reduce the cost of achieving ZNC as it reduces transmission costs and makes energy sales more competitive.

Acknowledging that there are risks associated with the energy marketplace and RTO membership, LUC believes that these are balanced by the long-term benefits discussed during the December presentation. Thus, the LUC wishes to express its support for PRPA's and the Mountain West Transmission Group's efforts to become members of the Southwest Power Pool. Please keep this body apprised of future developments and milestones.

The LUC further wishes to express its support for continued modeling efforts to determine the optimal mix of future power sources that meet PRPA's mission of providing safe, reliable, environmentally responsible, and competitively-priced energy and services.

Sincerely,

Gary Hausman, Chair
on behalf of the Loveland Utilities Commission

Attachment B

March XX, 2018

Rebecca Mitchell, Director
Colorado Water Conservation Board
1313 Sherman Street, Room 718
Denver, CO 80203

The Loveland Utilities Commission (LUC) serves as an advisory body to the Loveland City Council on all matters pertaining to the water, wastewater, and electric utility operations and services provided by the city's Department of Water and Power. As such, the LUC is vitally concerned with water supply issues, not just for the City of Loveland, but also for the entire northern Colorado region.

The Colorado Water Conservation Board (CWCB), in conjunction with numerous stakeholders, developed the Colorado Water Plan, which presents a host of collaborative, balanced, and sustainable solutions to the water challenges facing Colorado today and in the future. The plan is a dynamic "living document" intended to support a productive economy, vibrant and sustainable cities, agriculture, the natural environment, and a robust recreational industry.

The LUC wishes to express its continuing support for the Colorado Water Plan, its ongoing implementation, and laudable goals. To that end, the Department of Water and Power is engaged in a number of local and regional projects and programs intended to promote wise and efficient use of water including regional storage, leak detection and correction, and consumer outreach.

Thank you for this opportunity to support the Board and this Plan.

Sincerely,

Gary Hausman, Chair
on behalf of the Loveland Utilities Commission

