LOVELAND UTILITIES COMMISSION
REGULAR MEETING
April 24, 2013 - 4:00 p.m.
Service Center Board Room
200 North Wilson Avenue

AGENDA

4:00 pm - **CALL TO ORDER**

4:05 pm - **APPROVAL OF MINUTES - 3/20/2013**

CITIZENS REPORTS

4:10 pm - **CONSENT AGENDA**

1. 2013 1st Quarter Goals and Milestones Report – Steve Adams
2. Updating the Platte River Power Authority (PRPA)/Loveland Intergovernmental Agreement – Russel Jentges
3. South Horseshoe Lift Station Improvements W1110H Bid Award – Tom Greene
4. Change Order Increase for Annual Directional Bore Purchase Order and Contract – Kathleen Porter
5. Windy Gap Firming Project Enhancements – Scott Dickmeyer

4:20 pm - **REGULAR AGENDA**

6. Water Conservation Plan Update – Lindsey Bashline & Greg Dewey
7. Drought Management Plan Update – Greg Dewey
8. LED Street Lights – Russel Jentges

6:00 pm - **STAFF REPORT**

9. APPA Reliable Public Power Provider Designation (RP_3) – Kim O'Field
10. Financial Report Update – Jim Lees

6:30 pm -

11. **COMMISSION / COUNCIL REPORTS**
- Spring Water Users Meeting – April 11, 2013
- NREL Tour – April 4, 2013
- Jackie Sargent Visit – March 20, 2013

12. **DIRECTOR'S REPORT** – Separate Document

INFORMATION ITEMS

13. Electric Legislative Update – Kim O'Field
14. Water Legislative Update – Greg Dewey
15. Water Supply Update – Larry Howard

ADJOURN

The City of Loveland is committed to providing an equal opportunity for citizens and does not discriminate on the basis of disability, race, age, color, national origin, religion, sexual orientation or gender. The City will make reasonable accommodations for citizens in accordance with the Americans with Disabilities Act. For more information, please contact the City's ADA Coordinator at bettie.greenberg@cityofloveland.org or 970-962-3319.

Commission Members Present: Dan Herlihey, Darell Zimbelman, David Schneider (Chair), Gary Hausman, Gene Packer (Vice Chair), John Matis, John Rust Jr., Randy Williams

Council Liaison: Daryl Klassen

City Staff Members: Bob Miller, Brieana Reed-Harmel, Darcy Hodge, Garth Silvernale, Gretchen Stanford, Kim O'Field, Lindsey Bashline, Larry Howard, Michelle Stalker, Roger Berg, Steve Adams, Scott Dickmeyer, Sharon Citino, Tracey Hewson, Alan Krcmarik

Guest Attendance: Jackie Sargent, General Manager of Platte River Power Authority

CALL TO ORDER: Dave Schneider called the meeting to order at 4:05 pm.

APPROVAL OF MINUTES: Dave Schneider asked for a motion to approve the minutes of the meeting from February 20, 2013.

Motion: Dan Herliey made the motion to approve the minutes of the February 20, 2013 meeting.
Second: Darell Zimbleman seconded the motion. The minutes were approved unanimously.

CITIZEN REPORTS: none

CONSENT AGENDA

Item 1: Contract Award for the Design of the Water Treatment Plant – Roger Berg CH2M Hill has been selected as the design engineer for the proposed water treatment plant expansion. The proposed contract includes topographic survey, geotechnical investigation, design, and assistance with bidding. The proposed contract is hourly plus subconsultant fees and other expenses not to exceed $1,508,495.

Recommendation: Adopt a motion approving the contract with CH2M Hill for design of the water treatment plant with a not-to-exceed contract amount of $1,508,495 and authorizing the City Manager to execute the contract.

Motion: Gary Hausman made the motion to accept the consent agenda as written
Second: John Rust Jr. seconded the motion. The motion was approved unanimously.

Comments: none

REGULAR AGENDA

Item 2: Drought Response Plan – Greg Dewey & Larry Howard The proposed Drought Response Plan is intended to be a template for the projection of water demands and the supplies available to meet that demand each year. Specifically, a projection of 2013 water supply/demand and ways to respond to the currently anticipated drought conditions will be presented.

Recommendation: Discuss the information presented by staff and give guidance as to what to do with specific decision points to meet 2013 water demand and best prepare the City for the 2014 water year.

Comments: Board members commented that our citizens are worried over our water supply due to watering restrictions other local communities have enacted, seeing the surrounding dry conditions and low reservoir levels, hearing of local fires and reading comments in the RH line. Board members suggested that we should provide guidelines on how to conserve water such as taking shorter showers, turning off water while lathering up and teaching how to keep plants alive, but dormant through reduced watering. Particularly, we should educate about how to reduce outdoor water usage which accounts for the majority of the water usage. Board members liked the idea of a Drought Blog which could suggest ways to cut back on water usage. Board members also suggested that we allow some flexibility in our drought response program to work with those that may find it difficult to alter their watering schedules due to various reasons such as health concerns, religious observances or difficulties due to the sprinkler system setting options or for people that are out of town for periods of time. Board members also commented that there is a misperception to the public that the water sold to oil and gas fracking

companies reduces our water supplies. We need to educate more that there is water brought in from outside our water portfolio to account for this type of water usage.

Staff responded that we are taking steps to address these concerns. We should urge our customers to visit the Water and Power website to find the most up-to-date and accurate information. The website has an interview with Greg Dewey which covers these issues and explains how Loveland's water portfolio differs from other communities and therefore we are responding differently than other communities. The website also addresses issues such as fracking and HOA watering. We will have articles printed in the newspaper on these issues as well. The Drought Response Plan does allow for exceptions to the watering schedule through allowing citizens to obtain permits which may be something like a sticker that would be put in their window. Once a drought response level is enacted, if we do not see a reduction in the water usage, then we would need to increase our enforcement efforts and work to educate the public more.

Steve Adams stressed the important difference between a Drought Response Plan and a Water Conservation Plan. Drought Response Plan is to reduce water usage in the short-run. Water conservation is a long-term plan to help customers learn to conserve and reduce water-usage all the time. You cannot conserve yourself out of a drought. There are steps we would take during a drought that we would not continue in the long run. For example, we will not be flushing fire hydrants this year which will save approximately 90 AF of water. The hydrant flushing is a good program, and we would not want to forgo that program every year.

Inquiry was made as to why we are waiting until May 14, 2013 to present this information to the City Council. Staff responded that it is too early for us to declare a drought response level until after Northern Water announces our C-BT quota on April 12, 2013. We may look at changing the City Council May 14, 2013 Study Session into a special meeting so that if needed a decision on the Drought Response Plan could be made that night.

Item 3: 2014 Budget Process – Jim Lees & Steve Adams A description of changes in the 2014 Water & Power budget process and selection of two LUC liaisons to the 2014 budget process.

Recommendation: Choose two liaisons from the LUC to participate in the 2014 budget review process for the Water & Power Department.

Motion: John Rust Jr. made the motion that Dave Schneider and Gene Packer be the liaisons with Darell Zimbelman as an alternate.
Second: John Matis seconded the motion. The motion was approved unanimously.

Comments: Dave Schneider, the current LUC chair commented that knowing and participating in the budget process should be mandatory for the LUC chair because the chair needs to know the information covered in order to fulfill the chair responsibilities and in working with City Council and agenda planning. John Matis thanked the board members who have committed their time to participate in the budgeting process.

STAFF REPORTS

Item 4: New PRPA General Manager Introduction & Presentation - Jackie Sargent & Steve Adams The purpose of this item is to introduce the new Platte River Power Authority (PRPA) General Manager Jackie Sargent and to give a broad overview of PRPA to the LUC board.

Staff Report only. No action required.

Comments: The board inquired about whether they are looking to expand the production at Rawhide. Jackie Sargent responded that Rawhide was originally designed to have two coal units, but it would now be very difficult to get a permit through for the second coal plant.

John Matis made comments about how the general public needs to be made aware of what was covered in the presentation perhaps through something like a Northern Colorado Energy Alliance Conference, more local energy meetings or lectures. The average person is unaware of the obstacles and costs associated with wind turbines and solar panels and it appears that PRPA is disconnected with the end customers. He suggested partnering with CSU and UNC to create a website with facts that common people can visit to learn about and understand these local energy issues. He also made inquiries about whether there is any connection with Laramie and Cheyenne on energy use and demand.

Jackie Sargent expressed the need for partnerships within the region to improve communication. She said that PRPA does receive more feedback and has more collaboration than in the past, but as people become more dependent on electricity and more removed from where electricity comes from, people tend to take electricity for granted. The knowledge gap of electricity production and consumption is widening. PRPA has reached out to organizations such as APPA to improve this communication.
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Dave Schneider said that we should encourage more participation in events like Net Zero Cities. However, we need to be communicating the reality of how making specific energy changes will ultimately affect the rate payers' utility bills.

Daryle Klassen inquired as to how many coal fired plants the US has and whether we see Washington as pushing to eliminate those plants and the effects those actions would have. Jackie Sargent responded that it is important to have diversity in your energy supply portfolio to help mitigate pressures put on a specific energy source, and we need to look at balancing competing objectives and mitigating risks. At Rawhide, they have installed equipment prior to when it was required because we place value on environmental stewardship. In communicating to the public, it is more important to focus on how changes will impact the utility bill amount not just on percentage changes. If coal fired plants were no longer allowed, there would be a huge increase in the price of electricity.

Gary Hausman inquired about the buffalo herd. Jackie Sargent responded that they took 4 buffalos to the stock show and that they all won an award.

Inquiries were made about PRPA's lobbying efforts. They have recently hired Barb Ateshzar to work in the Government & External Affairs position. Ateshzar and Sargent visited Washington DC in January to do some lobbying and talk about the issues important to them. PRPA currently is working to see if there should be some exclusions to the reporting requirements on SWAPS which they use to hedge some of their risks.

Item 5: Financial Report Update – Darcy Hodge This item summarizes the monthly and year-to-date financials for February 2013.

Staff Report only. No action required.

Comments: Board and staff commented on the number of water leaks this year. We had been holding steady at 23 leaks, but we had 4 water leaks over the weekend. Dave Schneider mentioned that it would have been good to have photos of the leaks included in the Reporter Herald to demonstrate the great need we have in replacing failing water lines.

Item 6: Customer Relations Program Updates – Tracey Hewson & Lindsey Bashline The purpose of this item is to provide LUC with an overview of the accomplishments and progress made with both residential and commercial energy and water programs.

Staff Report only. No action required.

Comments: The Board inquired what the "Other" category referred to in the reasons why homeowners received home energy audits. Lindsey Bashline responded that most of the "Other" responses included that all the listed reasons were equally important to them (helping the environment, making their home more comfortable, making their home more efficient, saving money on energy bills, receiving rebates for home improvements and free installation of items such as CFLs, LEDs, low flow faucets, etc.) or that their HOA was doing it. Dave Schneider made inquiries about whether the Home Energy Audits address window A/C units verse whole house A/C units. Lindsey Bashline responded that because window A/C units tend to travel with the owner or tenant that the audits do not focus on these portable appliances.

COMMISSION/COUNCIL REPORTS

Item 7: Commission/Council Reports

- Big Thompson Watershed Forum 2013 Watershed Meeting – February 28, 2013
- City Council Meeting on Water Financing – March 5, 2013
- Boards & Commissions Summit – March 14, 2013

Randy Williams: Wished everyone a happy vernal equinox or in other words a happy spring.
John Rust Jr: Announced that he will continue the annual Easter display in front of his home and invited us to come by and see the display. Commented that this area was not very well developed 60 or 70 years ago, but we have developed the area in a different way than in some struggling areas such as in North Dakota where they have turned to fracking.
Dan Herlihey: No comments
John Matis: Commented that how good this year's Big Thompson Water Shed Forum was in the location, food provided and the timeliness of the information presented, such as in discussing the effects of fire on water supplies. They perhaps had the highest attendance ever. The location was a key factor in maintaining high attendance throughout the event and enabling more networking to occur. Because the Greeley Event Center is far from most businesses, it was more of a destination that people stayed at throughout the entire event rather than leaving to go to other businesses or even to a restaurant for lunch. John Matis commented on what an enlightening speaker George Wallace, Ph.D., Professor Emeritus, from the Colorado State University and Larimer County Agricultural Advisory Board was. He spoke on the importance of agriculture on water and on the importance of open space. Matis also commented on the changes that have occurred in areas of North Dakota. They used to not be able to afford water, power and police, they now not only have these services, but ample work for the people due to the boom of the oil and gas fracking operations.
Gene Packer: Commented that he attended the Big Thompson Watershed Forum. He recently read an article in Natural Geographic on fracking in North Dakota and found the article to be very informative.
Gary Hausman: None
Darell Zimbelman: Commented that he also found the article in Natural Geographic on fracking in North Dakota to be very good.
Dave Schneider: Enjoyed the Big Thompson Watershed forum, but was disappointed that that one of the panelists did not show up from an oil & gas company. It would have been good to hear their perspective. He appreciated that two City Council members stayed the entire day, possibly due to dealing more with the hydraulic fracturing issues. It is nice to see elected officials at those types of hands on meetings where they can ask questions. The forum provided a lot of information on the watershed itself and has become more technical and thorough. He attended the Boards and Commissions Summit which was well attended by both the City Council and by staff. It was a nice meeting, and we did a good presentation.

Council Report: Daryle Klassen (Copy and paste from City Council Report)

Feb 26, 2013 Study Session: N/A

Mar 5, 2013 Meeting: Resolution #R-16-2013 concerning funding for the Water Enterprise was adopted on second reading.

Mar 12, 2013 Study Session: N/A

Mar 19, 2013 Meeting: N/A

Comments: Daryle Klassen inquired on the progress of acquiring the $10 million externally financed portion for the Water Enterprise. Alan Krcmarik responded that we are in the process of preparing a term sheet, putting out a request for quote to hire someone to issue the revenue bonds. The rate may come in at lower than 2% for the water financing. Steve Adams said we hope to have the design project completed in the November/December time frame and to start construction after that.

Commented on how City Council has taken the past eight or nine months to learn about fracking in order to make very calculated and informed decisions. They are learning from the decisions and ramifications of the decisions made by Fort Collins, Greeley and Longmont in regards to fracking.

At the Rocky Mountain Center for Technology and Innovation Site, Cumberland and Western is taking a methodical approach for obtaining the right types of tenants for the space and how to the area with jobs. There may be an accelerator program launched to fill the area with jobs. We are in the process of rounding up significant local dollars to go along with the requests to the City for this process.

DIRECTOR'S REPORT

Item 8: Director's Report – Steve Adams

Comments: We have seen the C-BT price rise to $14,000 confirmed by district staff and to $14,500 through other sources. The C-BT price not long ago was at $6,800 not too long ago and we have really seen the price climb.

INFORMATION ITEMS

Item 9: Electric Legislative Update – Kim O'Field This item and the attachment are intended to give a brief update on electric-related legislation being contemplated by the Colorado General Assembly. Loveland staff relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

Information report only. No action required.

Item 10: **Water Legislative Update – Greg Dewey** This item and the attachment are intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland staff relies primarily on the Colorado Water Congress for information on water-related legislation. Their assistance has proved invaluable in providing the following information.

Information report only. No action required.

Item 11: **Water Supply Update – Larry Howard** Projection for water supply in 2013.

Information report only. No action required.

ADJOURN The meeting was adjourned at 7:25 pm. The next LUC Meeting will be the fourth Wednesday in April on April 24, 2013 at 4:00 pm.

Respectfully submitted,

Michelle Stalker
Recording Secretary
Loveland Utilities Commission

City of Loveland

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AGENDA ITEM: 1
MEETING DATE: 4/24/2013
SUBMITTED BY: Steve Adams, Director MS for SA

TITLE: 2013 1st Quarter Goals and Milestones Report

DESCRIPTION:
This is a quarterly review of our progress on our 2013 utility goals and milestones report.

SUMMARY:
Review 2013 utility goals and milestones report and the 1st quarter updates.

RECOMMENDATION:
Discuss the presented information and approve the 1st Quarter 2013 LUC status report.

REVIEWED BY DIRECTOR: MS for SA

Loveland Utilities Commission
2013 Goals with 1st Qtr. Updates

FINANCE

Review rates and extension policies:

1. **Goal:** **Prepare Capital Improvement Plans for Water and Wastewater** supported by a 2012 cost of service study and a 2012 rate study that provides adequate capital funding while taking into account depreciation. (11B.1.IP3 and 11D.1.IP1)
   Q1 2013 Update: On March 5, 2013, City Council approved a resolution that sets into place measures which allow the Water Utility to do 1) external borrowing of $10 million; 2) internal borrowing from the Power Utility of $6 million; 3) receive an annual contribution of $750,000 from the General Fund for eight years to be used to pay the principal portion of the internal loan; and 4) established a series of rate increases for the next ten years. The cost of service rate study also generated a series of rate increases for the Wastewater Utility that is intended to provide sufficient revenue to fund the 10 year capital improvement program.

2. **Goal:** **Prepare Capital Improvement Plans for Power** supported by a 2013 cost of service study and a 2013 rate study that provides adequate capital funding while taking into account depreciation and determine if we should design an electric rate that would encourage customers to lower their demand during system peaks.
   Q1 2013 Update: Staff has already been working to develop the 10 year capital improvement program for the Power Utility. A cost of service rate study for Power will be kicked off in May, and a series of rate increases will be developed with the goal of funding the capital improvement program and to keep pace with PRPA wholesale rate increases. Part of the scope of the rate study will be to develop a new rate class for large commercial customers that will encourage those customers to reduce their demand during system peaks.

3. **Goal:** Continue to formulate an **electric line extension policy**.
   Q1 2013 Update: Kathleen Porter is working on the policy and is projecting this will go to LUC in June of 2013.

4. **Goal:** Continue to update the **water line and sewer line extension policy**.
   Q1 2013 Update: Melissa Morin met with Sharon Citino from legal on the updates. We project the updated policy will go to LUC in June of 2013.

POWER

Explore how improvements in technology can be utilized to improve efficiencies and enhance department operations and maintenance programs: (11C.3.IP1)

5. **Russel Goal:** Continue to monitor **Smart Grid and other technologies** implemented by other utilities to determine if they are applicable to Loveland and recommend to LUC and then to Loveland City Council.
   Q1 2013 Update: Staff has applied for a Demonstration of Energy & Efficiency Developments (DEED) grant for the implementation of the load profile meters on Key Account meters. Staff has continued to evaluate meter manufactures that best meet the requirements required for the project.

6. **Goal:** Expand the use of the **Supervisory Control and Data Acquisition (SCADA)** system to apply to the power distribution system.
   Q1 2013 Update: Staff has applied for a DEED grant for the implementation of the fault indicators on the distribution system. Staff is waiting to see if the DEED grant will be

awarded to the City.

7. **Goal:** Continue to implement the Outage Management System (OMS).
   Q1 2013 Update: We have rolled out the initial installation of Responder and staff has received training on how to use the OMS. Responder went live in the later part of the First Quarter. Staff has been using Responder for all outage tracking, and for all mapping updates when switching the distribution system around.

8. **Goal:** Continue to study the impact **electric vehicles** will have on utilities service, budget and infrastructure.
   Q1 2013 Update: In partnership with the City of Fort Collins, Colorado State University and the Electrification Coalition, we launched Drive Electric Northern Colorado on February 25, 2013 at the Museum of Discovery in Fort Collins. We also submitted a grant application for the funding of electric vehicle charging stations.

9. **Goal:** Implement an **LED streetlight policy**.
   Q1 2013 Update: The new LED streetlight policy will be presented at the April 24, 2013 LUC meeting.

Update the following Power studies: (11C.2.IP1)

10. **Goal: Emergency Response/Preparedness Protocol**, to ensure physical security and timely response to outages, including site security by December 2013.
    Q1 2013 Update: We had one break-in at a distribution substation, and two cooper thefts at the lineman training facility. We continue to work with the Loveland Police Department. We will continue to work in this area along with the continuing work on the Continuity of Operations Plan (COOP).

11. **Goal:** Review, upon request, **Platte River Power Authority (PRPA) policies for providing reliable generation and transmission** for the City of Loveland and recommend changes to Loveland City Council.
    Q1 2013 Update: Water and Power will participate with PRPA in the development of a strategic plan. This will includes staff participation in at least two subcommittees and general stakeholder meetings. The first scheduled meeting is set for May 8, 2013.

12. **Goal:** Update the **Requirements for Electric Service** book.
    Q1 2013 Update: Power staff is meeting every two weeks to collaborate and update this book. We project the updates will be presented to LUC in July 2013.

WATER

13. **Support the City's goals in developing a master plan for development along the Highway 402 corridor, including wastewater service.**
    Q1 2013 Update: At the City Council Advance on January 26, 2013, the City Council approved this as an active goal for 2013. Staff is retaining consulting engineering services to further develop plans for sanitary sewer service options along this corridor.

Prevent the introduction of pollutants into the raw and treated water supply that could interfere with operations and the ability to supply a clean, safe, and secure supply of

treated water: (11B.3.IP1)

14. Goal: Continue to support the monitoring and assessment efforts through participation in the **Big Thompson Watershed Forum**.
Q1 2013 Update: Staff and LUC participated in the 2013 Big Thompson Watershed Forum, which is held every other year. This year it was held at the Island Grove Regional Park in Greeley on February 28, 2013.

15. Goal: Support City wide effort regarding **hydraulic fracking**.
Q1 2013 Update: Staff commented on proposed oil and gas regulations and City Council adopted a hydraulic fracking ordinance on March 19, 2013, which will be legally effective on April 2, 2013.

Update the following Water Planning Documents: (11B.1.IP1)

16. Goal: Second Use Water Program Development Report, to maximize reusable water sources and which will consider economics and current development, by December 2013.
Q1 2013 Update: Staff continues to field inquiries about the use of raw water for irrigation both in existing developments and in new developments.

17. Goal: Complete an update to the **Drought Response Plan** by December 2013.
Q1 2013 Update: Staff presented the Drought Response Plan to the LUC on March 20, 2013.

Explore additional planning opportunities related to water provision: (11B.1.IP2)

18. Goal: To assure the availability of Windy Gap water, continue participation in planning / design of Windy Gap Firming Project
Q1 2013 Update: Recent discussions for West Slope enhancements for the project have focused on pumps for ranches in the Kremmling area.

19. Goal: Pursue acquisition of additional Colorado-Big Thompson Project (CBT) units.
Q1 2013 Update: Staff continues its search for additional blocks of CBT units for sale, and monitoring market prices. The market prices have increased from about $8,000 per acre feet (AF) to $13,500 per AF.

Update the following studies:

20. Goal: Emergency Response /Preparedness Protocol - to ensure physical security and timely response to service interruptions, including site security by December 2013.
Q1 2013 Update: Staff continues to increase response effectiveness by updating the response protocol and assignments along with the Continuity of Operations Plan (COOP).

21. Goal: Explore regional opportunities to participate in studies that look at raw and treated **water provisions on a regional basis** by December 2013.
Q1 2013 Update: Northern Water is performing a study update with select Northern Colorado Communities. Loveland is participating in this effort and will receive the study results in 2013.

WASTEWATER

Update the following studies: (11D.2.IP1)

22. Goal: Level of Service Study - to evaluate adequacy, reliability and safety of wastewater service and whether federal, state and local requirements continue to be satisfied by December 2013.
Q1 2013 Update: Staff is evaluating options for expanding the treatment capacity of the wastewater plant in order to continue providing adequate levels of service to our customers.

23. Goal: Emergency Response /Preparedness Protocol - to ensure physical security and timely response to service interruptions, including site security by December 2013.
Q1 2013 Update: Staff continues to increase response effectiveness by updating the response protocol and assignments along with the Continuity of Operations Plan (COOP).

CUSTOMER RELATIONS

Promote energy conservation by continuing to encourage the use of load management programs and evaluating the use of demand response programs: (11C.3.IP2)

24. Goal: Implement Loveland City Council approved **energy conservation programs** by December 2013.
Q1 2013 Update: Staff is continuing to administer programs including fielding calls, scheduling participants, processing rebates, etc. As an ongoing task, staff continues to review program results, making changes or adjustments where necessary.

25. Goal: Develop a plan that helps the Department evaluate, consider, and guide **future renewable energy participation opportunities**.
Q1 2013 Update: We have developed a strategy and tracking mechanism to report the renewables that the City of Loveland currently owns and operates. We are in the process of researching which renewables would qualify if the City of Loveland needed to comply with the State's current Renewable Energy Standards.

26. Goal: Formulate and implement commercial customer **Demand Side Management**, by December 2013.
Q1 2013 Update: No progress made on this goal.

27. Goal: Encourage water use efficiency which includes implementing the conservation and peak reduction measures adopted by City Council in July 2010
Q1 2013 Update: In 2013, we are continuing education on xeriscape and irrigation audits through the Garden-In-A-Box and the Slow the Flow programs in partnership with the Center for ReSource Conservation. In addition to continuing programs staff has begun posting bi-weekly wise water use videos online and on Channel 16 as well as hosting the Loveland Water and Power Open House Series. The topic for the May 1, 2013 Open House will focus on Loveland water use and conservation.

Continue promoting responsible use of water to ensure a lasting supply for the future: (11B.3.IP3)

28. Goal: Prepare an updated Water Conservation Plan, in compliance with Colorado Water Conservation Board direction and the Water Conservation Act of 2004 while coordinating with the Northern Colorado Water Conservancy Districts requirements by July 2013.
Q1 2013 Update: A draft of the City's Water Conservation Plan was presented to LUC on

February 20, 2013. The draft Plan was available for a 60-day public comment period beginning February 21, 2013 through April 21, 2013. Following the public comment period, staff will present the Plan at the April 24, 2013 LUC meeting, the April 24, 2013 CAB meeting and at the May 14, 2013 City Council meeting.

29. Goal: Support city wide development of a **Sustainability Plan** which will address water, power and wastewater infrastructure by December 2013.
Q1 2013 Update: The Sustainability Plan is currently on the City Council's schedule to be presented on July 9, 2013.

30. Goal: Participate in EPA Region 8 water and wastewater infrastructure, energy management pilot to develop an Energy Management Plan by December 2012.
Q1 2013 Update:
Water Treatment Plant Hydroturbine Feasibility Study: The City continues to work with the consultant on the feasibility of installing a small hydro turbine at the water treatment plant. It is anticipated that the feasibility study will be completed mid to late May 2013. The feasibility study will be used to seek further grant and loan assistance for design and installation of the turbine assuming the project is feasible.
Biogas Evaluation: The City consultant just completed a secondary benefit evaluation of utilizing biogas for energy or electricity at the Wastewater Treatment Plant (WWTP). The findings of the evaluation concluded that, yes it is a viable energy source, but with today's low prices of gas and electricity the return on investment to clean and condition the biogas and the cost of the equipment to convert it to electricity has a very long payback period without major grant assistance. At this time, it is recommended to optimize the current biogas uses (i.e. building heat) and continue to evaluate cost effective means for using biogas at the WWTP in the future.

31. Goal: Evaluate and plan downtown infrastructure for revitalization
Q1 2013 Update: Staff is working with several businesses in the downtown area to accomplish their infrastructure needs and improvements. In this quarter, staff has been working on the expansion of Lightning Hybrids, the Brinkman project and streetlight enhancements. In 2013, we will continue to serve on the Holiday Council, the Holiday Lighting Committee and the Loveland Downtown Team.

33. Goal: Expand communications, public outreach and marketing for the utilities programs, challenges, infrastructure concerns, rates and supply.
Q1 2013 Update: We continue to serve as the public relations arm of the department, drafting letters and press releases for our internal customers. We recently met with public information officers from other City Departments for a brainstorming session on the Communications Awareness Campaign – an effort to better use our social media and branding resources. We received training and continue to develop our skills on our graphics software in hopes that we can publish a Key Accounts newsletter in the coming months. We will be participating in the Medical Center of the Rockies Earth Day Open House, Children's Day and Public Works day in the next couple of weeks. We hosted an Open House in March. More than 30 customers and four City Council members attended our open forum through which we were able to share information about new water rate increases, fracking in Loveland and our residential energy efficiency programs. We are working with the Thompson R2J School District to host a media day when we can showcase the solar project at Walt Clark Middle School. We continue to work with Erwin Middle School to develop their

greenhouse project that is being funded by our Energy Efficiency Assistance Grant. We continue to work with the Winter Holiday Council to build relationships and ensure they are successful in participating in Loveland's holiday celebration. We have been working on developing a coincident peak rate for our large commercial customers. We met as an internal development team and created a list of parameters and questions that will be taken to our rate consultant when he works on our cost-of-service study this year. We are hopeful we can design something that will help us reduce peak costs and also help our customers use their power more efficiently.

City of Loveland

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AGENDA ITEM: 2
MEETING DATE: 4/24/2013
SUBMITTED BY: Russel Jentges, Senior Electrical Engineer MS for RJ

TITLE: Updating the Platte River Power Authority (PRPA)/Loveland Intergovernmental Agreement

DESCRIPTION: The current Substation Maintenance Intergovernmental Agreement (IGA) between PRPA and Loveland needs to be updated.

SUMMARY: On September 22, 2008, the City of Loveland and PRPA entered into an intergovernmental agreement to define maintenance responsibilities for Loveland's Substations. On January 31, 2013, the PRPA Substation Technician that preformed the substation maintenance on the Loveland Substations retired. PRPA and Water and Power Department Staff have met to figure out how to fill the void that was due to in this retirement. During these discussions PRPA and Water and Power Department Staff concluded that the current Substation Maintenance IGA was in need of revising to better define the roles that were expected of each entity. From the discussions between PRPA and the Water and Power Department, Exhibit B was added and minor modifications were made to the IGA to reference Exhibit B. The new IGA will have to go through one City Council reading before the City Manager can sign it. This item is on the May 7, 2013 City Council agenda.

RECOMMENDATION: Adopt a motion recommending that the City Council approve the updated Intergovernmental Agreement for Substation Maintenance.

REVIEWED BY DIRECTOR: MS for SA

ATTACHMENTS:

1. Copy of the Original Substation Maintenance Intergovernmental Agreement
2. Copy of the Updated Substation Maintenance Intergovernmental Agreement

INTERGOVERNMENTAL AGREEMENT FOR SUBSTATION MAINTENANCE

THIS INTERGOVERNMENTAL AGREEMENT FOR SUBSTATION MAINTENANCE ("Agreement") is made and entered into this 22 day of September, 2008, by and between the CITY OF LOVELAND, COLORADO, a home rule municipality ("Loveland"), and PLATTE RIVER POWER AUTHORITY, a political subdivision organized and existing under and by virtue of the laws of the State of Colorado ("Platte River").

WHEREAS, Loveland desires to hire Platte River to perform substation maintenance work as set forth in this Agreement; and

WHEREAS, Platte River desires to provide those services to Loveland; and

WHEREAS, as governmental entities in Colorado, Loveland and Platte River are authorized, pursuant to C.R.S. § 29-1-203, to cooperate or contract with one another to provide any function, service, or facility lawfully authorized to each.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Services. Loveland agrees to retain Platte River to provide substation maintenance work as more specifically set forth in Exhibit A, attached hereto and incorporated herein by reference ("Services"), and Platte River agrees to so serve. Platte River warrants and represents that it has the requisite authority, capacity, experience, and expertise to perform the Services in compliance with the provisions of this Agreement and all applicable laws and agrees to perform the Services on the terms and conditions set forth herein.

2. Compensation. Loveland agrees to pay Platte River in accordance with Exhibit A. Loveland shall make payment upon receipt and approval of invoices submitted by Platte River, which invoices shall identify the Services performed for which payment is requested.

3. Term. The Term of this Agreement shall be from the date first written above until terminated as provided in Paragraph 10 below.

4. Appropriation. To the extent this Agreement constitutes a multiple fiscal year debt or financial obligation of Loveland, it shall be subject to annual appropriation pursuant to the City of Loveland Municipal Charter Section 11-6 and Article X, Section 20 of the Colorado Constitution. Loveland shall have no obligation to continue this Agreement in any fiscal year in which no such appropriation is made.

5. Monitoring and Evaluation. Loveland reserves the right to monitor and evaluate the progress and performance of Platte River to ensure that the terms of this Agreement are being satisfactorily met in accordance with Loveland's and other applicable monitoring and evaluating

criteria and standards. Platte River shall cooperate with Loveland relating to such monitoring and evaluation.

6. Independent Contractor. The parties agree that Platte River shall be an independent contractor and shall not be an employee, agent, or servant of Loveland.

7. Insurance Requirements.

a. Comprehensive General Liability Insurance. Platte River shall procure and keep in force during the duration of this Agreement a policy of comprehensive general liability insurance insuring Platte River against any liability for personal injury, bodily injury, or death arising out of the performance of the Services with at least One Million Dollars ($1,000,000) each occurrence.

b. Comprehensive Automobile Liability Insurance. Platte River shall procure and keep in force during the duration of this Agreement a policy of comprehensive automobile liability insurance insuring Platte River against any liability for personal injury, bodily injury, or death arising out of the use of motor vehicles and covering operations on or off the site of all motor vehicles controlled by Platte River which are used in connection with the Project, whether the motor vehicles are owned, non-owned, or hired, with a combined single limit of at least One Million Dollars ($1,000,000).

c. Terms of Insurance. Insurance required by this Agreement shall be with companies satisfactory to Loveland and may provide for deductible amounts as Platte River deems reasonable for the Services. No such policies shall be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days prior written notice to Loveland. Platte River shall identify whether the type of coverage is "occurrence" or "claims made." If the type of coverage is "claims made," which at renewal Platte River changes to "occurrence," Platte River shall carry a six (6)-month tail. Platte River shall not do or permit to be done anything that shall invalidate the policies.

d. Workers' Compensation and Other Insurance. During the term of this Agreement, Platte River shall procure and keep in force workers' compensation insurance and all other insurance required by any applicable law.

e. Evidence of Coverage. Upon request, Platte River shall furnish to Loveland certificates of insurance policies evidencing insurance coverage required by this Agreement.

f. Subcontracts. Platte River shall contract only with entities capable of performing the work for which they are retained. Platte River shall require all subcontractors to carry adequate levels of insurance and to name Loveland as an additional insured under the required policies. In addition, all contracts between Platte

River and subcontractors for work under this Agreement shall name Loveland as a third party beneficiary of such contracts.

g. Property Insurance. Loveland shall maintain adequate property insurance, which insurance shall provide a waiver of subrogation in favor of Platte River. Upon request, Loveland shall provide documentation to Platte River confirming the existence of said property insurance with the waiver of subrogation language.

8. Indemnification. To the extent permitted by law, Platte River hereby covenants and agrees to indemnify, save, and hold harmless Loveland, its officers, employees, and agents from any and all liability, loss, costs, charges, obligations, expenses, attorney's fees, litigation, judgments, damages, claims, and demands of any kind whatsoever arising from or out of any gross negligence or intentional misconduct of Platte River, its officers, employees, or agents in the performance or nonperformance of its obligations under this Agreement.

9. Limitations of Liability. In recognition of the nature of the compensation received for the Services rendered by Platte River under this Agreement, in no event will Platte River be liable to Loveland for any claim for damage to property of Loveland, whether such claim is in contract or tort, except as provided in Paragraph 8, above. IN NO EVENT WILL PLATTE RIVER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, OR PUNITIVE DAMAGES.

10. Termination.

a. Generally.

(i) Loveland may terminate this Agreement without cause if it determines that such termination is in Loveland's best interest. Loveland shall effect such termination by giving written notice of termination to Platte River, specifying the effective date of termination, at least thirty (30) calendar days prior to the effective date of termination. In the event of such termination by Loveland, Loveland shall be liable to pay Platte River for Services performed as of the effective date of termination, but shall not be liable to Platte River for anticipated profits. Platte River shall not perform any additional Services following receipt of the notice of termination unless otherwise instructed in writing by Loveland.

(ii) Platte River may terminate this Agreement without cause if it determines that such termination is in Platte River's best interest. Platte River shall effect such termination by giving written notice of termination to Loveland, specifying the effective date of termination, at least sixty (60) calendar days prior to the effective date of termination.

b. For Cause. If, through any cause, Platte River fails to fulfill its obligations under this Agreement in a timely and proper manner, violates any provision of this Agreement, or violates any applicable law, and does not commence correction of such nonperformance or violation within seven (7) calendar days of receipt of written notice

and diligently complete the correction thereafter, Loveland shall have the right to terminate this Agreement for cause immediately upon written notice of termination to Platte River. In the event of such termination by Loveland, Loveland shall be liable to pay Platte River for Services performed as of the effective date of termination, but shall not be liable to Platte River for anticipated profits. Platte River shall not perform any additional Services following receipt of the notice of termination.

11. Governmental Immunity Act. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 *et seq.*

12. Survival Clause. The "Indemnification" provision set forth in this Agreement shall survive the completion of the Services and the satisfaction, expiration, or termination of this Agreement.

13. Entire Agreement. This Agreement contains the entire agreement of the parties relating to the subject matter hereof and, except as provided herein, may not be modified or amended except by written agreement of the parties. This Agreement is for the benefit of the parties, and there is no third party or other intended beneficiaries to this Agreement.

14. Severability. In the event a court of competent jurisdiction holds any provision of this Agreement invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision of this Agreement.

15. Headings. Paragraph headings used in this Agreement are for convenience of reference and shall in no way control or affect the meaning or interpretation of any provision of this Agreement.

16. Notices. Written notices required under this Agreement and all other correspondence between the parties shall be directed to the following and shall be deemed received when hand-delivered or three (3) days after being sent by certified mail, return receipt requested:

If to Loveland:
Director of Water & Power
City of Loveland
200 N. Wilson Avenue
Loveland, CO 80537

If to Platte River:
General Manager
Platte River Power Authority
2000 East Horsetooth Road
Fort Collins, CO 80525

15. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Colorado, and venue shall be in the County of Larimer, State of Colorado. In addition,

the parties recognize the legal constraints imposed upon them by the constitutions, statutes, and regulations of the State of Colorado and of the United States, and imposed upon Loveland by its Charter and Municipal Code, and, subject to such constraints, the parties intend to carry out the terms and conditions of this Agreement. Notwithstanding any other provision in this Agreement to the contrary, in no event shall either of the parties hereto exercise any power or take any action which shall be prohibited by applicable law.

16. Counterparts. This Agreement may be executed in separate counterparts, and the counterparts taken together shall constitute the whole of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

CITY OF LOVELAND, COLORADO

By: _____
Eugene N. Pielin, Mayor

ATTEST:

Teresa A. Andrews
City Clerk

CITY OF LOVELAND COLORADO SEAL

APPROVED AS TO FORM:

Assistant City Attorney

PLATTE RIVER POWER AUTHORITY

By: Brian H. Mocek

Title: General Manager

ATTEST:

Assistant Secretary

Platte River Power Authority 9/16/08 Legal Dept. Approved As To Form

PLATTE RIVER POWER AUTHORITY CORPORATE SEAL COLORADO

EXHIBIT A

Scope of Services

Platte River shall provide all substation maintenance work required at Loveland's substations (the "substations"). This Exhibit A describes in general the work responsibilities that Platte River will assume, the manner in which those responsibilities will be performed, and the administrative activities that will support this work.

Staffing

Platte River will:

- Employ adequate staff to perform substation maintenance at the substations. These employees may have other job responsibilities in addition to their responsibilities under this Agreement.
- Platte River will identify a lead person on its staff to coordinate the work between Platte River and Loveland.

Scope of Work

Platte River will:

- Assume responsibility for testing and maintenance of Loveland's transformers and load tap changers.
- Maintain the switchgear at the substations.
- Maintain the batteries at the substations.
- Calibrate and repair relays at the substations (and recalculate and update relay settings if appropriate).
- Provide the care and upkeep of the control buildings at the substations.
- Provide a quarterly written summary documenting work completed for Loveland and plans for future work.
- If requested and mutually agreed, maintain a spare parts inventory.
- Provide substation engineering design support for all new capital projects and engineering support needed to solve existing equipment problems.
- Provide staffing to support substation construction projects.

Administrative Support

Platte River will:

- Document all work done through work orders initiated in its maintenance management system. Copies of these documents shall be made available to Loveland upon request.
- Coordinate any planned outages with Loveland staff.
- Provide a single point of contact for Loveland staff for distribution system coordination.
- Make available Platte River staff to meet with Loveland staff to coordinate substation activities with other distribution system activities.
- Arrange coordination meetings with Loveland staff as needed to make sure that Platte River substation maintenance work on behalf of Loveland is being planned and coordinated appropriately.

- Provide updates to any drawings that need to be changed as a result of any Platte River work in the substations.
- Request Loveland's approval for any parts that are needed to repair Loveland's equipment that exceeds $1,000 for either a single part or the aggregate cost of multiple parts, which approval shall not be unreasonably withheld.

Loveland will:

- Provide access to any substation equipment drawings necessary to perform the work described in this Agreement.
- Provide the use of any specialized substation maintenance equipment or spare parts that remain in Loveland's possession.
- Provide first response call-out for any substation problems (with Platte River providing back-up during vacations or illnesses).

Reimbursement

Platte River will:

- Provide a monthly invoice for work performed for Loveland. This invoice will be based on the time spent by Platte River staff on Loveland substation work, as documented through work orders that will be available for Loveland's review, and the cost of any parts purchased on behalf of Loveland. Vehicle costs and the costs of any unique equipment necessary for the performance of the Services will be included.
- Use a billing rate for its staff that consists of direct pay and benefits. No Platte River administrative costs will be billed to Loveland.
- Loveland acknowledges that the billing rate may change during the term of this Agreement.

Loveland will:

- Pay invoices submitted by Platte River on a timely basis.

INTERGOVERNMENTAL AGREEMENT
FOR SUBSTATION MAINTENANCE

THIS INTERGOVERNMENTAL AGREEMENT FOR SUBSTATION MAINTENANCE ("Agreement") is made and entered into this ____ day of May, 2013, by and between the CITY OF LOVELAND, COLORADO, a home rule municipality ("Loveland"), and PLATTE RIVER POWER AUTHORITY, a political subdivision organized and existing under and by virtue of the laws of the State of Colorado ("Platte River".)

WHEREAS, Loveland desires to hire Platte River to perform substation maintenance work as set forth in this Agreement; and

WHEREAS, Platte River desires to provide those services to Loveland; and

WHEREAS, as governmental entities in Colorado, Loveland and Platte River are authorized, pursuant to C.R.S. § 29-1-203, to cooperate or contract with one another to provide any function, service, or facility lawfully authorized to each.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Services. Loveland agrees to retain Platte River to provide substation maintenance work as more specifically set forth in Exhibits A and B, attached hereto and incorporated herein by reference ("Services"), and Platte River agrees to so serve. Platte River warrants and represents that it has the requisite authority, capacity, experience, and expertise to perform the Services in compliance with the provisions of this Agreement and all applicable laws and agrees to perform the Services on the terms and conditions set forth herein.

2. Compensation. Loveland agrees to pay Platte River in accordance with Exhibit A. Loveland shall make payment upon receipt and approval of invoices submitted by Platte River, which invoices shall identify the Services performed for which payment is requested.

3. Term. The Term of this Agreement shall be from the date first written above until terminated as provided in Paragraph 10 below.

4. Appropriation. To the extent this Agreement constitutes a multiple fiscal year debt or financial obligation of Loveland; it shall be subject to annual appropriation pursuant to the City of Loveland Municipal Charter Section 11-6 and Article X, Section 20 of the Colorado Constitution. Loveland shall have no obligation to continue this Agreement in any fiscal year in which no such appropriation is made.

5. Monitoring and Evaluation. Loveland reserves the right to monitor and evaluate the progress and performance of Platte River to ensure that the terms of this Agreement are being satisfactorily met in accordance with Loveland's and other applicable monitoring and evaluating criteria and standards. Platte River shall cooperate with Loveland relating to such monitoring and evaluation.

6. Independent Contractor. The parties agree that Platte River shall be an independent contractor and shall not be an employee, agent, or servant of Loveland.

7. Insurance Requirements.

a. Comprehensive General Liability Insurance. Platte River shall procure and keep in force during the duration of this Agreement a policy of comprehensive general liability insurance insuring Platte River against any liability for personal injury, bodily injury, or death arising out of the performance of the Services with at least One Million Dollars ($1,000,000) each occurrence.

b. Comprehensive Automobile Liability Insurance. Platte River shall procure and keep in force during the duration of this Agreement a policy of comprehensive automobile liability insurance insuring Platte River against any liability for personal injury, bodily injury, or death arising out of the use of motor vehicles and covering operations on or off the site of all motor vehicles controlled by Platte River which are used in connection with the Project, whether the motor vehicles are owned, non-owned, or hired, with a combined single limit of at least One Million Dollars ($1,000,000).

c. Terms of Insurance. Insurance required by this Agreement shall be with companies satisfactory to Loveland and may provide for deductible amounts as Platte River deems reasonable for the Services. No such policies shall be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days prior written notice to Loveland. Platte River shall identify whether the type of coverage is "occurrence" or "claims made." If the type of coverage is "claims made," which at renewal Platte River changes to "occurrence," Platte River shall carry a six (6)-month tail. Platte River shall not do or permit to be done anything that shall invalidate the policies.

d. Workers' Compensation and Other Insurance. During the term of this Agreement, Platte River shall procure and keep in force workers' compensation insurance and all other insurance required by any applicable law.

e. Evidence of Coverage. Upon request, Platte River shall furnish to Loveland certificates of insurance policies evidencing insurance coverage required by this Agreement.

f. Subcontracts. Platte River shall contract only with entities capable of performing the work for which they are retained. Platte River shall require all subcontractors to carry adequate levels of insurance and to name Loveland as an additional insured under the required policies. In addition, all contracts between Platte River and subcontractors for work under this Agreement shall name Loveland as a third party beneficiary of such contracts.

g. Property Insurance. Loveland shall maintain adequate property insurance, which insurance shall provide a waiver of subrogation in favor of Platte River. Upon request, Loveland shall provide documentation to Platte River confirming the existence of said property insurance with the waiver of subrogation language.

8. Indemnification. To the extent permitted by law, Platte River hereby covenants and agrees to indemnify, save, and hold harmless Loveland, its officers, employees, and agents from any and all liability, loss, costs, charges, obligations, expenses, attorney's fees, litigation, judgments, damages, claims, and demands of any kind whatsoever arising from or out of any gross negligence or intentional misconduct of Platte River, its officers, employees, or agents in the performance or nonperformance of its obligations under this Agreement.

9. Limitations of Liability. In recognition of the nature of the compensation received for the Services rendered by Platte River under this Agreement, in no event will Platte River be liable to Loveland for any claim for damage to property of Loveland, whether such claim is in contract or tort, except as provided in Paragraph 8, above. IN NO EVENT WILL PLATTE RIVER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, OR PUNITIVE DAMAGES.

10. Termination.

a. Generally.

(i) Loveland may terminate this Agreement without cause if it determines that such termination is in Loveland's best interest. Loveland shall effect such termination by giving written notice of termination to Platte River, specifying the effective date of termination, at least thirty (30) calendar days prior to the effective date of termination. In the event of such termination by Loveland, Loveland shall be liable to pay Platte River for Services performed as of the effective date of termination, but shall not be liable to Platte River for anticipated profits. Platte River shall not perform any additional Services following receipt of the notice of termination unless otherwise instructed in writing by Loveland.

(ii) Platte River may terminate this Agreement without cause if it determines that such termination is in Platte River's best interest. Platte River shall effect such termination by giving written notice of termination to Loveland, specifying the effective date of termination, at least sixty (60) calendar days prior to the effective date of termination.

b. For Cause. If, through any cause, Platte River fails to fulfill its obligations under this Agreement in a timely and proper manner, violates any provision of this Agreement, or violates any applicable law, and does not commence correction of such nonperformance or violation within seven (7) calendar days of receipt of written notice and diligently complete the correction thereafter, Loveland shall have the right to terminate this Agreement for cause immediately upon written notice of termination to Platte River. In the event of such termination by Loveland, Loveland shall be liable to

pay Platte River for Services performed as of the effective date of termination, but shall not be liable to Platte River for anticipated profits. Platte River shall not perform any additional Services following receipt of the notice of termination.

11. Governmental Immunity Act. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 *et seq.*

12. Survival Clause. The "Indemnification" provision set forth in this Agreement shall survive the completion of the Services and the satisfaction, expiration, or termination of this Agreement.

13. Entire Agreement. This Agreement contains the entire agreement of the parties relating to the subject matter hereof and, except as provided herein, may not be modified or amended except by written agreement of the parties. This Agreement is for the benefit of the parties, and there is no third party or other intended beneficiaries to this Agreement.

14. Severability. In the event a court of competent jurisdiction holds any provision of this Agreement invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision of this Agreement.

15. Headings. Paragraph headings used in this Agreement are for convenience of reference and shall in no way control or affect the meaning or interpretation of any provision of this Agreement.

16. Notices. Written notices required under this Agreement and all other correspondence between the parties shall be directed to the following and shall be deemed received when hand-delivered or three (3) days after being sent by certified mail, return receipt requested:

If to Loveland:
Director of Water & Power
City of Loveland
200 N. Wilson Avenue
Loveland, CO 80537

If to Platte River:
General Manager
Platte River Power Authority
2000 East Horsetooth Road
Fort Collins, CO 80525

17. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Colorado, and venue shall be in the County of Larimer, State of Colorado. In addition, the parties recognize the legal constraints imposed upon them by the constitutions, statutes, and regulations of the State of Colorado and of the United States, and imposed upon Loveland by its Charter and Municipal Code, and, subject to such constraints, the parties intend to carry out the terms and conditions of this Agreement. Notwithstanding any other provision

in this Agreement to the contrary, in no event shall either of the parties hereto exercise any power or take any action which shall be prohibited by applicable law.

18. Counterparts. This Agreement may be executed in separate counterparts, and the counterparts taken together shall constitute the whole of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

CITY OF LOVELAND, COLORADO

By: _____
Cecil Gutierrez, Mayor

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

PLATTE RIVER POWER AUTHORITY

By: _____

Title: _____

ATTEST:

_____
Assistant Secretary

EXHIBIT A

Scope of Services

Platte River shall provide substation maintenance work at Loveland's substations (the "substations"). This Exhibit A describes in general the work responsibilities that Platte River will assume, the manner in which those responsibilities will be performed, and the administrative activities that will support this work.

Staffing

Platte River will:

- Employ adequate staff to perform substation maintenance at the substations. These employees may have other job responsibilities in addition to their responsibilities under this Agreement.
- Platte River will identify a lead person on its staff to coordinate the work between Platte River and Loveland.

Scope of Work

Platte River will:

- Complete substation maintenance tasks as outlined in **Exhibit B**
- Provide substation engineering design support for all new capital projects and engineering support needed to solve existing equipment problems.
- Provide staffing to support substation construction projects.

Loveland will:

- Complete substation maintenance tasks as outlined in **Exhibit B**

Administrative Support

Platte River will:

- Document all work completed through work orders initiated in its maintenance management system. Copies of these documents shall be made available to Loveland upon request.
- Coordinate any planned outages with Loveland staff.
- Provide a single point of contact for Loveland staff for distribution system coordination.
- Make available Platte River staff to meet with Loveland staff to coordinate substation activities with other distribution system activities.
- Arrange coordination meetings with Loveland staff as needed to make sure that Platte River substation maintenance work on behalf of Loveland is being planned and coordinated appropriately.
- Provide updates to any drawings that need to be changed as a result of any Platte River work in the substations.
- Request Loveland's approval for any parts that are needed to repair Loveland's equipment that exceeds $1,000 for either a single part or the aggregate cost of multiple parts, which approval shall not be unreasonably withheld.

Loveland will:

- Provide access to any substation equipment drawings necessary to perform the work described in this Agreement.
- Provide the use of any specialized substation maintenance equipment or spare parts that remain in Loveland's possession.
- Provide first response call-out for any substation problems (with Platte River providing back-up during vacations or illnesses).

Reimbursement

Platte River will:

- Provide a monthly invoice for work performed for Loveland. This invoice will be based on the time spent by Platte River staff on Loveland substation work, as documented through work orders that will be available for Loveland's review, and the cost of any parts purchased on behalf of Loveland. Vehicle costs and the costs of any unique equipment necessary for the performance of the Services will be included.
- Use a billing rate for its staff that consists of direct pay and benefits. No Platte River administrative costs will be billed to Loveland.
- Loveland acknowledges that the billing rate may change during the term of this Agreement.

Loveland will:

- Pay invoices submitted by Platte River on a timely basis.

Exhibit B

Loveland Substation Maintenance/Engineering Responsibilities

Task Description	Responsibility	Department	Company Contact
RTU control wiring	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Install/remove switchgear breakers	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Switchgear breaker maintenance	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Install/remove ground breakers	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Install/remove main switchgear breakers	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Main switchgear breaker maintenance	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Switchgear breaker control wiring	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Trouble shoot switchgear breakers	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Test and maintain substation transformers	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
LTC maintenance	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Protective Relays-program, test and maintain	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Change relay settings	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Trouble shoot LTC	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Protective Relay control wiring	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Trouble shoot relays	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Test and maintain the substation batteries	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Switching in substations-Distribution side	Platte River	Platte River Maintenance	Substation Maintenance Supervisor
Update & maintain substation one-lines	Platte River	Platte River Engineering	System Engineering Manager
Protective Relays-generate and coordinate settings	Platte River	Platte River Engineering	System Engineering Manager
Programming substation RTU's	Platte River	Platte River Engineering	System Engineering Manager
Maintain substation RTU's	Platte River	Platte River Engineering	System Engineering Manager
Trouble shoot substation RTU's	Platte River	Platte River Engineering	System Engineering Manager
Install/remove substation RTU's	Platte River	Platte River Engineering	System Engineering Manager
Programming Power Monitors	Loveland	Loveland Engineering	SR Electrical Engineer
Provide the care and upkeep of the control buildings	Loveland	Loveland Power Operations	Power Operations Supervisor
Upload Substation data to Loveland network	Loveland	Loveland Engineering	SR Electrical Engineer
Programming Beckwith LTC controller	Loveland	Loveland Engineering	SR Electrical Engineer

Exhibit B

Loveland Substation Maintenance/Engineering Responsibilities

Task Description	Responsibility	Department	Company Contact
Relay downloads (load and historical information)	Loveland	Loveland Power Operations	Power Operations Supervisor
Power Monitor downloads	Loveland	Loveland Power Operations	Power Operations Supervisor
Supervises waste management with portable toilet cleaning	Loveland	Loveland Power Operations	Power Operations Supervisor
SCADA Alarms	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA Issues	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA-add points	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA-adjust points	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA system backup	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA operator certification and testing	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA system updates (software, firmware, anti-virus, etc)	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA computer maintenance	Loveland	Loveland Engineering	SR Electrical Engineer
SCADA-maintain server	Loveland	Loveland Engineering	SR Electrical Engineer
Subnet Backup at 7 substations	Loveland	Loveland Engineering	SR Electrical Engineer
Subnet network updates	Loveland	Loveland Engineering	SR Electrical Engineer
Subnet-maintain computers	Loveland	Loveland Engineering	SR Electrical Engineer
Trouble shooting capacitor banks	Loveland	Loveland Power Operations	Power Operations Supervisor
Capacitor bank downloads	Loveland	Loveland Power Operations	Power Operations Supervisor
Programming overhead reclosers	Loveland	Loveland Engineering	SR Electrical Engineer
Programming capacitor banks	Loveland	Loveland Engineering	SR Electrical Engineer

Upon mutual agreement, the parties may modify the engineering and maintenance responsibilities set forth in this Exhibit B. If Exhibit B is modified, a new Exhibit B will be substituted. The new Exhibit B will be executed by both the General Manager of Platte River Power Authority and Director of Water and Power of the City of Loveland, and will include a revised effective date.

Effective Date: May ____, 2013.

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 3
MEETING DATE: 4/24/2013
SUBMITTED BY: Tom Greene, Utility Information Manager

TITLE: Contract Award for South Horseshoe Lift Station Improvements, Project # W1110H

DESCRIPTION:
The South Horseshoe Lift Station project was identified for significant improvements in the Water and Power Wastewater 10-year master plan. These improvements were originally designed and proposed in 2005 and placed on hold until adequate funding was appropriated. The project was bid on March 28, 2013 (see bid results below).

SUMMARY:
The proposed project will utilize the existing wetwell, replace all other infrastructure, and add an emergency overflow underground storage container. The proposed improvements for the lift station include: pumping capacity of 2,400 gpm using 3 submersible pumps, underground control valve vault, a new control building housing electrical equipment and 150 KW emergency generator, a 50,000 gallon underground emergency storage tank and site improvements.

Contractor	Bid Amount
Velocity Constructors Inc.	$932,296
Aslan Construction, Inc.	$962,901
Platt Rogers	$973,900
Glacier Construction Co., Inc.	$1,231,880
RN Civil Construction	$1,324,000
Gracon Corporation	$1,368,100

RECOMMENDATION:
Request for award to Velocity Constructors Inc., located at 1330 South Cherokee Street, Denver Colorado 80223 in the amount of $932,296 for the construction of the South Horseshoe Lift Station Improvements, Project W1110H and allow the City Manager to sign the construction contract.

REVIEWED BY DIRECTOR: MS for SA

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 4
MEETING DATE: 4/24/2013
SUBMITTED BY: Kathleen Porter, Field Engineering Supervisor

TITLE: Change Order Increase for Annual Directional Bore Purchase Order and Contract

DESCRIPTION:
This item is a change order to increase the annual directional bore purchase order and contract.

SUMMARY:
On January 16, 2013, the LUC approved the Annual Directional Bore Purchase Order and Contract. This item proposes increasing the Purchase Order from $1,000,000 to $1,500,000. The original purchase order amount was based on last year's costs. With eight months to go, we have $338,973.00 remaining, for aid to construction projects and in-house projects. However, we need an additional $500,000.00 to complete the capital, ATC and in-house projects that we must finish this year.

These projects are capital projects from last year, including the South Wilson overhead to underground conversion, the 8th Street 600 amp feeder, the East 10th & 11th Street OH to UG conversions, the Horseshoe Substation to Hwy 287 to 29th Street 600 amp feeder, a small portion of the East Substation to Crossroads Substation 600 amp feeder and the Namaqua to Cascade on West 1st Street 600 amp feeder.

There were various reasons as to why three of last year's projects were not completed in 2012. Of the new projects, the Horseshoe to 29th project was a cable failure that resulted in a decision to relocate the feeder from the railroad tracks to a Highway 287. We were able to design the project last year and must install it this year. The 8th Street and East 10th-11th Street conversions are taking longer than estimated due to easement acquisition.

The funds for this request are in the 2013 budget.

ITEM	DESCRIPTION	COST CHANGE
Annual Substructure Purchase Order	To pay for existing projects during the year of 2012.	$500,000.00

RECOMMENDATION:
Adopt a motion approving a change order to the Annual Directional Bore Purchase Order and Contract to increase the not-to-exceed amount to $1,500,000, and authorizing the City Manager to sign the change order on behalf of the City.

REVIEWED BY DIRECTOR: MG for BA

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AGENDA ITEM: 5
MEETING DATE: 4/24/2013
SUBMITTED BY: Scott Dickmeyer, Staff Engineer

SD

TITLE: Windy Gap Firming Project Enhancements

DESCRIPTION:
A proposed settlement agreement will be executed by the Municipal Subdistrict of the Northern Colorado Water Conservancy District. Authorization to execute will be an agenda item at the May 10th meeting of the Municipal Subdistrict. In preparation for the May 10, 2013 meeting, the Municipal Subdistrict is requesting feedback from its members in the form of conceptual agreement with the rancher's settlement agreement and the inclusion of costs for this additional project enhancement.

SUMMARY:
In 1980, Grand County issued a 1041 permit for the Windy Gap Project. As a condition of the 1041 permit, the Municipal Subdistrict of the Northern Colorado Water Conservancy District agreed to mitigate the impacts of Windy Gap diversions to several ranches along the Colorado River in the Kremmling area. Specifically this mitigation involved the replacement, repairs and maintenance on twelve irrigation pumps adversely affected by the construction of the Windy Gap Project.

With the advent of the Windy Gap Firming Project, a new complaint was recently filed by these ranchers who claim the Municipal Subdistrict is in violation of the 1980 1041 permit. The pendency of this complaint could, among other things, delay construction to the Windy Gap Firming Project.

At this point a tentative agreement has been negotiated with the ranchers, which involves a financial settlement in the amount of $4,000,000. In exchange, the ranchers would agree to withdraw their complaint, withhold objections to the Windy Gap Firming Project, and release the Municipal Subdistrict from future capital and maintenance obligations for the irrigation pumps. Although part of the settlement costs will be recovered from Windy Gap participants, the portion that will be recovered from the Windy Gap Firming participants effectively adds an additional enhancement obligation to the Windy Gap Firming Project budget. To date the mitigations and enhancements for the Windy Gap Firming Project total $15,946,650 inclusive of a portion of this settlement amount.

The proposed financial terms of the Rancher's Settlement Agreement are as follows: The total payment would be $4,000,000. Loveland's share would be approximately $245,784, spread out over two years starting in 2014. This is based upon the city's ownership share of the Windy Gap Project and its proposed share of the Windy Gap Firming Project. The costs associated

with the Windy Gap Project would be paid in the form of a special assessment on Loveland's Windy Gap units and would be included in the 2014 and 2015 O&M budget cycles. The costs attributed to the Windy Gap Firming Project would be considered a capital expense and paid as part of the next contract for participation in the Windy Gap Firming Project (Interim Agreement for the Design Phase), which is expected to come to the City in 2014 and 2015.

Summarizing the general purpose of the proposed settlement agreement:

- The Municipal Subdistrict will pay the ranchers four million dollars, of which Loveland's part is $245,784 at current participation levels.
- The ranchers will release the Municipal Subdistrict from any and all future liabilities relating to the their pumps and irrigation systems, and will file no statement of opposition or oppose a Subdistrict application in Water Court to incorporate terms and conditions with other entities into the decrees for the Windy Gap water rights.

RECOMMENDATION:
Adopt a motion supporting the proposed settlement agreement between the Municipal Subdistrict and the ranchers in order to avoid future litigation and delay of the Windy Gap Firming Project.

REVIEWED BY DIRECTOR: MS for SA

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AGENDA ITEM: 6
MEETING DATE: 4/24/2013
SUBMITTED BY: Lindsey Bashline, Customer Relations Specialist
Greg Dewey, Civil Engineer – Water Resources

TITLE: Updated Water Conservation Plan

DESCRIPTION:
The purpose of this item is to provide LUC with an overview of the Water Conservation Plan and summary of comments collected from the public comment period. To comply with the State's Water Conservation Act of 2004, staff has updated the 1996 Loveland Water Conservation Plan.

SUMMARY:
According to Colorado's Water Conservation Act of 2004 (HB 1365), all covered entities – retail water providers who sell 2,000 acre feet or more of water annually – must have a water efficiency plan on file with the state that has been approved by the Colorado Water Conservation Board (CWCB). The City has updated the May 1996 Water Conservation Plan and prepared the Plan in adherence to the prevailing state statutory requirement.

In 2012, Loveland Water and Power received in kind services from Recharge Colorado and Symbiotic Engineering to help secure assistance from a consultant, Great Western Institute (GWI). GWI was able to perform the modeling necessary to forecast savings from various water conservation measures make comparison of plans from other Colorado communities and provide assistance in drafting the plan.

The Water Conservation Plan includes:

- A summary of the existing water system
- Summary of water demands and historical demand
- Integrated planning and Water efficiency benefits and goals
- Selection of water efficiency activities
- Implementation and monitoring plans

Loveland's water conservation plan focuses on assisting future water use efficiency within the utility's service area by:

- Managing City water use both indoor and outdoor;
- Identifying and implementing measures and programs that are expected to reduce summertime peak day water demand; and
- Assisting customers that wish to improve their water use efficiency.

Overall, the City recognizes that it is a combination of its actions and the actions and behaviors of its customers that will determine whether or not the water conservation measures and programs presented in the Plan are successful. Therefore, the City is committed to implementing those efforts that will support the long-term sustainability and efficacy of the utility to provide affordable, reliable water to its customers in a manner that the City's citizenry justifiably depends upon.

Specific goals that the City anticipates to achieve include:

- Reducing summertime peak daily demands in the future by about 1 mgd (or about 3 acre-feet (AF) per day) during above average demand periods by 2016;
- Reducing non-revenue water from current levels to 10-11% of total treated water by 2020 (which is a reduction in real and apparent water loss of about 575 acre-feet);
- Developing water rates that accurately reflect the cost of service for providing reliable, secure and sustainable water supplies, including infrastructure management and maintenance, and the impact of changing customer water use behavior patterns in the future;
- Supporting the City's sustainability efforts in part by reducing City water use (indoor and outdoor) by another 5% by 2020; and
- Developing technical assistance programs that will support improved water use efficiency by the City's large commercial and irrigation only users.

The draft Plan was available for a 60-day public comment period beginning February 21, 2013 through April 21, 2013. During and after the public comment period staff also present to the City of Loveland Management Team and the Construction Advisory Board (CAB). Revisions reflecting comments received from LUC, staff and the public have been made.

Plan updates made since the February 20, 2013 LUC meeting include:

- Adding 2012 data sets to various figures and tables.
- Including the impact of the water rate increase approved by City Council March 5, 2013.
- Inclusion of the Colorado Revised Statute 37-60-126 and the Colorado Water Wise Best Practice: Water Waste Ordinance as appendices of the Plan.

Pending approval from LUC, staff will present the Plan at the May 14, 2013, City Council Study Session followed by a resolution to adopt the plan at the May 21, 2013 City Council Regular Meeting. The objective is final adoption by the CWCB of a plan that establishes water conservation in the city's framework.

Please Note: The LUC packet will be sent before the Plan's public comment is complete on April 21, 2013. Staff will share any additional comments and edits during or after the April 24, 2013 LUC meeting.

RECOMMENDATION:
Adopt a motion recommending that the City Council adopt the updated City of Loveland Water Conservation Plan.

REVIEWED BY DIRECTOR: WS for SA

ATTACHMENTS:
City of Loveland- Draft Updated Water Conservation Plan

City of Loveland

Updated Water Conservation Plan

FINAL DRAFT
April 2013

Prepared by: GREAT WESTERN INSTITUTE
Littleton, CO

through a generous grant from the Governors Energy Office (GEO) through Symbiotic Engineering, LLC. Boulder, CO

Table of Contents

Appendices

List of Figures

List of Tables

Foreword

Loveland Water and Power has a long history of promoting the responsible use of water in the community, since water is a precious resource in this semi-arid region of the Western United States. The City has long utilized multiple tools to ensure that its citizens and customers are provided with safe and sufficient water supplies now and for future generations. To this point, the City and its citizens have long shared an enlightened relationship, whereby the City's customers understand and value the importance of a reliable and sustainable water supply, and together the utility and the local citizenry work to manage this precious resource responsibly and with mindfulness.

The City of Loveland's Water Utility has been delivering drinking water to customers in and near Loveland since 1887. Today, the Water Utility is part of the Department of Water and Power and serves water to a population of over 68,000 with a service territory of an estimated 32 square miles. Since 1990, the City has seen an increase of nearly 35% in the population served by the utility, which is consistent with the population boom experienced by much of the north Front Range. However, the City and its customers have been able to work together to limit water restriction practices that many other Front Range communities needed to implement during the 2002 and 2003 drought when water supplies became short. Since the drought, the City has been able to limit water demand increases through messaging with its engaged citizenry.

As with other Colorado Front Range communities, the City expects to realize growth and increased water demands over the coming decade. Although the City maintains a diversified water rights portfolio that will meet the needs of the growing community, the current infrastructure has limits that will require expansion and improvement to meet the predicted increases in peak day demands and average annual water delivery and wastewater treatment. In addition, the City is responsible to its customers to provide water supplies, both treated water and raw water, reliably and cost effectively. Therefore, the City has a number of reasons to guide and support customer water use efficiency during the coming years.

The City's water conservation planning effort, which is documented in this report, focuses on assisting future water use efficiency within the utility's service area by:

- Managing City water use both indoor and outdoor;
- Identifying and implementing measures and programs that are expected to reduce summertime peak day water demand; and
- Assisting customers that wish to improve their water use efficiency.

Overall, the City recognizes that it is a combination of its actions and the actions and behaviors of its customers that will determine whether or not the water conservation measures and programs presented in this Plan are successful. Therefore, the City is committed to implementing those efforts that will support the long-term sustainability and efficacy of the utility to provide affordable, reliable water to its customers in a manner that the City's citizenry justifiably depends upon. The City has prepared this Water Conservation Plan in adherence to the prevailing state statutory requirements according to Colorado's Water Conservation Act of 2004 (HB 1365).

Section 1
Overview of the City's Water System

The City of Loveland was incorporated in the 1880s, and has been acquiring and administering water rights ever since. The City began acquiring water rights to use water in the Big Thompson River. Some water rights were purchased outright or filed on the river by the City, while others were dedicated to the City. Early transfers of the No. 1 priority on the Big Thompson River and domestic rights diverted at the Loveland pipeline form the base of the City's water rights. Early plats of the City's annexation show dedication of water rights which were appurtenant to the land becoming part of the City. In 1960, the City began formally requiring dedication of water rights prior to development. The City has historically accepted native ditch shares/inches, Colorado-Big Thompson Project water and cash-in-lieu of water rights to satisfy raw water requirements for development. The city owns about 12,000 units of the CBT Project. The City was also one of the original "Six Cities" to invest in the Windy Gap Project. None of Loveland's water supply comes from groundwater. Its sources are renewed each year with snow melt and rain.

Currently, the City has a firm yield[1] of approximately 24,590 acre feet (AF) per year, with another 2,800 AF expected as part of the Windy Gap Firming project. In current years, the greatest annual demand for a combination of potable and non-potable[2] water by the community served by the City's water utility was about 14,300 AF in 2006. Table 1 summarizes the water demand and approximate population served in recent years within the City's service area (which is shown in Figure 1).

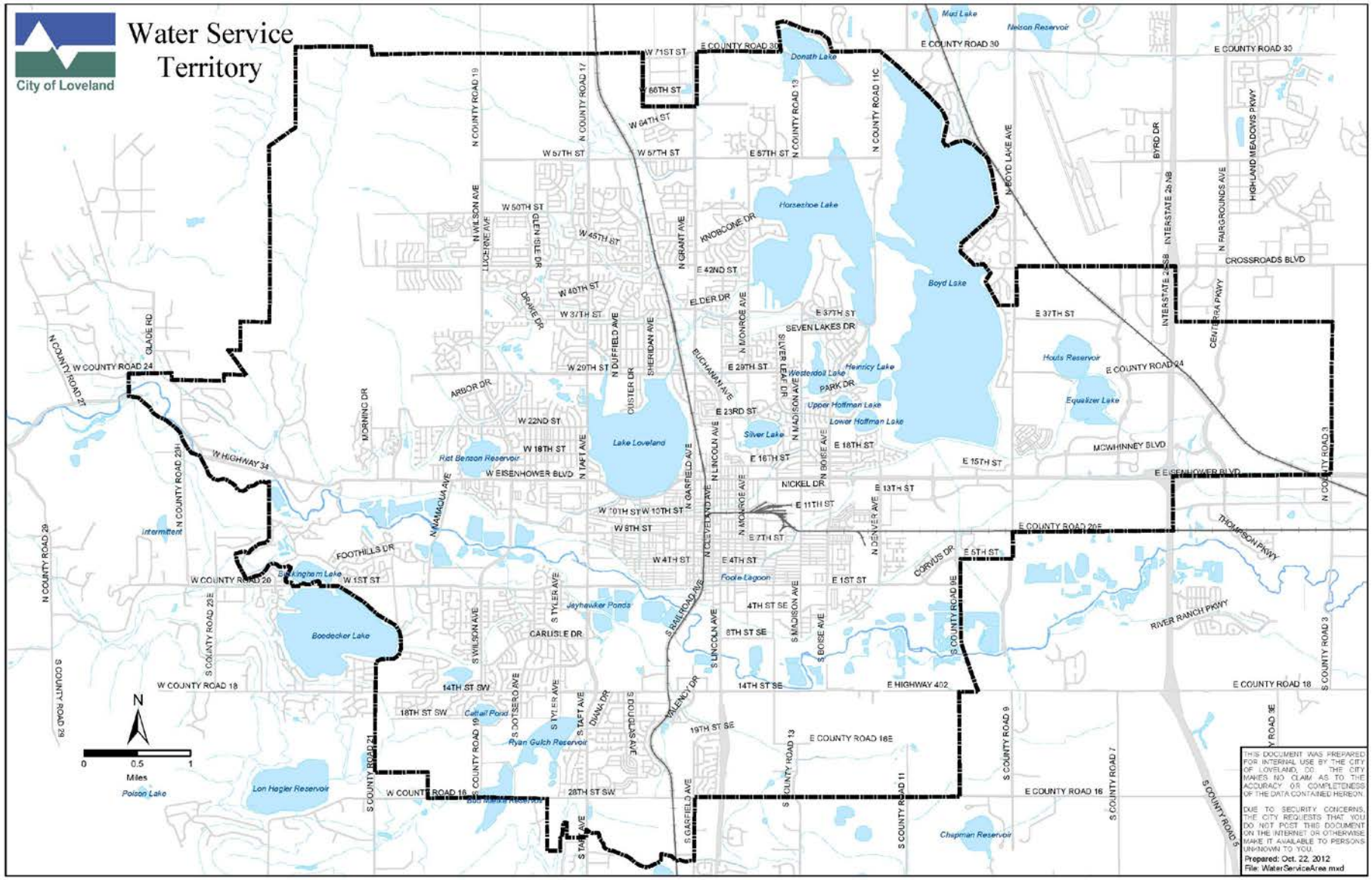
Table 1 – Summary of Population Served and Treated Water Demand - 2005 to 2012

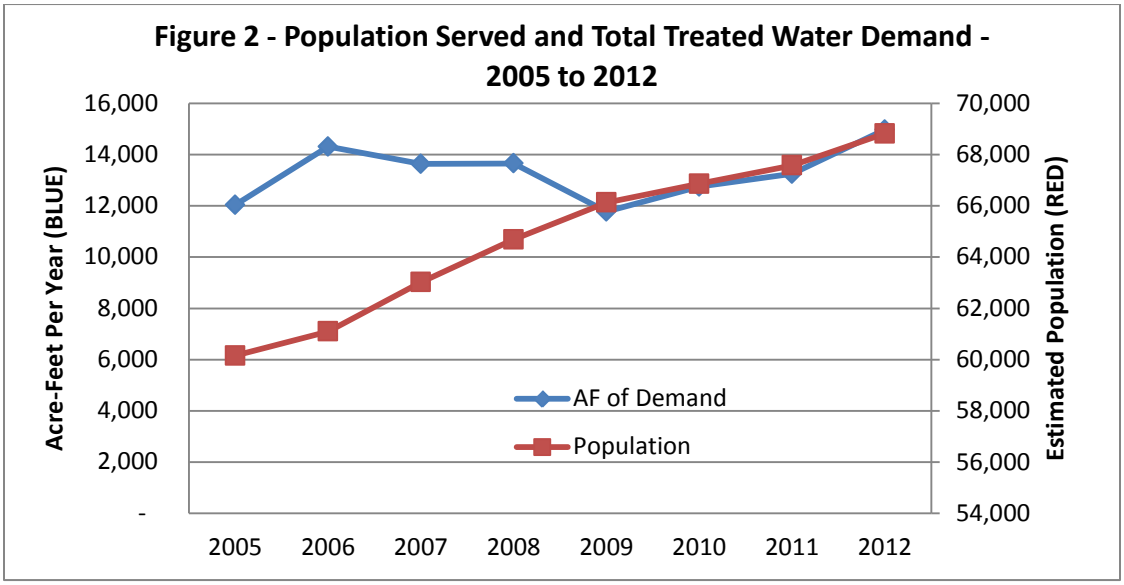
Year	Approximate Population Served[3]	Treated Water Demand (AF)
2005	60,157	12,040
2006	61,098	14,309
2007	63,025	13,636
2008	64,690	13,652
2009	66,132	11,773
2010	66,572	12,752
2011	67,455	13,284
2012	68,825	14,970

Note that the City's population has increased each year since 2005; however water demand peaked in 2006, and has maintained a slight downward trend through 2012. Figure 2 further illustrates this observation.

[1] Firm yield is based on the yield of the City's water rights portfolio in conditions equivalent to a 100-year drought.
[2] Currently, the City only has water demand that is for treated water. In the future, raw water use may be used to irrigate municipal facilities and other large areas of turf, as deemed appropriate.
[3] From the "Annual Data and Assumptions Report – January 1, 2011 by City of Loveland Community and Strategic Planning.

Figure 1 - City of Loveland Water Service Area





The City currently provides water to approximately 24,673 connections or accounts for commercial and residential customers, including connections for customers both inside and outside of the City limits. Table 2 presents a summary of the type and number of water customers currently in water service.

Table 2 – Summary of City Water Customers[4] – March 2013

Customer Type	Number of Connections	% of Total Connections
Residential		
Inside City Limits		***89.9%***
Single Family	20,176	
Multi-Family	1,245	
Outside City Limits		***3.7%***
Single Family	860	
Multi-Family	38	
Special Base	4	
Irrigation Only		***1.4%***
Inside City Limits	148	
Outside City Limits	4	
Commercial		***4.7%***
Inside City Limits	1,083	
Outside City Limits	89	
City Uses (Inside City Limits)	26	***0.3%***
Total	24,673	***100%***

[4] The City also has water use tracked related to hydrant use (for construction), construction water use, and through an interconnect with the Little Thompson Water District, Fort Collins Loveland Water District and the City of Greeley. These customers are tracked separately from those summarized in Table 2.

Table 3 provides a summary of billed water demand for each of the City's customer categories for the period from 2005 to 2011. An explanation of the customer categories used in this table is provided below.

Residential – These two categories (Inside and Outside City Limits) include combined single family and multifamily uses, as well as irrigation only demand, since the City did not differentiate these uses until 2008. After 2008, the City maintained different customer categories for single family and multifamily uses, as well as irrigation only taps for residential customers.

Commercial – These two categories (Inside and Outside City Limits) include all commercial uses, including special base customers.

City Uses – This category include all City facilities that are currently metered – both for indoor and outdoor use. Note that a small number of City facilities are currently unmetered, and that this water use is currently tracked as non-revenue water.

Other Uses – This customer category tracks the water use related to industrial water use and water transferred to (and from) the Little Thompson Water District as wholesale water. Note that the City has not had customers tracked within the industrial customer category since 2007 when the water rate structure provided incentives for these customers to change to the commercial customer category. Therefore, post-2007 "Other Water Use" only includes wholesale transfers to (and from) Little Thompson Water District[5].

Ranch – The City maintains a stand pipe at its Service Center that can be used by any customer via pre-paid credit cards at a rate of $1.00 per 300 gallons. Water obtained from the stand-pipe has been used for watering livestock, dust suppression, and other local uses. All water delivered through the stand pipe is metered and billed.

Hydrant – The City also maintains a hydrant water use system, which is also a "pay as you go" program typically used to support construction contractors. The permit to use hydrants for construction water includes meter rental and a security deposit on the meter, as well as billed water use at the rate of $1.00 per 300 gallons. Most water delivered through this program is metered and billed[6].

Non-Revenue Water – This category of water use tracks the difference between treated water produced by the City and total water sold. The difference between these two

[5] This is the net amount of water purchased wholesale from Little Thompson Water District. Whichever entity received a net of positive water into their service area has to transfer Colorado Big Thompson shares to these uses, as well as pay the treated water charge.

[6] The actual amount of hydrant water being delivered by the City could be characterized by a system wide water audit.

Table 3 – Summary of Billed Water By Customer Category

	Billed Water (1000s Gallons)								Total Billed	Total Non-Revenue	Total Demand	
	Residential		Commercial									
Year	Inside City	Outside City	Inside City	Outside City	City Use	Other Uses	Ranch	Hydrant			(1000 gallons)	Acre-Feet
2005	2,623,544	133,597	466,292	21,020	53,628	93,248	4,610	97,001	3,492,940	430,360	3,923,300	12,040
2006	3,186,549	150,123	517,424	22,288	68,868	101,227	5,102	123,473	4,175,054	487,646	4,662,700	14,309
2007	2,989,778	139,242	515,274	20,981	68,262	54,810	3,683	53,921	3,845,950	597,250	4,443,200	13,636
2008	2,967,702	140,831	590,295	18,266	69,194	5	4,033	78,957	3,869,283	579,317	4,448,600	13,652
2009	2,516,008	120,300	510,429	14,786	56,127	0	3,166	41,004	3,261,820	574,580	3,836,400	11,773
2010	2,816,305	133,651	538,454	16,429	68,156	1,295	3,707	32,669	3,610,666	544,734	4,155,400	12,752
2011	2,875,155	134,224	572,683	16,680	71,316	1,221	3,584	27,905	3,702,767	625,956	4,328,723	13,284
2012	2,722,723	148,685	639,077	16,517	76,257	1,488	4,112	19,464	4,213,854	651,396	4,865,250	14,970

accountings of water is considered as non-revenue water based on standards set forth by the American Water Works Association[7]. Non-revenue water includes real and apparent losses. Real losses are water that is lost due to leaks; whereas apparent losses are due to unauthorized uses, metering inaccuracies, and unmetered uses and/or metered and unbilled uses. Non-revenue water is further described below.

Water Supply Limitations

As previously indicated, the City has a robust water rights portfolio that has been developed over the past 130 plus years. The firm yield that exists as a result of the City's diligence is adequate to provide for current demands even within the 100 year drought.

Between 1986 and 1988 the City initiated work on a two-phase drought study using the services of the engineering firm of Camp, Dresser & McKee, Inc. Phase I of the study contained a recommendation that the City prepare to meet its full demands during a drought event with an average recurrence of 1-in-100 years, which translates into a 1% chance that in any year the City could not meet demands without curtailment. Council accepted Phase I the report, including the recommendation, on October 7, 1986, and the 1-in-100 year level of drought protection remains the goal for the City's raw water supply planning.

This planning policy requires developing sufficient supplies to meet the City's full water demand during the 1-in-100 year drought without water use restrictions. The LUC and City Council reaffirmed this policy as part of the approval process for the original Raw Water Master Plan in 2005 and the update in 2012.

However, the City's infrastructure currently limits the amount of treated water that can be delivered for potable use to the City's customers at 30 million gallons a day (mgd). Although the treatment capacity is adequate to meet average daily demands, summer peak day demands have exceeded 27 mgd in the past three years[8], and are expected to increase as population grows and summertime demands increase.

The City has plans to expand the treatment plant capacity by 8 mgd over the current planning horizon. The timing and cost of the water treatment plant expansion will be discussed in later sections of this Plan.

Noteworthy is that the City maintains an interconnect with the Little Thompson Water District, Fort Collins Loveland Water District and the City of Greeley, which allows treated water to pass between the service area of the two entities on an as-needed basis. This interconnect may provide an emergency source of treated water or support peak daily water demands in excess of the City's current treatment capacity, if needed, until the treatment plant expansion can be constructed.

[7] AWWA Manual M-36 defines standard practices for water loss control and management for water utilities.
[8] Water use data for this report covers monthly and daily use from 2005 to 2011.

The City's wastewater treatment plant capacity may also limit current treated water deliveries, since indoor water use requires wastewater treatment to capture grey and black water for cleansing before it is returned to local receiving waters.

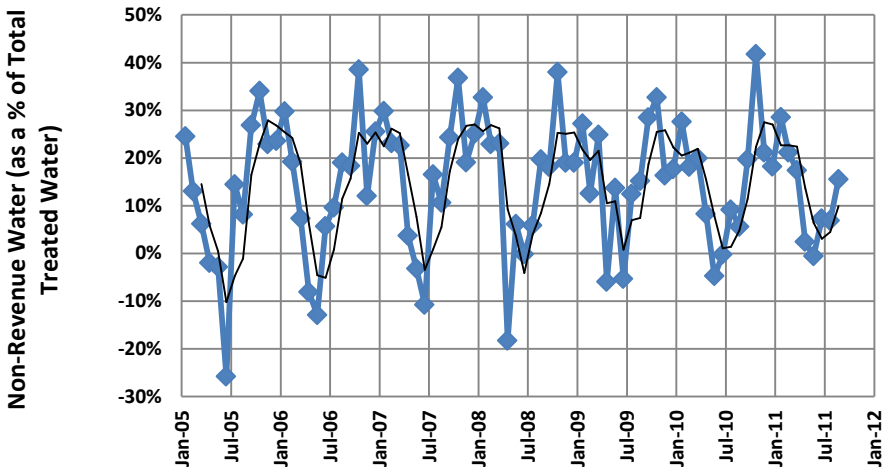
Water Reuse in the City

The City has limited opportunities for reusing treated wastewater since a substantial portion of the City's water portfolio is direct diversions from east slope supplies or Colorado Big Thompson water, which cannot be reused. A portion of the City's water portfolio does include some reusable supply from its reservoirs and some Windy Gap allocations. However, reusing these water sources reduces overall firm yield, so the City does not practice reuse in its normal operations.

Non-Revenue Water

Based on those data presented in Table 3, the City has an average non-revenue water of about 14%[9], dating back to 2008 when it recategorized its customers into those categories that it currently uses. Non-revenue water changes monthly and appears to vary seasonally, as depicted in Figure 3. The reason for this seasonality is unclear; however, it appears that in late-spring/early-summer each year non-revenue water is calculated to be negative. This trend has been reduced each year since 2005, as evidenced by the 3-month rolling average which is positive in 2009, 2010 and 2011.

Figure 3 - Monthly Non-Revenue Water (January 2005 to December 2011) with Three Monthly Rolling Average



Note: The definition of non-revenue water is as defined by the American Water Works Association Water Audits and Loss Control Programs (M-36)

Non-revenue water, which can be segregated into several different "accounts" as depicted in Figure 4, is expected to consist of the following components for the City.

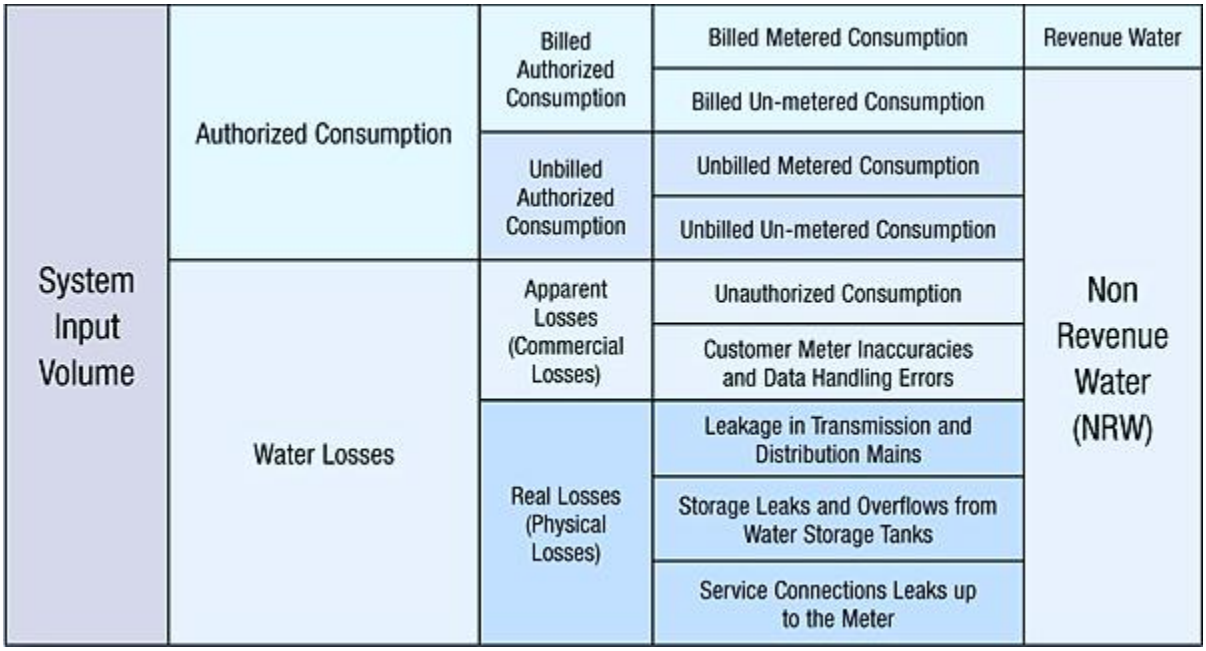
[9] Non-revenue water has ranged from 13 to 14.9% annually since 2008.

Unbilled Authorized Consumption – associated with unmetered, authorized water uses such as may be occurring in a small number of City parks; and metered, but unbilled water uses such as may be occurring at the water and/or wastewater treatment plants, or with some unactive water accounts that may be using water (not as water theft but through billing program and/or accounting glitches, for example).

Apparent water loss – associated with inaccurate and malfunctioning meters and with unauthorized water uses (i.e., water theft).

Real water loss – associated with detected and repaired and undetected transmission line, distribution system, and service line leaks on the supply side of customer meters. Leaks on the demand side of customer meters are not included in the accounting of non-revenue water.

Figure 4 – Overview of Treated Water Accounts As Defined by AWWA M-36



It is likely that a portion of the City's current 14% non-revenue water includes untracked authorized uses within City facilities and at City parks such as the fire training grounds - albeit a small amount, this may be a significant (i.e., measurable) use. The City may also have a small number of inaccurate water meters installed on customer taps, or minor billing and/or accounting glitches that are included in the 14% of non-revenue water. Future water conservation programs that the City will be considering will include a formal audit of the City's meter testing, and accounting systems, and a review of all water use at City facilities. The City has already begun this audit process.

Meter Testing and Replacement Policies and Procedures

In July 1979, the Loveland City Council approved an ordinance requiring water meters for all new construction and for existing homes when ownership changed hands. Before that time, the City only required meters for commercial accounts within the City and for all accounts served outside the City limits. Less than a year later, June 1980, the council passed another ordinance requiring meters for all water customers.

By 1981, the City was the first municipality in the state to be completely metered, at a cost of over $3 million. The average annual water usage declined by 20 percent. Before metering, the water treatment plant's maximum day demand was 22 million gallons per day. After metering, the maximum day demand was 16.7 million gallons per day (City of Loveland, 1989). On a per capita basis, these reductions remain reflective in today's uses.

Since being fully metered in 1981, the City has maintained an aggressive meter testing and replacement program. This program involves annual testing of most meters that are 1 ½ inch or greater in service in the City (see Table 4 for an inventory of meter types and sizes currently maintained by the City). The City tested 420 meters last year, 400 meters in 2011 and 516 in 2010. Meters that are subjected to testing are evaluated for accuracy and either replaced or repaired to restore meter accuracy and maintain the accuracy of City water billings.

Table 4 – Current Inventory of Meters Maintained by the City (February 2013)

Meter Size (inches)	Count
0.75	23,616
1	729
1.25	1
1.5	375
2	274
3	56
4	27
6	7
8	1
TOTAL	25,086

Meters that are less than 1 ½ inch are tested and/or replaced on an as needed basis based on bringing into service new customers, observed meter damage, or observed losses in meter accuracy detected by meter readers and/or utility billing services.

A limited number of new meters installed for large water use customers have included automated meter reading (AMR) technology to allow for remote data collection (e.g., drive by) of water use. Expansion of the AMR program may be considered by the City as part of the Water Conservation Plan implementation.

Water Rates and Billings

The City maintains a comprehensive water use billing program that provides for different rates for each of its different customer categories. The rates include a base fee and a water use fee. Overall, the City maintains a water rate structure that is designed to create revenue to cover both its fixed and variable expenses – with the base fee covering the fixed expenses and the use fee covering the variable expenses. In this way, the City has more predicable revenue generation based on actual operating costs (see Appendix A for details).

In 1887, the Water Utility established a flat annual billing rate, based on the type of dwelling and the number of fixtures. Customers paid the yearly fee in advance. Until 1968, water rates were based on a flat fee determined by fixture counts. Keeping track of the number of bathrooms and toilet fixtures in homes as the City grew became increasingly difficult, and in July 1968, the City developed a flat rate charge per family based upon average water usage. Since the installation of meters in 1981, the monthly billing has reflected actual water use, and uses a uniform rate for residential customers.

In 1989 City Council approved a series of rate increases that specified water rates from 1990 to 1997. A portion of the revenues from these rate increases allowed Loveland to purchase additional CBT units, cash fund the Green Ridge Glade Reservoir expansion, and set aside money to pay off the City's obligation in the original Windy Gap Project. In 2001, once the specific needs for the rate increases were met, the City lowered rates by 33 percent. Rates are set periodically using a cost of service methodology, meaning that the rates are designed to reflect as closely as possible the real cost of providing water service to customers.

The City bills its customers for water monthly, except for those water users that utilize "ranch" and "hydrant" water sources. These two water services are provided on an as-needed "pay as you go" basis using pre-paid credit cards and use fees.

The City maintains a couple of noteworthy incentive programs within its rate structure to support water use efficiency. The first is the City's excess water use surcharge that it accesses to commercial accounts that exceed a specific individual base amount of annual water use. This fee is accessed to aid in recovering the cost of replacement water for those large water users.

The second is the City's impact fee credit for irrigation only taps that take advantage of native plantings and other outdoor water use efficiency practices to reduce the tap size required to serve the property, as well as the water right dedication or raw water requirement. The City has been piloting the efficacy of native plantings to reduce expected irrigation water requirements in various settings such as at the Medical Center of the Rockies[10].

[10] The pilot program has involved the installation of multiple hydrozones to evaluate Xeric landscape in various settings including boundary landscapes, parking lot islands, heliport landing area, etc.

The City conducts water rate studies to correctly and fairly price its water and services, on a three to five year cycle. A water rate study was just finished in 2012, with another planned for 2015. Additional water rates evaluations, post-2015, will be considered for inclusion in the implementation of this Plan.

Leak Detection and Repair

The City has maintained a proactive leak detection program for many years. Currently, the City has implemented an acoustic emissions program that detects distribution system leaks between adjacent valves. In 2011, the City had a goal of testing 50 miles of pipe; however, the number of leaks that surfaced during this time diverted staff from finding leaks to fixing leaks. Nonetheless, the technology detected 6 leaks in 2011 that had not surfaced, saving an estimated 310,000 gallons per day (gpd) in water losses (and another 2 leaks in 2012 saving an additional 130,000 gpd).

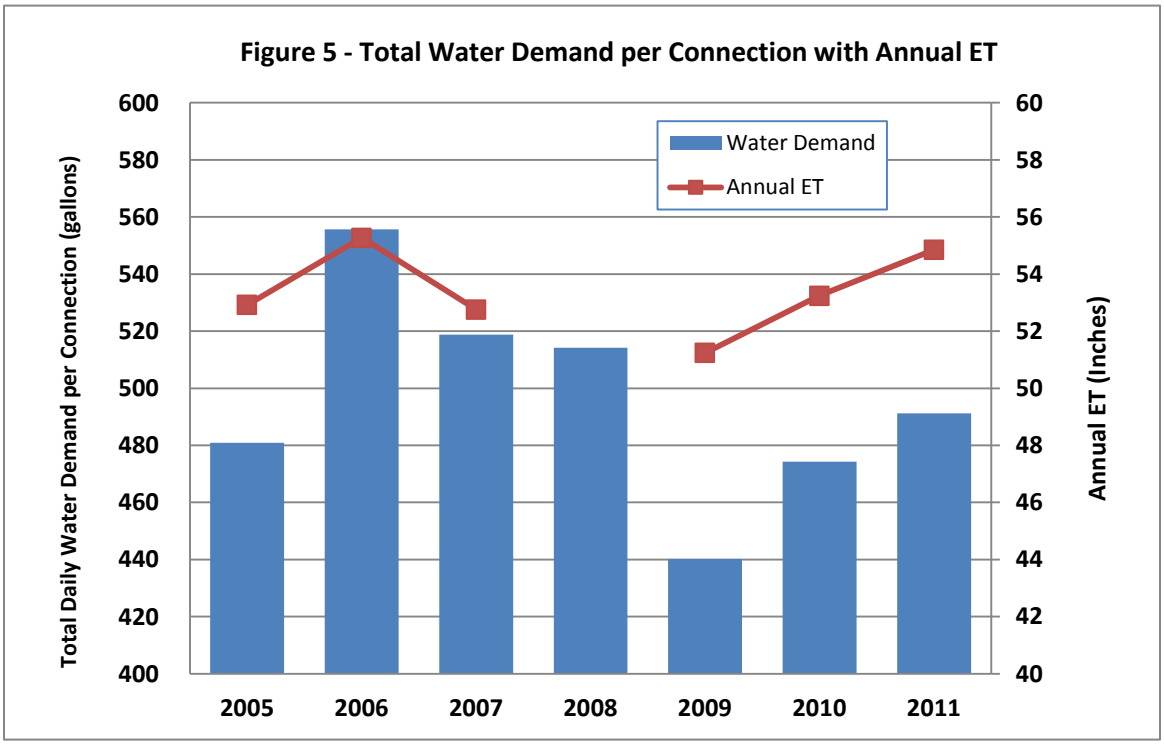
Despite the City efforts, the number of leaks being detected and fixed by the City in recent years (and the related water loss) has been increasing, as illustrated in Table 5. Based on this data, the repairs conducted by the City have reduced water loss by approximately 42 million gallons in the past 4 years. This represents about 1% of the City's total treated water demand or about 7% of the City's non-revenue water in 2011 (not including the found leaks listed above).

Table 5- Summary of Leaks Detected and Repaired by the City

	2007	2008	2009	2010	2011	2012
Number of Leaks	**73**	**62**	**61**	**62**	**100**	**76**
Estimated Losses (millions of gallons)	**n/a**	**6.2**	**3.1**	**8.9**	**23.9**	**27.8**

Section 2
Past Water Use Trends and Ongoing Conservation Programs

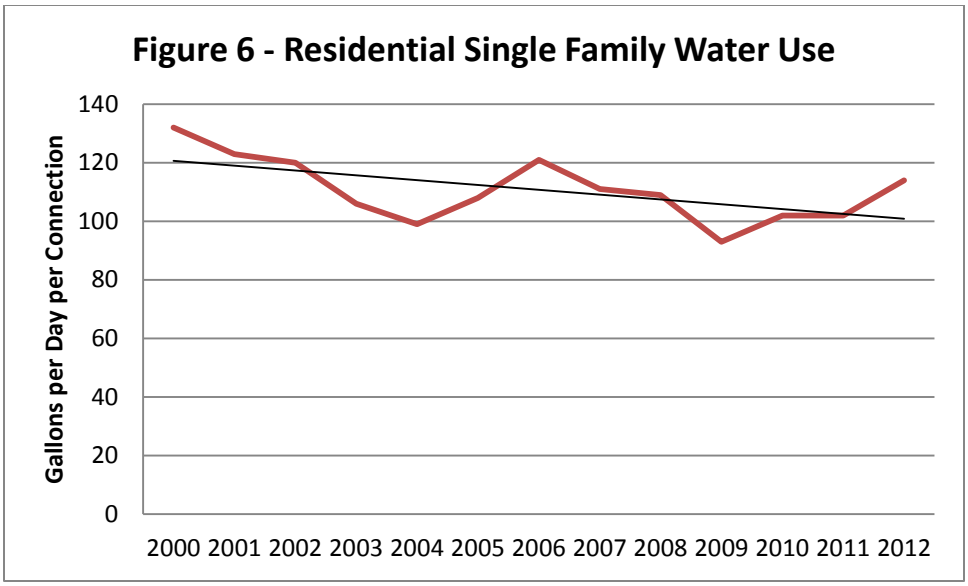
As previously indicated, the City's total water demand has not increased in relation to the City's population, as illustrated in Figure 2. Figure 5 presents the change in per connection water use observed over the past 7 years. Figure 5 also presents the observed evapotranspiration for the years 2008 through 2011[11]. As can be seen in Figure 5, total water demand per connection correlates well to annual ET – meaning that total demand is substantially influenced by outdoor irrigation needs of the community based on prevailing weather conditions (i.e., precipitation, wind and temperature).



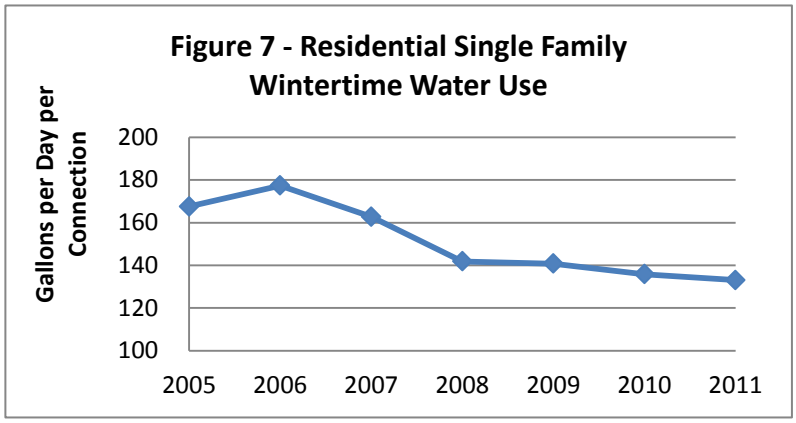
ET- evapotranspiration

Figure 6 demonstrates the observed water use of a residential single family over the last twelve years. While use varies slightly from year to year, overall gallons per capita day demonstrates a downward trend.

[11] ET for Alfalfa is based on weather data maintained by Northern Water for the Loveland station at http://www.northernwater.org/WaterConservation/WeatherandETData.aspx.



This downward trend can further be demonstrated in indoor water use within the City, which is illustrated in Figure 7. Figure 7 presents the daily water use by single family residential connection for the winter months only. This figure indicates that since 2006, average daily water use in the winter has dropped. Noteworthy is that starting in 2008, the residential water use category was revised, segregating single family from multifamily accounts. For this reason, the observed drop from 2007 to 2008 shown in Figure 7 may not be a result of true indoor water savings. However, since 2008, average daily indoor water use for single family residential customers has dropped by 6%.



The 6% drop in residential wintertime per connection use correlates well to expected passive savings that were reported by the CWCB (2010). Specifically, passive savings are those water demand reductions that have occurred, and will continue to occur, as a result of new technology in appliances and fixtures improving customer water use efficiency independent of local water conservation programs conducted by water providers. Residential customer toilets, dishwashers, and clothes washing machines have become substantially more water efficient, and as customers replace aging and broken appliances and fixtures, passive savings have, and will continue to occur organically within the water utility's service area. To this

end, the City has and is expected to continue to see average indoor residential demand decrease into the future as more customers replace and upgrade toilets, dishwashers and clothes washing machines.

Ongoing Water Conservation Programs

In light of this trend in indoor water demand reductions, the City supports and promotes local water conservation using the following programs – which are generally focused on reducing outdoor irrigation requirements for its customers.

- **Educational programs** – the City's educational programs include producing and distributing flyers and informational materials, maintaining an informational website, public events, and maintaining two demonstration Xeriscape gardens: one at the downtown Civic Center and another at the City Service Center.
- **Outdoor residential irrigation audits** (AKA, Slow the Flow) – the City supports the Center for Resource Conservation (CRC) Slow the Flow audits at 70 to 75 individual residents each year.
- **Commercial customer energy audits** (through the Energy-Water Efficiency Express) – the City provides financial support to this program. As a result, Efficiency Express installs low flow faucet aerators and pre-rinse spray nozzles in conjunction with energy audits that it conducts.
- **Garden-in–a-Box** residential Xeriscape program – The City provides 80 discounted Garden-in-a-Box kits to local residential customers through this CRC program.
- **Hydrozoning** (and water credits) – As previously indicated, the City supports an impact fee reduction for new customers (and water rights development credits for existing customers) that utilize water efficient landscaping to reduce long-term water demand for a specific tap within the City's service area. The reduction in water demand allows for a discount to be provided with respect to the expected cost of replacement water for new construction, and a credit to be provided to existing construction. This is a new program that is currently being piloted in cooperation with the Medical Center of the Rockies.
- **Larimer County Conservation Corps, Energy and Water Program and the Home Energy Audit Program**– The City supports and offers these energy and water programs, which provides home assessments and audits to residents. These assessments and audits include replacing faucet aerators and showerheads, installing toilet dams and providing dye tablets to test for leaking toilets. These programs reach about 400 homes each year.

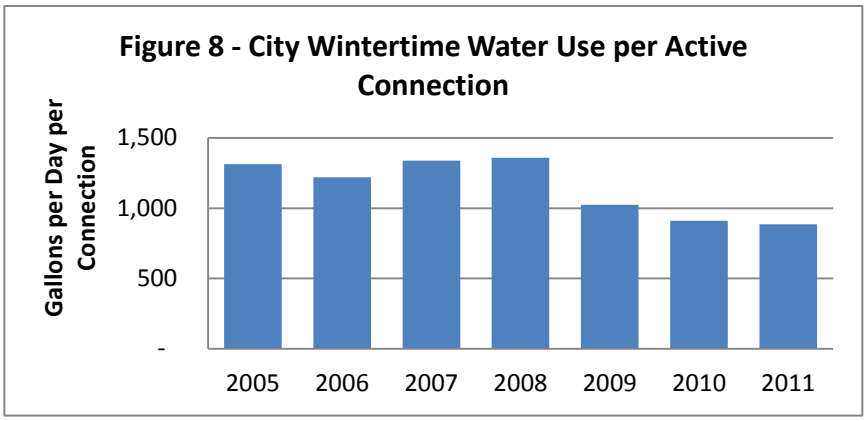
As another example, the City also has water waste ordinance as follows:

> **City of Loveland Municipal Code 13.04.170 Wasting water.**
> Consumers shall prevent unnecessary waste of water and keep all water outlets closed when not in actual use. Hydrants, urinals, water closets, and other fixtures, must be kept in repair so that they will not cause unnecessary waste of water. The supplying of water may be discontinued for any violation of this section. (Ord. 997 § 6, 1968; prior code § 13.13).

In practice, the City utilizes this ordinance to support water waste complaints filed by local customers. The City dispatches staff to investigate the complaint, and most often it is against a home owner who was unaware of their water waste issue. Once the home owner has been made aware, the problem is fixed and no additional complaint is lodged. Typically, about 3 complaints are filed a year with the utility.

City Water Use

The City uses water at about 70 to 80 different parks and facilities during the course of the year; with about 25 of the connections used year round. Indoor water use has been managed effectively by the City. This is evidenced by the consistently lower wintertime water use in City facilities, as illustrated in Figure 8.



Irrigation Plan for the Parks

Irrigation water use in the parks operated by the City includes both raw and treated water applications[12]. The majority of the irrigation water is raw water and is applied through a centralize irrigation controller system that monitors real time ET and rainfall updates, to support human judgment in the management of individual hydrozones which can be remotely operated using SCADA. Only a very small number of park facilities are without centralized irrigation controllers[13].

In 2008, the City of Loveland Parks and Recreation Department developed a detailed Irrigation Conservation Plan for most of the properties that the City irrigates. The plan (see Appendix B) provides details on each park and public space, including size, and average annual irrigation volumes. The plan also presents a four tiered irrigation program that may be implemented in case of drought and water shortages.

Integral to the City's Irrigation Plan is the understanding that application of irrigation water to the City's properties is not a one-size-fits-all program. As the Irrigation Plan states:

[12] There are 17 parks and 18 public grounds on treated water. 9 parks, 1 public ground and 3 golf courses on raw water. The large parks (LSP, Fairgrounds/Barnes, North Lake, Centennial, Kroh) are all raw water.

[13] Everything but 2 detention ponds (total of 2.3 acres) and 2 small planter beds in the Old Town are on central irrigation control.

> Several factors need to be applied when calculating actual turf watering requirements: types of grasses being irrigated (Blue Grass, Buffalo Grass, Turf Type Fescue, etc.); site conditions (shady, sunny, hillside, low area, soil type, soil compaction, etc.); site impacts (low use, high use, sports turf, green belts, etc.); safety concerns regarding recreation activities (hard playing surfaces, large cracks in the soil, bare ground, etc.); current weather conditions (evapotransporation rates, temperatures, soil moisture levels, wind, sunshine, weekly rain totals); aesthetics (public buildings, sculpture parks, planned public events, etc.).

Overall, the irrigation water used by the Parks Department is efficiently managed at all times leveraging the benefits of centralized controllers with human judgment, as conditions warrant, since Parks staff can remotely operate the irrigation systems at 98% of the park and public spaces for which the City is responsible. Noteworthy is that based on the four tiered irrigation program, Park irrigation has been used effectively by the City in the past as a drought buffer.

Data Collection and Assessment of Programs

The City does not currently conduct an assessment of the effectiveness of its water conservation programs per se[14]. The City does track total treated water production and water billings on a monthly basis, and uses this information to track non-revenue water. However, no formal data tracking program is in place to support an assessment of individual water conservation programs. The City will identify future data tracking and reporting programs that will be implemented as part of this Plan to support the assessment of individual water conservation programs, as well as maintain compliance with new state regulations (i.e., HB 11-1051).

Given that the City maintains customer categories that differentiate residential single family from multi-family water use, from commercial use, from City use, it will be fairly straightforward for the City to conduct assessments and evaluations of specific water conservation programs – especially those that focus on specific types of customers and water use.

Past Water Savings from Water Conservation

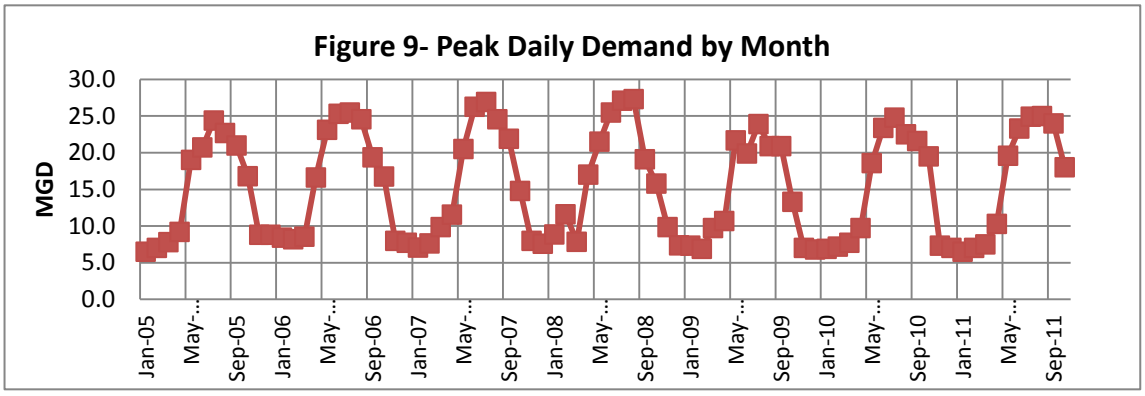
Based on the available data, it is difficult to identify specific water demand reductions that have occurred as a result of the City's programs with the exception of the City's indoor water use reductions observed between 2008 and 2011 (which is an approximate 30% reduction from 2005 and 2006 to 2011, accounting for about 8 AF annually or about 0.06% of total annual treated water demand)[15].

[14] Some tracking of water efficiency improvements is conducted as part of programs that the City supports such as the Efficiency Express, the Home Energy Audit Program and the Larimer County Conservation Corps assessment and audit programs.

[15] Outdoor irrigation conservation efforts conducted by the City were implemented in the early part of the last decade, such that water demand reductions associated with these programs likely occurred prior to the time when data used in this Plan were collected. However, since 2009, the ratio of peak day demand to total demand and to observed ET have both been reduced, perhaps indicating that some improved efficiencies have occurred with regard to summer time peak day usage.

Other City water conservation programs appear to be overshadowed by the effects of "passive savings" that are occurring organically as residential customers repair and upgrade their water using appliances and fixtures.

It does appear, based on current trends in water use, that the City's customers, including residential and commercial customers, are reducing their average water use on an annual basis. However, peak daily demand, which occurs during the heat of the summer, appears to be on the rise since 2009 (see Figure 9). This trend tracks with observed ET during this period of time (see Figure 5). Given that in the future the City will have a larger service population and the potential for variable weather conditions (which influence peak demand), future water conservation programs that the City implements will likely need to address peak daily summertime uses.



Section 3
Forecast of Future Water Demands

Forecasting water use (or water demand) is a critical part of water conservation planning since water conservation may be used to offset increases in future water demand – identified as increasing water use within specific customer categories – and/or postpone infrastructure improvements that are needed to support growing demands.

Forecasts can range from simple projections based on anticipated growth in the population to complex models using several variables to explain variations in water use. Forecasts can be made for a water system as a whole; however, forecasts are considered more accurate and valuable to water conservation planning when they are based on expected trends for each category of customers, since residential growth may not mirror commercial or institutional growth. For this reason, the demand forecasting developed for Loveland evaluated expected growth of peak daily, monthly and annual water demand for each of the City's customer types – single family residential, multi-family and commercial groups for both inside and outside of the City Limits plus City uses and pre-paid uses (i.e., Ranch and hydrants), and the annual figures compare reasonably with projections in the City's Raw Water Master Plan.

The potential effects of future water conservation programs that the City chooses to implement have not been included in the demand forecast prepared during this step. Demand forecasting at this point in the planning process only incorporate trends in future customer water demand based on a continuation of the current and ongoing water conservation efforts and "passive conservation" as older fixtures and appliances wear out and are replaced with models that meet current efficiency standards. A revision to the demand forecast based on implementing the conservation measures selected by the City is made later during the planning process, and is presented in Section 8.

Forecasting Method

To begin with, the forecasting methods that were developed for this planning effort focused on predicting future treated water demand based on the continuation of ongoing trends in water use and expected population growth in the City's service area.[16] The forecasting methods were used to estimate average conditions water demand, as well as above average water demand in future years[17]. A presentation of the forecast model assumptions and results are provided in Appendix E.

[16] Data for forecasting was based on average monthly per connection water use for the period 2005 through 2011; during which time recent trends in municipal water use were established. Characterizing variability in City water demands was performed using either this entire database, or some subset as is described in the assumptions listed in Appendix E.

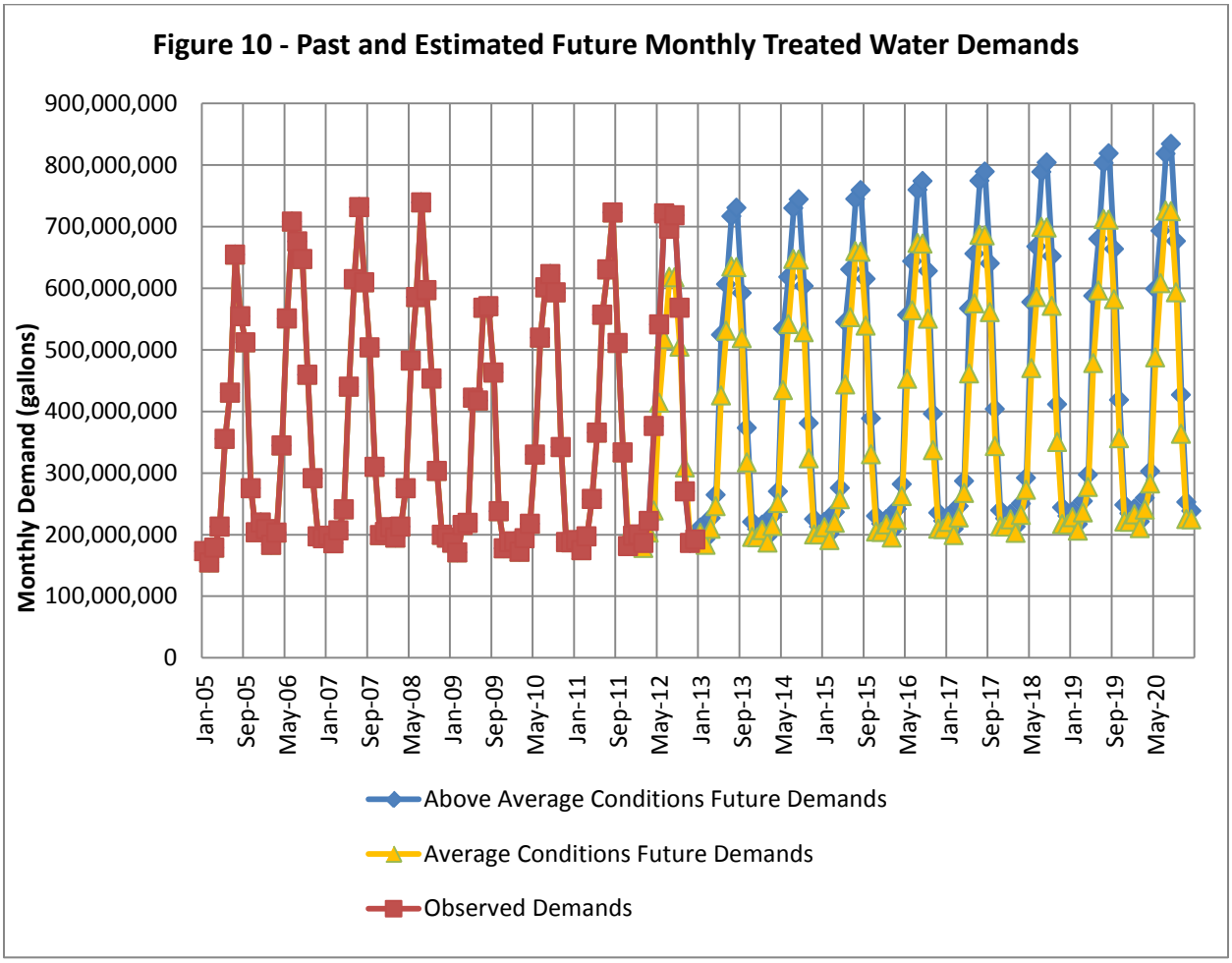
[17] Variability of future water demand was developed assuming that the water demand over the past record is normally distributed and that natural variability of weather and customer water use behaviors will continue through the planning period in a manner consistent with those observed since 2005. The available data was determined to be adequate for predicting variability in future demand over the coming 8 years, but not adequate to estimate extreme variations due to drought or wet weather with more than a 8 year return period.

The specific forecast model results of interest to this Plan and related analyses include future annual treated water demands and future peak day demands, both of which are based on estimated future monthly treated water demands. Therefore, the results for each of these three future demands are presented below.

Monthly Treated Water Demand

Monthly water demand is the basis of all other estimated future water demands. Appendix E presents how future monthly water demands were developed and how these demands were used to estimate future annual and peak daily demands. Figure 10 presents the results of the predicted monthly treated water demands throughout the planning period for both average and above average conditions[18].

Figure 10 - Past and Estimated Future Monthly Treated Water Demands



As this figure illustrates, future monthly demand is not expected to peak as sharply as has been observed in the past four years (from 2007 to 2011), based on average conditions. However, peak monthly treated

[18] The reduction of treated water demands related to expected passive savings are not included in the monthly treated water demands; since they are calculated on an annual basis. Therefore, passive savings are integrated into reported annual treated water demands. Monthly water demands are presented only to illustrate the seasonal nature of monthly demands and the relative differences between average and above average conditions.

water demand for above average conditions (i.e., one standard deviation above average conditions), which are about 12% higher than average conditions[19]. The peak treated water demand difference between average and above average conditions is about 110 million gallons in August 2020.

Annual Water Demand

Annual water demand projections were developed by summing the monthly water demands for each calendar year and subtracting the estimated annual impact of passive savings[20]. Figure 11 presents the annual treated water demands in the past and as estimated through the planning period as a result of those analyses presented in Appendix E.

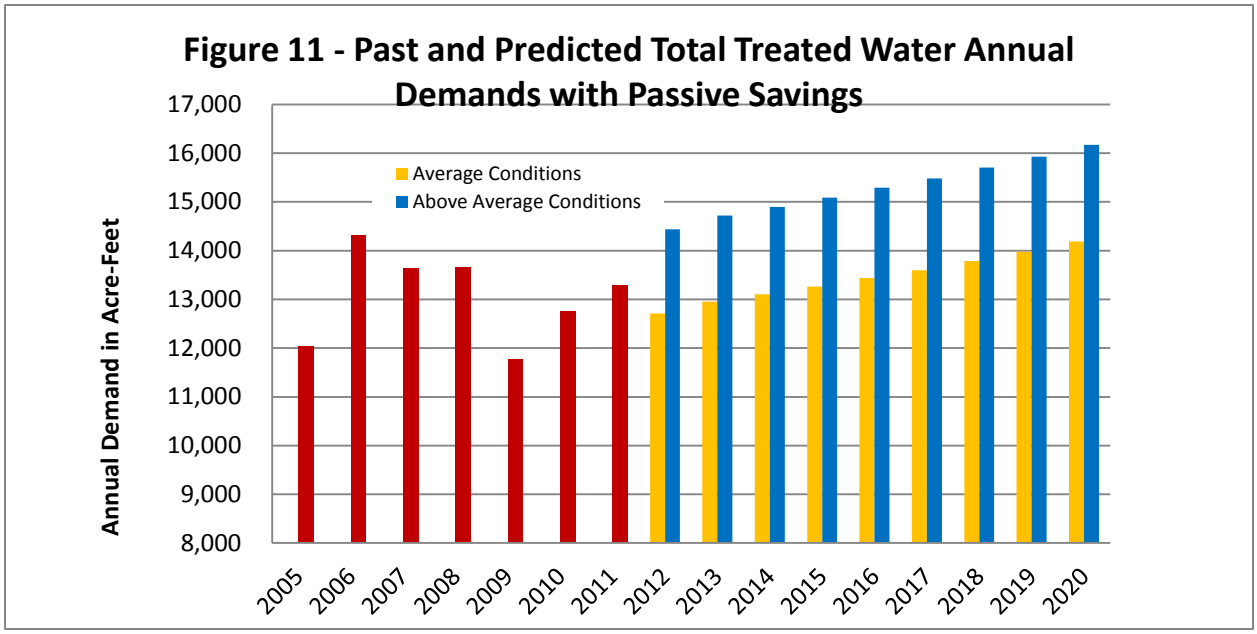


Figure 11 illustrates the relative impact of demand variability on estimated future treated water demands. Above average annual treated water demands vary over the planning period from about 14,440 to 16,170 acre-feet (AF), whereas average annual treated water demands vary from about 12,710 to 14,185 AF. These values compare reasonably with the city's Raw Water Master Plan when adjusted for the impact of projected passive savings. This difference illustrates the challenge of planning for average conditions (i.e., those that occur only 5 out of 10 years), versus planning for conditions that occur 8 out of 10 years; given that demands may reasonably vary over average conditions by as much as 2,000 AF by the end of the planning horizon (2020).

For the City of Loveland, this variability is not significant given the current water portfolio used to provide the City with potable water supply. It may be that at some time in the future, the estimated demand

[19] Above average treated water demands vary from about 4 (January) to 23% (August) of monthly average treated water demands; averaging about 12% higher over the course of a year.
[20] Passive saving water demand reductions are estimated to be about one quarter billion gallons of treated water per year in 2020.

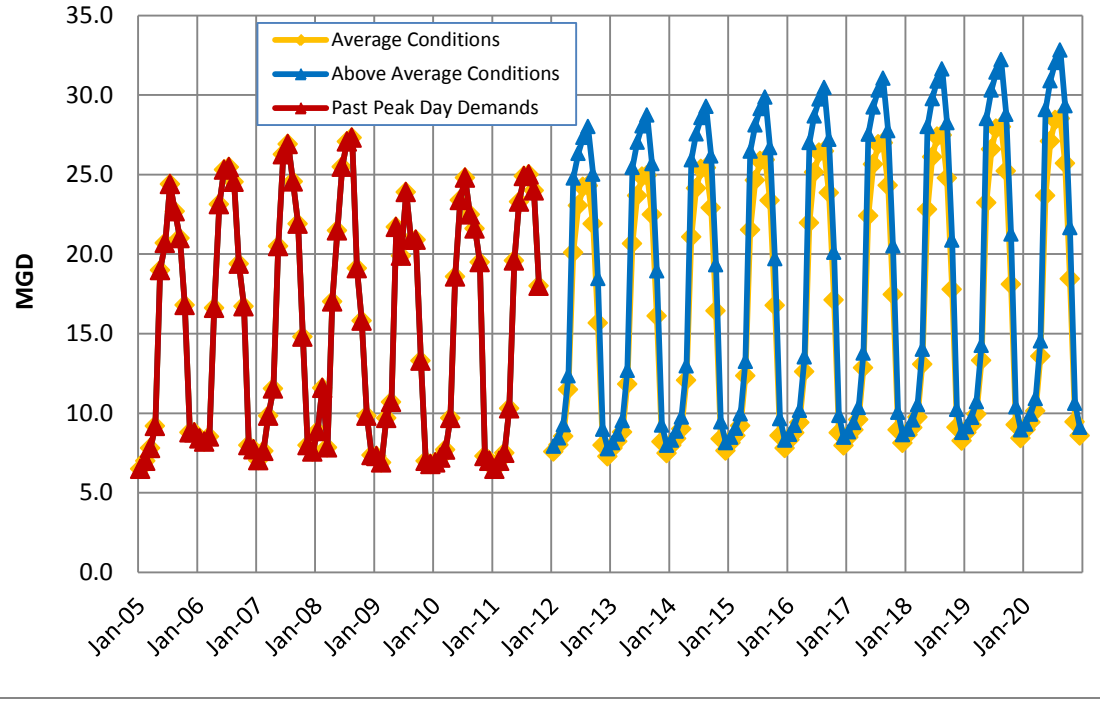
variability may impact the City's ability to provide potable water on an annual basis, but it is not expected to be rate limiting over the current planning horizon.

Peak Daily Forecasts

The City's current peak day treatment capacity is approximately 30 MGD; whereas peak daily demands in the summer of 2008 topped 27 MGD. Peak day treatment capacity is therefore an issue for the City.

Peak day demands were estimated for each month in the planning period based on the average peaking factors presented in Appendix C. Figure 12 presents the results of the forecast modeling used to estimate peak day treated water demands for the period 2012 through 2020 (compared against past peak day demands).

Figure 12 - Past and Predicted Peak Day Treated Water Demand for Average and Above Average Conditions



Based on the analyses presented in Figure 12, average conditions peak day treated water demands are not excepted to exceed 30 MGD during the planning period (the highest annual peak day demand in 2020 is estimated to be about 28.5 MGD); whereas for above average conditions, the highest annual peak day demand exceeds 30 MGD in 2016 (30.5 MGD). Although the City has the ability to utilize an interconnect with Little Thompson Water District to meet peak day demands above 30 MGD, future peak day water demands in the summer will require that additional water treatment capacity is developed by the City, unless water conservation programs can be developed and implemented that "shave" peak day demands, effectively postponing (or eliminating) the need for the treatment plant capacity expansion.

Section 4
Capital Improvement Projects

The City maintains a detailed 5-year capital plan that identifies design, consulting and construction costs associated with ongoing and upcoming water related projects, including:

- Transmission and distribution projects (focusing on replacing steel and cast iron pipe with plastic in critical areas)
- Water treatment plant
- Water resources
- Upgrades and extensions (AKA – oversizing and extensions)
- Miscellaneous operations and maintenance (O&M) budgets

The projects that the Water Utility are currently tracking include water line replacements, water storage tank construction, meter upgrades and replacements, treatment plant upgrades and improvements, water resources projects, vehicle purchases, and various O&M projects. A specific breakdown of the City's 5-year detailed capital project list is provided in Table 6.

Table 6 – Summary of City's 5-Year (2013-2017) Detailed Capital Improvement Plan for Water Projects[21]

		5-Year Total
Transmission and Distribution		
	Water Line Replacements	$7,834,020
	Water Storage Tanks	$240,140
	Meter Replacements	$440,930
Water Treatment Plant (general)		$9,978,360
Water Resources		
SIF Projects		
	Water Lines	$860,130
	Water Storage	$240,140
	Water Treatment	$11,566,810
General Plant		$971,200
O&M Projects		$3,907,780
	5-Year Total	$36,039,510

Capital projects that are considered as a part of the City's water conservation programs include water line inspections, replacements and upgrades (which are expected to help reduce water losses); and meter replacements (which are expected to help reduce apparent water losses). The costs of these programs will be included in the overall water conservation program costs provided later in this Plan.

[21] From the 2013 CIP for the Water Utility

Section 5
Goals for Water Conservation

The City has a number of goals for its water conservation programs. Perhaps the most important relates to the City maintaining a connection with the community that it serves; such that it can promote the importance and value of water use efficiency in maintaining a reliable, secure and sustainable water supply now and into the future. To do this, the City will rely on a number of integrated programs, each of which is described in the following section. The City understands that it is the true integration of water conservation and water resources management, in a conscientious, deliberate and transparent manner that will allow for the City and its customers to work together to reach the overall goals stated below.

Specific goals that the City looks to achieve include:

- Reducing summertime peak daily demands in the future by about 1 mgd (or about 3 acre-feet (AF) per day which is about 10% of peak demand) during above average demand periods by 2016;
- Reducing non-revenue water from current levels to 10-11% of total treated water by 2020 (which is a reduction in real and apparent water loss of about 575 acre-feet[22]);
- Developing water rates that accurately reflect the cost of service for providing reliable, secure and sustainable water supplies, including infrastructure management and maintenance, and the impact of changing customer water use behavior patterns in the future;
- Supporting the City's sustainability efforts in part by reducing City water use (indoor and outdoor) by 5% by 2020; and
- Developing technical assistance programs that will support improved water use efficiency by the City's large commercial and irrigation only users.

Through the implementation of the Plan, and beyond, the City will strive to reduce per connection water use by about 11% between 2012 and 2020, for an estimated demand reduction of about 1750 AF[23,24] within that time frame.

[22] For the purposes of actual demand reductions and predicted impacts on future revenue, that real and apparent losses constitute 80% and 20% of the observed non-revenue water loss, respectively.
[23] Passive savings are estimated to be about 780 acre feet (AF) between 2012 and 2020; such that the City conservation goal of 1,750 AF is in addition to the estimated passive savings.
[24] The City's goal of 1,750 AF was developed based on an average per connection daily use from 2008 to 2011 of 480 gallons; decreasing to about 426 gallons per day per connection in 2020 (for an estimated 29,000 connections serving a population of about 80,000).

Section 6
Identification and Evaluation of Candidate Measures and Programs

As indicated in the previous section, the City has identified that water conservation efforts can best support the needs of the water utility through:

- Reducing summer time peak demand;
- Reducing current system wide water loss; and
- Supporting improved water use efficiency for the City's commercial and large irrigation customers

Therefore, the City will identify, evaluate and ultimately select water conservation measures and programs that support these goals.

The State has regulations (CRS 37-60-126 – see Appendix C) which require that covered entities that develop water conservation plans for review and approval by the CWCB consider a broad range of potential measures and programs for the plan to be complete. Table 7 presents each of the categories of water conservation measures and programs that the City considered, aligned with the regulation, as it developed its "short list" of measures and programs for detailed evaluation.

A few key points related to this analysis are noteworthy.

- Based on the CWCB SWSI Levels Analysis (June 2010), the City has decide not to actively support the retrofits and related incentives (e.g., rebates) for indoor water using fixtures and appliances, since home and business owners will be naturally replacing and upgrading toilets, faucet aerators, clothes washers and dishwashers naturally, with newer, high efficiency models in the future. This market driven process does not benefit from the City spending additional resources to accelerate the impact of these passive savings.

- The City does not currently provide water to any large commercial or industrial customer that would benefit from improved process water retrofits and upgrades. Hospitals and large laundry services, car washes, and greenhouses may benefit from improved water use efficiency upgrades; however, the City will focus its commercial programs with a higher rate of return on investment (e.g., faucet aerator retrofits, shower head replacement programs). In future years, the City may decide to evaluate process water efficiency improvements, but they are not included in this version of the City's Water Conservation Plan.

- The City has not agreed philosophically or politically with the use of inclining rate block structures for residential customers that are not based on the cost of service. For this reason, the City maintains a flat residential water rate, which is raised periodically as fixed and variable costs increase. The City does have a surcharge for commercial customers that exceed a specified quantity of water use in a year; which is associated with the cost of replacement water.

Table 7 – Summary of Measures and Programs that Must Be Considered During Plan Development

CRS 37-60-126 Category of Measures and Programs*	Current Efforts	Future Evaluations Proposed by the City
Water-efficient fixtures and appliances, including toilets, urinals, clothes washers, showerheads, and faucet aerators	The City currently provides replacement of showerheads and aerators through energy and water assessments and audit programs. The City does not currently have programs to support customer replacement and/or upgrade of appliances.	These types of programs will only be considered for large commercial customers, since residential customers will be replacing toilets, faucet aerators, clothes washers and dishwashers with more water efficient models organically (based on CWCB, 2010).
Low water use landscapes, drought-resistant vegetation, removal of phreatophytes, and efficient irrigation	The City does not currently have specific programs to support customer replacement of landscape materials; however the City supports Garden-in-a-Box (which provides water efficiency landscape materials to interested homeowners); has been installing water efficiency landscapes in selected City parks and facilities; and maintains a tap fee structure that allows for reduced impact fees for customers that can demonstrate the appropriate use of water efficient landscape materials.	The City will continue its current programs
Water-efficient industrial and commercial water-using processes	The City does not currently have a program for industrial or commercial water customers – associated with process water use.	The City's customer base does not justify development of a process water focused water conservation program.
Water reuse systems	The City has limited opportunities for reusing treated wastewater since a substantial portion of the City's water portfolio is direct diversions from east slope supplies or Colorado Big Thompson water, which cannot be reused. A portion of the City's water portfolio does include some reusable supply from its reservoirs and some Windy Gap allocations. However, reusing these water sources reduces overall firm yield, so the City does not practice reuse in its normal operations.	The City may obtain some water rights that would allow reuse through the Windy Gap firming project; however, until such that that project occurs, reuse opportunities do not exist for the City.

Table 7 – Summary of Measures and Programs that Must Be Considered During Plan Development (continued)

Distribution system leak identification and repair	The City currently has a water loss control program including leak detection and repair projects, meter testing and replacement, and water loss tracking; however these programs can be improved	The City will evaluate measures and programs to improve its current supply-side water loss management efforts. In addition, the City will evaluate strengthen its overall messaging regarding water use efficiency, water management, and the importance of maintaining and upgrading water infrastructure to support customer needs with respect to reliable, secure and sustainable water supply.
Dissemination of information regarding water use efficiency measures, including by public education, customer water use audits, and water-saving demonstrations	The City maintains a strong relationship with the community that it serves through messaging, educational efforts, and its "lead by example" mentality. The City also supports customer water use audits employing outdoor irrigation audits for residential customers (AKA, Slow the Flow); indoor audits and retrofits for low-income residences; and combined energy/water audits for selected commercial customers.	The City will evaluate the efficacy of each of these programs with respect to measurable results and maintain those that can be shown to have positive impacts on managing customer water demand.
Water rate structures and billing systems designed to encourage water use efficiency in a fiscally responsible manner.	The City has a flat residential block rate that is based on the cost of service which in turn is based on fixed and variable costs; including a reserve for infrastructure replacement and management. Commercial water rates are also a flat rate with a water use surcharge included for high annual water use. Irrigation only water rates are inclining block rate based on a water budget for established landscapes.	The City performs a rate study every 3-5 years to keep its rates in balance with costs; which included a 4% rate increase in 2011. The City will maintain a flat block rate which reflects the cost of service to its customers; while utilizing other methods to manage future water demands. Part of the City's efforts will include utilizing a reduction in tap fees for irrigation only customers that can demonstrate reduced water use via native plant materials and efficient hydrozones.
Regulatory measures designed to encourage water conservation	The City maintains a water waste ordinance.	The City will evaluate methods to broaden its water waste ordinance.
Incentives to implement water conservation techniques, including rebates to customers to encourage the installation of water conservation measures	The City has not used rebates in the past to encourage water use efficiency.	These types of programs for indoor uses will only be considered for large commercial customers, since residential customers will be replacing toilets, faucet aerators, clothes washers and dishwashers with more water efficient models organically (based on CWCB, 2010). Outdoor water use efficiency incentives and rebates will be evaluated by the City.

* In developing a water conservation plan, state regulation requires that each covered entity shall, at a minimum, consider these categories of measures and programs.

- The City has an incentive program to reward landscape irrigation efficiency through either a refund of a new tap impact fee and/or a credit for water rights provided during development. This program is relatively new, and is in the pilot phase, but will continue to be offered as the Water Conservation Plan is implemented.

- The City has seen a consistent reduction in its own water use, both indoors and outdoors. Indoor water demand reduction has been associated with the installation of upgraded fixtures and more efficient water use practices. Outdoor water use efficiency has been improved with the installation and use of centralized irrigation controllers that manage each zone of each park individually. These improvements are examples of how the City "leads by example."

- In addition, the City Parks Department has developed an in depth Drought Management Plan detailing water use reductions in each park during times of water supply shortage.

- The City has a water waste ordinance that has been used in the past to respond to citizen complaints; however, the City has not allocated resources to conduct more hands-on efforts to identify and correct wasteful watering practices (e.g., driving inspections for over watering, time of day watering violations, etc.). The City may wish to consider allocating resources to conduct "on the street" assessments to help control summer peak demand in the future. In addition, the City may want to consider adding language to its current ordinance that would designate time of day watering restrictions and/or overspray requirements.

Based on the City's past efforts, current policies, and future infrastructure limitations, it proposed to evaluate the efficacy of implementing the following suite of water conservation measures and programs.

To reduce summer time peak day demands, the City will evaluate the following:

- Continue management of the City's parks utilizing the central controllers and drought management plan;
- Expand the City's water waste ordinance to detail actions that the City may take to identify and potentially penalize water waste repeat offenders;
- Continue to support residential outdoor irrigation audits (Slow the Flow) and residential Xeriscape planting (Garden-in-a-Box) programs;
- Develop and broadcast a new community water use messaging to stress the need for summertime use reductions (e.g., initiate voluntary watering restrictions), infrastructure management and maintenance, and general water use efficiency; and
- Initiate large commercial and irrigation only audit programs to improve outdoor irrigation efficiency.

To improve water loss management and water rate structures:

- Conduct a system-wide water audit using the American Water Works Association (AWWA) M-36 methodology;

- Implement recommendations from the system-wide water audit related to metering, data collection and management, and leak detection;
- Perform annual system-wide water audits as a means to track water loss patterns and verify that improvements are in-fact reducing real and apparent water losses; and
- Continue to perform water rate studies to evaluate and set water rates based on the cost of service for water supply to each customer. The water rate studies may also evaluate issues such as excess water use surcharges, commercial and industrial customer billing options, and creating more commercial customer categories.

Other relevant programs:

- Continue K-12 education by supporting the Loveland Water Festival;
- Continue to support the Efficiency Express such that water efficient faucet aerators and showerheads can be installed as energy audits are conducted; and
- Continue to support and offer the Larimer County Conservation Corps, Energy and Water Program and the Home Energy Audit Program for residential customers.

A detailed evaluation of each of these potential measures and programs are provided below.

Summertime Water Demand Management

Parks irrigation watering management – The City will continue its programs to manage the use of irrigation water on its parks, which has been a success story leveraging both human judgment and centralized controllers to efficiently apply irrigation water as conditions, and the City's irrigation conservation plan dictate. However, the parks will be evaluated for turf replacement with native plant materials, depending on the park use, location and character. In addition, minor improvements will be evaluated to further improve the current efficiency of the park irrigation efforts (MP rotors to replace older spray rotors, improving some hydrozones to support new native plantings, etc.).

Irrigation in the City main parks covers nearly 275 acres with about 26 AF per week during peak summertime use. The MP rotors will not only reduce total irrigation water demand for the City, but it will lower peak day demand by about 0.6 mgd.

Costs - $70,000 (for materials, no labor) for replacing all existing rotors with MP rotors over the next five years.

Estimated Savings – 70 to 80 AF (based on a 15% improvement in irrigation application efficiency)

Expanded Water Waste Ordinance - The City's water waste ordinance provides general guidelines for unacceptable water waste by its customers, and allows for the City to shut off service for offenders. The City will consider developing two key amendments to this section of the municipal code:

i) Time of day watering restrictions that discourage outdoor irrigation between 10 am and 6 pm from May 1st to September 15th.

ii) The ability of the City to fine observed water wasters for violations (see Appendix D for an example from the Colorado Water Wise Best Practice Manual).

On the heels of these amendments, the City will consider methods to identify and if necessary, penalize repeat water wasters as a means of broadcasting a low tolerance for inappropriate irrigation practices.

Cost - $1,500 for Ordinance Revision

Estimated savings – savings are included as a part of the messaging campaign describe below.

Slow the Flow and Garden-in–a-Box – The City will determine whether or not to continue its support of two popular programs. Both are provided by the Center for ReSource Conservation (a non-profit operating out of Boulder). Costs carried by the City will include providing for up to 120 residential audits; and up to 80 Garden-in-a-Box native planting kits. Combined, these programs will continue the City's engagement and support of its residential customers, and in the future be linked to the City's overall efforts to reduce summertime peak water demand.

Cost - $17,200 (for 80 Garden-in–a-Box Kits (City pays $50 per kit); and 120 Slow the Flow residential irrigation audits (City pays about $110 per audit))

Estimated savings – 2.5 % of outdoor irrigation water use per connection in the program (about 6 AF[25])

Wise Water Use Messaging - The City will consider developing water messaging campaign that will include a tag line, logo, and related materials to help announce and publicize the implementation of the new water conservation programs; to educate and engage its customer base about the need to reduce summertime peak demand; and to ask for support of the new water waste ordinance, new water rates, overall infrastructure management and water loss control, and voluntary watering restrictions. The logo and messaging may also be incorporated into the stenciling on the City's service vehicles; water billings; educational programs; the City website; and printed information provided during customer water audits.

The City will connect the messaging effort to customer surveys that are conducted by the utility on to test messaging, identify customer hot buttons and key water topics, and evaluate public opinion regarding various water conservation strategies and programs.

[25] Based on residential summertime usage in 2007 and 875 total customers participating in the programs over 5 years.

Cost - $20,000 to $25,000 for message development and initial launch (printing, web update, etc.)

Estimated savings - dependent on the breath of the City's efforts to publicize and engage the community. Expect a reduction of about 0.75 to 1.5% of community water demand reduction due to combination of the messaging campaign with other City water conservation efforts including the water waste ordinance, the improved City facility water use, reduced distribution system water loss, and increased water rates. The messaging campaign will focus on creating synergies linking City actions with customer water use behaviors (e.g., lead by example), (75 to 100 AF[26]).

Commercial Water Audits and Retrofits – The City will consider initiating a program to provide free water audits to its largest water customers coupled with retrofits for showerheads, faucet aerators and pre rinse spray nozzles, depending on the nature of the business. The largest water users in the City have been identified to include schools, manufacturing facilities, churches, business offices, nursing homes and elderly care, and City facilities. Of these, the City will focus its audits and retrofits on those with large outdoor irrigation uses coupled with indoor uses that may be receptive to the proposed retrofits[27].

The proposed audit program that the City would implement would involve obtaining grant funding to support data collection and analysis efforts, water use modeling and retrofits to improve the water use efficiency at each location listed in Table 8. The proposed audit program would be similar to programs conducted in other parts of the State supported by CWCB water efficiency grant funding. To this point, the costs of the first year or two of commercial facility audits and the estimated water savings are in line with those reported by past CWCB grant recipients. Note that although the water savings predicted from the audits includes both indoor and outdoor water use reductions; the audits will be focused on those organizations that may reduce summer time irrigation use, thereby supporting the City's goal to reduce peak summertime demands.

Costs - $ 36,000 – $45,000 for audits and retrofit fixtures (depending on how many of each retrofit type is installed - faucet aerators, pre-rinse spray nozzles and showerheads). This estimated cost includes $12,000 to 15,000 for one nursing home facility customer.

Estimated savings – 8 AF and 20,600 gpd during peak demand (see Table 8).

[26] This water demand reduction is based on the positive results of the City's past efforts to reduce customer water use demand solely through messaging and public relationship programs.
[27] The retrofits being proposed are low cost and energy efficient, which therefore make them cost effective as compared to upgrades or improvements to kitchen and laundry equipment, air cooling equipment, and/or other commercial wash uses.

Table 8 – Summary of Potential Commercial Facility Audit Locations and Savings

	Average Annual Water Use (gallons)		Potential Savings	
	Indoor	Outdoor	AF (annual[c])	GPD (during peak)
Manufacturing Facility	2,355,000	1,970,000	1.5	3,500
Nursing Home (one customer)	9,375,000	3,172,000[a]	4.1	8,600
Publishing Facility	988,000	2,931,000	1.2	3,900
Manufacturing Facility	303,000	584,000	0.3	1,000
Office Building	232,000	369,000[b]	0.2	600
Office Building	297,000	1,570,000	0.7	2,300
Office Building	135,000	537,000	0.2	700
TOTAL			8.2	20,600

[a] uses last 4 years of water use for outdoor estimate

[b] high water use in 2010 not included in estimate of potential savings

[c] including savings from both indoor retrofits and outdoor efficiency improvements

Water Loss Management

System Wide Water Audit and Recommendations – The City will consider conducting a system wide water audit using the methodology specified in the AWWA M-36 Water Loss Control Manual. Specific tasks that the City should consider paying special attention to relate to tracking and quantifying, where possible, metered, unbilled and unmetered, unbilled water uses; as well as looking at meter reading accuracy for large taps. In addition, the City should evaluate the accuracy of its current billing system to track all billable water accounts including those that are transferred from one customer to another. Seasonal variations in non-revenue water should also be evaluated and characterized. The audit should be provided by a third party working closely with all utility departments that handle and manage water use accounting and billing.

Recommendations from the audit may include, but not be limited to such tasks and actions as:

- Install system pressure controllers to reduce system pressure and thereby reduce supply side leaks.
- Locate and install meters on unmetered uses.
- Calibrate and repair/replace large meters including totalizing meters on water treatment plant effluent, commercial and irrigation only customers, etc.
- Accelerate the installation of AMR and AMI technologies to assist the City in identify and tracking supply side and demand side leaks, improving data handling and billing accuracy, and reducing City loss time injuries.
- Add system metering redundancy for measuring water treatment plant through distribution system subareas or management areas, and other key locations of potential apparent water loss.

Costs – for the audit $25,000 to $40,000 (depending chiefly on the extent to which meter testing is incorporated into the scope); with costs to implement audit recommendations variable based on findings during the audit.

Estimated savings – It is possible that the City will be able to reduce its current average water loss by about 3 percent (i.e., from about 13.5% of total demand to about 10.5% by 2020) as a result of the audit – which includes better understanding the City's real and apparent losses. This reduction corresponds to a reduction of non-revenue water by about 575 AF on average[28]. Noteworthy is that these savings will result from a combination of the audit and the implementation of key audit recommendations.

Water Rate Study and Implementation – The City has a policy of conducting water rate studies once every three to five years to maintain appropriate customer water rates based on the cost of service. The City has just completed a water rate study in 2012 to assess current and projected future costs, and to fine tune current policies regarding:

- Excess water use surcharge for commercial customers,
- Commercial and industrial customer billing options, and
- Creating more commercial customer categories.

A water rate study can also examine the impacts of alternative tap fee incentives for new and existing customers that install water efficient landscapes and appropriately designed irrigation systems for those landscapes.

The water rate study is important to the water conservation planning effort for three reasons. First, the water rates will need to be developed in a manner consistent with the projected future demands – based on the impacts of both passive and active savings and expected peak day demand reductions. Second, the development of new and/or expanded water rate categories (e.g., for different customer classes, to account for seasonal variability in fixed and/or variable costs, etc.) should support water use tracking as new water conservation measures and programs are implemented. This will help to ensure that water demand reductions can be attributed to active programs conducted and funded by the City.

Third, the water rates should include the costs of the water conservation measures and programs selected for implementation, such that the true cost of services can be included in the base and rate fee structure. In addition, the City should ensure that costs for emergencies, capital projects, leak detection and prevention, improved metering and data management, and overall system wide loss control are included in water rates and fees. Finally, the City will evaluate options and efficacy of including additional tiers of water rates in its pricing for residential and commercial customers.

[28] Real and apparent losses constitute non-revenue water. Based on the assumption in footnote 25, the real and apparent losses contribute 460 and 115 AF, respectively. The real loss reduction represents a reduction in demand; whereas the apparent loss reduction represents an increase in water sales revenue.

Currently, the City has identified substantial water rate increases that it will put into practice over the next 10 years. These rate increases, presented in Table 9, will be used to raise revenue for capital projects, as well as to assist in achieving specified water conservation goals. Insomuch as the rate increases will be happening, Plan implementation will include tracking the impacts of the rate increases on customer demand and water use – individually and collectively.

Table 9 - Proposed Water Rate Increases Through 2022

Years	Rate Increase
2014	13%
2015-2019	9%
2020-2022	8%

These proposed rate increases will increase the cost of 1000 gallons of water by about 120% between 2013 and 2022.

Water demand reductions related to the proposed rate increases are expected to be significant[29] given the scope of the proposed program; although the actual savings are expected to be on the low end of the literature values given that water is currently priced at less than $2 per thousand gallons. Nonetheless, overall savings even at 0.1% per 1% increase is expected to total over 1,000 acre-feet by 2020, and perhaps as high as 3,000 acre-feet. Even with these large expected demand reductions, the City should plan to integrate the water rate fee changes with its messaging on wise water use and water conservation to help educate and engage its customer base regarding the justification for increased water rates, and to manage customer expectations regarding further water rate increases.

Cost – $25,000 for a water rate study in the future assuming the City has the engineering data need to assess meter reading accuracy and effectiveness, and characterize overall system wide water loss (which indicates that the system wide water audit should be completed prior to the next water rate study).

Savings – For a 46% water rate increase (about $0.84 per thousand, assuming $1.83 as the current starting point), a water demand reduction of between 500 and 1,700 AF may occur by 2017 (and 1,100 and 3,500 AF in 2020[30]) could be expected under average conditions, especially if the City introduces the new wise water use messaging along with the increased water rates; however, due to the relatively low cost of water in the

[29] Water rate increases at the City may reduce overall water use by between 0.1 to 0.7% per 1% increase in water rate based on Stevens, et.al.(1992), at an average of about 0.33% (Olmstead, et. al., 2006).
[30] Increased demand reductions are estimated for 2020 based on increased water demand from a combination of growth and reduced apparent losses, both of which increase water deliveries to customers.

City, it is anticipated that actual water savings related to water rate increases will tend to be at the low end of the literature-based savings estimates[31].

Other Programs

K-12 Education – The City will continue its efforts to support local K-12 educational efforts including participation in the Loveland water fair, classroom presentations on responsible water use and management, and other adhoc water related events. The City's presence at these events helps to engage the community and instill a general sense of water awareness in its attendees. There is no specific attempt to quantify potential water savings that are attributed to these expenditures; however the City believes that the support of local K-12 education is a basic responsibility of the utility that will continue to be funded.

Cost – The City has $5,000 in the water utility budget for educational support, in addition to the other programs outlined in this plan.

Larimer County Conservation Corps, Energy and Water Program and the Home Energy Audit Program – The City has provided funding for these programs in the past to support the audits and retrofits of residential housing with water and energy efficient fixtures including faucet aerators, showerheads, toilet dams and dye tablets (for toilet leak detection). Although this program has not provided explicit reporting back to the City regarding measured water savings, the staff will visit, audit and retrofit 400 homes each year. It is estimated that the showerheads and faucet aerators reduce the typical indoor single-family water use by about 10% (or about 135 gallons per connection per day for each of 400 homes).

Costs - $8,000 for purchasing and installing 400 faucet aerators, showerheads toilet dams and dye tablets to support residential retrofits.

Savings – 6 AF (for each year the program is conducted)[32].

Efficiency Express through Platte River Power Authority – Loveland Water and Power has joined with the Platte River Power Authority to fund energy and water audits for qualifying commercial and industrial buildings to support building energy tune-ups and efficiency upgrade assistance. Although the program components are focused on energy efficiencies, some water use efficiencies are possible (with respect to ice making and other food service equipment). For example, the audit team will provide educational support to facility managers regarding rebate opportunities and technical support. Since the City is not supporting rebates, the potential water savings that could occur as a result of this program relate to City retrofits of faucet

[31] A 13% rate increase would increase an average water bill for a single family residential customer by about $1.20/month for wintertime use and by about $9.60/month for summertime use (assuming 5,000 per month and 40,000 per month, respectively).

[32] Based on reduction from 2.5 gpm to 1.5 gpm in the shower for an 8 minute shower per person per day; and from 2.2 gpm to 0.5 gpm for 2.3 minutes of bathroom sink use per person per day; for an average of 2.5 persons per audited household.

aerators and showerheads. The City could potentially link the commercial water audit program to the Efficiency Express Program to support finding interested and qualifying commercial water customers.

Given that the actual water savings related to this program will likely occur as the result of fixtures that are replaced by the City as part of its commercial water audit and retrofit program, the savings for this program are imbedded in that program.

Costs - $2,500 for 10 facilities in conjunction with the Brendle Group's scheduled facility assessment.

Savings – no savings were estimated for this program since the nature of the water savings can vary substantially from year to year, and the overall expected water savings are expected to be small.

Section 7

Summary of Candidate Measures and Programs

Table 10 presents a summary of the water conservation measures and programs evaluated and selected by the City for implementation during the period 2013 to 2017. Details of the proposed budget are provided in Section 9.

Table 10 - Summary of Selected Water Conservation Programs for Implementation

Measure/Program	Estimated Annual Cost	Estimated One Time Cost Over Planning Period	Estimated 5-Year Cost	Estimated Savings[33](AF)	Comment
Summertime Demand Management					
Park Irrigation Improvements		$70,000	$70,000	70	Includes both landscape efficiency and conversions from spray rotors to MP rotors
Expanded Water Waste Ordinance		$1,500	$1,500	Included in savings estimate for Smart Water Use Messaging	Includes increasing nature of ordinance to allow for penalties to water wasters
Slow the Flow/Garden-in–a-Box	$17,200		$86,000	6	Helps to develop good will and support the City's messaging
Wise Water Use Messaging	$8,000	$25,000	$65,000	92	must be performed in close coordination with other measures and programs identified for implementation to achieve savings
Commercial Water Audits		$30,000	$30,000	8	partnership for management of City's biggest customers
System Wide Water Audit and Recommendations	$275,000	$40,000	$1,415,000	294	mid-term commitment to future reduction of non-revenue water
Water Rate Study and Implementation		$25,000	$25,000	544	part of City's typical management program
K-12 Education	$5,000		$25,000	n/a	It is the right thing to do for the City
Water and Energy Assessments and Audits	$8,000		$40,000	31	Supports low income families
Efficiency Express	$2,500		$12,500	n/a	Included in Commercial Water Audits
	$ 315,700[b]	**$191,500[c]**	**$ 1,770,000**	**~1,045**	

[a] Includes $260,000 annually from CIP for meter and water line replacement
[b] includes $40,000 for financial software and public relations expenses
[c] includes $70,000 from parks, $25,000 from public relations; and $25,000 from finance and administration.

[33] Estimated as average annual water demand reduction after five years of program implementation

Note that one of the City's implementation goals for this Plan is to reduce summertime peak day demand by about 1 mgd by 2016. The projected savings of 1045 AF by 2020 represents about 0.93 mgd, which on first blush appears to be slightly short of the goal. However, the 1 mgd peak demand reduction goal only relates to a water supply condition that occurs during a few weeks in the summer, rather than over the entire year. Therefore, the total annual demand reduction related to summertime peaking is in the range of only 125 to 170 AF (which corresponds to a 6 to 8 week period). The summertime peak demand reductions related to irrigation improvements in the parks and at commercial facilities, as well as for residential customers, are focused on the current June through August peak day demands. These programs, if implemented by the City and its customers, could trim peak day water use by 1.5 to 2 mgd.

Section 8

Integration of Proposed Water Conservation Program with Water Demand and Sales

The impact of the proposed water conservation program will be apparent with regard to both total water demand and water sales in the City. The design of the water conservation program focuses on reducing both real and apparent water loss, summertime peak demand, and overall customer water use efficiency, helping to postpone capital improvement projects and reducing long-term water supply development requirements. However, water conservation and demand reduction cannot be counted on alone to reduce long-term water needs for the City. The City will need to continue its practices related to the integration of storage and efficient water use to meet the needs of its customers – since the nature of a future water supply that is reliable, secure and sustainable will change in response to a growing service population, evolving commercial and business uses, and changing climatic conditions.

It is also vital to note that overall water demand reductions are estimates based on experience, literature assessments and expected trends in the City's municipal and industrial water use. Actual water savings may vary widely dependent on customer behaviors, weather conditions, City messaging efforts, and any number of other external factors. However, with the City's investment in water conservation, individual customer water use will trend downward as more responsible water use is condoned and supported. For the City to manage its practices and understand the impact of its expenditures, it is vital that a robust water use monitoring program be established to track individual and sector water use on a daily, monthly, quarterly and annual basis as plan implementation occurs. Therefore, the City will need to commit staff resources to managing the implementation phase of the water conservation program such that mid-course corrections can be identified and executed, allowing the City to best leverage its resources to achieve meaningful water conservation.

Table 11 presents the estimated decreases in future water demand associated with the proposed water conservation measures and programs presented in the previous section. The table presents demand reductions for both average conditions and above average (i.e., one standard deviation above average demands) conditions. Above average conditions savings are greater due to the impact of improved water loss management, and the associated reduction of real losses associated to delivering future water to the City's customers, since real losses are accounted for as a percentage of water deliveries.

Figure 13 presents the predicted impact of improved water use efficiency on City water sales revenues. The base case of water sales revenues is calculated maintaining water rates at the current rate of $1.83 per thousand gallons. The scenario with the current plan absent the water rate increases is shown, with a decrease in water sales revenue of about $400,000 for average conditions based on reduced water sales revenues due to customer water conservation (which translates to about $500,000 in above average year - one standard deviation above average). With the water rate increase and the related water use reduction, revenue for the City is up by about $4.45 million in an average year, which translates to about $5 million in above average years. This increased water sales revenue clearly offset

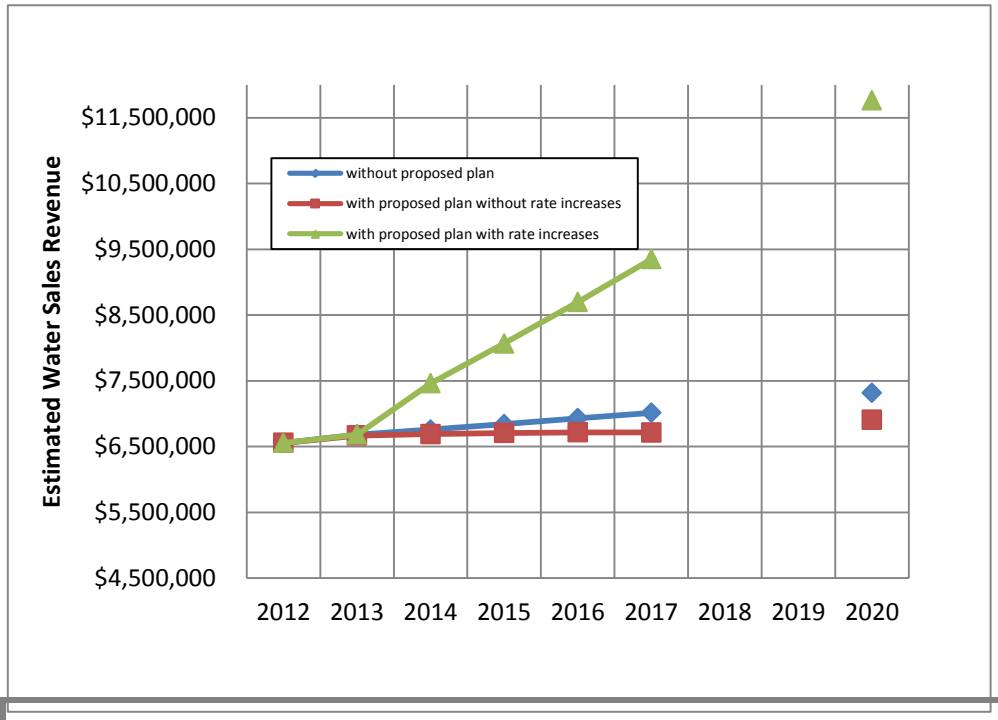
the impact of reduced customer water demand and provides for substantial revenue for treatment plant expansion and other capital improvement project needs.

Table 11 - Impact of Proposed Water Conservation Program on Average and Above Average Future Annual Water Supply Demands

	Average Conditions (AF)			Above Average Conditions[a] (AF)		
	Without Proposed Plan	With Proposed Plan	Demand Reductions	Without Proposed Plan	With Proposed Plan	Demand Reductions
2012	12,712	12,712	0	14,436	14,436	0
2013	12,954	12,933	21	14,717	14,696	21
2014	13,103	12,841	262	14,894	14,599	295
2015	13,324	12,837	487	15,084	14,535	549
2016	13,439	12,681	758	15,292	14,439	853
2017	13,599	12,555	1,044	15,484	14,307	1,177
2020	14,185	12,425	1,760	16,168	14,091	2,077

[a] above average conditions are described in Appendix E.

Figure 13 – Water Sales Revenue Impacts Related to Proposed Water Conservation Program and Proposed Water Rate Increases



Note that adjustments to water rates in the future will need to incorporate more factors than simply changes to future water demand associated with water conservation impacts. For example, the predicted impact of passive water conservation savings is in the range of 780 AF by 2020[34]. Water rates will need to be adjusted in accordance with expected passive water savings to maintain appropriate levels of water sales revenue independent of the impacts of the proposed water conservation program. Other factors such as changes in debt service, the need for cash reserves, costs of labor, energy and materials, and the scope of capital improvements will all affect future water rates as well.

The overall water demand reduction of 1,760 AF projected for the City by 2020 has a replacement value of about $20.9 million (based on the cost of storage, transmission, treatment and distribution).

[34] Lost revenue associated with passive water savings estimated in 2020 are calculated to be about $465,000 using the current rate of $1.83 per thousand.

Section 9
Implementation

The City has identified those measures and programs that it chooses to implement to reduce future customer water demand; however the specific staging and order of measure and program implementation is clarified in this implementation plan. Clearly the City will earnestly pursue meaningful water conservation in compliance with the elements of this Plan and the direction of City Council. Future capital funding and annual budgets will be developed in accordance with the funding requirements laid out in the preceding chapters. However, future appropriations of City funding for the various measures and programs contained herein cannot be guaranteed given that the nature of future City priorities may change due to acts of God, public health issues, or other unforeseeable issues.

To this point, the implementation plan for water use efficiency by the City needs to maintain flexibility to adapt to the changing needs and requirements of not only the City's resources, but the water use efficiency program as well. As portions of the water use efficiency program are implemented, new data and information will be acquired which may dictate or influence future water use efficiency program needs not predicted at the time of this planning effort. Therefore, this Plan will be implemented in an adaptive management approach, incorporating changing conditions and influences into the year to year, and month to month, water use efficiency activities planned and executed by the City. This City will also perform surveys on various customer classes to gain a better understanding of the customers' current perception of water, water use and interest in various water measures and programs. Results from these surveys will aid the City in planning and implementation of this Plan.

Given this framework and understanding of how water use efficiency will be best implemented in the City, the Plan is best served through the identification of the staging, or sequencing, of the various selected water use efficiency measures and programs; and a listing of those measures and programs that are of the highest priority to the City as of this writing. In this way, the first set of measures and programs that the City plans to implement can be identified (i.e., those measures and programs that will be implemented in the next 1 to 2 years). As new information becomes available over the next 1 to 2 years, the City will revise and update its water efficiency methods to best address the circumstances at that time (with regard to data collected, current fiscal resources, changing customer needs, etc.).

Sequencing

Although the City understands and supports the implementation of meaningful water conservation, its resources are not unlimited; therefore, it has chosen to sequence the implementation of its selected water use efficiency measures and programs in accordance with its current needs, expectations for future fund allocations, and perhaps most importantly due to the logical connection and interaction between specific measures and programs. For example, a system-wide audit of the City's water treatment, distribution and billing systems will be used to inform decisions to implement new meter testing, repair, and/or installation activities.

Table 12 presents a summary of the estimated annual costs for selected water use efficiency measures and programs as understood at this time. The costs have been developed based on the following assumptions:

- Various departments within the City will be included, and will contribute to the implementation of the water conservation program, including utility finance, public relations, and engineering;
- Individual water customers of the City's will be interested and participate in the various measures and programs, especially the residential and commercial programs;
- The system-wide audit will help to identify areas for City improvement regarding measuring and reducing non-revenue water uses; and
- The City will coordinate the budgeting of its Capital Improvement Projects with the annual water conservation budget.

Table 12 – Proposed Water Conservation Program Implementation Budget 2013- 2017

	2013	2014	2015	2016	2017
Park Irrigation Retrofits	$ 14,000	$ 14,000	$ 14,000	$ 14,000	$ 14,000
Water Waste Ordinance	1,500				
Slow the Flow	13,200	13,200	13,200	13,200	13,200
Garden-in–a-Box	4,000	4,000	4,000	4,000	4,000
Wise Water Use Messaging	25,000	8,000	8,000	8,000	8,000
Commercial Water Audits			15,000	15,000	
System Wide Water Audits	40,000	15,000	15,000	15,000	15,000
Meter and Water Line Replacement	260,000	260,000	260,000	260,000	260,000
Water Rate Study			25,000		
K-12 Education	5,000	5,000	5,000	5,000	5,000
Larimer County Conservation Corps, Energy and Water Program and the Home Energy Audit Program	8,000	8,000	8,000	8,000	8,000
Efficiency Express	2,500	2,500	2,500	2,500	2,500
Total	**373,200**	**329,700**	**379,700**	**354,700**	**329,700**

Priorities

For the City, the implementation of water conservation to support future demand reduction begins with the management of current non-revenue water (which aligns with one of the State-defined foundational water use efficiency elements) and water rate increases. Non-revenue water management includes characterizing and reducing both apparent losses that effect City billings and revenue, and real losses, which effect City operational costs. The City is focused on reducing the current level of non-revenue water, estimated to be about 13.5% of total treated water to about 10.5% in the next 9 years. To achieve this goal, the City will need to:

- Plan for and conduct a system-wide water audit to better characterize current non-revenue water and identify areas for utility improvements (e.g., revising the customer billing categories, identifying unmetered uses, developing cost estimates for making various proposed improvements to current water accounting practices);
- Improve meter reading accuracy on existing accounts;
- Identify and measure unmetered water uses; and
- Continue testing and repair of water distribution lines to manage leaks and other real losses between the treatment works and customer meters.

The City has budgeted for both the system-wide water audit and meter and water line replacement projects, allowing for substantial investment to occur in improving and upgrading the City's infrastructure. The costs to conduct these projects, along with the costs to upgrade the water treatment plant and other projects presented in Table 6 (see page 24) is one of the motivations behind the proposed water rate increases.

For this reason, the water rate increases is another key component of the water conservation program implementation, for the rate increases not only will provide for the revenue needed to improve water loss management and construct new, required facilities; increased water rates are expected to reduce customer water demand assisting the City in achieving its specified water conservation goals. The linkage of these two programs is vital to the overall success of the City in continuing to maintain a high level of stewardship related to the management of its water resources.

It is also imperative that the City develop and launch a water value messaging campaign to inform and engage its customers regarding the value and importance of a water system that is reliable, secure and sustainable. The messaging effort will focus on developing talking points, themes, and outreach efforts that help water customers to understand the nature of water supply and development in the City; the importance and value of maintained water supply infrastructure; and the need for water use efficiency by all. The City will use the proposed water conservation measures related to water loss control, water rating setting, improved water use efficiency at City facilities, better defined water waste management via ordinance, and various customer support programs (commercial audits, Slow the Flow and Garden-in-a-Box, etc.) to lead by example. The City will also develop and execute a customer survey to initiate the messaging campaign, gathering information regarding customer perceptions and values regarding water and water supply.

These programs and projects are therefore funded in 2013 to initiate the City's water conservation program.

The next highest priority for the City will be to conduct those measures and programs that improve the water use efficiency of the City's facilities including those measures and programs that will improve water use efficiency for both indoor and outdoor uses.

Other water use efficiency measures and programs that will support a better understanding of specific customer uses and improve their water use efficiencies, while considered important to the management

of future water demand are considered less important than those measures and programs controlled entirely by the City. Future implementation of customer water conservation programs will be conducted dependent on available funding and overall customer water use trends.

Public Input

The summary of public input will be provided after the comment period has closed. Public comment is expected to open on February 21, 2013. The public comment period will be announced through the City's webpage and notice in the local newspaper. Copies of the Final Draft plan will be made available at the Water Utility Offices and the City Public Library. Appendix F contains copies of the public notices used by the City to advertise the public comment period.

Public comment will continue for 60 days during which time City Council and the Water Utility Department will collect public comments, which will be used to inform the Final Plan. The Plan will be finalized after the public comment period has been completed and the guidance is provided by City Council. The Final Plan should be prepared and ready for CWCB review in May 2013.

Section 10
Monitoring and Evaluation of Measures and Programs

It is important to identify an approach to monitoring as many of the measures and programs as possible so the value of each program can be evaluated as it is implemented. In this way, adaptive management of the Plan components can be performed, and resources from the City allocated.

Generally, the City has selected water use efficiency measures and programs that can be tracked.[35] However, some measures and programs such as customer education and the effect of increasing water rates cannot be measured directly. For these measures and programs, overall customer water use metrics such as per capita residential water use and total per capita water use will be tracked. Other measures and programs, such as the audits conducted on large commercial water users and Slow the Flow can be monitored on an individual basis.

Monitoring efforts and metrics that the City proposes are summarized in Table 13.

Table 13 - Summary of Monitoring Methods for Estimating Water Savings

Use Efficiency Measure/Program	Real Water Losses	Apparent Water Loss Reductions	Quantity of Audits/Packages Used	Individual Water Use	Per Capita Water Use	Peak Monthly Demand
System-Wide Audit	X	X			X	
Messaging Campaign					X	X
Water Rate Increase				x	X	X
Residential Programs			X	X	X	X
Commercial Audits		X	X	X	X	X
Efficiency Express			X	X		
Water and Energy Assessments and Audits			X	X		

Plan Updates and Revisions

On an annual basis the City will monitor the metrics proposed in Table 13. The results will be reported to the Water Commission and City Council on a semi-annual and annual basis. The annual reports will help prepare the City for updating the Water Efficiency Plan every five to seven years, as required by the CWCB. It is the City's intent to update this Plan at the end of 2016.

[35] The City may have to implement some changes to its current protocols to track targeted customer water use, such as the City's water use and raw water uses, to complement the City's active water conservation efforts.

Appendix A
City of Loveland Current Water Rates
Appendix B
2008 City of Loveland Irrigation Conservation Plan
Appendix E
Forecasting Future Water Demands

(To view these appendices please visit: www.cityofloveland.org/index.aspx?page=1906)

Appendix C
Colorado Revised Statute 37-60-126

37-60-126. Water conservation and drought mitigation planning - programs - relationship to state assistance for water facilities - guidelines - water efficiency grant program - repeal.

(1) As used in this section and section 37-60-126.5, unless the context otherwise requires:

(a) "Agency" means a public or private entity whose primary purpose includes the promotion of water resource conservation.

(b) "Covered entity" means each municipality, agency, utility, including any privately owned utility, or other publicly owned entity with a legal obligation to supply, distribute, or otherwise provide water at retail to domestic, commercial, industrial, or public facility customers, and that has a total demand for such customers of two thousand acre-feet or more.

(c) "Grant program" means the water efficiency grant program established pursuant to subsection (12) of this section.

(d) "Office" means the office of water conservation and drought planning created in section 37-60-124.

(e) "Plan elements" means those components of water conservation plans that address water-saving measures and programs, implementation review, water-saving goals, and the actions a covered entity shall take to develop, implement, monitor, review, and revise its water conservation plan.

(f) "Public facility" means any facility operated by an instrument of government for the benefit of the public, including, but not limited to, a government building; park or other recreational facility; school, college, university, or other educational institution; highway; hospital; or stadium.

(g) "Water conservation" means water use efficiency, wise water use, water transmission and distribution system efficiency, and supply substitution. The objective of water conservation is a long-term increase in the productive use of water supply in order to satisfy water supply needs without compromising desired water services.

(h) "Water conservation plan", "water use efficiency plan", or "plan" means a plan adopted in accordance with this section.

(i) "Water-saving measures and programs" includes a device, a practice, hardware, or equipment that reduces water demands and a program that uses a combination of measures and incentives that allow for an increase in the productive use of a local water supply.

(2) (a) Each covered entity shall, subject to section 37-60-127, develop, adopt, make publicly available, and implement a plan pursuant to which such covered entity shall encourage its domestic, commercial, industrial, and public facility customers to use water more efficiently. Any state or local governmental entity that is not a covered entity may develop, adopt, make publicly available, and implement such a plan.

(b) The office shall review previously submitted conservation plans to evaluate their consistency with the provisions of this section and the guidelines established pursuant to paragraph (a) of

subsection (7) of this section.

(c) On and after July 1, 2006, a covered entity that seeks financial assistance from either the board or the Colorado water resources and power development authority shall submit to the board a new or revised plan to meet water conservation goals adopted by the covered entity, in accordance with this section, for the board's approval prior to the release of new loan proceeds.

(3) The manner in which the covered entity develops, adopts, makes publicly available, and implements a plan established pursuant to subsection (2) of this section shall be determined by the covered entity in accordance with this section. The plan shall be accompanied by a schedule for its implementation. The plans and schedules shall be provided to the office within ninety days after their adoption. For those entities seeking financial assistance, the office shall then notify the covered entity and the appropriate financing authority that the plan has been reviewed and whether the plan has been approved in accordance with this section.

(4) A plan developed by a covered entity pursuant to subsection (2) of this section shall, at a minimum, include a full evaluation of the following plan elements:

(a) The water-saving measures and programs to be used by the covered entity for water conservation. In developing these measures and programs, each covered entity shall, at a minimum, consider the following:

(I) Water-efficient fixtures and appliances, including toilets, urinals, clothes washers, showerheads, and faucet aerators;

(II) Low water use landscapes, drought-resistant vegetation, removal of phreatophytes, and efficient irrigation;

(III) Water-efficient industrial and commercial water-using processes;

(IV) Water reuse systems;

(V) Distribution system leak identification and repair;

(VI) Dissemination of information regarding water use efficiency measures, including by public education, customer water use audits, and water-saving demonstrations;

(VII) (A) Water rate structures and billing systems designed to encourage water use efficiency in a fiscally responsible manner.

(B) The department of local affairs may provide technical assistance to covered entities that are local governments to implement water billing systems that show customer water usage and that implement tiered billing systems.

(VIII) Regulatory measures designed to encourage water conservation;

(IX) Incentives to implement water conservation techniques, including rebates to customers to encourage the installation of water conservation measures;

(b) A section stating the covered entity's best judgment of the role of water conservation plans in the covered entity's water supply planning;

(c) The steps the covered entity used to develop, and will use to implement, monitor, review, and revise, its water conservation plan;

(d) The time period, not to exceed seven years, after which the covered entity will review and update its adopted plan; and

(e) Either as a percentage or in acre-foot increments, an estimate of the amount of water that has been saved through a previously implemented conservation plan and an estimate of the amount of water that will be saved through conservation when the plan is implemented.

(4.5) (a) On an annual basis starting no later than June 30, 2014, covered entities shall report water use and conservation data, to be used for statewide water supply planning, following board guidelines pursuant to paragraph (b) of this subsection (4.5), to the board by the end of the second quarter of each year for the previous calendar year.

(b) No later than February 1, 2012, the board shall adopt guidelines regarding the reporting of water use and conservation data by covered entities and shall provide a report to the senate agriculture and natural resources committee and the house of representatives agriculture, livestock, and natural resources committee, or their successor committees, regarding the guidelines. These guidelines shall:

(I) Be adopted pursuant to the board's public participation process and shall include outreach to stakeholders from water providers with geographic and demographic diversity, nongovernmental organizations, and water conservation professionals; and

(II) Include clear descriptions of: Categories of customers, uses, and measurements; how guidelines will be implemented; and how data will be reported to the board.

(c) (I) No later than February 1, 2019, the board shall report to the senate agriculture and natural resources committee and the house of representatives agriculture, livestock, and natural resources committee, or their successor committees, on the guidelines and data collected by the board under the guidelines.

(II) This paragraph (c) is repealed, effective July 1, 2020.

(5) Each covered entity and other state or local governmental entity that adopts a plan shall follow the entity's rules, codes, or ordinances to make the draft plan available for public review and comment. If there are no rules, codes, or ordinances governing the entity's public planning process, then each entity shall publish a draft plan, give public notice of the plan, make such plan publicly available, and solicit comments from the public for a period of not less than sixty days after the date on which the draft plan is made publicly available. Reference shall be made in the public notice to the elements of a plan that have already been implemented.

(6) The board is hereby authorized to recommend the appropriation and expenditure of such revenues as are necessary from the unobligated balance of the five percent share of the operational account of the severance tax trust fund designated for use by the board for the purpose of the office providing assistance to covered entities to develop water conservation plans that meet the provisions of this section.

(7) (a) The board shall adopt guidelines for the office to review water conservation plans submitted by covered entities and other state or local governmental entities. The guidelines shall define the method for submitting plans to the office, the methods for office review and approval of the plans, and the interest rate surcharge provided for in paragraph (a) of subsection (9) of this section.

(b) If no other applicable guidelines exist as of June 1, 2007, the board shall adopt guidelines by July 31, 2007, for the office to use in reviewing applications submitted by covered entities, other state or local governmental entities, and agencies for grants from the grant program and from the grant program established in section 37-60-126.5 (3). The guidelines shall establish deadlines and procedures for covered entities, other state or local governmental entities, and agencies to follow in applying for grants and the criteria to be used by the office and the board in prioritizing and awarding grants.

(8) A covered entity may at any time adopt changes to an approved plan in accordance with this section after notifying and receiving concurrence from the office. If the proposed changes are major, the covered entity shall give public notice of the changes, make the changes available in draft form, and provide the public an opportunity to comment on such changes before adopting them in accordance with subsection (5) of this section.

(9) (a) Neither the board nor the Colorado water resources and power development authority shall release grant or loan proceeds to a covered entity unless the covered entity provides a copy of the water conservation plan adopted pursuant to this section; except that the board or the authority may release the grant or loan proceeds notwithstanding a covered entity's failure to comply with the reporting requirements of subsection (4.5) of this section or if the board or the authority, as applicable, determines that an unforseen emergency exists in relation to the covered entity's loan application, in which case the board or the authority, as applicable, may impose a grant or loan surcharge upon the covered entity that may be rebated or reduced if the covered entity submits and adopts a plan in compliance with this section in a timely manner as determined by the board or the authority, as applicable.

(b) The board and the Colorado water resources and power development authority, to which any covered entity has applied for financial assistance for the construction of a water diversion, storage, conveyance, water treatment, or wastewater treatment facility, shall consider any water conservation plan filed pursuant to this section in determining whether to render financial assistance to such entity. Such consideration shall be carried out within the discretion accorded the board and the Colorado water resources and power development authority pursuant to which such board and authority render such financial assistance to such covered entity.

(c) The board and the Colorado water resources and power development authority may enter into a memorandum of understanding with each other for the purposes of avoiding delay in the processing of applications for financial assistance covered by this section and avoiding duplication in the consideration required by this subsection (9).

(10) Repealed.

(11) (a) Any section of a restrictive covenant that prohibits or limits xeriscape, prohibits or limits the installation or use of drought-tolerant vegetative landscapes, or requires cultivated vegetation to consist exclusively or primarily of turf grass is hereby declared contrary to public policy and,

on that basis, that section of the covenant shall be unenforceable.

(b) As used in this subsection (11):

(I) "Executive board policy or practice" includes any additional procedural step or burden, financial or otherwise, placed on a unit owner who seeks approval for a landscaping change by the executive board of a unit owners' association, as defined in section 38-33.3-103, C.R.S., and not included in the existing declaration or bylaws of the association. An "executive board policy or practice" includes, without limitation, the requirement of:

(A) An architect's stamp;

(B) Preapproval by an architect or landscape architect retained by the executive board;

(C) An analysis of water usage under the proposed new landscape plan or a history of water usage under the unit owner's existing landscape plan; and

(D) The adoption of a landscaping change fee.

(II) "Restrictive covenant" means any covenant, restriction, bylaw, executive board policy or practice, or condition applicable to real property for the purpose of controlling land use, but does not include any covenant, restriction, or condition imposed on such real property by any governmental entity.

(III) "Turf grass" means continuous plant coverage consisting of hybridized grasses that, when regularly mowed, form a dense growth of leaf blades and roots.

(IV) "Xeriscape" means the application of the principles of landscape planning and design, soil analysis and improvement, appropriate plant selection, limitation of turf area, use of mulches, irrigation efficiency, and appropriate maintenance that results in water use efficiency and water-saving practices.

(c) Nothing in this subsection (11) shall preclude the executive board of a common interest community from taking enforcement action against a unit owner who allows his or her existing landscaping to die; except that:

(I) Such enforcement action shall be suspended during a period of water use restrictions declared by the jurisdiction in which the common interest community is located, in which case the unit owner shall comply with any watering restrictions imposed by the water provider for the common interest community;

(II) Enforcement shall be consistent within the community and not arbitrary or capricious; and

(III) Once the drought emergency is lifted, the unit owner shall be allowed a reasonable and practical opportunity, as defined by the association's executive board, with consideration of applicable local growing seasons or practical limitations, to reseed and revive turf grass before being required to replace it with new sod.

(12) (a) (I) There is hereby created the water efficiency grant program for purposes of providing state funding to aid in the planning and implementation of water conservation plans developed in accordance with the requirements of this section and to promote the benefits of water efficiency.

The board is authorized to distribute grants to covered entities, other state or local governmental entities, and agencies in accordance with its guidelines from the moneys transferred to and appropriated from the water efficiency grant program cash fund, which is hereby created in the state treasury.

(II) Moneys in the water efficiency grant program cash fund are hereby continuously appropriated to the board for the purposes of this subsection (12) and shall be available for use until the programs and projects financed using the grants have been completed.

(III) For each fiscal year beginning on or after July 1, 2010, the general assembly shall appropriate from the fund to the board up to five hundred thousand dollars annually for the purpose of providing grants to covered entities, other state and local governmental entities, and agencies in accordance with this subsection (12). Commencing July 1, 2008, the general assembly shall also appropriate from the fund to the board fifty thousand dollars each fiscal year to cover the costs associated with the administration of the grant program and the requirements of section 37-60-124. Moneys appropriated pursuant to this subparagraph (III) shall remain available until expended or until June 30, 2020, whichever occurs first.

(IV) Any moneys remaining in the fund on June 30, 2020, shall be transferred to the operational account of the severance tax trust fund described in section 39-29-109 (2) (b), C.R.S.

(b) Any covered entity or state or local governmental entity that has adopted a water conservation plan and that supplies, distributes, or otherwise provides water at retail to customers may apply for a grant to aid in the implementation of the water efficiency goals of the plan. Any agency may apply for a grant to fund outreach or education programs aimed at demonstrating the benefits of water efficiency. The office shall review the applications and make recommendations to the board regarding the awarding and distribution of grants to applicants who satisfy the criteria outlined in this subsection (12) and the guidelines developed pursuant to subsection (7) of this section.

(c) This subsection (12) is repealed, effective July 1, 2020.

Source: L. 91: Entire section added, p. 2023, § 4, effective June 4. **L. 99:** (10) repealed, p. 25, § 3, effective March 5. **L. 2003:** (4)(g) amended and (11) added, p. 1368, § 4, effective April 25. **L. 2004:** Entire section amended, p. 1779, § 3, effective August 4. **L. 2005:** (11) amended, p. 1372, § 1, effective June 6; (1), (2)(b), and (7) amended and (12) added, p. 1481, § 1, effective June 7. **L. 2007:** (1)(a), (2)(a), (5), (7), and (12) amended, p. 1890, § 1, effective June 1. **L. 2008:** IP(4) amended, p. 1575, § 30, effective May 29; (12)(a) amended, p. 1873, § 14, effective June 2. **L. 2009:** (12)(a) amended, (HB 09-1017), ch. 297, p. 1593, § 1, effective May 21; (9)(a) amended, (SB 09-106), ch. 386, p. 2091, § 3, effective July 1. **L. 2010:** (4)(a)(I) and (9)(a) amended and (4.5) added, (HB 10-1051), ch. 378, p. 1772, § 1, effective June 7; (12)(a)(III), (12)(a)(IV), and (12)(c) amended, (SB 10-025), ch. 379, p. 1774, § 1, effective June 7.

Editor's note: (1) Subsection (12) was originally enacted as subsection (13) in House Bill 05-1254 but was renumbered on revision for ease of location.

(2) Section 2 of chapter 378, Session Laws of Colorado 2010, provides that the act amending subsections (4)(a)(I) and (9)(a) and adding subsection (4.5) applies to conduct occurring on or after June 7, 2010.

Cross references: (1) In 1991, this entire section was added by the "Water Conservation Act of 1991". For the short title and the legislative declaration, see sections 1 and 2 of chapter 328, Session Laws of Colorado 1991.

(2) For the legislative declaration contained in the 2004 act amending this section, see section 1 of chapter 373, Session Laws of Colorado 2004.

Appendix D
Colorado Water Wise Best Practice: Water Waste Ordinance

BEST PRACTICE 5: Water Waste Ordinance

- Foundational and Operations best practice
- Utility operations - implemented by water utilities on their own customers
- Customer participation – avoiding waste is the responsibility of customers

Overview

A water waste ordinance is a local regulation that explicitly prohibits the waste of water from a variety of sources including (but not limited to) excess irrigation runoff or from irrigation that occurs at a prohibited day and/or time, excessive pavement washing, failure to repair leaks, utilizing single-pass water cooling, or even improper maintenance of cooling towers at an unnecessarily low conductivity level.

Conservation through ordinance can have limitations. Enforcement is a key piece of making an ordinance effective and enforcement requires staff resources. Additionally, some entities such as special districts may lack proper jurisdiction to enact a water waste prohibition ordinance.

Why a Best Practice?

A water waste ordinance is an important regulatory tool for water utilities that serves several useful purposes.

- A water waste ordinance establishes the importance of wise water stewardship in a community and establishes a utility's intent to put its water resources to maximum beneficial use.
- A water waste ordinance establishes penalties for the blatant waste of water. Such an ordinance empowers local officials to target hands-on assistance and education as well as issue warnings and fines.
- A water waste ordinance provides an important regulatory "stick" during a drought when agency-wide restrictions are put in place and enforcement is required to ensure water supplies are adequate.
- Without a water waste ordinance, a utility may be powerless to act against egregious and profligate waste of water.

State Planning Requirements

Colorado statute requires that all covered entities (water providers that deliver more than 2,000 acre-feet per year) file a water conservation plan with the Colorado Water Conservation Board (CWCB). Entities that do not have an approved plan on file are not eligible to receive grant funding from the State. Under this statute, one of the water saving measures and programs that must be considered in a conservation plan is, "Regulatory measures designed to encourage water conservation." [CRS 37-60-126 (4)(a)(IX)].

Applicability

This best practice applies to all water agencies and all water customers. Water waste usually targets excessive irrigation and drought restriction violations, but other sources of waste could also be the subject of a water waste ordinance. For example, water waste violations could be levied for excessive pavement washing, failure to repair leaks, utilizing single-pass water

cooling, or even improper maintenance of cooling towers at an unnecessarily low conductivity level. Utilities with individualized water budgets could utilize a water waste ordinance to enforce mandatory drought limitations requiring all customers not to exceed their water budget.

Implementation

A water waste ordinance is usually enacted by the municipality or local government, not the water utility itself. Typically water waste ordinances are passed by the city council and entered into municipal code, often at the request of the water utility. Several examples of code language for water waste ordinances are provided in this section.

Water Savings and Other Benefits

Range of Likely Water Savings: Varies

A waste-prohibition ordinance cannot just be a rule that exists only on the books – it must be actively enforced. The water savings achieved through a water waste ordinance depend largely upon the level of publicity and enforcement given to the rules. A water waste ordinance is similar to a new traffic law – without some measure of enforcement the public is unlikely to pay much attention. With a water waste ordinance, savings are only likely to be achieved if there is some level of active enforcement to keep people "on their toes".

How to Determine Savings

Initially, water savings from a water waste ordinance can be estimated from the number of warnings and tickets issued. Utilities with advanced data tracking capabilities can identify customers who received a citation for water waste and examine billed consumption records before and after the citation was issued.

Once a water waste ordinance has been in place and actively enforced for a year or more it may be possible to measure the impacts on a community-wide level, but much depends upon the implementation effort.

Savings Assumptions and Caveats

Water savings from a water waste ordinance cannot be assumed since it is possible that no savings will be achieved, because it relies heavily on behavior change.

Goals and Benchmarks

The goal of a water waste ordinance should be to eliminate all obvious water waste in a community. Of course this goal is much like the goal of eliminating all speeding from local roads. The water waste ordinance represents an effort to move a community toward a goal, but it does not ensure success and in fact complete success is a virtual impossibility.

Other Benefits

A water waste ordinance on the books, even if it is not actively enforced in normal water years, can be extremely important during a drought. When demand reductions are required to ensure minimum supply levels during a drought, a water waste ordinance is an essential tool for water providers and gives the necessary enforcement power to cite, and if necessary fine, those who do

not obey drought restrictions. As an additional possible benefit, a waste prohibition ordinance can help create a culture change where wasting water is unacceptable.

Costs

Utility Costs

Implementing a water waste ordinance is inexpensive and usually only requires that an ordinance be prepared by staff and then approved by the City Council or other leadership body.

Enforcing a water waste ordinance requires staff time from the water utility and possibly from other city service workers. To enforce their water waste ordinance, Denver Water hires temporary workers, provides them with vehicles (and bikes) and uniforms, and literature. They also incur expenses related to tracking violations and integrating them into their computerized customer information system. During a drought, some municipalities empower all city workers, including law enforcement, meter readers, and road crews, to watch for watering violations and to issue citations.

Depending upon how the ordinance is constructed, citizens who receive a citation may have the option to appear in court to contest the violation and fine. This can increase implementation costs.

Customer Costs

A water waste ordinance does not place costs on the customer *unless* they are caught in violation of the rules at which point they may be subject to a penalty, much like a traffic ticket.

Resources and Examples

Resources

The published literature on water waste ordinances is virtually non-existent. The best resources for water waste ordinances are rules on the books in communities in Colorado and across the US and the experience of water providers in implementing their water waste ordinance.

Examples

Several examples of water waste ordinances with varying levels of detail and specificity are presented below.

Denver Water

Denver Water prohibits water waste, carefully defines what waste is, and enforces the ordinance with seasonal staff.

From ***Chapter 14 Water Conservation***

14.01 Water Waste Prohibited. Water shall be used only for beneficial purposes and shall not be wasted.

14.01.1 Water Waste Defined. Prohibited water waste includes, but is not limited to:

a. Applying more water than is reasonably necessary to establish and maintain a healthy landscape. Routine watering of turf shall be limited to three days per week, except for watering for up to 21 days to establish new turf from sod or seed; and except for syringing golf course greens when necessitated by weather conditions.

b. Watering with spray irrigation between the hours of 10.00 a.m. and 6.00 p.m. during the period from May 1 to October 1, except for the following uses:

(1) Watering for up to 21 days to establish turf from seed or sod.

(2) Watering new plant material such as flowers, trees and shrubs on the day of planting.

(3) Watering essential to preserve turf subject to heavy public use.

(4) Operating an irrigation system for installation, repair or reasonable maintenance, so long as the system is attended throughout the period of operation.

c. Watering landscaped areas during rain or high wind.

d. Applying water intended for irrigation to an impervious surface, such as a street, parking lot, alley, sidewalk or driveway.

e. Using water instead of a broom or mop to clean outdoor impervious surfaces such as sidewalks, driveways and patios, except when cleaning with water is necessary for public health or safety reasons or when other cleaning methods are impractical.

f. Allowing water to pool or flow across the ground or into any drainage way, such as gutters, streets, alleys or storm drains.

g. Failing to repair, for a period of more than ten business days after notice, leaking or damaged irrigation components, service lines or other plumbing fixtures.

h. Washing vehicles with a hose that lacks an automatic shut-off valve.

14.01.2 "Water Use Restriction" Distinguished. These prohibitions on water waste are not related to drought response, insufficient water supply or system emergency and therefore do not constitute water use restrictions within the meaning of Denver Water's various water supply agreements and environmental permits.

City of Aurora

The City of Aurora Waste of Water ordinance prohibits water from pooling on or running across impervious surfaces and into the street gutter. This ordinance can also be applied during times of drought restrictions to enforce wrong day watering or watering between 10 a.m. and 6 p.m.

Sec. 138-190. Waste of water.

(a) *Waste of water prohibited.* Waste of water shall be defined as noncompliance with the city's water management plan as defined in section 138-223(b). Notwithstanding the enforcement provisions set forth in subsection (b) of this section, the director may order the installation of a flow restrictor or the shut off of water service to a property if the director reasonably finds that an extreme waste of water is occurring on the premises.

(b) *Enforcement.* The director is hereby authorized to enforce this section. The person billed for water service to a property, whether owner or occupant, shall be responsible for compliance with subsection (a) of this section and shall be subject to the following actions and penalties:

(1) Upon a first violation, the person billed will be issued a warning.

(2) Upon any further violations at the same property within a 12-month period, from the date of the warning notice, the person billed will be issued a written violation and the following penalty (see Table 4-12) will be added to the water bill for the property as a civil penalty.

(3) Any penalty imposed pursuant to this section may be appealed to the director of water pursuant to the appeal procedure set forth in section 138-226.

(4) Upon any notice(s) of violation of this section, a copy of such notice(s) shall also be mailed to the owner(s) of the real property served, if the owner(s) address differs from the subject property address.

(Code 1979, § 39-78; Ord. No. 2000-132, § 3, 12-11-2000; Ord. No. 2002-29, § 1, 6-3-2002; Ord. No. 2003-08, § 1, 3-24-2003; Ord. No. 2005-74, § 1, 10-10-2005)

Table 4-12: Aurora water waste violation penalties

Customer Category and Meter Size	2nd Violation	All Additional Violations
Single-Family		
All (5/8" - 1")	$250.00	$500.00
Non Single-Family		
5/8"	250.00	500.00
3/4"	300.00	600.00
1"	400.00	800.00
1 1/2"	600.00	1,200.00
Large Commercial		
2"	800.00	1,600.00
3"	1,200.00	2,400.00
4"	1,600.00	3,200.00
6"	2,400.00	4,800.00
8"	3,200.00	6,400.00
Irrigation Only		
2"	1,000.00	2,000.00
3"	1,500.00	3,000.00
4"	2,000.00	4,000.00
6"	3,000.00	6,000.00
8"	4,000.00	8,000.00

City of Durango

Water waste. The intentional or unintentional use of water for a non-beneficial use. Non-beneficial uses include, but are not restricted to:

(1) Landscape water applied in such a manner, rate and/or quantity that it overflows the landscaped area being watered and runs onto adjacent property, public rights-of-way or into drainage ways, including gutters and storm sewers.

(2) Landscape water which leaves a sprinkler, sprinkler system, or other application device in such a manner or direction as to spray onto adjacent property or public rights-of-way.

(3) Failing to repair any irrigation system that is broken or leaking.

(4) Applying water to hard surfaces such as parking lots, aprons, pads, driveways, or other surfaced areas, such as wood or gravel, when water is supplied in sufficient quantity to flow from that surface onto adjacent property or public rights-of-way.
(Ord. No. O-2007-30, § 1, 9-4-07)

City of Longmont

Waste of water prohibited. Customers shall not cause or permit water furnished by the city to run to waste in any gutter or other impervious surface, or other application. Waste, for purposes of this section, shall constitute the use of water serving no beneficial use, and not constituting an unavoidable consequence of the beneficial usage of water. Waste of water does not include incidental and occasional over spraying. For the purposes of this section, the term customer shall include homeowners associations or other entities obligated to maintain irrigation systems along city streets.

Appendix F
Public Comment Notice and Public Comments

AFFIDAVIT OF PUBLICATION

REPORTER-HERALD

State of Colorado
County of Larimer

I, the undersigned agent, do solemnly swear that the LOVELAND REPORTER-HERALD is a daily newspaper printed, in whole or in part, and published in the City of Loveland, County of Larimer, State of Colorado, and which has general circulation therein and in parts of Larimer and Weld counties; that said newspaper has been continuously and uninterruptedly published for a period of more than six months next prior to the first publication of the annexed legal notice of advertisement, that said newspaper has been admitted to the United States mails as second-class matter under the provisions of the Act of March 3, 1879, or any, amendments thereof, and that said newspaper is a daily newspaper duly qualified for publishing legal notices and advertisements within the meaning of the laws of the State of Colorado; that a copy of each number of said newspaper, in which said notice of advertisement was published, was transmitted by mail or carrier to each of the subscribers of said newspaper, according to the accustomed mode of business in this office.

The annexed legal notice or advertisement was published in the regular and entire edition of said daily newspaper once; and that one publication of said notice was in the issue of said newspaper dated **February 23, 2013**.

Agent

Subscribed and sworn to before me this **25th** day of **February**, 2013 in the County of Larimer, State of Colorado.

Notary Public

DEBRA K RYSAVY
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 19934006283
MY COMMISSION EXPIRES APRIL 30, 2017

Account # 222255
Ad #5580546
Fee $22.31

PUBLIC NOTICE OF WATER CONSERVATION PLAN
CITY OF LOVELAND
PUBLIC COMMENT PERIOD: FEBRUARY 21 - APRIL 21, 2013
PUBLIC HEARING: CITY COUNCIL MEETING, MAY 14, 2013

Notice is hereby given that the City of Loveland is updating its Water Conservation Plan, pursuant to State Law. The City is seeking public comment over the next 60-days, and will conduct a Public Hearing on the Plan during the City Council Meeting on Tuesday, May 14, 2013. The City Council Meeting will be called to order at 6:30 p.m. in the City Council Chambers, 500 East Third Street, Loveland. Comments on the Water Conservation Plan will be received during the time designated in the meeting's agenda.

The City's Water Conservation Plan is designed to promote the efficient consumption of all water usage by residents, businesses, and local governments to more beneficially use our water resources, and insure a future adequate water supply.

The Water Conservation Plan is available for review and comment by the public at the City Service Center, 200 North Wilson Avenue, and at the Loveland Public Library, 300 North Adams, during regular business hours or online at www.cityofloveland.org/WCP.

The point of contact for the Water Conservation Plan is Lindsey Bashline, Customer Relations Specialist, who can be reached at 970-962-3727.

City of Loveland
Teresa G. Andrews, City Clerk
Published: Loveland Reporter-Herald on Feb. 23, 2013. Ad #5580546

WATER CONSERVATION PLAN

PUBLIC NOTICE OF WATER CONSERVATION PLAN

CITY OF LOVELAND

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The Water Conservation Plan is available for review and comment by the public at the City Service Center, 200 North Wilson Avenue, and at the Loveland Public Library, 300 North Adams, during regular business hours or online by viewing a copy of the updated Water Conervation Plan here and submitting comments to SustainLoveland@cityofloveland.org.

The point of contact for the Water Conservation Plan is Lindsey Bashline, Customer Relations Specialist, who can be reached at 970-962-3727.

Comments: Inquiries were made as to how we track the Colorado Big Thompson sales price. Staff responded that we use Stratecon, Inc. to track the price. Inquiries were made as to how often we adjust the market price of C-BT and staff responded that it has varied over the years. At times we have changed the price monthly and at other times the price has remained steady for years. Staff informed LUC that we purchased 282 units of C-BT in 2012.

The City of Loveland cash-in-lieu fee is calculated as 1.05 times the recognized C-BT market price. Using the new recognized C-BT market price results in a cash-in-lieu fee of $11,200 per acre-foot.

Item #3: Change of Installation of Services – Brieana Reed-Harmel The power division has been piloting a change to the way that residential service installations are installed.

Recommendation: Staff recommends that this new installation procedure be incorporated into the Requirements for Electric Services book.

Motion: John Matis made the motion.
Second: CJ McKinney seconded the motion. The motion was approved unanimously.

Comments: Board members inquired over who inspects the service installations, who owns the service installation and what to do if the marking stakes are knocked out. Staff responded that the City inspects them and that they are required to meet the National Electric Code. Once energized, the City owns the service. If the stakes are knocked down, we have exact measurements to be able to locate the underground structures. Power staff also presented these changes to CAB who approved the change barring any negative comments from a survey of Developers and Contractors involved in the pilot program. Dave Schneider provided some suggestions on how to avoid too much leverage or damages made to the box and Brieana Reed-Harmel thanked him for his suggestions and said she would look into it.

Item #4: Draft Updated Water Conservation Plan – Lindsey Bashline & Tracy Bouvette Unfortunately, Tracy Bouvette was ill and unable to make the meeting. In his stead, Lindsey Bashline and Greg Dewey gave verbal presentation. he purpose of this item is to provide LUC with an overview of the Draft Water Conservation Plan. To comply with the State's Water Conservation Act of 2004, staff has updated the 1996 Loveland Water Conservation Plan.

Recommendation: Information item only. No action required.

Comments:
Darell Zimbelman inquired what this plan was needed for. Staff responded that it is required for the Windy Gap Firming Project and for compliance to Colorado's Water Conservation Act of 2004. Board members inquired over how public comments would be handled and how board members would be kept informed of these public comments. Staff responded that we could send the comments to board members or summaries of the commentary to board members. Some board members expressed interest in having the innovative and non-standard comments passed on to them.

Gene Packer inquired about whether we have a way of measuring upstream usage verses downstream usage to help discover where leaks are occurring. Steve Adams responded that there are some large water distribution systems that do use in-stream measurements to determine where losses are occurring. However, these are very expensive and would be cost prohibitive for the City of Loveland to incorporate at this time. If we were to incorporate AMI, we could do instantaneous measurements to see where there are variations in consumption to find leaks. The City has purchase lead detection equipment and last year used the equipment to inspect 26 miles of waterlines. We are focusing first on using this equipment in areas with older pipes or in areas where we suspect leaks.

Board member asked for examples of unbilled usages. Staff responded that there are small parks or areas where we water just a few trees or plants and do not meter the usage or bill parks for the water

A larger use would be at the fire training ground where there are 6 fire hydrants. We are coordinating with fire so that their training occurs in off peak periods. John Rust Jr. expressed that it may be good for us to communicate to the public the benefits of these authorized unmetered uses of water.

Steve Adams explained how we are looking to use Water Services of America who has proprietary software that can analyze information such as billing rates, readings, and volumetric measurements, and help find under billed errors and close the gap between water is metered and what is billed. They have saved companies millions of dollars and are paid based on the losses they find – 45% of the first 3 years of savings. We will be able to not only fix the problems, but also make more money.

Board members made inquiries as to what is normal for real losses of non-revenue water. Staff commented than anything under 5% is very good and that even under 15% is not bad. Board members inquired and made comments in regards to our efforts to educate not only schools, but also landscapers and working with Planning and HOA's to change landscaping requirements to conserve water through using more Xeriscape.

STAFF REPORTS

Item #5: Oil & Gas Aquifers as Potential Raw Water Supply – Larry Howard In the November LUC meeting, local attorney John Chilson spoke to the LUC and addressed the need for continued water management and the importance of completing the Windy Gap Firming Project. He expressed his concerns about climate change and about how drought and politics on the Colorado River could negatively affect future water supplies in this state. John proposed the possibility of using groundwater from aquifers in which oil and gas wells are being drilled in the vicinity as a future source of raw water for the city, or from springs in the vicinity of Chimney Hollow west of Carter Lake. This item provides information about the feasibility of using these sources, based on information from the Colorado Oil & Gas Conservation Commission website at http://cogcc.state.co.us/, other web sources, and discussion with staff member Greg Deranleau, Oil & Gas Location Assessment Supervisor.

Staff Report only. No action required.

Comments: Inquiry was made if we could send John Chilson this information, and staff responded that John Chilson did receive a copy of this item and he has been added to the monthly email list that provides a link to the most current LUC packet.

Item #6: Financial Report Update – Jim Lees This item summarizes the monthly and year-to-date financials for December 2012.

Staff Report only. No action required.

COMMISSION/COUNCIL REPORTS

Item #7: Commission/Council Reports

- Colorado Water Congress – January 31, 2013 to February 1, 2013
- City Council Meeting on Water Financing – February 19, 2013

John Rust Jr: At the Water Congress everyone present expressed that they are dealing with the same problems as us in replacing lines, burned out equipment, increase rates. These are state wide issues. In time, we will see tremendous rate increases across the state as utilities work through these problems. He said that we are fortunate that Loveland already has plans and is working on obtaining funding to deal with these problems unlike some other utilities that are still trying to figure out what they will do. He particularly enjoyed the presentation on age differences and generation differences and the importance of getting the younger generation involved in conferences like these because they will become our future leaders.

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 7
MEETING DATE: 4/24/2013
SUBMITTED BY: Greg Dewey, Civil Engineer – Water Resources

TITLE: Drought Management Plan Update

DESCRIPTION:
The purpose of this item is to provide LUC with an update of the proposed Drought Management Plan. Comments and suggestions are requested prior to Staff presenting this to the City Council at a study session on May 14, 2013.

SUMMARY:
The conceptual draft of the Drought Management Plan was presented to the LUC on March 20, 2013. Revisions reflecting comments received at that meeting were made, with a draft document to be presented at this LUC meeting. The draft document is attached for your review.

Water and Power staff will give a brief PowerPoint presentation summarizing the highlights of the proposed draft Drought Management Plan. Copies of the presentation slides are attached. Comments and suggestions are requested following the presentation.

Staff will also present this draft to the Construction Advisory Board on April 24, 2013. Then Staff will present to the City Council at a study session on May 14, 2013. Following the guidance received during the May 14 City Council Study Session, Staff will return at a later regular City Council meeting to obtain approval of the Drought Management Plan. The objective is final adoption by the City Council of a plan that establishes action items the City may take when experiencing drought.

As part of the Drought Management Plan, the City could declare a specific Drought Response Level based upon current information. Given recent changes in weather conditions (i.e. snow), Staff will bring the most current information to the LUC meeting, so that the LUC can recommend a specific Drought Response Level for City Council to adopt.

RECOMMENDATION:
1. Adopt a motion recommending that the City Council adopt the Drought Management Plan.

2. Adopt a motion recommending a specific Drought Response Level based upon current information.

REVIEWED BY DIRECTOR: MS for SA

ATTACHMENTS:

Attachment A: DRAFT City of Loveland Drought Management Plan, dated April 24, 2013

Attachment B: PowerPoint Slides, presentation to LUC, April 24, 2013

City of Loveland

DRAFT

Drought Management Plan

April 24, 2013

Executive Summary

The Drought Management Plan (Plan) provides a short term, managed response to water shortages exceeding a 1-in-100 year drought event. The City's current policy of using a 1-in-100 year drought recurrence interval as the basis of planning for the City's raw water supply results in a one percent chance that in any year the City could not meet demands without curtailment. The Drought Management Plan will preserve the sufficiency of Loveland's water supply while ensuring adequate allocations of water to protect the public's health, safety, and welfare during a greater than 1-in-100 year drought.

Based on City water supply projections, if a shortage is expected the plan provides a system of specific measures meant to lower customer treated water demand. These measures are arranged into four increasingly restrictive response levels linked to the severity of the projected water supply shortage.

The City of Loveland operates, maintains and develops a complex, highly-integrated water supply system balancing east and west slope sources including direct flow and stored supplies, providing flexibility to meet the varying annual water supply conditions and the municipal demands of the customers for both current and long term needs. The city promotes efficient and effective use of its developed water resources for the benefit of its citizens and customers.

Both water conservation and demand management are integral factors in the relationship between the water utility and customers. Demand management is the short-term response to drought or other emergency conditions, and is the subject of this proposed Drought Management Plan. This plan will guide the city's response when it is experiencing drought worse than a 1-in-100 year event. Water conservation differs from drought management in that it involves the application of wise use practices for the water resource over the long-term, and is the subject of a separate water conservation plan. In accordance with direction in the city's approved Raw Water Master Plan, the City does not plan for water conservation to provide supplies for drought management.

City staff projects each current year's demand for water based on historical demand patterns adjusted for growth, differing climatic conditions, and changing trends in water use. Demand as used in this plan is defined as the amount of raw water diverted from the various sources into Loveland's water treatment plant.

Municipal water supply projections are made in mid-April after the Northern Colorado Water Conservancy District Board sets the yearly quota for Colorado-Big Thompson water, which is also when the mountain snowpack is typically at or near its peak. Anticipated supply from all raw water sources are compared to projected demand, and the surplus or shortage is estimated. This estimate is updated regularly throughout the season.

Should a water supply shortage be projected, the city may choose among a number of steps to mitigate the effect without initially imposing usage restrictions on its customers. First, rentals of

raw water from the city to agricultural users may be curbed or cut completely. The Parks and Recreation Department has its own drought plan, and putting that into action lowers the city's demand. The Thompson School District can also restrict outdoor use at its facilities and conserve a significant amount of water.

Loveland Water and Power's Customer Relations group will lead the public outreach campaign when the drought plan is implemented. Basic outreach tools, such as press releases and the city's website will be used. Other tools such as a Drought Blog, YouTube, utility bill inserts, community meetings, social media Key Account email blasts, and special events will be employed as needed.

Introduction

This Drought Management Plan (Plan) provides a short term, managed response to water shortages exceeding a 1-in-100 year drought event. The City's current policy of using a 1-in-100 year drought recurrence interval as the basis of planning for the City's raw water supply results in a one percent chance that in any year the City could not meet demands without curtailment. The Drought Management Plan will preserve the sufficiency of Loveland's water supply while ensuring adequate allocations of water to protect the public's health, safety, and welfare during a greater than 1-in-100 year drought. Water conservation differs from drought management in that it involves the application of wise use practices for the water resource over the long-term, and is the subject of a separate water conservation plan. In accordance with direction in the city's approved Raw Water Master Plan, the City does not plan for water conservation to provide supplies for drought management.

Purpose

The City of Loveland's Drought Management Plan is intended to manage the negative effects of drought while experiencing the fewest social and economic impacts until conditions return to normal. The city's current policy of using a 1-in-100 year drought recurrence interval as the basis of planning for the City's raw water supply, results in a one percent chance that in any year the city would not meet demands without curtailment. Based on city water supply shortage projections, this plan provides a system of specific measures meant to lower customer demand. This plan is meant to balance the current year's water needs with available supplies and simultaneously ensure that a reasonable amount of water is reserved to meet demands for the following year. It is also meant to establish a methodology to inform the public of the declaration, severity, change, and removal of a drought response level.

In summary, the purposes of this Drought Management Plan are to:

- Ensure an adequate water supply for each year during a drought event to preserve and protect the public health, safety and welfare with the least social and economic impact, allocating uses so that reasonable quantities of water are reserved for future years;
- Establish methodology used to inform the decision to declare, change or remove a drought response level;
- Outline measures to result in the corresponding necessary level of water use reduction.

Included in this plan are four increasingly restrictive levels of response which may be implemented, from which the city may choose in order to reduce customer water usage and lower the overall demand on Loveland's water system. Each higher level corresponds to a drought of increasing severity. The degree of restriction in each level is meant to coincide with the drought severity and decrease the demand on the system by an estimated 10 percent.

Water conservation and demand management are integral factors in the relationship between the utility and its customers. Water conservation, defined as a long-term process involving the

ongoing wise use of water resources and resulting in long-term permanent changes to customer water use, is the subject of a separate plan. Demand management is the short-term response to drought or other emergency conditions, and is the subject of this Drought Management Plan, which will guide the city's response when experiencing a drought worse than a 1-in-100 year event. Water conservation differs from demand management in that it involves the application of wise use practices for the water resource over the long-term, and is the subject of a separate water conservation plan. In accordance with direction in the city's Raw Water Master Plan, the City does not plan for water conservation to provide supplies for drought management.

The proposed Drought Management Plan defines four levels of supply and deficit factors and corresponding responses. It can remain in place indefinitely, ready for implementation when drought conditions warrant. Throughout the year, specific projections may be updated periodically as necessitated by changes in the City's raw water supplies.

Consideration is given to the following factors:

- Loveland's unrestricted water demand, as projected.
- City-owned reservoir storage in Green Ridge Glade Reservoir,
- Projected water supplies available from the Big Thompson River sources.
- Projected water supplies available from the Colorado River sources (Eureka Ditch, CBT and Windy Gap).
- Carryover of CBT water as authorized by Northern Water.
- Other appropriate data and experience in water supply operations

Loveland's Planned Drought Scenario

Loveland's raw water drought supply policy is discussed in the 2012 Raw Water Master Plan. This plan describes the City's policy of using a 1-in-100 year drought recurrence interval as the basis of planning for the City's raw water supply, which translates into a 1% chance that in any year the City could not meet demands without curtailment.

Between 1986 and 1988 the City initiated work on a two-phase drought study using the services of the engineering firm of Camp, Dresser & McKee, Inc. Phase I of the study contained a recommendation that the City prepare to meet its full demands during a drought event with an average recurrence of 1-in-100 years, which translates into a 1% chance that in any year the City could not meet demands without curtailment. Council accepted Phase I of the report, including the recommendation, on October 7, 1986. The 1-in-100 year level of drought protection remains the goal for the City's raw water supply planning.

This planning policy requires developing sufficient supplies to meet the City's full water demand during the 1-in-100 year drought without water use restrictions. The LUC and City Council reaffirmed this policy as part of the approval process for the original Raw Water Master Plan in 2005 and the update in 2012.

As stated in the Raw Water Master Plan, Loveland's raw water supply planning goal is to provide the capability for unrestricted use of water to its customers in anything up to 1-in-100 year drought conditions. This translates to a less than 1 percent chance each year that the city will not be able to meet customer demands with current supplies.

In 2003, a Drought Management Plan was created in response to the 2002 drought. While only designed specifically for that year, aspects of that plan were taken to create this broader Drought Management Plan.

Water Supplies

The City of Loveland promotes the efficient and effective use of its developed water resources for the benefit of its citizens and customers. It operates and maintains a complex system of east and west slope sources including direct flow and stored rights, managed to meet the current and future demands of its customers. Loveland's water supplies used to meet municipal demand are the following:

Storage:

- GRG Reservoir: The total capacity of storage in the city's Green Ridge Glade Reservoir is 6,835 acre-feet. The goal at the beginning of each new water year on November 1st is to start with the reservoir full.
- Eureka Ditch: This 180 acre-feet of water is delivered under contract from the CBT Project, and is not subject to the annual quota set by Northern Water's board. It is the first water delivered to the city from Northern each water year.
- CBT balance carried over: Water from the previous year, kept in storage over the winter in the CBT facilities and made available for use in the following year. This may only be used the first year it is carried over under Northern Water's policy, or it is forfeited.
- Quota Water Available: The annual allocation declared by Northern Water's board, typically yielding between 0.5 - 1.0 acre-foot annually per unit. The initial allocation is set in early November each year, typically at 0.5 acre-foot for every CBT unit owned. Usually an additional allocation is granted in early April, based on the need for additional supplies and the availability of water.
- Carryover for the following year: Up to 20 percent, in acre-feet, of the City's ownership of CBT units may be carried over in the CBT system for use the following year. The City owns 12,068 units, so the City may carryover up to 2,414 acre-feet. Also the City uses supplemental carryover space from other CBT users to carry over unused City CBT water.
- Windy Gap Water: The City owns 40 units of Windy Gap Project water (WG) which is projected to yield over 4,000 acre-feet of yield during drought following construction of storage at Chimney Hollow Reservoir.

Big Thompson River Rights:

- Direct: Water which forms the basis of Loveland's direct diversions, some of which is available year-round.
- Ditches transferred in the 202A decree: Transferred ditch shares in the 202A suite of cases. The water may be stored under specific terms, but doing so reduces the amount diverted.
- Ditches transferred in the 392 decree: Transferred ditch shares in the 392 case, with conditions different from the 202A transfers.

Further details of the city's raw water inventory can be found in the 2012 Raw Water Master Plan.

Declaration of a Drought Level

When drought conditions are experienced, Water Resources staff will determine the projected sufficiency of the city's supplies by monitoring drought indicators and forecasting raw water availability. Staff will make a recommendation to the LUC at or before its April meeting. An LUC and staff recommendation will be made to City Council, which will make the decision whether or not to move into drought management operations and if necessary will declare the appropriate drought response level. As drought conditions change, staff will inform the City Manager and recommend changes to the response level for City Council's consideration and decision.

Description of Drought Response Levels

The Drought Management Plan contains four increasingly restrictive response levels. For every ten percent of projected supply shortage, a higher level response may be needed with the corresponding restrictions being implemented. During a drought, staff is responsible for monitoring drought indicators and forecasting raw water availability so that the city's appropriate response may be made or changed as conditions warrant. It should be noted that a water shortage does not necessarily mean the city will run out of water. On the first day of each successive water year, which begins on November 1st, having a full water supply would mean that the City's C-BT carryover capacity is fully utilized and Green Ridge Glade Reservoir is full. Not being able to achieve these levels by November 1st indicates a supply shortage, with less water available to meet demands over the following year. If the city is already in a drought, its ability to respond to subsequent drought year scenarios would be reduced.

The colored chart on the following page contains a summary of the four drought levels and the corresponding restrictions.

Drought Management Plan					
	Response Level	**I**	**II**	**III**	**IV**
	% Projected Raw Water Supply Shortage	**1-10%**	**11-20%**	**21-30%**	**>30%**
Type of Water Use – **Customer**	**Residential Turf/Lawn Watering**	3 days/week	2 days/week	1 day/week	No lawn watering
	Trees, Shrubs, Perennials	Hand/drip/subsurface or 3 days/week	Hand/drip/subsurface or 2 days/week	Hand/drip/subsurface only	Hand/drip/subsurface only
	Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
	Dedicated Irrigation Meters	Best Management Practices	2 days/week	1 day/week	No lawn watering
	Spraying Impervious Surfaces	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)
	Hydraulic Fracturing	Customer provides raw water	Customer provides raw water	Customer provides raw water	Customer provides raw water
Type of Water Use – **City**	**Curtail Leases**	Limited by water availability	Limited by water availability	No agricultural leases	No agricultural leases
	Public Facilities/Parks/ R2J School District/ Turf/Lawn Watering	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions
	Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
	Washing City Fleet Vehicles	Once/week	Once/week	Not allowed	Not allowed
	Fire Hydrant Flushing & Testing	Limited to transmission lines or critical situations	Limited to transmission lines or critical situations	Limited to critical situations	Limited to critical situations
Permits	**Medical Hardship**	Permit required	Permit required	Permit required	No exception
	Religious Objection	Permit required	Permit required	Permit required	No exception
	New Lawns	Permit required	Permit required	Permit required	Not allowed
Fines	**Residential Fines per Violation**	$50 to $1000	$50 to $1000	$50 to $1000	$50 to $1000
	Business Fines per Violation	$50 to $1000	$50 to $1000	$50 to $1000	$50 to $1000

Notes: 1. Voluntary Restrictions may be used equivalent to any appropriate level if deemed to be effective
2. Vegetable gardens are exempt
3. Measures are intended to avoid impact on successful business operations
4. Best Management Practices as referenced by Greenco http://www.greenco.org/ and Colorado WaterWise Council *http://coloradowaterwise.org/*

Normal Conditions

During normal conditions, including drought up to the 1-in-100 year level of severity, the City of Loveland plans for an unrestricted supply of water to its customers. While no drought plans are in effect under these conditions, customers are encouraged to continue their wise use of water.

- Lawn Watering – Unrestricted.
- Trees, Shrubs, and Perennials – Unrestricted.
- Non-Automated Car Washing – Unrestricted. Use of a shutoff nozzle and bucket are recommended.
- Dedicated Irrigation Meters – Unrestricted irrigation use. Following GreenCO.org Best Management Practices for irrigation is encouraged.
- City Fleet Vehicles – Washed only once per week or as determined by the city manager for health or safety reasons.
- Spraying of Impervious Surfaces – Unrestricted. Use of nozzles and minimizing water use is encouraged during the spraying of driveways, sidewalks, and siding.
- Raw water leases are limited to the availability of water above municipal needs.
- Fire Hydrant Flushing & Testing – Unrestricted.
- Hydraulic Fracturing – Customer provides all raw the water necessary, for treatment by the city.

Drought Response Level 1

At level 1, the city is projected to experience up to a 10 percent shortage of raw water. This response level addresses the shortage by implementing water use restrictions that would have minimal impact on the health of customers' landscaping.

- Lawn Watering – Limited to 3 days per week per the Level 1 Irrigation Schedule below.
- Trees, Shrubs, and Perennials – Unrestricted by hand, drip or subsurface applications. Otherwise limited to 3 days per week per the Level 1 Irrigation Schedule below.
- Non-Automated Car Washing – Shutoff nozzle and bucket required.
- Dedicated Irrigation Meters – GreenCO.org Best Management Practices for irrigation must be used.
- Spraying of Impervious Surfaces – Not allowed. This includes spraying of driveways, sidewalks, and siding, unless necessary for health and safety reasons.
- New Lawns – Should use GreenCO.org Best Management Practices.
- City Fleet Vehicles – Washed only once per week or as determined by the city manager for health or safety reasons.
- Raw water leases limited to availability of water above municipal needs.

- Fire Hydrant Flushing & Testing – Limited to transmission lines or critical situations.
- Hydraulic Fracturing – Customer provides all the necessary raw water, for treatment by the city.

Permits may be acquired for exceptions, if necessary due to medical hardship or religious objection. Newly seeded or sodded lawns may be eligible for a permit as well.

Level 1 Irrigation Schedule

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Last Number of Address	EVEN	ODD/OTHER	EVEN	ODD/OTHER	EVEN	OTHER	ODD
Property Type	Single Family, Duplex, Triplex, & Fourplex	ODD Single Family, Duplex, Triplex, & Fourplex OTHER Multifamily, HOA, Non-Residential	Single Family, Duplex, Triplex, & Fourplex	ODD Single Family, Duplex, Triplex, & Fourplex OTHER Multifamily, HOA, Non-Residential	Single Family, Duplex, Triplex, & Fourplex	Multifamily, HOA, Non-Residential	Single Family, Duplex, Triplex, & Fourplex

For single family, duplex, triplex, and fourplex residences, the watering schedule is based on whether the final digit of the address is an odd or even number. HOAs, multifamily, and all non-residential properties that do not have a dedicated irrigation meter are to water on Monday, Wednesday, and Friday regardless of their address number. Watering hours are Midnight to 9:59 am and 6 pm through 11:59 pm on the assigned day. In other words, there is no visible, above-ground watering between 10 am and 6 pm.

Drought Response Level 2

At Level 2, the city is projected to face an 11 percent – 20 percent shortage of raw water. Since the shortage is more severe, the measures are more restrictive. The following outdoor restrictions should have minimal effect on the long-term health of the customers' landscaping, but may cause wilting or browning during the hottest parts of the summer.

- Lawn Watering – Limited to 2 days per week per the Level 2 Irrigation Schedule below.
- Trees, Shrubs, and Perennials – Unrestricted by hand, drip or subsurface applications. Otherwise limited to 2 days per week per the Level 2 Irrigation Schedule below.
- Non-Automated Car Washing – Shutoff nozzle and bucket required.

- Dedicated Irrigation Meters – Limited to 2 days per week, on Tuesday and Friday only.
- City Fleet Vehicles – Washed only once per month or as determined by the city manager for health or safety reasons.
- Spraying of Impervious Surfaces – Not allowed. This includes spraying of driveways, sidewalks, and siding unless necessary for health and safety reasons.
- New Lawns – Use GreenCO.org Best Management Practices.
- Raw water leases limited to availability of water above municipal needs.
- Fire Hydrant Flushing & Testing – Limited to transmission lines or critical situations.
- Hydraulic Fracturing – Customer provides all the necessary raw water for treatment by the city.

Permits may be acquired for exceptions, if necessary due to medical hardship or religious objection. Newly seeded or sodded lawns may be eligible for a permit as well.

Level 2 Irrigation Schedule

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Last Number of Address	EVEN	X	OTHER	ODD	EVEN	OTHER	ODD
Property Type	Single Family, Duplex, Triplex, & Fourplex	No watering except by permit.	Multifamily, HOA, Non-Residential	Single Family, Duplex, Triplex, & Fourplex	Single Family, Duplex, Triplex, & Fourplex	Multifamily, HOA, Non-Residential	Single Family, Duplex, Triplex, & Fourplex

For single family, duplex, triplex, and fourplex residences, the watering schedule is based on whether the final digit of the address is an odd or even number, as assigned above. HOAs, multifamily, and all non-residential properties are to water on Tuesday and Friday regardless of their address number. Watering hours are Midnight to 9:59 am and 6 pm through 11:59 pm on the assigned day. In other words, there is no visible, above-ground watering between 10 am and 6 pm.

Drought Response Level 3

Response level 3 applies for situations where the city is experiencing a 21 percent-30 percent raw water shortage. These are severe conditions, and the restrictions reflect that. The purpose is to reduce customer demand as much as possible while still keeping their outdoor landscaping alive. There will be significant wilting and browning of the customers' landscaping and possibly some long-term damage. The following watering schedule should, however, keep trees, shrubs, perennials, and most lawns alive.

- Lawn Watering – Limited to 1 day per week per the Level 3 Irrigation Schedule below.
- Trees, Shrubs, and Perennials – Water by hose with shutoff nozzle or low-volume efficient drip or subsurface irrigation.
- Non-Automated Car Washing – Not allowed.
- Dedicated Irrigation Meters – Limited to 1 day per week, Fridays only.
- City Fleet Vehicles – Washing not allowed.
- Spraying of Impervious Surfaces – Not allowed. This includes spraying of driveways, sidewalks, and siding unless necessary for health and safety reasons.
- New Lawns – Permit required. Also should use GreenCO.org Best Management Practices.
- No agricultural leases made.
- Fire Hydrant Flushing & Testing – Limited to critical situations.
- Hydraulic Fracturing – Customer provides all the necessary raw water for treatment by the city.

Permits may be acquired for exceptions, if necessary due to medical hardship or religious objection. Newly seeded or sodded lawns may be eligible for a permit as well.

Level 3 Irrigation Schedule

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Last Number of Address	EVEN	X	OTHER	X	X	OTHER	ODD
Property Type	Single Family, Duplex, Triplex, & Fourplex	No watering except by permit.	Multifamily, HOA, Non-Residential	No watering except by permit.	No watering except by permit.	Dedicated irrigation taps.	Single Family, Duplex, Triplex, & Fourplex

For single family, duplex, triplex, and fourplex residences, the watering schedule is based on whether the final digit of the address is an odd or even number. HOAs, multifamily, and all non-residential properties are to water on Tuesdays only, regardless of their address number unless using a dedicated irrigation meter. Dedicated irrigation meters are to water on Fridays only. Watering hours are Midnight to 9:59 am and 6 pm through 11:59 pm on the assigned day. In other words, there is no visible, above-ground watering between 10 am and 6 pm.

Drought Response Level 4

Drought response level 4 is only for extreme drought conditions. At this level, the city is experiencing greater than a 30 percent raw water shortage and is unable to meet the needs of customers' outside watering demands. Under these restrictions, it is possible that customers may lose a significant portion of their landscaping.

- Lawn Watering – Not allowed.
- Trees, Shrubs, and Perennials – Water by hose with shutoff nozzle or low-volume efficient drip or subsurface irrigation.
- Non-Automated Car washing – Not allowed.
- Dedicated Irrigation Taps – Not allowed to irrigate lawns.
- City Fleet Vehicles – Washing not allowed.
- Spraying of Impervious Surfaces – Not allowed. This includes spraying of driveways, sidewalks, and siding unless necessary for health and safety reasons.
- New Lawns – No newly seeded or sodded lawns may be installed.
- No agricultural leases made.
- Fire Hydrant Flushing & Testing – Limited to transmission lines or critical situations.
- Hydraulic Fracturing – Customer provides all the necessary raw water for treatment by the city.

There are no permits for exceptions for medical hardship or religious objections, as there are not much allowable outdoor uses.

Issuing Permits and Enforcing Drought Responses

Permits for exceptions may be acquired from the Loveland Water & Power office at 200 N. Wilson Ave, Loveland, CO 80537. They will be available if necessary due to medical hardship or religious objection. Frequent irrigation as required for newly seeded or sodded lawns may be eligible for a permit as well under Level III conditions.

Adopted per 13.04.235, the City Manager would designate persons within the Water staff to act as peace officers to enforce section 13.04.235 of the by the issuance of summonses and complaints in accordance with the Colorado Municipal Court Rules of Procedure. Education and warning for the first offense, citation for the second, and possible court appearance thereafter.

Additional Information

- Watering vegetable gardens by hand is exempt from restriction under all drought levels.
- Loveland Parks and Thompson School District have separate plans which will achieve the same or better water savings than are outlined in this Drought Management Plan.
- Other dedicated irrigation tap areas may request to be placed on a separate plan. The plan must be submitted to the W&P Director and may be approved by him, given the level of savings is commensurate with what is being asked of other customers.
- Measures are intended to avoid negative impacts on successful business operations, wherever possible.

- Watering Tips and Best Management Practices are as referenced by Greenco (http://www.greenco.org) and the Colorado WaterWise Council (http://coloradowaterwise.org).
- Please visit the City of Loveland website for additional information as well as updates on the drought situation. (www.cityofloveland.org)

Customer Relations

Loveland Water and Power's Customer Relations Division will assist the drought response efforts by leading the public information and education campaign. Staff will work quickly to enact a tailored drought response communication plan according to the situation and employ a multi-channel marketing campaign to maximize the outreach within the community. Communication will include both information about the drought situation and education about wise water use.

Examples of potential methods of outreach staff may use to increase public awareness of the need to implement the Drought Management Plan include, but are not necessarily limited to:

- Purchasing advertising space in the Loveland Reporter-Herald newspaper
- Basic outreach methods such as press releases, the city website, and social media
- Direct Mailings
- Door to door visits with local business
- A "Drought Blog" in the Reporter-Herald and online
- Channel 16 and YouTube
- Community meetings with local clubs, HOAs, and industry professionals
- Educational information in the schools
- Service Center open houses
- Key Accounts email blasts
- Events such as Earth Day, Children's Day, Public Works Day, etc.

In addition to its integral role in drought response as presented above, the Water & Power Customer Relations group also actively supports and promotes the city's water conservation program. Some of the activities the city encourages its customers to participate in are the following:

- *Shave the Peak* – This voluntary program encourages customers to water on even/odd days to reduce strain on the water treatment plant during peak hours in the summer
- *Slow the Flow* – Free sprinkler irrigation inspections are offered to city residential customers to ensure water is not being wasted in faulty irrigation systems.
- *Garden in a Box* – Every year Loveland participates in the Garden-In-A-Box program to provide a fun, inexpensive way for citizens to learn how to successfully replace high water requiring turf with water conserving xeriscaping.

- Efficiency Express – This program can save city commercial customers water as well as energy, by reviewing uses within the business.

For more information about Loveland's water conservation activities, please reference the City of Loveland Water Conservation Plan and the city's website at http://www.cityofloveland.org.

Conclusion

Excerpts from the Mission Statement of Loveland Water & Power ensure that the utility will provide reliable, high quality customer service offering safe and secure utilities. Being prepared to meet customer's demands during drought is an integral part of that mission. The Drought Management Plan provides the City of Loveland with options for a short-term, managed response to drought conditions that will preserve the integrity of the city's water supply system and the sufficiency of Loveland's raw water supply while ensuring adequate allocations of water to protect the public's health, safety, and welfare during a greater than 1-in-100 year drought.

Drought Management Plan

Presentation to LUC
April 24, 2013

City of Loveland Drought Management Plan

- **Drought management** is the short-term managed response to water shortages at or exceeding a 1-in-100 year event.
- **Water conservation** is a long-term process involving the wise use of water resources. It is the subject of a separate plan.

City of Loveland
Drought Management Plan - Purpose

- Preserve and allocate water to protect the public health, safety, and welfare.
- Ensure adequate water reserves for future water years.
- Establish a methodology to inform and educate the public.
- Outline demand-reducing measures based on the degree of water supply shortage.

City of Loveland
Drought Management Plan

- Proposed plan outlines 4 supply shortage scenarios
  - Response level increases with every 10% increase in supply deficit
- School District and Parks response plans should be executed before residential restrictions are recommended

City of Loveland
Drought Management Plan – Level 1

- Up to a 10% shortage of water
- Minimal impact on landscape health
- Lawn watering – 3 days per week
- Non-automated car washing – shut off nozzle and bucket required
- City Fleet vehicles – washed once per week
- Fire hydrant flushing/testing – limited to transmission lines and critical situations

City of Loveland
Drought Management Plan – Level 2

- Up to a 11-20% shortage of water
- Minimal impact on long-term landscape health, but may cause wilting or browning during hot summer
- Lawn watering – 2 days per week
- Non-automated car washing – shut off nozzle and bucket required
- City Fleet vehicles – once per week
- Fire hydrant flushing/testing – limited to transmission lines and critical situations

City of Loveland
Drought Management Plan – Level 3

- Up to a 21-30% shortage of water
- Visible wilting/browning during hot summer, but should keep trees, shrubs, perennials and most lawns alive
- Lawn watering – 1 day per week
- Non-automated car washing – not allowed
- City Fleet vehicles – washing not allowed
- Fire hydrant flushing/testing – limited to critical situations

City of Loveland
Drought Management Plan – Level 4

- Greater than a 30% shortage of water
- Visible wilting/browning during hot summer, and some customers may lose part of landscaping.
- Lawn watering – not allowed
- Non-automated car washing – not allowed
- City Fleet vehicles – washing not allowed
- Fire hydrant flushing/testing – limited to critical situations

		Drought Management Plan			
	Response Level	**I**	**II**	**III**	**IV**
	% Projected Raw Water Supply Shortage	**1-10%**	**11-20%**	**21-30%**	**>30%**
Type of Water Use – **Customer**	**Residential Turf/Lawn Watering**	3 days/week	2 days/week	1 day/week	No lawn watering
	Trees, Shrubs, Perennials	Hand/drip/subsurface or 3 days/week	Hand/drip/subsurface or 2 days/week	Hand/drip/subsurface only	Hand/drip/subsurface only
	Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
	Dedicated Irrigation Meters	Best Management Practices	2 days/week	1 day/week	No lawn watering
	Spraying Impervious Surfaces	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)	Not allowed (except as necessary for health & safety)
	Hydraulic Fracturing	Customer provides raw water	Customer provides raw water	Customer provides raw water	Customer provides raw water
Type of Water Use – **City**	**Curtail Leases**	Limited by water availability	Limited by water availability	No agricultural leases	No agricultural leases
	Public Facilities/Parks/ R2J School District/ Turf/Lawn Watering	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions	Separate approved plans for equal or greater reductions
	Non-automated Car Washing	Best Management Practices	Best Management Practices	Not allowed	Not allowed
	Washing City Fleet Vehicles	Once/week	Once/week	Not allowed	Not allowed
	Fire Hydrant Flushing & Testing	Limited to transmission lines or critical situations	Limited to transmission lines or critical situations	Limited to critical situations	Limited to critical situations
Permits	**Medical Hardship**	Permit required	Permit required	Permit required	No exception
	Religious Objection	Permit required	Permit required	Permit required	No exception
	New Lawns	Permit required	Permit required	Permit required	Not allowed
Fines	**Residential Fines per Violation**	$50 to $1000	$50 to $1000	$50 to $1000	$50 to $1000
	Business Fines per Violation	$50 to $1000	$50 to $1000	$50 to $1000	$50 to $1000

Notes: 1. Voluntary Restrictions may be used equivalent to any appropriate level if deemed to be effective
2. Vegetable gardens are exempt
3. Measures are intended to avoid impact on successful business operations
4. Best Management Practices as referenced by Greenco http://www.greenco.org/ and Colorado WaterWise Council http://coloradowaterwise.org/

Drought Managment Plan
Customer Relations

- Basic suite of outreach methods
  - (press releases, newspaper articles & ads, website, social media etc.)
- Direct mailings
- Door to door visits with local businesses
  - (table top displays, posters)
- "Drought Blog" in RH
- Video Series on channel 16 and You Tube
- Community meetings
  - (Local Clubs, HOAs, Industry Professionals)
- Educational take home materials to schools
- Open House at the Service Center
- Email blasts to Key Accounts
- Events
  - (Key Accounts Earth Day Events, Children's Day, Public Works Day, Lunch and Learns, GIAB, Garden Tour, Corn Roast)

Proposed Process

Once City Council adopts the Drought Management Plan:

1. Staff determines projected sufficiency of water supplies
2. Staff reports to LUC
3. LUC and staff recommend to City Council
4. City Council enacts drought response actions
5. As drought conditions change, staff informs City Manager and recommends changes for City Council consideration

Questions?

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 8
MEETING DATE: 4/24/2013
SUBMITTED BY: Russel Jentges, Senior Electrical Engineer MS for RJ

TITLE: LED Street Lights

DESCRIPTION:
At the October 15, 2012 LUC meeting, staff presented the need to update the City of Loveland Street Light Design Guideline due to changes made in State and County laws. Staff decided to look at the feasibility of installing LED streetlights since changes were being made to the City of Loveland Street Light Design Guideline.

SUMMARY:
The price for LED street lights has been dropping over the past 3 years. Staff performed a Cost Benefit Analysis on replacing the current high-pressure sodium (HPS) street lights with LED street lights. Staff will make a presentation on the finding of the cost benefit analysis, and the potential energy savings of converting to LED street lights.

Some of the alternatives that staff considered was to only convert the existing street lights to LED or in addition to install LED lights in new construction. We are proposing that we install LED lights in all new construction and replace10existing lights that have failed with LED street lights. To accommodate this change, staff is proposing to rewrite the City of Loveland's Street Light Design Guideline specifying LED light fixtures.

RECOMMENDATION:
Update the City of Loveland's Street Light Design Guideline to require the installation of LED street lights in new construction and replacement of existing street lights upon failure.

REVIEWED BY DIRECTOR: MS for SA

City of Loveland

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AGENDA ITEM: 9
MEETING DATE: 4/24/2013
SUBMITTED BY: Kim O'Field, Technical Specialist KO

TITLE: American Public Power Association (APPA) Reliable Public Power Provider Designation (RP3)

DESCRIPTION:
This item and attachment are intended to give an update on Loveland's application and designation award for the American Public Power Association's RP3 Program.

SUMMARY:
On September 28, 2012 Loveland Water and Power submitted an application for the American Public Power Association RP3 Program. Staff will be giving a presentation detailing the following information:

- What is the RP3 Program?
- Why did we apply for the RP3 Program?
- What criteria must be met?
- How is the application scored?
- Loveland's award
- Next steps

RECOMMENDATION:
Staff item only. No action required.

REVIEWED BY DIRECTOR: MS for SA

RP3 Program

APRIL 24, 2013
KIM O'FIELD
TECHNICAL SPECIALIST

What is RP3?

- Reliable Public Power Provider

RP3® Reliable Public Power Provider

Why Did We Apply For RP3?

- Benchmarking
- Improved Policies and Programs
- Best Practice Guide
- Support Network
- Improved Teamwork
- Economic Development
- Community Goodwill

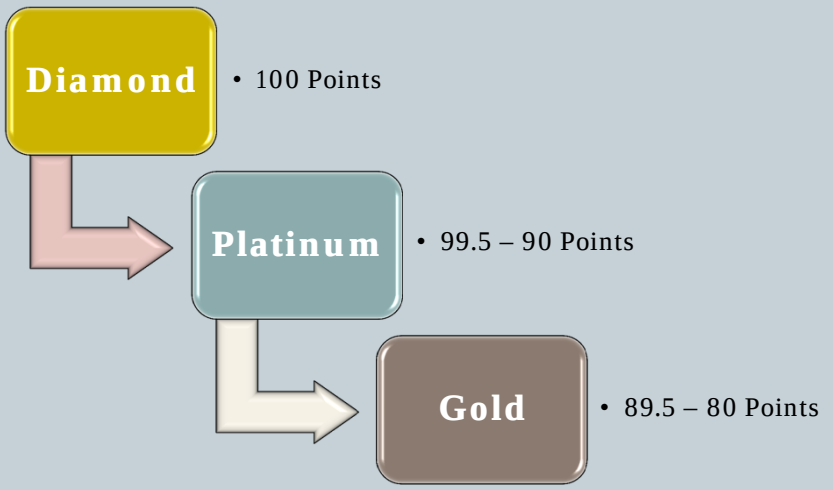
What Does RP3 Designation Give Us?

- National recognition
- Exclusive rights to use the RP3 logo
- Press release template for newspapers, magazines & websites

How Are Applications Scored?

25%	Reliability	• Reliability Indices • Mutual Aid • Emergency Plans • Security
25%	Safety	• Safety Manual • Safety Meetings • Disaster Drills
25%	Work Force Development	• Conferences/Workshops • Networking • Continuing Education • Succession Planning
25%	System Improvement	• Long Range System Planning • Asset-Management Procedures • Research & Development

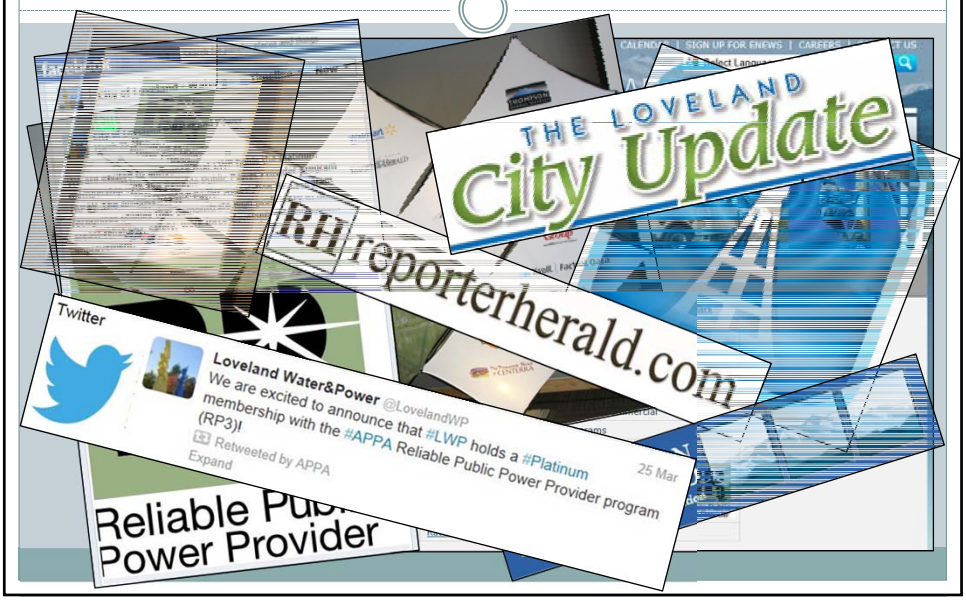
How Are Applications Scored?



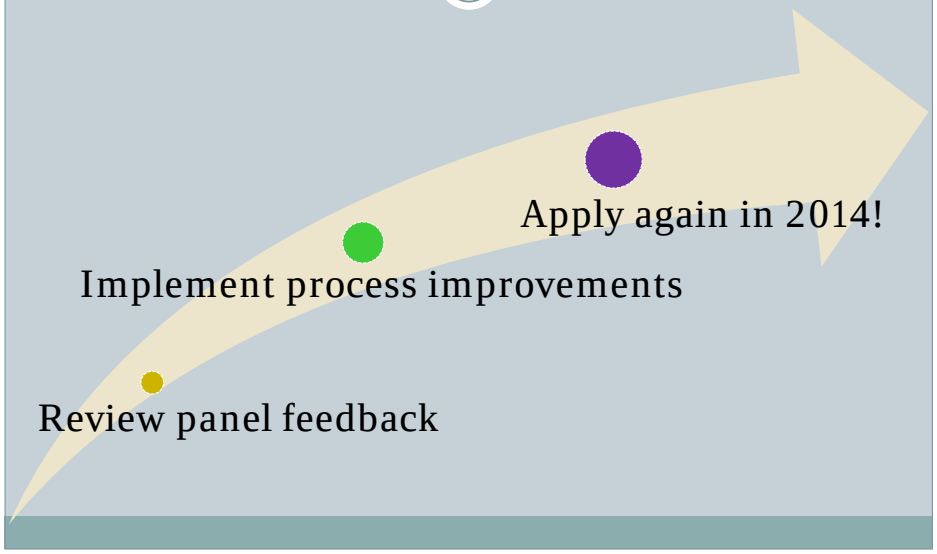
Loveland's Designation

Platinum

Marketing Loveland's RP3 Status



Next Steps?



QUESTIONS?

City of Loveland

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AGENDA ITEM: 10
MEETING DATE: 4/24/2013
SUBMITTED BY: Jim Lees, Utility Accounting Manager

TITLE: Financial Report Update

DESCRIPTION:
This item summarizes the monthly and year-to-date financials for March 2013.

SUMMARY:
The March 2013 financial reports are submitted for Commission review. The following table summarizes the sales and expense results for the month of March, and the March Year-To-Date results in comparison to the same periods from 2012. The summarized and detailed monthly financial statements that compare March Year-To-Date actuals to the 2013 budgeted figures are attached.

	March				March Year-To-Date			
	2013	2012	$ Ovr/(Und) vs. 2011	% Ovr/(Und) vs. 2011	2013	2012	$ Ovr/(Und) vs. 2011	% Ovr/(Und) vs. 2011
WATER								
Sales	$516,903	$388,593	$128,310	33.0%	$1,569,389	$1,172,157	$397,232	33.9%
Operating Expenses	$561,020	$531,792	$29,228	5.5%	$1,589,922	$1,380,459	$209,463	15.2%
Capital (Unrestricted)	$422,762	$125,391	$297,371	237.2%	$1,024,793	$174,400	$850,393	487.6%
WASTEWATER								
Sales	$573,599	$514,596	$59,003	11.5%	$1,790,077	$1,603,586	$186,490	11.6%
Operating Expenses	$420,044	$427,710	($7,666)	-1.8%	$972,124	$1,422,856	($450,733)	-31.7%
Capital (Unrestricted)	$32,518	$227,978	($195,460)	-85.7%	$58,349	$511,542	($453,192)	-88.6%
POWER								
Sales	$3,996,598	$3,823,707	$172,891	4.5%	$12,328,709	$11,786,159	$542,550	4.6%
Operating Expenses	$3,553,295	$3,269,500	$283,795	8.7%	$10,722,281	$9,857,050	$865,231	8.8%
Capital (Unrestricted)	$946,981	$326,484	$620,497	190.1%	$1,878,390	$920,454	$957,936	104.1%

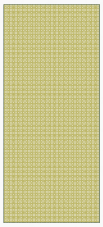
RECOMMENDATION:
Staff report only. No action required.

REVIEWED BY DIRECTOR: MG for SA

LIST OF ATTACHMENTS:
- Water & Power Financial Report Presentation PowerPoint slides
- City of Loveland Financial Statement-Raw Water
- City of Loveland Financial Statement-Water
- City of Loveland Financial Statement-Wastewater
- City of Loveland Financial Statement-Power

WATER & POWER FINANCIAL REPORT

LOVELAND UTILITIES COMMISSION
APRIL 24, 2013



MARCH 2013 SUMMARY

- Sales slightly below budget
- Operating Expenses well below budget
  - ✓ Purchased Power below budget
  - ✓ Water Source of Supply well below budget
  - ✓ Water Debt Service below budget
  - ✓ Wastewater Collection O&M well below budget
- General Capital expenditures well above budget
- PIF/SIF Revenues well above budget
- PIF/SIF Capital Expenditures well above budget

MARCH YTD SUMMARY

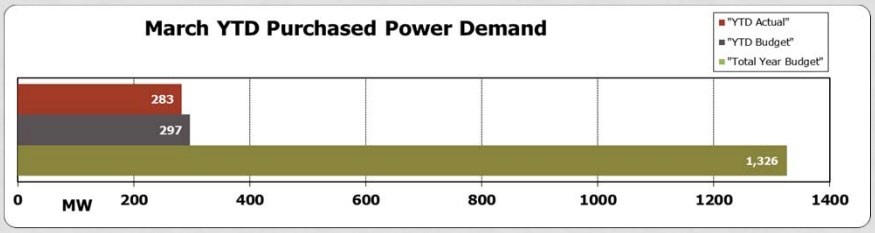
- Net income $1.4M above YTD budget of $1.4M
- Sales $0.3M below YTD budget of $16.0M
  - ✓ Power sales $451K below YTD budget of $12.8M
  - ✓ Water sales $232K above YTD budget of $1.3M
  - ✓ Wastewater sales $108K below YTD budget of $1.9M
- Operating expenses $1.9M below YTD budget of $15.2M
- General Capital expenditures $0.1M above YTD budget of $2.9M
- PIF/SIF Revenues $0.6M above YTD budget of $0.9M
- PIF/SIF Capital expenditures $54K below YTD budget of $0.6M

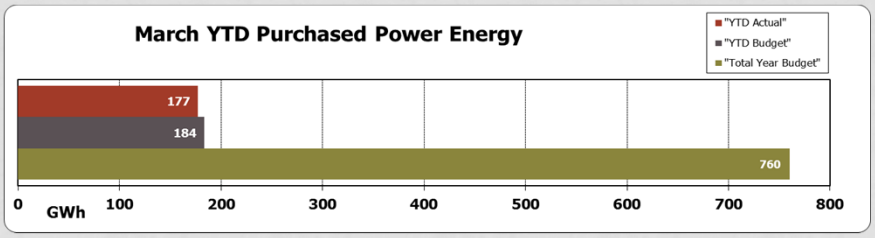
KEY FINANCIAL RESULTS

	March			Year To Date		
($ in Millions)	Actual	Budget	Variance	Actual	Budget	Variance
UNRESTRICTED FUNDS						
Net Income	**0.7**	0.1	**0.6**	**2.8**	**1.4**	**1.4**
Sales	5.1	5.1	0.0	15.7	16.0	(0.3)
Interest and Other Income	0.2	0.2	0.0	0.5	0.7	(0.2)
Operating Expenses	4.5	5.2	(0.7)	13.3	15.2	(1.9)
Capital Expenditures	1.4	1.0	0.4	3.0	2.9	0.1
RESTRICTED FUNDS						
PIF/SIF Revenues and Interest	0.6	0.3	0.3	1.5	0.9	0.6
Capital Expenditures	0.4	0.2	0.2	0.6	0.6	0.0

Net Income and Operating Expenses both exclude Depreciation

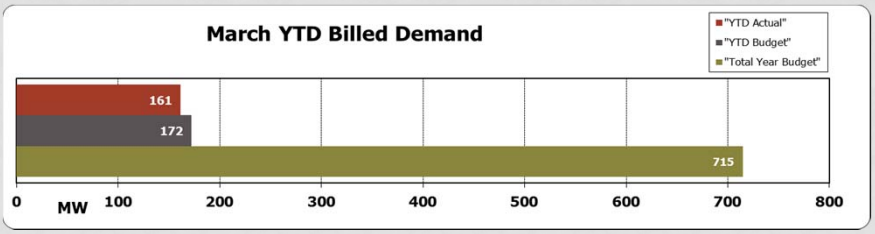
PURCHASED POWER

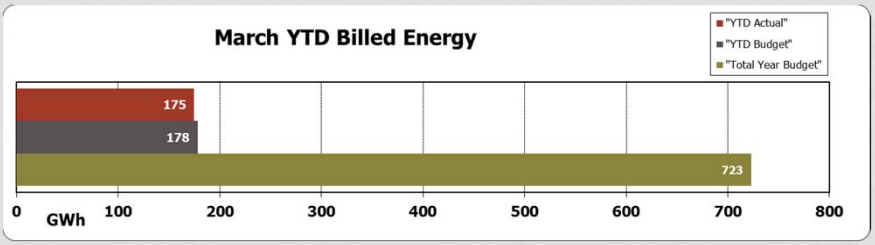




- Demand MW: Year-to-Date 4.84% below budget
- Energy GWh: Year-to-Date 3.38% below budget

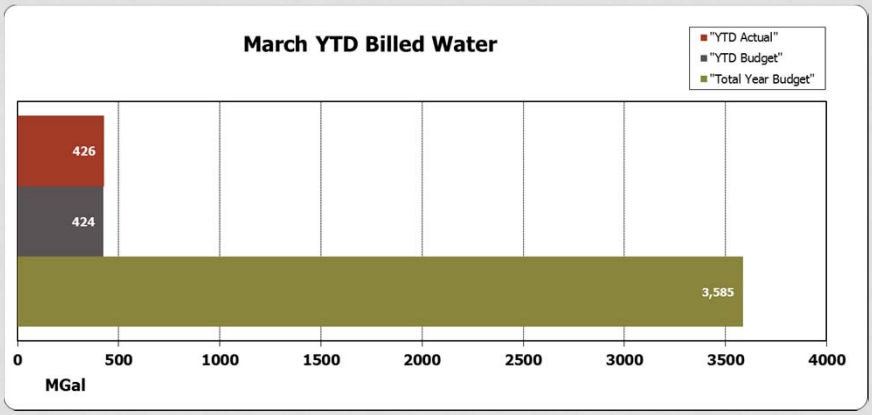
POWER SALES





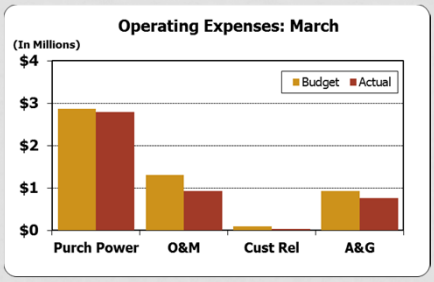
- Demand MW: Year-to-Date 6.11% below budget
- Energy GWh: Year-to-Date 1.94% below budget

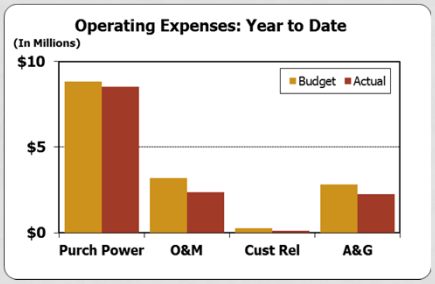
WATER SALES



- Consumption MGal: Year-to-Date .32% above budget

OPERATING EXPENSES





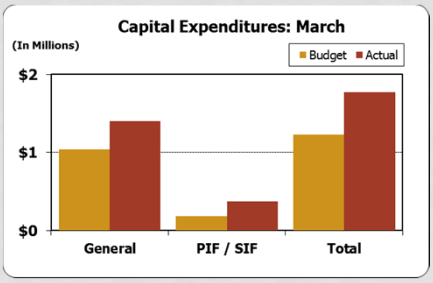
MARCH (12.78% below budget or $664K)

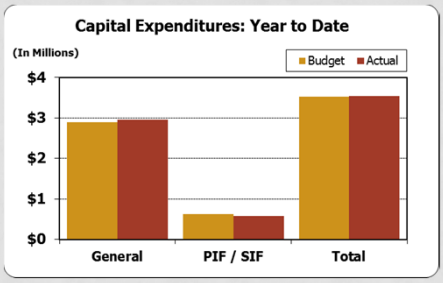
- Purchased Power 2.3% below budget
- O&M 28.4% below budget (Source of Supply, Treatment, Distribution, Collection and Hydro operating and maintenance)
- Customer Relations 53.3% below budget
- A&G 19% below budget (Administration, PILT, Services Rendered Transfers, 1% For The Arts Transfer)

YTD (12.32% below budget or $1.86M)

- Purchased Power 3.35% below budget
- O&M 25.9% below budget (Source of Supply, Treatment, Distribution, Collection and Hydro operating and maintenance)

CAPITAL EXPENDITURES





MARCH

General 34.6% above; PIF/SIF 102% above

General $361K above; PIF/SIF $188K above

YTD

General 2.36% above; PIF/SIF 8.55% below

General $68K above; PIF/SIF $54K below

QUESTIONS

City of Loveland
Financial Statement-Raw Water
For Period Ending 03/31/2013

			TOTAL BUDGET FYE 12/31/2013		YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	**REVENUES & SOURCES**	*		*				
		*		*				
2	Hi-Use Surcharge	*	41,800	*	2,108	10,450	(8,342)	-79.8%
3	Raw Water Development Fees/Cap Rec Surcharge	*	248,870	*	98,608	62,220	36,388	58.5%
4	Cash-In-Lieu of Water Rights	*	45,000	*	11,200	11,250	(50)	-0.4%
5	Native Raw Water Storage Fees	*	5,000	*	0	1,250	(1,250)	-100.0%
6	Loan Payback from Wastewater	*	485,000	*	0	0	0	0.0%
7	Raw Water 1% Transfer In	*	709,060	*	115,921	99,760	16,161	16.2%
8	Interest on Investments	*	457,200	*	54,238	114,300	(60,063)	-52.5%
9	**TOTAL REVENUES & SOURCES**	*	**1,991,930**	*	**282,075**	**299,230**	**(17,155)**	**-5.7%**
		*		*				
10	**OPERATING EXPENSES**	*		*				
		*		*				
11	Windy Gap Payments	*	834,030	*	0	1,770	(1,770)	-100.0%
12	**TOTAL OPERATING EXPENSES**	*	**834,030**	*	**0**	**1,770**	**(1,770)**	**-100.0%**
		*		*				
13	NET OPERATING REVENUE/(LOSS) (excl depr)	*	1,157,900	*	282,075	297,460	(15,385)	-5.2%
		*		*				
14	RAW WATER CAPITAL EXPENDITURES	*	1,118,000	*	0	279,510	(279,510)	-100.0%
		*		*				
15	**ENDING CASH BALANCES**	*		*				
		*		*				
16	Total Available Funds	*		*	13,124,523			
17	Reserve - Windy Gap Cash	*		*	4,190,887			
18	Reserve - 1% Transfer From Rates	*		*	2,359,037			
19	Reserve - Native Raw Water Storage Interest	*		*	1,550,726			
		*		*				
20	**TOTAL RAW WATER CASH**	*		*	**21,225,172**			
		*		*				
21	MINIMUM BALANCE (15% OF OPER EXP)	*		*	125,105			
		*		*				
22	OVER/(UNDER) MINIMUM BALANCE	*		*	21,100,068			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING: 833,961

City of Loveland
Financial Statement-Water
For Period Ending 03/31/2013

			TOTAL BUDGET FYE 12/31/2013		YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	****UNRESTRICTED FUNDS****	*		*				
		*		*				
2	**REVENUES & SOURCES**	*		*				
		*		*				
3	Water Sales	*	9,516,510	*	1,569,389	1,337,420	231,969	17.3%
4	Raw Water Transfer Out	*	(709,060)	*	(115,921)	(99,760)	(16,161)	16.2%
5	Wholesale Sales	*	87,560	*	3,094	2,410	684	28.4%
6	Meter Sales	*	28,340	*	25,210	5,490	19,720	359.2%
7	Interest on Investments	*	55,990	*	7,439	14,000	(6,561)	-46.9%
8	Other Revenue	*	16,601,720	*	43,821	131,430	(87,609)	-66.7%
9	**TOTAL REVENUES & SOURCES**	*	**25,581,060**	*	**1,533,031**	**1,390,990**	**142,041**	**10.2%**
		*		*				
10	**OPERATING EXPENSES**	*		*				
		*		*				
11	Source of Supply	*	2,079,600	*	396,589	599,950	(203,361)	-33.9%
12	Treatment	*	2,472,800	*	326,072	362,800	(36,728)	-10.1%
13	Distribution Operation & Maintenance	*	2,910,980	*	388,275	416,450	(28,175)	-6.8%
14	Administration	*	659,600	*	68,261	137,530	(69,269)	-50.4%
15	Customer Relations	*	192,940	*	28,903	45,110	(16,207)	-35.9%
16	Debt Service	*	1,000,000	*	0	249,900	(249,900)	-100.0%
17	PILT	*	640,270	*	101,743	160,050	(58,307)	-36.4%
18	1% for Arts Transfer	*	44,830	*	8,570	11,220	(2,650)	-23.6%
19	Services Rendered-Other Departments	*	1,046,510	*	271,510	271,510	0	0.0%
20	**TOTAL OPERATING EXPENSES**	*	**11,047,530**	*	**1,589,922**	**2,254,520**	**(664,598)**	**-29.5%**
		*		*				
21	NET OPERATING REVENUE/(LOSS)(excl depr)	*	14,533,530	*	(56,891)	(863,530)	(444,743)	-93.4%
		*		*				
22	CAPITAL EXPENDITURES	*	5,651,930	*	1,024,793	1,586,090	(561,297)	-35.4%
		*		*				
23	**ENDING CASH BALANCE**	*		*	**2,397,687**			
		*		*				
24	MINIMUM BALANCE (15% OF OPER EXP)	*		*	1,657,130			
		*		*				
25	OVER/(UNDER) MINIMUM BALANCE	*		*	740,557			
		*		*				
26	****RESTRICTED FUNDS****	*		*				
		*		*				
27	**REVENUES & SOURCES**	*		*				
		*		*				
28	SIF Collections	*	1,251,500	*	497,513	198,350	299,163	150.8%
29	SIF Interest Income	*	137,110	*	22,253	31,560	(9,307)	-29.5%
30	**TOTAL SIF REVENUES & SOURCES**	*	**1,388,610**	*	**519,766**	**229,910**	**289,856**	**126.1%**
		*		*				
31	SIF Capital Expenditures	*	940,450	*	551,420	253,170	298,250	117.8%
		*		*				
32	**SIF ENDING CASH BALANCE**	*		*	**8,569,085**			
		*		*				
33	**TOTAL ENDING CASH BALANCE**	*		*	**10,966,772**			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING: 2,209,903

City of Loveland
Financial Statement-Waste
For Period Ending 03/31/2013

		TOTAL BUDGET FYE 12/31/2013	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
1	****UNRESTRICTED FUNDS****					
2	**REVENUES & SOURCES**					
3	Sanitary Sewer Charges	8,000,500	1,790,077	1,898,500	(108,423)	-5.7%
4	High Strength Surcharge	245,370	67,320	46,300	21,020	45.4%
5	Interest on Investments	121,770	20,359	30,440	(10,081)	-33.1%
6	Other Revenue	226,330	1,064	57,540	(56,476)	-98.2%
7	**TOTAL REVENUES & SOURCES**	**8,593,970**	**1,878,819**	**2,032,780**	**(153,961)**	**-7.6%**
8	**OPERATING EXPENSES**					
9	Treatment	3,655,580	439,782	520,850	(81,068)	-15.6%
10	Collection System Maintenance	2,241,010	217,849	536,930	(319,081)	-59.4%
11	Administration	362,250	39,158	74,190	(35,032)	-47.2%
12	Customer Relations	13,370	4,374	2,760	1,614	58.5%
13	PILT	552,830	129,780	138,210	(8,430)	-6.1%
14	Interfund Loan Payback to Raw Water	485,000	0	0	0	0.0%
15	1% for Arts Transfer	26,970	121	6,750	(6,629)	-98.2%
16	Services Rendered-Other Departments	576,570	141,060	141,060	0	0.0%
17	**TOTAL OPERATING EXPENSES**	**7,913,580**	**972,124**	**1,420,750**	**(448,626)**	**-31.6%**
18	NET OPERATING REVENUE/(LOSS)(excl depr)	680,390	906,696	612,030	294,666	48.1%
19	CAPITAL EXPENDITURES	3,034,600	58,349	145,880	(87,531)	-60.0%
20	**ENDING CASH BALANCE**		**8,024,486**			
21	MINIMUM BALANCE (15% OF OPER EXP)		1,187,037			
22	OVER/(UNDER) MINIMUM BALANCE		6,837,449			
23	****RESTRICTED FUNDS****					
24	**REVENUES & SOURCES**					
25	SIF Collections	810,000	359,012	156,150	202,862	129.9%
26	SIF Interest Income	73,690	13,818	18,420	(4,602)	-25.0%
27	**TOTAL SIF REVENUES & SOURCES**	**883,690**	**372,829**	**174,570**	**198,259**	**113.6%**
28	SIF Capital Expenditures	635,000	21,449	12,700	8,749	68.9%
29	**SIF ENDING CASH BALANCE**		**5,483,539**			
30	**TOTAL ENDING CASH BALANCE**		13,508,025			

NOTE: YTD ACTUAL DOES NOT INCLUDE ENCUMBRANCES TOTALING 1,610,420

City of Loveland
Financial Statement-Power
For Period Ending 3/31/2013

		*	TOTAL BUDGET	*	YTD ACTUAL	YTD BUDGET	OVER <UNDER>	VARIANCE
	****UNRESTRICTED FUNDS****	*		*				
		*		*				
1	REVENUES & SOURCES:	*		*				
2	Electric revenues	*	$52,078,940	*	$12,328,709	$12,779,790	($451,081)	-3.5%
3	Wheeling charges	*	$210,000	*	$61,144	$52,500	$8,644	16.5%
4	Interest on investments	*	$281,360	*	$47,971	$70,340	($22,369)	-31.8%
5	Aid-to-construction deposits	*	$646,890	*	$47,747	$161,723	($113,975)	-70.5%
6	Customer deposit-services	*	$124,050	*	$51,781	$31,013	$20,768	67.0%
7	Doorhanger fees	*	$390,000	*	$102,504	$97,500	$5,004	5.1%
8	Connect Fees	*	$125,000	*	$34,356	$31,250	$3,106	9.9%
9	Services rendered to other depts.	*	$30,000	*	$0	$7,500	($7,500)	-100.0%
10	Other revenues	*	$223,120	*	$78,308	$55,780	$22,528	40.4%
11	Year-end cash adjustments	*	$0	*	$0	$0	$0	0.0%
12	**TOTAL REVENUES & SOURCES**	*	**$54,109,360**	*	**$12,752,520**	**$13,287,395**	**($534,875)**	**-4.0%**
		*		*				
13	OPERATING EXPENSES:	*		*				
14	Hydro oper. & maint.	*	$87,990	*	$1,563	$20,305	($18,742)	-92.3%
15	Purchased power	*	$38,917,480	*	$8,541,271	$8,837,522	($296,251)	-3.4%
16	Distribution oper. & maint.	*	$3,267,900	*	$608,441	$754,131	($145,690)	-19.3%
17	Customer Relations	*	$975,330	*	$74,461	$225,076	($150,615)	-66.9%
18	Administration	*	$871,950	*	$109,243	$201,219	($91,976)	-45.7%
19	Payment in-lieu-of taxes	*	$3,651,680	*	$852,949	$894,662	($41,712)	-4.7%
20	1% for Arts Transfer	*	$39,170	*	$1,932	$9,597	($7,665)	-79.9%
21	Services rendered-other depts.	*	$2,130,030	*	$532,420	$532,508	($88)	0.0%
22	**TOTAL OPERATING EXPENSES (excl depn)**	*	**$49,941,530**	*	**$10,722,281**	**$11,475,019**	**($752,738)**	**-6.6%**
		*		*				
23	NET OPERATING REVENUE/(LOSS) (excl depn)	*	$4,167,830	*	$2,030,239	$1,812,376	$217,863	12.0%
		*		*				
24	CAPITAL EXPENDITURES:	*		*				
25	General Plant/Other Generation & Distribution	*	$4,223,570	*	$1,730,076	$983,266	$746,809	76.0%
26	Aid-to-construction	*	$646,890	*	$97,980	$149,282	($51,302)	-34.4%
27	Service installations	*	$124,050	*	$50,334	$28,627	$21,707	75.8%
28	**TOTAL CAPITAL EXPENDITURES**	*	**$4,994,510**	*	**$1,878,390**	**$1,161,175**	**$717,215**	**61.8%**
		*		*				
29	**ENDING CASH BALANCE**	*		*	**$18,955,177**			
		*		*				
30	MINIMUM BAL. (15% of OPER EXP excl depn)	*		*	$7,491,230			
31	OVER/(UNDER) MINIMUM BALANCE	*		*	$11,463,948			
		*		*				
32	****RESTRICTED FUNDS****	*		*				
		*		*				
33	PIF Collections	*	$1,661,920	*	$569,768	$415,480	$154,288	37.1%
34	PIF Interest Income	*	$137,580	*	$22,224	$34,395	($12,171)	-35.4%
35	**TOTAL REVENUES**	*	**$1,799,500**	*	**$591,992**	**$449,875**	**$142,117**	**31.6%**
		*		*				
36	PIF Feeders	*	$75,000	*	$0	$17,308	($17,308)	-100.0%
37	PIF Substations	*	$1,372,900	*	$0	$343,225	($343,225)	-100.0%
38	**TOTAL EXPENDITURES**	*	**$1,447,900**	*	**$0**	**$360,533**	**($360,533)**	**-100.0%**
		*		*				
39	**ENDING PIF CASH BALANCE**	*		*	**$8,781,473**			
		*		*				
40	**TOTAL ENDING CASH BALANCE**	*		*	**$27,736,650**			

NOTE: YTD ACTUAL does NOT include encumbrances totalling $1,798,061

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 11
MEETING DATE: 4/24/2013
SUBMITTED BY: Steve Adams, Director

MS for SA

TITLE: Commission/Council Report

SUMMARY:

- Spring Water Users Meeting – April 11, 2013
- NREL Tour – April 4, 2013
- Jackie Sargent Visit – March 20, 2013

RECOMMENDATION:
Commission/Council report only.

REVIEWED BY DIRECTOR: MS for SA

City of Loveland

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AGENDA ITEM: 12
MEETING DATE: 4/24/2013
SUBMITTED BY: Steve Adams, Director MS for SA

TITLE: Director's Report

SUMMARY:

- **New Employee Introduction:** Tanner Randall, Civil Engineer – Roger Berg
- **Upcoming LUC Commission Expirations:**
  - John Rust, Jr. – June 30, 2013
  - David Schneider – June 30, 2013
  - Randy Lee Williams – June 30, 2013
- **Tri-City Water Conference Update –** Conference to be held at the Rialto Theater Center, 228 E. 4th St., Loveland, CO 80537, from 6:00 pm to 9:00 p on May 16, 2013 with the author, Dick-Stenzel as the event speaker. – Steve Adams
- **1st Quarter Water & Electric Meter Sets** – See Attachment B. – Steve Adams
- **Electric Vehicle Grant –** Loveland Water & Power applied for and was awarded a grant through the Colorado Governor's Office to help fund the installation of (4) new Level II dual cord charging stations and to convert (2) existing Level II single cord stations to dual cord charging stations. – Gretchen Stanford
- **Time Capsule –** We will be opening the time capsule on May 3, 2013 at 10:00 am and planting another time capsule in the same location. – Gretchen Stanford
- **Event Calendar –** Please see Attachment B for the Customer Relations calendar of events. - Gretchen Stanford
- **PRPA Stakeholder Meeting –** PRPA has invited interested stakeholders to a meeting on May 8, 2013 from 6:00 pm to 7:30 pm at the Rialto Center. – Steve Adams
- **Northern Water Tours -** The Northern Colorado Water Conservancy District will be hosting tours. Please let us know if you would like to attend one of the tours below. – Steve Adams

East Slope (7:30 a.m. – 4 p.m.)	***West Slope (7 a.m. – 5:30 p.m.)***
Wednesday, September 18, 2013	*Wednesday June 26, 2013*
	Thursday, July 25, 2013

RECOMMENDATION:
Director's report only.

REVIEWED BY DIRECTOR: MS for SA

Attachment A

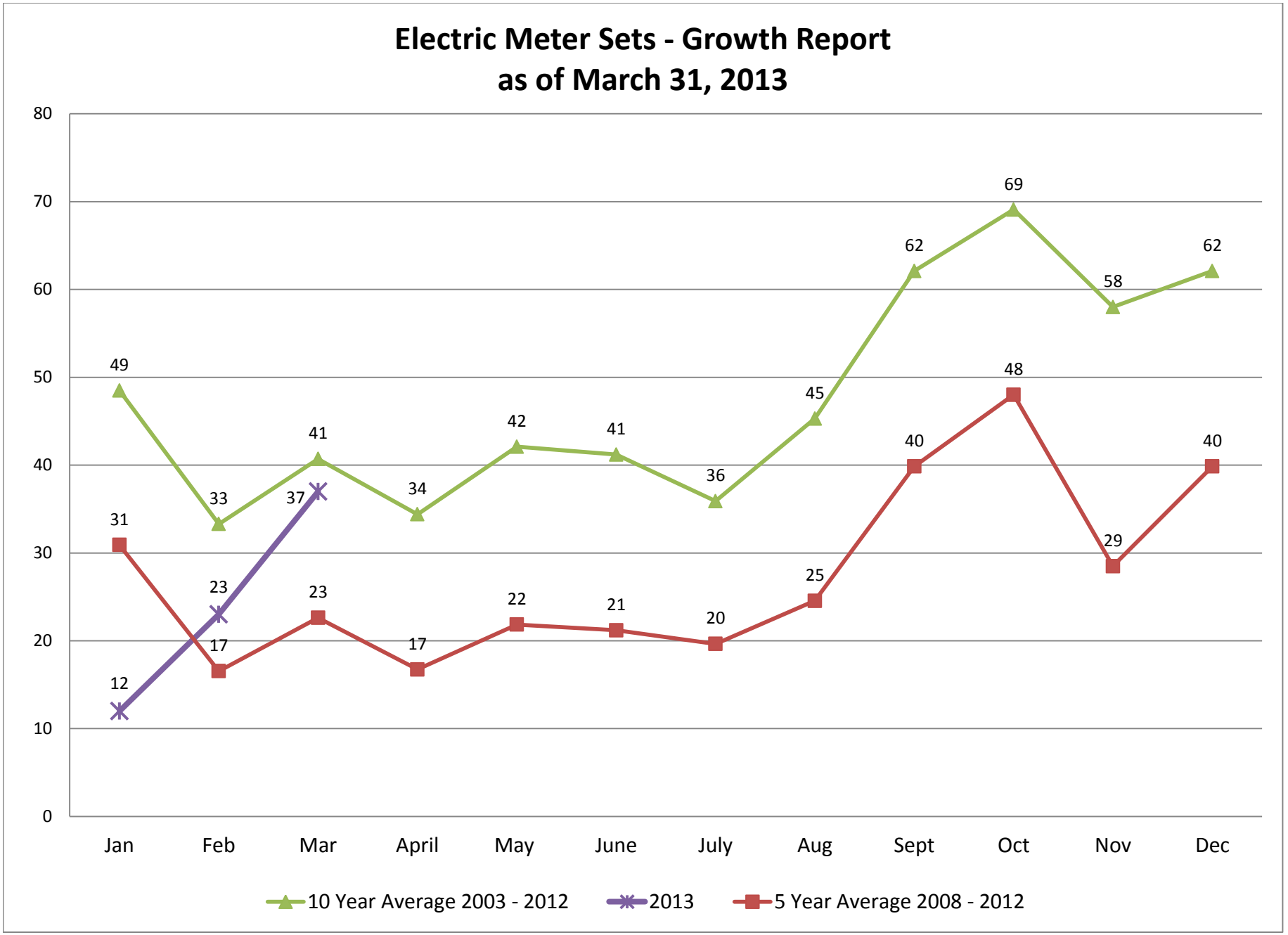
May – Customer Relations

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 Open House - Water 2013 5:30 pm	2	3 Time Capsule Opening 10:00 am	4
5	6	7	8	9 Children's Water Festival	10	11
12	13	14	15 Public Works Day 8:00 – 3:00	16	17	18 NCWCD Conservation Gardens Fair
19	20	21	22 PRPA Lunch & Learn Focus – Water Noon	23	24	25
26	27	28	29	30	31	

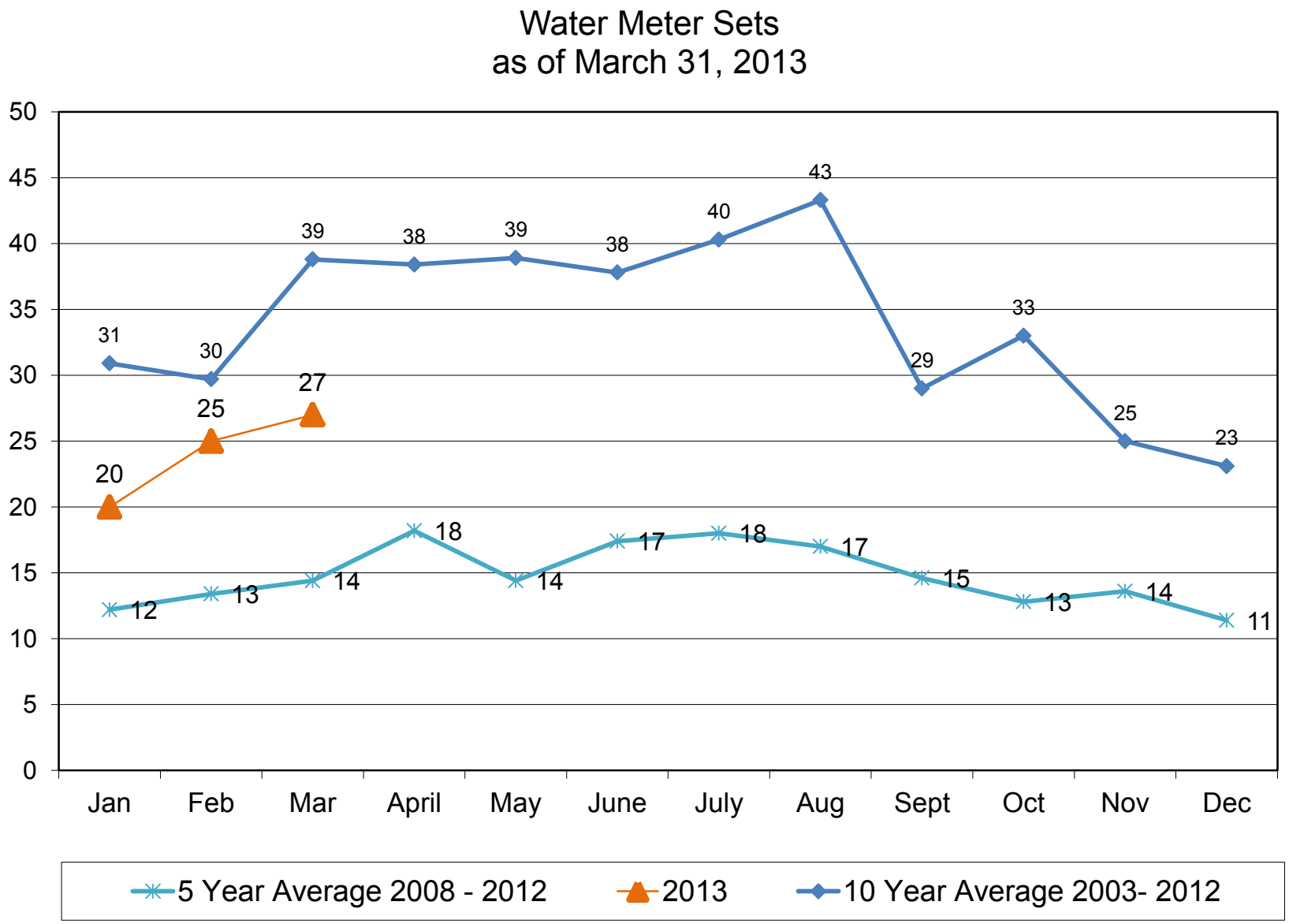
2013

LUC Invited to Attend

Attachment B



Attachment B



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AGENDA ITEM: 13
MEETING DATE: 4/24/2013
SUBMITTED BY: Kim O'Field, Technical Specialist KO

TITLE: Electric Legislative Update

DESCRIPTION:
This item and the attachment are intended to give a brief update on electric-related legislation being contemplated by the Colorado General Assembly. Loveland staff relies primarily on the Colorado Association of Municipal Utilities (CAMU) for information on electric-related legislation.

SUMMARY:
State Update
I have attached the legislative tracking sheet for your review but some recent activity and key state legislation are:

Incentives for Distributed Energy – HB13-1216, which seeks to impose distributed generation mandates and increased net metering caps on municipal utilities, was introduced on February 4, 2013. CAMU has met with a coalition of stakeholders including the Colorado Municipal League (CML) and the Colorado Rural Electric Association (CREA) to oppose this bill and is working with these stakeholders on preparing collective talking points for distribution. Further, CAMU joined forces with the City of Fort Collins and met with Rep. Fisher (a co-sponsor of the legislation) to discuss our opposition to the bill. The bill was heard in the House Transportation & Energy Committee on February 21, 2013 and CAMU testified in opposition. CAMU was able to secure an amendment exempting municipal utilities from the bill. No action was taken during the February 21, 2013 hearing, the bill is expected to be killed by the Committee with no appointed date for resumption.

Collective Bargaining Firefighters – SB13-025, which would permit collective bargaining for fire fighters, passed the full Senate on a 19-15-1 vote and is awaiting second reading in the House. Both PRPA and CAMU met with the bill proponents to discuss removing municipal utilities and power authorities from the definition of local government. This bill is strongly opposed by various government entities and business organizations. Opponents argue that SB 25 usurps local control while proponents argue they need the authority protection.

Renewable Energy Standard Retail Wholesale Methane – SB13-252, removes in-state preferences with respect to: Wholesale distributed generation; The 1.25 kWh multiplier for each kWh of electricity generated from eligible energy resources other than retail distributed generation; The 1.5 kWh multiplier for community-based projects; and Policies the Colorado public utilities commission (PUC) must implement by rule to provide incentives to qualifying

retail utilities to invest in eligible energy resources. The bill also raises the percentage of retail electricity sales that must be achieved from eligible energy resources by cooperative electric associations that provide service to 100,000 meters or more from 10% to 25%, starting in 2020, and increases the allowable retail rate impact for cooperative electric associations from 1% to 2%. The bill expands the definition of "eligible energy resources" that can be used to meet the standards to include coal mine methane and synthetic gas produced by pyrolysis of municipal solid waste, subject to a determination by the PUC that the production and use of these gases does not cause a net increase in greenhouse gas emissions. The bill also implements a new eligible energy standard of 25% for generation and transmission cooperative electric associations that directly provide electricity at wholesale to cooperative electric associations in Colorado that are its members. The standard applies only to sales by these wholesale providers to their members in Colorado. The wholesale providers are required to make public reports of their annual progress toward meeting the standard by 2020. The PUC is granted no additional regulatory authority over these providers in the implementation of this standard. CAMU testified it was inappropriate for the General Assembly to impose such mandates on municipal utilities and that many communities have voluntarily embrace renewable energy programs to reflect their individual community values. CAMU also opposed any effort by the State to impose mandates on consumer-owned utilities of any type, arguing that consumers should make the decisions for their respective utilities. CAMU was successful in keeping municipally owned utilities out of the bill and in negotiating an amendment to clearly exempt municipal utilities from the distributed generation requirement of the bill. The amendment was unanimously passed by the committee. Next the bill will go to the Senate floor and CAMU will continue lobbying to ensure the interests of municipal utilities are protected.

A number of business and economy related controversial issues have yet to be introduced but are anticipated. Such issues include regulatory measures upon the oil and gas industry and some key labor issues. Those issues are anticipated to be introduced in the coming weeks.

Metrics:
Total bills introduced (04/01): 587
Total bills tracked: 21 (3% of total)
Tracked bills defeated: 6 (33%)
Tracked bills signed into law: 3 (17%)

Positions on Active Bills:
Monitor – 16
Oppose – 3
Amend – 1
Neutral – 1

Federal Update

CAMU met with Representatives Tipton, Gardner and Lamborn and the staff of Representative Polis during the APPA Legislative Rally in March. During the meeting they lobbied for Congress to look carefully at the effect that changing the federal tax treatment of municipal bonds would have on critical infrastructure investments and the price that public power customers pay for electricity. On average, public power utilities spend $15 billion annually on new investments financed with municipal bonds.

RECOMMENDATION:

Information item only. No action required.

REVIEWED BY DIRECTOR: MS for SA

ATTACHMENTS:

Attachment 1: CAMU Legislative Tracking Sheet

Colorado Assn. of Municipal Utilities
2013 State Legislation of Interest

CAMU

HB13-1027 PUC Director Report To GA On Rate Cases

Comment:

Position: **Monitor**

Short Title: PUC Director Report To GA On Rate Cases

Sponsors: CONTI

Summary: The bill requires the director of the public utilities commission (PUC) or the director's designee to report annually to the joint house and senate transportation committees regarding matters discussed on the record in energy rate case hearings that were decided by the commission during the immediately preceding 2 years. For all rate cases included in the report, the bill directs the commission to estimate the economic impact of the rates involved, including the average increase or decrease in ratepayers' monthly bills.

Status: 03/29/2013 Governor Action - Signed

Amendments: Amendments

Status History: Status History

HB13-1037 Cost Of Providing Public Records Under CORA

Comment:

Position: **Monitor**

Short Title: Cost Of Providing Public Records Under CORA

Sponsors: SALAZAR

Summary: In determining the fee that a custodian of public records is authorized to impose under the "Colorado Open Records Act" (CORA) for the copying of a public record, the bill provides that the fee may not exceed the actual costs of providing the copy in accordance with existing law as well as an amount representing any additional actual costs necessarily incurred by the custodian in complying with the request as long as any such additional component of the fee is a nominal amount. In connection with any such additional component of the fee as specified in the bill, the following additional requirements apply:
* A custodian is required to use the least expensive means available to him or her in responding to a request for copying of a public record under CORA;
* No copying fee imposed under CORA may reflect time spent by the custodian in determining whether the public record at issue is subject to inspection or copying under

the act; and
* No fee imposed under CORA may reflect time spent by a public employee in responding to the request for inspection or copying of a public record if the public employee already receives an hourly wage or other form of compensation for responding to requests for inspection or copying under the act.

Status: 01/30/2013 House Committee on Local Government Postpone Indefinitely

Amendments:

Status History: Status History

HB13-1041 Procedures For Transmission Of Records Under CORA

Comment:

Position: **Monitor**

Short Title: Procedures For Transmission Of Records Under CORA

Sponsors: PETTERSEN / KEFALAS

Summary: Upon request by a person seeking a copy of any public record for which a right to inspection exists under the "Colorado Open Records Act" (CORA), the records custodian must transmit a copy of the record by United States mail or by any other practicable means of delivery. No fees related to transmission may be charged to the record requester for transmitting public records via electronic mail. The custodian shall notify the record requester that a copy of the record is available but will only be sent to the requester once the custodian receives payment for postage if the copy is transmitted by United States mail, or payment for the cost of delivery if the copy is transmitted other than by United States mail, and payment for any other supplies used in the mailing, delivery, or transmission of the record and for all other costs associated with producing the record. Upon receiving such payment, the custodian shall send the record to the requester as soon as practicable but no more than 3 business days after receipt of such payment.

Status: 03/08/2013 Governor Action - Signed

Amendments: Amendments

Status History: Status History

HB13-1090 Construction Contractor Subcontractor Prompt Pay

Comment:

Position: **Oppose**

Short Title: Construction Contractor Subcontractor Prompt Pay

Sponsors: FISCHER / TOCHTROP

Summary: Accelerated release of construction contract retainage to subcontractors is at the center of HB 13-090. The bill eliminates the ability to hold retainage until a project is completed and a final acceptance of the project is approved by the owner - in this case the public entity. Once retainage is released there is no incentive for the subcontractor to return to correct defects. The bill includes a disincentive for subcontractors to agree on costs for change orders by requiring a cost plus 15 percent payment if the parties cannot agree on a price. Compromise was supposedly reached in 2011, and municipalities made major concessions. CML's board will be asked to oppose this unnecessary legislation.

Status: 02/28/2013 House Committee on Business, Labor, Economic, & Workforce

Development Postpone Indefinitely

Amendments:

Status History: Status History

HB13-1093 Bidding For Local Government Procurement Contracts

Comment: **Supercedes HOME RULE and imposes state control over local procurement practices. It also eliminates discretion to sole-source or even to RFP, throwing over everything to a blind, lowest-bidder IFB process, which most states & local governments are moving AWAY from because much professional/service work, at least, is more dependent for value on Quality, not merely lowest cost.**

Position: **Oppose**

Short Title: Bidding For Local Government Procurement Contracts

Sponsors: LAWRENCE

Summary: The bill requires an agency of local government (local government) to procure or dispose of supplies, services, or construction through competitive sealed bidding unless the appropriation or expenditure of moneys by the local government for a single contract for the supplies, services, or construction may be reasonably expected not to exceed $50,000 in the aggregate in any fiscal year. The bill includes an exception to the competitive sealed bidding requirement if the local government does not receive any bids, the agency of local government has rejected all bids, or the responsible officer determines that it is necessary to make procurements or contracts under emergency conditions because there exists a threat to public health, welfare, or safety. The bill prohibits a local government from dividing the procurement or disposal of supplies, services, or construction into 2 or more separate projects for the sole purpose of evading or attempting to evade the competitive sealed bidding requirement.

Status: 02/06/2013 House Committee on Local Government Postpone Indefinitely

Amendments:

Status History: Status History

HB13-1110 Special Fuel Tax & Electric Vehicle Fee

Comment:

Position: **Monitor**

Short Title: Special Fuel Tax & Electric Vehicle Fee

Sponsors: FISCHER / JONES

Summary: The bill makes the following changes to the special fuel tax:
* Section 3 of the bill modifies the definition of "distributor" to include persons who sell natural gas, certain fleet operators, and in limited circumstances, public utilities. It also modifies the definition of "gallon" to include gallon gasoline equivalents.
* Section 4 lowers the tax rates for compressed natural gas, liquefied natural gas, and liquefied petroleum gas. These rates are phased-in over 6 years.
* Section 5 repeals the annual fee that is charged in lieu of the special fuel tax and the related decal system, so that liquefied petroleum gas and natural gas are subject to the special fuel tax. Section 5 also exempts compressed natural gas that is supplied to a user at a residential home from the special fuel tax. This exemption ends on July 1, 2017.
* Sections 6, 7, and 8 make conforming amendments related to the preceding changes.
* Section 9 requires the department of transportation to prepare and submit a report to

the transportation legislation review committee concerning related alternative fuels and the public roads and highways. The bill requires the director of the division of oil and public safety to promulgate the following rules:
* Section 2 requires rules for natural gas setting forth standards related to inspections; specifications; shipment notification; record keeping; labeling of containers; use of meters or mechanical devices for measurement; submittal of installation plans; and minimum standards for the design, construction, location, installation, and operation of natural gas systems and equipment and handling of the natural gas; and
* Section 9requires rules related to the accurate measurement of liquefied petroleum gas and natural gas. Section 10 requires county clerks and recorders to annually collect a $30 fee at the time of registration on every motor vehicle that is propelled by plug-in electricity. The money is credited to the highway users tax fund. Upon payment of this fee, a person will receive a decal that the department of revenue creates, and this decal must be attached to the upper right-hand corner of the front windshield on the motor vehicle for which it was issued.

Status: 04/09/2013 Senate Committee on Transportation Refer Unamended to Appropriations

Amendments: Amendments

Status History: Status History

HB13-1185 Low-income Energy Assistance Transfer From Sev Tax

Comment:

Position: **Monitor**

Short Title: Low-income Energy Assistance Transfer From Sev Tax

Sponsors: GEROU / STEADMAN

Summary: Joint Budget Committee. Current statute provides a schedule that determines when transfers to 3 funds are made in a fiscal year from the operational account of the severance tax trust fund to provide energy-related assistance to low-income households. The bill repeals that statutory section on July 1, 2013. The effect of this repeal is that the transfers for providing energy-related assistance to low-income households will then be made to all 3 funds 3 times in a fiscal year rather than each fund getting only one transfer in a fiscal year. This will help ensure that any proportional reductions that might need to occur as allowed by law are borne equally by the 3 funds throughout the fiscal year. The bill also provides a mechanism for the state treasurer to equalize the distributions for the 2012-13 state fiscal year.

Status: 03/22/2013 Governor Action - Signed

Amendments:

Status History: Status History

HB13-1216 Incentives for Distributed Energy

Comment: **This bill undermines local control and will force more expensive renewable energy programs on members communities.**

Position: **Oppose**

Short Title: Incentives for Distributed Energy

Sponsors: DURAN

Summary: Existing law directs the Colorado public utilities commission (PUC) to adopt rules implementing the renewable energy portfolio standards for electric utilities, under which increasing amounts of electricity must be generated from renewable sources.

The bill directs cooperative electric associations and municipally owned utilities that are qualifying retail utilities to derive at least 0.5% of their retail electricity sales for 2016 through 2019, and 1% from 2020 forward, from distributed generation. Cooperative electric associations and municipally owned utilities must also establish standard offers to purchase renewable energy credits from wind generation. The bill also increases the maximum customer generation capacity for cooperative electric associations so that they may allow net metering for up to 25 kilowatts of residential customer-generated electricity and up to 75 kilowatts of industrial or commercial customer-generated electricity.

Status: 02/04/2013 Introduced In House - Assigned to Transportation & Energy

Amendments:

Status History: Status History

HB13-1247 Innovative Motor Vehicle Income Tax Credit

Comment:

Position: **Monitor**

Short Title: Innovative Motor Vehicle Income Tax Credit

Sponsors: DURAN / JOHNSTON

Summary: The bill:
* Allows a taxpayer to claim the credit for a plug-in electric motor vehicle that is equipped with a gasoline-powered internal combustion engine;
* Clarifies the way the credit is calculated for the purchase or lease of a plug-in electric motor vehicle and compressed natural gas motor vehicle in order to simplify it for administrative purposes; and
* Extends the credit for an additional 6 years.

Status: 04/12/2013 Introduced In Senate - Assigned to Transportation

Amendments:

Status History: Status History

HB13-1261 Use Of The Fort Lyon Correctional Facility Prop

Comment:

Position: **Monitor**

Short Title: Use Of The Fort Lyon Correctional Facility Prop

Sponsors: GARCIA

Summary: The bill designates a portion of the Fort Lyon property, which was the site of a former state correctional facility, as a transitional residential community for the homeless to provide substance abuse supportive services, medical care, job training, and skill development for the residents. For this purpose, the division of housing in the department of local affairs is required to provide for the maintenance and operation of the Fort Lyon property and to enter into a contract with a private contractor to establish the residential community. In addition, the division is authorized to:
* Solicit, accept, and expend gifts, grants, and donations from public and private sources related to the operation of the residential community, which moneys are deposited into the newly created Fort Lyon property cash fund; and
* Lease all or part of the Fort Lyon property, with the cooperation of the department of personnel, to Bent county for the purpose of allowing the county to provide for the maintenance and operation of the property. The governor's office or a state agency

designated by the governor is authorized to receive a new quitclaim deed from the federal secretary of veterans affairs that provides the state with title to the Fort Lyon property that does not limit the use of the property. The department of corrections is prohibited from removing any supplies, personal property, or fixtures from the Fort Lyon property. The division is required to annually submit to legislative committees a report about the residential facility.

Status: 04/12/2013 House Second Reading Special Order - Passed with Amendments

Amendments:

Status History: Status History

HB13-1292 **Keep Jobs In Colorado Act**

Comment:

Position: **Monitor**

Short Title: Keep Jobs In Colorado Act

Sponsors: LEE / KERR

Summary: Colorado hiring on public works projects. Current law requires a contractor to use at least 80% Colorado labor for any public works contract that is financed in whole or in part by state, county, school district, or municipal moneys (Colorado labor requirement). Any violation of the Colorado labor requirement is currently a misdemeanor punishable by fine, imprisonment in county jail, or both. Current law does not specifically require any state entity to enforce the Colorado labor requirement. The bill repeals the existing criminal penalties and directs the department of labor and employment (CDLE) to enforce the Colorado labor requirement. In connection with its enforcement duties, CDLE is required to receive complaints about potential violations of the Colorado labor requirement, investigate such complaints, and impose fines for violations. If a contractor has violated the Colorado labor requirements multiple times, the executive director of CDLE may, in his or her discretion, initiate proceedings to debar the contractor. The general assembly is required to appropriate any revenue from the fines collected by CDLE to CDLE to be used for its enforcement of the Colorado labor requirements. The bill specifies that the Colorado labor requirement applies to each construction phase of the public works project separately. The governmental body financing a public works project may waive the Colorado labor requirement for a specific type or class of labor for a construction phase of a public works project if there is reasonable evidence to demonstrate insufficient Colorado labor in a specific type or class of labor to perform the work of that construction phase of the project. Compliance with the requirements of the Colorado labor requirement will be calculated on the total taxable wages and fringe benefits, minus any per diem payments, paid to workers employed directly on the site of the project and who satisfy the definition of Colorado labor. Nonresident bidder reciprocity. Colorado is one of many states that requires reciprocal treatment for a non-resident bidder who is from a state that offers a preference for resident bidders of that state (non-resident bidder reciprocity). Current law does not require any state entity to enforce the nonresident bidder reciprocity requirements. The bill clarifies the current nonresident bidder reciprocity law by specifying that in any bidding process for public works in which a bid is received from a nonresident bidder who is from a state that provides a percentage bidding preference, a comparable percentage disadvantage shall be applied to the bid of that bidder. The department of personnel (DPA) is required to determine which states provide a bidding preference on public works contracts for their resident bidders and to submit a report to the general assembly that includes the list as well as recommendations for the implementation and enforcement of the nonresident bidder reciprocity law. In addition,

the bill requires that any request for proposals issued by a state agency or political subdivision of the state include notice of Colorado's nonresident bidder reciprocity law. Competitive sealed best value bidding for construction contracts for public projects. Currently, construction contracts for public projects are awarded through competitive sealed bidding. The bill creates a competitive sealed best value bidding process and authorizes construction contracts to be awarded either through the existing competitive sealed bidding process or the new competitive sealed best value bidding process. The bill requires a contract under competitive sealed best value bidding to be solicited through an invitation for bids that identifies the evaluation factors upon which the award shall be based. The bill specifies certain evaluation factors to be included in the bids. A contract shall be awarded to the bidder whose bid is determined in writing to be the most advantageous to the state and that represents the best overall value to the state, taking into consideration the price and other evaluation factors set forth in the invitation for bids. The bill requires the executive director of a governmental agency or the president of an institution of higher education (institution), as applicable, that enters into a construction contract for a public project to disclose to the public the agency or institution's rationale for selecting the competitive sealed bidding process, the competitive sealed best value bidding process, or the integrated project delivery process, which also currently exists in law, as applicable. The agency or institution is required to post the disclosure on its web site. Disclosure of outsourcing contract duties by vendor. Current law requires any prospective vendor for a contract from the state for services to disclose where services will be performed under the contract, including subcontracts, and whether any services under the contract or subcontract are anticipated to be performed outside the state or the United States. The bill modifies current law by requiring prospective vendors to make this disclosure for subcontracts only. In addition, the bill requires each contract entered into or renewed by a governmental body to contain a clause that requires the vendor to provide written notice to the governmental body if the vendor decides, after the contract is awarded, to subcontract any part of the contract to a subcontractor that will perform such duties in a location outside the state or the United States. The notice must include the specific duties that will be outsourced and the reason for the outsourcing. The governmental body is required to provide the written notice from a vendor to the director of DPA (director), and the director is required to post the notice on the official web site of DPA. If a vendor fails to notify the governmental body that is a party to the contract of outsourcing, the governmental body may, in its discretion, void the contract. Outsourcing of certain contract duties by governmental body prohibited. The bill prohibits a governmental body from awarding a contract to a vendor outside the United States that will perform the direct labor necessitated by the contract outside the United States. Direct labor includes labor that is required to be performed under a contract when the governmental body has a direct business relationship with the vendor performing the contract. It does not include computer systems, including hardware and software, that is not specifically designed pursuant to the terms of the contract. Each prospective vendor that submits a bid or proposal to a governmental body is required to certify that the direct labor covered by the bid or proposal will be performed in the United States. A governmental body may submit to the director written request for a waiver of the direct labor requirements. A governmental body shall include in its written waiver request findings of one or more specified circumstances to justify the need for a waiver. The director is required to post information regarding any waiver allowed on the official web site of DPA, periodically analyze the direct labor services for which waivers are granted to a governmental body, and work with governmental bodies to facilitate the performance of such outsourced direct labor services within the United States for future contracts. Disclose use of foreign-produced iron, steel, and related manufactured goods. The bill requires the contractor for any public buildings or public works project that is funded in whole or in part by state moneys and that costs

more than $500,000 to disclose to DPA the 5 most costly goods incorporated into the contract. The bill specifies that, in the case of an iron or steel product, all manufacturing must take place in the United States, and in the case of a manufactured good, a good will be considered manufactured in the United States if all of the manufacturing processes for the final product take place in the United States. In order for a manufactured good to be considered subject to disclosure, the product must be manufactured predominantly of steel or iron. DPA is required to develop and maintain a list of the 5 most costly goods that are incorporated into each contract and that are not produced in the United States, as disclosed to DPA. Public utilities commission consideration of best value metrics in request for proposal process. Currently, the public utilities commission is required to consider certain best value employment metrics when it evaluates electric resource acquisitions. The bill requires that the public utilities commission also consider the best value employment metrics in connection with requests for a certificate of convenience and necessity for construction or expansion of generating facilities, including pollution control or fuel conservation upgrades and conversion of existing coal-fired plants to natural gas plants.

Status: 04/08/2013 House Committee on State, Veterans, & Military Affairs Witness Testimony and/or Committee Discussion Only

Amendments:

Status History: Status History

HB13-1293 Gov To Create Exec Branch Climate Change Position

Comment:

Position: **Monitor**

Short Title: Gov To Create Exec Branch Climate Change Position

Sponsors: ROSENTHAL

Summary: The bill directs the governor to establish a position for climate change issues. The person appointed to that position is required to develop climate action plans and to report annually to the general assembly regarding how climate change affects the state.

Status: 04/05/2013 Introduced In House - Assigned to Agriculture, Livestock, & Natural Resources

Amendments:

Status History: Status History

SB13-003 Coal Mine Methane Gas Capture

Comment: **Counts energy generated from coal mine methane as an eligible resource under 40-2-124. Calls for a 50MW cap. Unclear if this is per project or for all projects.**

Position: **Monitor**

Short Title: Coal Mine Methane Gas Capture

Sponsors: BAUMGARDNER / CORAM

Summary: The bill establishes a greenhouse gas mitigation project involving the capture of coal mine methane gas from active and inactive coal mines. Each kilowatt-hour of energy generated by captured coal mine methane gas is counted as one kilowatt-hour for purposes of compliance with the renewable energy standard.

Status: 02/13/2013 Senate Committee on State, Veterans, & Military Affairs Postpone Indefinitely

Amendments:

Status History: Status History

SB13-023 Increase Damages Caps Under CGIA

Comment:

Position: **Monitor**

Short Title: Increase Damages Caps Under CGIA

Sponsors: CADMAN

Summary: Currently, the "Colorado Governmental Immunity Act" (act) sets as a maximum amount that may be recovered by a person suing a public entity or public employee for loss or injury caused by the entity or employee in any single occurrence, whether from one or more public entities and public employees:
* For any injury to one person in any single occurrence, the sum of $150,000; and
* For an injury to 2 or more persons in any single occurrence, the sum of $600,000, and, in such circumstances, the act prohibits any single person from recovering in excess of $150,000. To ensure these limitations on damages reflect the effects of inflation since the specific limitations were last increased by the general assembly, the bill increases the damages limitation for any injury to one person in any single occurrence to $478,000. For an injury to 2 or more persons in any single occurrence, the bill increases the damages limitation to $990,000 and further specifies that, in such circumstances, a single person is precluded from recovering in excess of $478,000. The bill further provides that the increased damages amounts are:
* Exclusive of interest awarded; and
* Adjusted for inflation every 4 years. The bill requires the attorney general to make this required adjustment on an every 4-year basis commencing January 1, 2018, to certify the amount of the adjustment, and to publish the amount of the adjustment on the attorney general's web site.

Status: 04/10/2013 Sent to the Governor

Amendments:

Status History: Status History

SB13-025 Collective Bargaining Firefighters

Comment: **PRPA notes concerns with the on-site fire unit they house at Rawhide. CAMU seeking to amend to exclude this group.**

Position: **Amend**

Short Title: Collective Bargaining Firefighters

Sponsors: TOCHTROP

Summary: The bill grants firefighters the right to:
* Organize, form, join, or assist an employee organization or refrain from doing so;
* Negotiate collectively or express a grievance through representatives of their choice;
* Engage in other lawful concerted activity for the purpose of collective bargaining or other mutual aid or protection; and
* Be represented by their exclusive representative without discrimination. An employee organization recognized or elected for collective bargaining becomes the exclusive representative of all firefighters for collective bargaining. The bill prohibits a fire department from bargaining on matters covered by the act with any other employee or group. The bill grants the exclusive representative the right to be present and express

its views at the adjustment of a complaint made by a member of the bargaining unit without the intervention of the exclusive representative. An exclusive representative may have dues and other moneys deducted from the pay of firefighters who authorize the deduction. A fire department and an exclusive representative have to bargain collectively in good faith. Any agreements negotiated between an exclusive representative and a fire department, along with any terms approved by the voters of the political subdivision of the fire department, constitute the collective bargaining agreement between the parties. The bill requires the term of a collective bargaining agreement to be for between one and 3 years unless the parties agree to negotiate and reach a voluntary agreement on all terms of a new contract. The parties have to begin collective bargaining within a specified time after the notice. An impasse is deemed to exist if the parties fail to reach a collective bargaining agreement within a specified time after the beginning of collective bargaining. A collective bargaining agreement may require all members of the bargaining unit, as a condition of employment, to pay the exclusive representative's fees and expenses in negotiating and enforcing the agreement. If an impasse exists, the bill requires the parties to allow an arbitration organization to appoint an advisory fact finder to hold a hearing on the unresolved issues and make recommendations on which party's final offer on each issue should be accepted. The bill specifies the factors that the advisory fact finder must consider. The parties have a specified time to consider the advisory fact-finder's recommendations and conduct further negotiations. If either party rejects the recommendations, the final offers of the parties on the unresolved issues will be submitted to the voters of the political subdivision of the public employer at a special election. The bill prohibits firefighters from striking. Existing bargaining units, exclusive representatives, and bargaining relationships as of the effective date of the bill remain in effect unless modified by agreement or election in accordance with the bill. Firefighters may conduct secret-ballot elections to certify or decertify an employee organization as the exclusive representative of a bargaining unit. The bill grants a firefighter or an employee organization the right to sue to enforce the provisions of the bill.

Status: 04/10/2013 House Second Reading Laid Over Daily

Amendments: Amendments

Status History: Status History

SB13-028 Track Utility Data High Performance State Building

Comment:

Position: **Monitor**

Short Title: Track Utility Data High Performance State Building

Sponsors: JONES / TYLER

Summary: For all state-assisted facilities that complete the design process on or after July 1, 2013, each state agency is required to monitor, track, and verify utility vendor bill data pertaining to the state-assisted facility and annually report to the office of the state architect any necessary information used to ensure that the increased initial costs of the substantial renovation, design, or new construction, including the time value of money, to achieve the highest performance certification attainable are recouped. A state agency may use a commercial utility tracking software for this purpose. The annual report must include information related to building performance based on the state-assisted facility's utility consumption. State-assisted facilities that have achieved the highest performance certification attainable and completed the design process prior to July 1, 2013, are strongly encouraged to monitor, track, and verify utility vendor bill data pertaining to such state-assisted facility to ensure that the increased initial costs to

achieve the highest performance certification attainable are recouped.

Status: 03/22/2013 Governor Action - Signed

Amendments: Amendments

Status History: Status History

SB13-057 Indep Review Of Solid Wastes Disposal Site App

Comment:

Position: **Monitor**

Short Title: Indep Review Of Solid Wastes Disposal Site App

Sponsors: KING

Summary: In order to apply for a certificate of designation to own or operate a solid wastes disposal site and facility, an applicant must submit an engineered design and operations plan (plan) that assesses whether the proposed site and facility complies with regulations of the Colorado department of public health and environment (CDPHE). Currently, CDPHE or, at the applicant's election if given the option by CDPHE, a private contractor, reviews such plans. The bill divests CDPHE of the authority to review these plans, and instead requires applicants to utilize independent private parties to both prepare and review the plans. Completed plans are forwarded to CDPHE and the local governmental body to which the certificate of designation application is made. The bill also shifts the duty to solicit and accept public comments on a plan in an application for a solid wastes disposal site and facility from CDPHE to the governing body having jurisdiction over the application.

Status: 02/12/2013 Senate Committee on State, Veterans, & Military Affairs Postpone Indefinitely

Amendments:

Status History: Status History

SB13-063 Recycled Energy Includes Gas Derived From Waste

Comment: **Similar to efforts introduced in 2012. Potential benefits to La Junta and Ft.Collins. CAMU generally supportive of additional qualifying resources.**

Position: **Monitor**

Short Title: Recycled Energy Includes Gas Derived From Waste

Sponsors: GRANTHAM / NAVARRO

Summary: Currently, recycled energy is a type of eligible energy resource that may be used to meet renewable energy standards. The bill adds to the definition of "recycled energy" the energy that is produced by a generation unit with a nameplate capacity of not more than 15 megawatts that combusts gas generated from synthetic gas derived from waste materials through pyrolysis as the fuel source for generation.

Status: 02/13/2013 Senate Committee on State, Veterans, & Military Affairs Postpone Indefinitely

Amendments:

Status History: Status History

SB13-126 HOA Condo Apt Electric Vehicle Charging Stations

Comment:

Position: **Monitor**

Short Title: HOA Condo Apt Electric Vehicle Charging Stations

Sponsors: GUZMAN / DURAN

Summary: Sections 1, 2, and 3 of the bill prohibit a landlord or the unit owners' association of a condominium or common interest community, respectively, from restricting the right of a tenant or unit owner to install an electric vehicle charging system for his or her own use, at the tenant's or unit owner's expense, and subject to reasonable safety and insurance requirements. Section 4 allows grants to be made from the electric vehicle grant fund to apartment owners, condominiums, and common interest communities to install recharging stations for electric vehicles.

Status: 04/05/2013 Senate Considered House Amendments - Result was to Reconsider

Amendments: Amendments

Status History: Status History

SB13-212 Energy District Private Financing Commercial

Comment:

Position: **Monitor**

Short Title: Energy District Private Financing Commercial

Sponsors: JONES / TYLER

Summary: The Colorado new energy improvement district (district) currently allows for financing of the completion of new energy improvements only for residential real estate. Section 2 of the bill allows owners of commercial property to utilize such financing, repeals the maximum 95% loan-to-value requirement for qualified applicants, and repeals the percentage-of-value and dollar caps on allowable new energy improvements. Section 2 also includes fuel cells within the definition of "renewable energy improvement" and includes improvements that increase the overall illumination of a property or bring the property up to building code within the definition of "energy efficiency improvement". Section 3 directs the governor to appoint 5 members to the district board by September 1, 2013, modifies their qualifications, removes the legislative appointees from the board, and reduces the quorum from 6 to 4 members. Section 4 directs the district to develop:

* A program for the financing of new energy improvements by private third-party financing in addition to by district bonds; and
* The parameters for requiring consent in all cases by existing mortgage holders to subordinate the priority of their mortgages to the priority of the district's lien. Current law includes increased market value and decreased energy bills attributable to a new energy improvement in the calculation of the amount of the special assessment; section 5 repeals these factors from that calculation and also repeals language that allows special assessments to be prepaid. If district special assessments are attributable to new energy improvements that were financed by a private third party:
* Section 6 directs the board to credit the proceeds of the special assessments to the private third party; and
* Section 7 specifies that district bonds are not payable from the special assessments. Section 6 also prohibits county assessors from taking into account any increase in the market value of the eligible real property resulting from the completion of a new energy improvement when assessing the value of the property. Section 7 also affirms that the state will not impair the rights or remedies of private third parties that have financed new energy improvements. Current law conditionally repeals the district on January 1, 2016. Section 8 repeals the repeal date.

Status:	04/11/2013 House Committee on Transportation & Energy Refer Amended to House Committee of the Whole
Amendments:	Amendments
Status History:	Status History

SB13-252 Renewable Energy Standard Retail Wholesale Methane

Comment:	
Position:	**Neutral**
Short Title:	Renewable Energy Standard Retail Wholesale Methane
Sponsors:	MORSE / FERRANDINO
Summary:	Opposed 1% DG mandate. Amending to remove applicability to municipal utilities.
Status:	04/12/2013 Senate Second Reading Passed with Amendments
Amendments:	
Status History:	Status History

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 14
MEETING DATE: 4/24/2013
SUBMITTED BY: Greg Dewey, Civil Engineer

TITLE: Water Legislative Update GMD Dewey

DESCRIPTION:
This item and the attachment are intended to give a brief update on water-related legislation being contemplated by the Colorado General Assembly. Loveland staff relies primarily on the Colorado Water Congress for information on water-related legislation. Their assistance has proved invaluable in providing the following information.

SUMMARY:
The First Regular Session of the Sixty-ninth Colorado General Assembly convened on January 9, 2013 and will run through May 8, 2013. The Colorado Water Congress, through its State Affairs Committee is currently tracking a handful of house bills and senate bills, all related to water. Attached is an extensive Bill dossier, documenting relevant actions.
Of these, there are three bills that City Staff finds interesting to Loveland:

1. HB-13-1012 CONCERNING THE EXTENSION OF FINANCIAL INCENTIVES FOR WILDFIRE MITIGATION – signed into law by the Governor on April 8, 2013

2. SB-13-019 CONCERNING THE PROMOTION OF WATER CONSERVATION MEASURES – passed by House with amendments on April 10, 2013

3. SB-13-041 CONCERNING THE PROTECTION OF STORED WATER, AND, IN CONNECTION THEREWITH, PRESERVING SUPPLIES FOR DOUGHT AND LONG-TERM NEEDS – signed into law by the Governor on April 8, 2013

RECOMMENDATION:
Information item only. No action required.

REVIEWED BY DIRECTOR: MS for SA

ATTACHMENTS:

Water Bill Status Chart, April 10, 2013 and Water Bill Summaries, April 4, 2013
Source: Colorado Water Congress, State Affairs Committee

4/10/2013

Colorado Water Congress
State Affairs Committee
2013 Bill Status

			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
HB-1012	Extended Wildfire Mitigation Financial Incentives	Support	1/9	F 1/23	Ap 2/8	2/8	2/11	2/19	F 3/14		3/19	3/20			4/4
HB-1013	Protect Water Right Ownership Rights	Support	1/9	Ag 2/4	Ap - 4/9										
HB-1018	Beneficial Use Produced Water Dust Suppression	Monitor	1/9	HIE 3/7											
HB-1044	Authorize Graywater Use	Support	1/9	Ag 1/28	Ap 4/1	4/2	4/5	4/9	Ag						
HB-1090	Construction Contractor Subcontractor Prompt Pay	Oppose	1/17	BLEW 2/28 PI											
HB-1100	Ballot Title Standard	Monitor	1/17	SVM 1/30 PI											
HB-1130	Reapprove Interruptible Water Supply Agreements	Monitor	1/18	Ag 2/18		2/22	2/26	3/1	Ag 4/11 @ 1:30						
HB-1168	Recognize Unincorporated Acequia Ditches	Support	1/30	Ag 2/18		2/22	2/26	3/1	Ag 3/7		3/12	3/13			3/29
HB-1186	Special District Meetings Notice and Transparency	Support	1/31	LG - 2/20		2/26	2/27	3/1	LG 3/12		3/18	3/19	3/21		4/4

4/10/2013

Colorado Water Congress
State Affairs Committee
2013 Bill Status

			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
HB-1188	Coordinated Response To Federal Land Decisions	Monitor	1/31	LG 3/4 PI											
HB-1191	Nutrient Grant Domestic Wastewater Treatment Plant	Support	1/31	Ag - 2/11		3/8	3/11	3/13	Ag 3/20	Ap-4/12 @8:00					
HB-1248	Pilot Projects	Support	3/4	Ag - 4/8		4/10									
HB-1286	Species Conservation Trust Fund	Support	3/26	Ag - 4/1	Ap										
HJR-1004	Oppose Forest Service Water Permit Reqmnt	Support	1/9	Ag 1/28			2/4	2/8	Ag						
HJR-1007	Water Projects Eligibility Lists	Support	1/16	Ag 1/23			1/28	2/8				2/11			2/19
SB-019	Promote Water Conservation	Support	1/9	Ag 3/7	Ap 3/15	3/19	3/20	3/20	Ag 4/1		4/8	4/9	4/10		
SB-021	Pipeline Rights-of-way	Monitor	1/9	LG											
SB-023	Increase Damages Caps Under CGIA	Monitor	1/9	J 2/27		3/5	3/11	3/11	J 3/14		3/22	3/23			

4/10/2013

Colorado Water Congress
State Affairs Committee
2013 Bill Status

			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
SB-041	Protect Water Storage Long-term Use	Support	1/16	Ag 1/31		2/7	2/8	2/11	Ag 3/11		3/15	3/18	3/19		4/8
SB-072	No Final Well Permit Req Denver Basin Designated	Support	1/22	Ag	2/7 Ag	2/14	2/15	2/18	Ag 2/27		3/1	3/5			3/15
SB-073	General Permits Stormwater Rule-making	Support	1/22	SVM - 2/13	Ap - 4/5	4/8	4/9	4/9	HIE						
SB-074	Irrigation Water Right Historical Use Acreage	Oppose	1/22	2/7 Ag		2/19	2/20	2/20	Ag 3/4		3/8	3/11	3/13		4/4
SB-075	Promote Water Conservation Of Designated Ground Water	Support	1/22	Ag - 2/7		2/12	2/13	2/13	Ag 2/25		2/28	3/1			3/15
SB-078	Erroneously Located Water Diversion Points	Support	1/22	Ag - 2/7		2/12	2/13	2/13	Ag 3/4		3/8	3/11			3/22
SB-083	Proscribed Burn Prog Div Fire Prevention and Control	Support	1/25	J - 2/12		2/26	2/27	2/27	Ag 3/11	Ap - 4/12 @ 7:30					
SB-110	Wildland Fire Cost Recovery Fund	Monitor	1/28	1/31 Ap		2/1	2/4	2/4	Ap - 2/8		2/8	2/11			2/19
SB-150	Sunset Water & Wastewater Operators Board	Monitor	1/1	2/14 Ag		3/5	3/6	3/7	Ag 3/18	Ap - 4/19 @ 7:30					

4/10/2013

Colorado Water Congress
State Affairs Committee
2013 Bill Status

			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
SB-181	Water Conservation Bd Construction Fund Projects	Support	2/15	Ag - 2/21		3/12	3/13	3/13	Ag 3/18	Ap - 4/4	4/8	4/9			
SB-183	Water Conservation Measures in Common Interest Communities	Monitor	2/19			3/1	3/5	3/5	LG - 4/11 @UA						
SB-191	Pipeline Rights-of-way	Monitor	2/22	LG 3/21											
SB-236	Transfer of Money to CWCB	Support	3/25	Ap - 3/26		3/27	3/28	3/28	Ap - 4/2		4/4	4/5			
SJR-005	Use Severence Tax Water Infrastructure	Support	1/18	1/31 Ag			2/5 Ag	2/5	Ag - 2/13			2/18			

BILL STATUS	BILL ACTION SUMMARY
Bill scheduled in committee of reference (yellow)	Legislative committee action scheduled, date and time (yellow)
Bill waitng 2nd/3rd reading or not calendared (no fill)	Legislative committee action not scheduled (no fill)
Bill signed by Governor (green)	Bill Passed, date of action (green)
Bill no longer active (gray)	Bill Postponed Indefinitely, Lost or Laid Over to end of session, date of action (red)
	Bill did not go to second committee or no action required (black)

CWC POSITION	ABBREVIATIONS
Bill scheduled for activity in CWC State Affairs (yellow)	Ag = Agriculture and Natural Resources Committee
Support (green)	Ap = Appropriations Committee
Oppose (red)	BLEW = Business, Labor, Economic and Workforce Development Committee
Amend (blue)	CC = Conference Committee

Colorado Water Congress
State Affairs Committee
2013 Bill Status

			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
Monitor, Neutral, No Position		(no fill)	F = Finance Committee												
						HIE= Health, Insurance, and Environment									
			J = Judiciary												
			LG = Local Governement Committee												
			SVM = State, Veterans, and Military Affairs Committee												
			TE = Transportation and Energy Committee												
			UA = Upon Adjournment												
			UR = Upon Recess												

197

Colorado Water Congress
State Affairs Committee
Water Bill Summaries
April 4, 2013

For purpose of brevity, the initial summaries of bills are paraphrased from the summaries of the legislative staff bill drafter. When amended in committee or during floor debate, the summaries are revised to reflect those changes with amendments noted in italics. Summaries will be removed when the bills are killed in committee or lost in floor vote. Summaries are intended to be descriptive and are not a legal analysis. For up to date bill status, please refer to the CWC status sheet. These bill summaries are current as of April 4, 2013.

HB13-1012 CONCERNING THE EXTENSION OF FINANCIAL INCENTIVES FOR WILDFIRE MITIGATION

As passed by both houses, continues both 1) income tax deduction for a landowner who performs wildfire mitigation measures on private land in a wildland-urban interface area and 2) authority of the Colorado water resources and power development authority to issue bonds to fund watershed protection and forest health projects.

Sponsors: Gerou and Levy/Roberts and Nicholson

HB13-1013 CONCERNING LIMITATIONS ON A LANDOWNER'S ABILITY TO IMPOSE CONDITIONS ON A WATER RIGHT OWNER AS A CONDITION OF PERMISSION TO USE LAND

Prohibits a landowner from demanding, or a court from ordering, transfer of, or limiting alienation of, a water right as condition of granting a right of way or special use permit and makes such agreements void and unenforceable. *Amended in committee to apply restrictions only to federal agencies, by substituting "United States" for "landowner." New fiscal note dated 2/18 indicates "No fiscal impact."*

Sponsors: Sonnenberg/Baumgardner

HB13-1044 CONCERNING THE AUTHORIZATION OF THE USE OF GRAYWATER

Defines graywater as that portion of wastewater that, before being treated or combined with other wastewater, is collected from fixtures within residential, commercial, or industrial buildings or institutional facilities for the purpose of being put to beneficial uses authorized by the water quality control commission. Graywater use must be in accordance with terms and conditions of applicable decrees and decrees, and all state, federal and local requirements and only as authorized by cities and municipalities. *Amended in committee to encourage local governments to enter into memoranda of understanding with local health authorities and water and wastewater providers prior to adopting an ordinance authorizing use of graywater. Amended to state that graywater use of well water must be in compliance with statutory requirements and permit limits. Includes a legislative declaration encouraging the board of plumbing examiners to adopt Appendix C of the International Plumbing Code concerning graywater.*

Sponsors: Fischer/Schwartz

HB13-1130 CONCERNING EXTENDED OPERATION OF INTERRUPTIBLE WATER SUPPLY AGREEMENTS

As passed by the House, allows the state engineer to reapprove operation of an interruptible water supply agreement for up to two additional three years within ten year periods. *Amended in committee to require an applicant for preapproval to submit to the water clerk of each division where a loaned water right is located a resume of the application to the state engineer which shall be published. Other water right owners have four months to comment. States that a borrower of a loaned water right may not rely on multiple interruptible agreements as its primary source of supply. Terms and conditions shall be no less stringent than in the original agreement. States that the state engineer's approval or disapproval is a final agency action for purposes of appeal; appeals to the water court shall be expedited.*

Sponsors: Fisher and Sonnenberg/Giron

HB13-1168 CONCERNING THE ABILITY OF A DITCH TO OPERATE AS AN ACEQUIA DITCH

As signed into law, repeals requirement that acequia ditches be long lots that are perpendicular to the stream or ditch to maximize the number of landowners who have access to water, so that a ditch corporation may be organized as an acequia ditch even if the land served by the ditch is not divided into long lots, and also allows an unincorporated association to operate as an acequia ditch. *Amended in committee to protect members of acequia ditch from personal liability.*

Sponsors: Vigil/Schwartz

HB13-1186 CONCERNING PROCEDURES FOR INCREASING TRANSPARENCY FOR CERTAIN SPECIAL DISTRICT BOARDS, AND IN CONNECTION THEREWITH, REQUIRING THYAT A PULIC MEETING BE HELD BEFORE A DISTRICT SETS OR CHANGES DOMESTIC WATER OR SANITARY SEWER SERVICE RATES AND REQUIRING THAT ALL SPECIAL DISTRICTS FORMED PURSUANT TO THE SPECIAL DISTRICTS PROVISIONS FILE A SPECIAL DISTRICT PUBLIC DISCLOSURE DOCUMENT TO BE RECORDED BY THE COUNTY CLERK AND RECORDER FOR ALL PROPERTIES INCLUDED WITHIN THE DISTRICT BOUNDARIES

As passed by both houses, the bill requires a special district that provides domestic water or sanitary sewer services to hold a public meeting before fixing or increasing fees or other charges for its services. Notice of the meeting must be provided in a specified manner at least 10 days prior to the public meeting.

Special districts are required to record a public disclosure document against all property within the district. The statement must include the name of the district, the powers of the district, information regarding the district's service plan or statement of purpose, and a statement of the methods authorized by law for the district to raise revenues for capital needs and operations costs. Introduced at request of Special Districts Assn.

Sponsors: Vigil/Schwartz

HB13-1191 CONCERNING GRANTS FOR DOMESTIC WASTEWATER TREATMENT PLANTS TO COMPLY WITH THE WATER QUALITY CONTROL COMMISSION'S NUTRIENT CONTROL MANAGEMENT REGULATIONS

As passed by the House and Senate Ag committee, creates a nutrients grant fund and directs the division of administration in the department of public health and environment to award grants from the fund to local governments pursuant to rules promulgated by the water quality control commission for the planning, design, construction, or improvement of domestic wastewater treatment works owned or operated by a local government that are needed to

comply with the commission's nutrients management control regulation. The fund is repealed on September 1, 2016. Part of the budget plan announced by the Governor to provide approximately $15 million to aid in compliance particularly for small or disadvantaged communities.

Sponsors: Fischer/Schwartz (Capital Development Committee bill)

HB13-1248 CONCERNING AN AUTHORIZATION OF PILOT PROGRAMS FOR THE LEASING OF WATER FOR MUNICIPAL USE

As introduced, the bill authorizes the Colorado water conservation board to administer a pilot program consisting of up to 3 pilot projects, each up to 10 years in duration, in the lower Arkansas River basin to demonstrate the practice of fallowing agricultural irrigation land and leasing the associated water rights for temporary municipal use. Sets limits and prohibits the board from approving a project involving more than two thousand five hundred transferrable consumptive acre feet per year; requires at least on project to be less than one thousand transferrable consumptive acre feet per year. Prohibits the fallowing of the same land for more than three years in a ten year period and prohibits fallowing more than 30% of a single irrigated farm for more than three consecutive years. *Water Congress subcommittee met and offered recommendation for amendments.*

Sponsors: Fischer/Schwartz

HB13-1283 CONCERNING THE SPECIES CONSERVTION TRUST FUND

As introduced, authorizes $4 million to various programs in the species conservation trust fund to support programs to conserve and protect species that have, or are likely to be, listed as threatened and endangered.

Sponsors: Fischer/Schwartz

HJR13-1004 CONCERNING OPPOSITION TO NEW SPECIAL USE PERMIT WATER REQUIREMENTS

As passed by the House, states the opposition of the General Assembly to Forest Service directive requiring transfer of water rights. Encourages the Forest Service to3 immediately rescind the 2012 Directive and settle the pending litigation 4 over the 2012 Directive and immediately reevaluate and discard its policy and actions whereby water rights are demanded in exchange for permitted uses; and appropriate water rights under state law rather than imposing extractions under permits.

Sponsors: Sonnenberg/Baumgardner

HJR13-1007 CONCERNING APPROVAL OF WATER PROJECT REVOLVING FUND ELIGIBILITY LISTS ADMINISTERED BY THE COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY.

As signed by the Governor, this annual resolution to add projects for approval under drinking water revolving fund and water pollution control revolving fund.

Sponsors: Fischer/Schwartz

SB13-019 CONCERNING THE PROMOTION OF WATER CONSERVATION MEASURES

As passed by the Senate and amended in House Ag committee, the bill attempts to remove a disincentive for appropriators who wish to reduce consumptive use during times of drought through participation in various federal and state approved conservation programs. The amendment then sets standards for rulings by the referee and decisions of a water court judge in divisions 4, 5, and 6 in determining the amount of historical consumptive use,

stating that they shall not consider any decrease in water use for the duration or, and resulting from, participation in various conservation programs established by federal land conservation programs or water conservation programs approved by a state agency, water conservation district, water district, water authority, or water conservancy district for lands within its jurisdictional boundaries, or a water conservation program established through written action or ordinance by a water district, water authority, or municipality or its municipal water supplier for lands within the jurisdictional boundaries. Also included is an approved land fallowing program provided by law. The bill is limited to no more than five years in a ten year period. As amended, the bill incorporates recommendations made by Water Congress subcommittee.

Sponsors: Schwartz/Fischer

SB13-023 CONCERNING AN INCREASE IN THE LIMITATION ON THE AMOUNT OF DAMAGES THAT MAY BE RECOVERED BY AN INJURED PARTY UNDER THE "COLORADO GOVERNMENTAL IMMUNITY ACT".

As amended and passed by both houses, the bill increases the damages limitation for any injury to one person in any single occurrence to $478,000. For an injury to 2 or more persons in any single occurrence, the bill increases the damages limitation to $990,000; however, in the case of multiple persons injured, a *single individual recovery is limited to $350,000*. Authorizes the Secretary of State to increase the amount every four years commencing in 2018.
Sponsors: Cadman and Morse/Levy and Gardner

SB13-041 CONCERNING THE PROTECTION OF STORED WATER, AND IN CONNECTION THEREWITH, PRESERVING SUPPLIES FOR DROUGHT AND LONG-TERM NEEDS

As passed by both houses, expands the definition of "beneficial use" to include the impoundment of water for firefighting or storage for any purpose for which an appropriation is lawfully made. States that 1) an applicant doesn't have to demonstrate that all existing absolute decreed water rights that are part of an integrated system have been utilized to their full extent to establish the need to exercise a conditional water storage right or to make it absolute, 2) that when conditional water storage rights are made absolute, the decreed volume should be the extent of the volume of the appropriation that has been captured, possessed, and controlled at the decreed storage structure; and 3) carrying water over in storage from one year to another is not grounds for a determination of abandonment**.** *Amended in committee to clarify that a conditional water right decreed for a separate feature of the project or integrated system may be made absolute, in whole or in part, without demonstration that all existing absolute decreed water rights in the system have been utilized to their full extent***.** *Further amended in House committee to add a legislative declaration of intent that states, in part that:*

- *In issuing an initial conditional decree an applicant must prove and a water judge must find that the use is non-speculative*
- *The statute does not repeal anti-speculative requirements*
- *Holding water in a reservoir under conditional storage decree effectuates beneficial use*

Sponsors: Hodge and Roberts/ Sonnenberg and Fischer

SB13-072 CONCERNING THE DELETION OF THE REQUIREMENT FOR A FINAL PERMIT FOR ALL WELLS WITHDRAWING DESIGNATED GROUND WATER FROM THE DENVER BASIN AQUIFERS

As signed into law, removes the July 1, 1991 threshold date for eliminating the requirement for persons holding a conditional water well permit to withdraw designated ground water from the Denver Basin to obtain a final permit and makes conditional permit a final permit for all such wells**.**

Sponsors: Sonnenberg/Hodge

SB13-073 CONCERNING A REQUIREMENT THAT THE DIVISION OF ADMINISTRATION OF THE DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT FOLLOW RULE-MAKING PROCEDURES WHEN PROPOSING CHANGES TO GENERAL PERMITS RELATED TO WATER QUALITY

Requires that when the water quality control division follow rulemaking procedures including a statement of basis and purpose, evidence and data in support of the changes, and a cost-benefit analysis of the effect of such changes when proposing new or amended permit requirements for General Permits, *Amended in committee to remove from rulemaking but following similar processes. Specifically states that the division does not have rulemaking authority. An applicant must pay for the cost-benefit analysis, to be performed by a third party selected from a list agreed to by applicant and the division.*

Sponsors: Brophy/Sonnenberg

SB13-074 CONCERNING THE RESOLUTION OF AMBIGUITIES IN OLD WATER RIGHT DECREES REGARDING THE PLACE OF USE OF IRRIGATION WATER (Legacy ditch bill)

As sent to the Governor, states that for purposes of administration and determination of historical consumption, for decrees entered prior to January 1, 1937, if an irrigation water right does not expressly limit the maximum number of acres that may be irrigated, the maximum number shall equal the maximum acres irrigated during the first fifty years after entry of the original decree absent a court order to the contrary. *Amended in Senate committee to state that "irrigated acreage not exceeding the lawful maximum amount may be included in the historical average in an historical consumptive use analysis supporting a change of water right application. Sponsor indicated for the record that the bill will operate only prospectively and will not change any decree containing maximum acreages. House committee added amendments to clarify that the maximum amount of acreage irrigated during the first fifty years must be in compliance with the express provisions of the decree unless a court of competent jurisdiction has entered a contrary final judgment. House amendments also added a new (9) on enforcement, restating the manner in which the lawful maximum irrigated acreage for a decree entered before January 1, 1937 may be determined, consistent with the rest of the bill. States that irrigation of acreage not exceeding the lawful maximum amount located within reasonable proximity to the ditch including extension of lateral delivery infrastructure constructed within the first fifty years following the original decree is deemed lawful for continued irrigation.*

Sponsors: Hodge/Sonnenberg

SB13-075 CONCERNING SAFEGUARDS TO PREVENT THE MODIFICATION OF A FINAL DESIGNATED GROUND WATER PERMIT BASED ON REDUCTIONS IN THE USE OF DESIGNATED GROUND WATER

As signed into law, states that once a final well permit has been issued, reduction in use due to conservation shall not be grounds for reducing 1) maximum appropriation in acre feet per year; 2) the maximum pumping rate in gallons per minute; or 3) the maximum number of acres irrigated, if used for irrigation *Amended in committee to make an exception for a change of use case.*

Sponsors: Brophy/Sonnenberg

SB13-078 CONCERNING POINTS OF DIVERSION THAT ARE NOT LOCATED AT THE PHYSICAL LOCATION SPECIFIED IN THE DECREES FOR DIVERTED WATER RIGHTS

As signed into law, sets forth conditions under which a water diverter may apply for a correction to described physical point of diversion for surface or ground water without requirement to apply for a change to water right. Diverter must have diverted water from the same physical location since the applicable original decree unless relocated pursuant to statute or valid well permit; the physical point of diversion is not the location specified in the decree; and the diverter has diverted water in conformance with the decree. Burden of proof is on the diverter. *Amended in committee to establish a rebuttable presumption that if a diversion has been in the same physical location since the enactment of the "Adjudication Act of 1943" that the diversion has been at the same physical location since inception. Also*

amended to state that a water right is deemed diverted at its decreed location and not erroneously described if it is a surface water diversion within 500 feet of the decreed location and there is no natural surface stream tributary to the diverted stream nor another surface water right between the decreed location and its physical location. The presumption applies to a groundwater diversion where the physical location is within 200 feet of the decreed location unless the decree specifies a lesser distance Allows a diverter to petition the water clerk to correct a clerical error discovered outside the three-year statutory period for correction if the diverter files the petition within three years of discovering the error. If the error is not due to a clerical mistake the diverter must prove by a preponderance of the evidence that the point of diversion is erroneously described. Sets forth procedures for corrections.

Sponsors: Giron/Sonnenberg

SB13-083 CONCERNING THE CREATION OF A PRESCRIBED BURNING PROGRAM UNDER THE DIVISION OF FIRE PREVENTION AND CONTROL IN THE DEPARTMENT OF PUBLIC SAFETY, AND IN CONNECTION THEREWITH, SPECIFYING THE POWER AND DUTIES OF THE DIVISION AND ITS DIRECTOR WITH RESPECT TO THAT PROGRAM

In part, requires that persons be certified to conduct prescribed burns for fuel reduction. Exemptions for agricultural burning exist in the bill. *Amended to also exempt burning of ditches and canals. Establishes a fee to cover direct costs of certification. Additional amendments exempt private landowners from requiring a certificate and provide protection from liability when conducting burns on own property unless actions are grossly negligent or willful and wanton. Exempts local governments and nongovernmental organizations from standards for prescribed burns if they have adopted standards and guidelines that are in substantial compliance with intent of statute.*

Sponsors: Nicholson and Roberts/Gerou and Levy

SB13-110 CONCERNING THE WILDFIRE COST RECOVERY FUND

As signed into law, establishes the wildfire cost recovery fund, a non-interest bearing fund to finance personnel and operating expenses associated with wildland fire suppressions activities.

Sponsors: Gerou and Levy//Lambert

SB13-150 CONCERNING THE CONTINUATION OF THE WATER & WATSTEWATER FACILITY OPERATORS CERTIFICATION BOARD AND, IN CONNECTION THEREWITH IMPLEMENTING RECOMMENDATIONS OF THE 2012 SUNSET REPORT BY THE DEPARTMENT OF REGULATORY AGENCIES

As passed by the Senate, continues the Water & Wastewater Operators Certification Board and 1) changes the representation from a member of a rural water association to a representative of water facilities serving less than 3,300 people and 2) expands the authority of the board to exempt facilities from having a certified operator to nonindustrial facilities and water facilities.

Sponsors: May/Harvey

SB13-181 CONCERNING THE FUNDING OF COLORADO WATER CONSERVATION BOARD PROJECTS, AND MAKING APPROPRIATIONS IN CONNECTION THEREWITH

As passed by the Senate, this bill is the annual CWCB Projects bill which authorizes expenditures for 15 water related programs and projects across Colorado. It also authorizes the Board to acquire instream flow rights to improve as well as protect the environments. Additionally, the bill changes the operational account of the severance tax trust fund into a separate fund and transfers the administration of that fund and the severance tax trust fund from the state treasury to the department of natural resources. The bill also changes the perpetual base account of the severance tax trust fund into a separate fund, the severance tax perpetual base fund, that is administered by the CWCB. *Amended in House*

Ag committee to remove Section 15 of the bill concerning the ability to expend project funds to acquire instream flow rights to improve the environment.

Sponsors: Schwartz/Fischer

SB13-183 CONCERNING WATER CONSERVATION MEASURES IN COMMON INTEREST COMMUNITIES
As passed by the Senate, the bill states that restrictive covenants, bylaws or declarations, bylaws, and rules and regulations of common interest
Communities that prohibit or limit xeriscape or drought-tolerant vegetation or require ground covering vegetation to consist of any amount of turf grass are contrary to public policy and unenforceable. Amended to clarify that this bill does not supersede any subdivision regulations of any city, county or other municipality.

Sponsors: Carroll/Fields

SB13-191 CONCERNING THE ACQUISITION OF RIGHTS-OF-WAY BY PIPELINE COMPANIES

Clarifies that, subject to state constitutional and statutory requirements that require payment of just compensation and otherwise govern the exercise of the power of eminent domain, companies that operate pipelines that convey oil, gasoline, or other petroleum or hydrocarbon products are pipeline companies granted the right of eminent domain. Companies must also comply with all applicable laws and regulations, including but not limited to federal pipeline safety regulations. *This bill replaces SB 13-021. Amended in Senate Local Govt. committee to 1) include case law in applicable law; 2) require eminent domain proceedings by pipeline companies to include in addition to just compensation, compensation for the damage to property and public health and safety; and 3) require notice to property owners prior to eminent domain proceedings.*
Sponsors: Hodge/Williams

SB13-224 CONCERNING THE CREATION OF A "PROTECT OUR RIVERS' LICENSE PLATE FOR COLORADO TROUT UNLIMITED"

Creates a "Protect Our Rivers" license plate which may be obtained by a $25 donation to Trout Unlimited in addition to the normal fees for license plates plus two additional $25 fees. The additional fees go to the highway users tax fund and the licensing services cash fund. The money donated to Trout Unlimited cannot be used for lobbying or litigation.

Sponsors: Kerr and Baumgardner/Hamner and Wright

SJR13-005 CONCERNING THE ADVERSE EFFECTS THAT THE DIVERSION OF REVENUES HAS HAD ON WATER INFRASTRUCTURE IN COLORADO

As passed by both houses, urges the General Assembly to remain cognizant of the important role our water infrastructure plays in Colorado's economic and social well-being when prioritizing its expenditures.

Sponsors: Roberts and Hodge

City of Loveland

CITY OF LOVELAND
WATER & POWER DEPARTMENT
200 North Wilson • Loveland, Colorado 80537
(970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 15
MEETING DATE: 4/24/2013
SUBMITTED BY: Scott Dickmeyer, Staff Engineer – Water Resources SD

TITLE: Water Supply Update

DESCRIPTION:
Projection for water supply in 2013

SUMMARY:
The first attachment is the *Snow-Water Equivalent, April 17, 2013, Bear Lake*. This graphical representation compares snow-water equivalent conditions over time for several years of interest, compared to the 30-year mean values. The very wet conditions of 2011 are shown as compared to the very dry conditions of 2002. The near total absence of snowfall after March 1 during the 2012 season and the large March snowstorm in 2003 are both illustrated clearly. For 2013, conditions have been very dry, near the levels of 2002. The April snows have improved conditions a great deal, but at this writing on April 17 conditions were still significantly below median values.

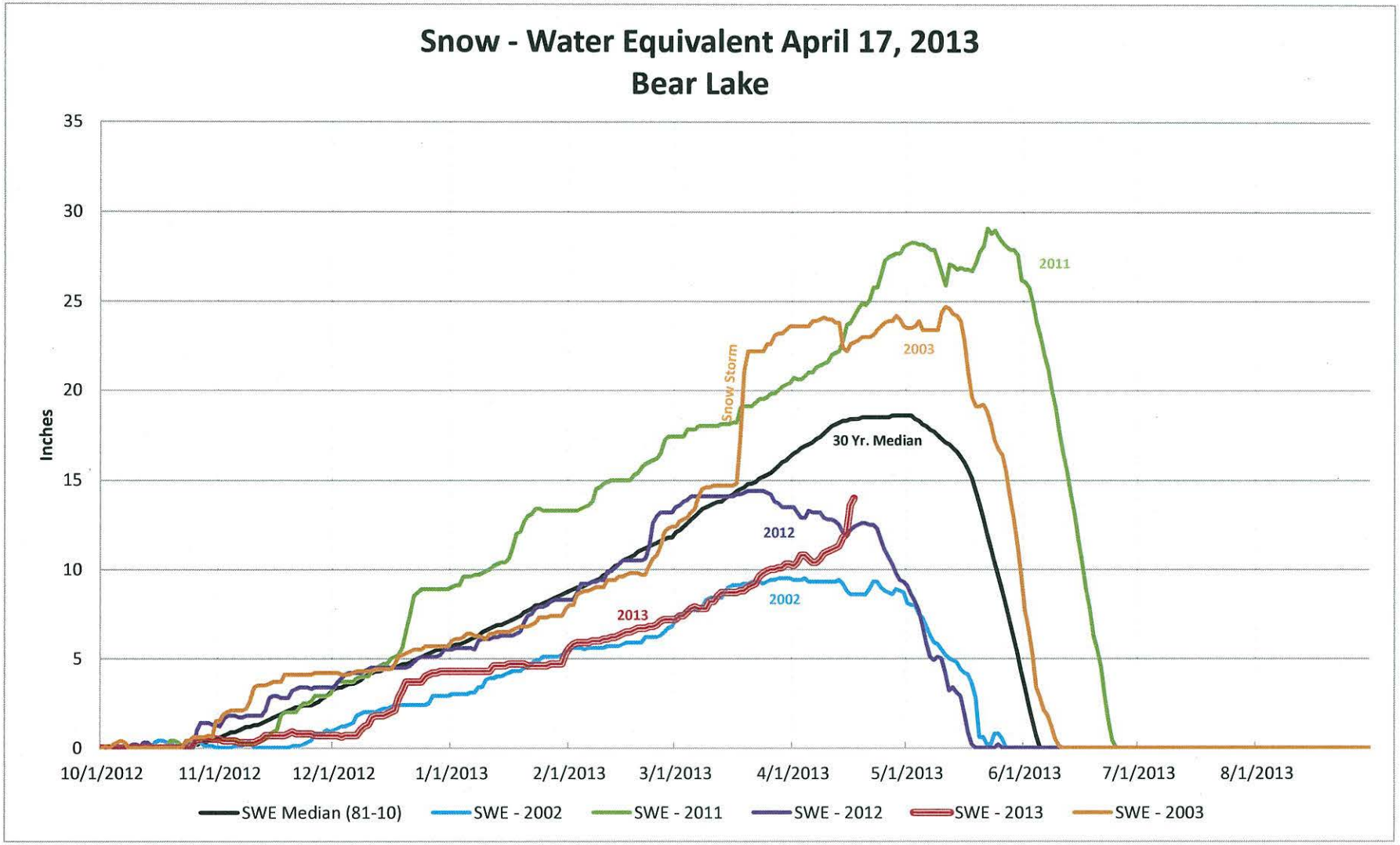
The *April 1, 2013 Colorado Basin Outlook Report* from the USDA National Resource Conservation Service (NRCS) is attached. Unlike in 2012, March continued to bring snow, and April snows are occurring as well. The 2013 snowpack is still accumulating, but by this time last year the snowpack had already peaked and was melting rapidly. Lake Granby inflows on April 1 were projected to be 66% of average, with the Upper Colorado Basin watershed snowpack analysis projected to be about 77% of the median value. The April 1 projected streamflow forecast for the Big Thompson was 55%.

You will also find attached a copy of the April 1, 2013 Snowpack and Streamflow Comparisons report from Northern Water. As of April 1, the Most Probable forecast for streamflow on the Big Thompson is shown as 52% of average.

RECOMMENDATION:
Information item only. No action required.

REVIEWED BY DIRECTOR: MS for SA

ATTACHMENTS:
- *Snow-Water Equivalent* April 17, 2013, Bear Lake
- April 1, 2013 *Colorado Basin Outlook Report*, USDA, NRCS
- April 1, 2013 *Snowpack and Streamflow Comparisons* from Northern Water


Snow - Water Equivalent April 17, 2013
Bear Lake
Inches
35
30
25
20
15
10
5
0
10/1/2012
11/1/2012
12/1/2012
1/1/2013
2/1/2013
3/1/2013
4/1/2013
5/1/2013
6/1/2013
7/1/2013
8/1/2013
Snow Storm
2011
2003
30 Yr. Median
2012
2002
2013
SWE Median (81-10)
SWE - 2002
SWE - 2011
SWE - 2012
SWE - 2013
SWE - 2003

USDA NRCS
Natural Resources Conservation Service

Colorado Basin Outlook Report April 1, 2013

This month's photo was taken of Horseshoe Basin in the headwaters of South Platte River, on 3/27/2013 by Dan Olsen, Soil Conservationist in Woodland Park, CO. Dan and Jeremy Buss, Soil Conservation Technician from Woodland Park, survey four snow courses in the Upper South Platte each month.

REMINDER:

We are soliciting field work photos from our snow surveyors this year. There are only two months left to submit your photos for a chance to grace the cover of this report! Please include information on where, when and of who/what the photo was taken.

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Mage Hultstrand
Assistant Data Collection Office Supervisor
USDA, Natural Resources Conservation Service
Denver Federal Center, Bldg 56, Rm 2604
PO Box 25426
Denver, CO 80225-0426
Phone (720) 544-2855

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Colorado
Water Supply Outlook Report
April 1, 2013

Summary

Unlike last year, the month of March continued to bring snow to Colorado. Unfortunately the state's snowpack, as of April 1, only showed a nominal increase from last month's report. Beneficial storms and relatively cool temperatures helped maintain the snowpack in the mountains but were not able to bring it closer to normal conditions. This marks the fourth consecutive month of below average snowpack for the state as well as the third consecutive month of below average precipitation in the mountains. Forecasts for spring and summer streamflows are well below average across the entire state with many streams expected to see volumes that are below 50 percent of average. We are also still feeling the ill effects of the previous year's paltry snowpack and the resulting streamflow runoff, in our reservoirs. The majority of the state's major river basins are reporting well below average reservoir storage. Judicious use of our existing supplies will be critical in minimizing impacts this season and there is always the potential for unexpected late season snowfall and above average spring precipitation to help ease impacts.

Snowpack

Overall the snowpack percentage for the state inched up during March. Current readings are now are 74 percent of median; up 1 percentage point from the report on March 1. On the bright side, the current snowpack is 130 percent of last year's April 1 snowpack report. By this time last year the statewide snowpack had already peaked and was melting rapidly. This year snow continued to accumulate in the mountains during March; however the storms were more focused on the northern mountains and the Front Range and missed the southwest portion of the state. While the snowpack percentages did increase in most basins, not all watersheds showed improvement, and some saw a substantial decline. The Upper Rio Grande basin dropped 9 percentage points from the March 1 readings and the combined San Juan, Animas, Dolores, and San Miguel basins lost 10 percentage points. The lowest snowpack percentages in the state occur in the Upper Rio Grande and the South Platte basins which are both at just 69 percent of median. The state's best snowpack percentage occurs in the North Platte basin which is at 81 percent of median; the Yampa and White basins are close behind with a snowpack at 78 percent of median. All basins currently have snowpacks that are better than those reported last year at this time; but comparing bad to worse could be considered a moot point.

Precipitation

Precipitation totals for the month of March, measured at SNOTEL sites across the state, were mostly below average. Statewide precipitation for the month was just 76 percent of average. The South Platte and the Colorado basins actually recorded precipitation in the mountains that was close to average. The South Platte reported totals at 97 percent of average and the Colorado was at 96 percent of average. The driest basins this month were the Upper Rio Grande and combined San Juan, Animas, Dolores, and San Miguel basins with precipitation totals at only 47 percent and 56 percent of average respectively. Precipitation in the remaining basins ranged from 84 percent of average in the Yampa, White and North Platte basins to 63 percent of average in the Arkansas. Water year to date totals range from only 66 percent of average in the Upper Rio Grande basin, to 78 percent of average in the Yampa, White and North Platte basins. Water year to date precipitation for the state is at 73 percent of average.

Reservoir Storage

Statewide reservoir storage was reported to be 71 percent of average at the end of March. The combined Yampa and White River basins boast the highest storage amounts in the state, currently storing 105 percent of average volumes for this date; though the basin has the fewest reservoirs and lowest capacity for storage. Storage volumes in the other major basins range from 84 percent of average in the South Platte basin, to 54 percent of average in the Upper Rio Grande basin. Statewide storage volumes are way below where they were this time last year. Last year at this time, the reservoirs in the state were storing 3,651,000 acre-feet of water which was 108 percent of the average volumes. This year the reservoirs are storing 2,421,000 acre-feet of water for agricultural and municipal use this season.

Streamflow

Colorado's water users can anticipate very low streamflow volumes this summer. Due to extremely poor snowpack conditions spring and summer streamflow volumes may approach the minimum volumes on record in some areas. The projected inflow into Dillon Reservoir calls for 66 percent of average flows; forecasts for some areas of Colorado River basin are even lower. Clear Creek at Golden is expected to flow at 72 percent of average from April to July and the forecast for the Big Thompson River is only 52 percent of average. The Gunnison and Upper Rio Grande River basins have some of the lowest forecasts in the state. Tomichi Creek at Gunnison is only expected to see volumes that are 34 percent of average and Sangre de Cristo Creek's forecast calls for flows that are 29 percent of average. All of these forecasts assume normal precipitation amounts throughout the forecast period.

Special Note on Interpreting Forecasts

According to the National Water and Climate Center (NWCC), "a water supply forecast is a prediction of streamflow volume that will flow past a point on a stream during a specified season, typically in the spring and summer. These forecasts are given not as a single number, but as a range of numbers to reflect risk and forecast uncertainty. Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all forecasts are for streamflow volumes that would occur naturally without any upstream influences."

The forecasts we typically emphasize in this report are the 50 percent exceedance probability forecasts because they are in the middle of the range of forecasts with 50 percent chance that actual volumes will be above or below the predicted volume. The 50 percent exceedance forecasts assume that typical weather patterns will prevail into the forecast season. In a water year such as this one, when conditions have been anything but typical, it is important to pay attention to the other forecasts provided. If dry conditions prevail into the rest of this spring and summer it may be prudent to use the 70 or 90 percent exceedance forecasts for management purposes this season. If we continue to receive snowfall late into the season or above average precipitation this spring, actual streamflow volumes may be more in line with the 50 or 30 percent exceedance forecasts.

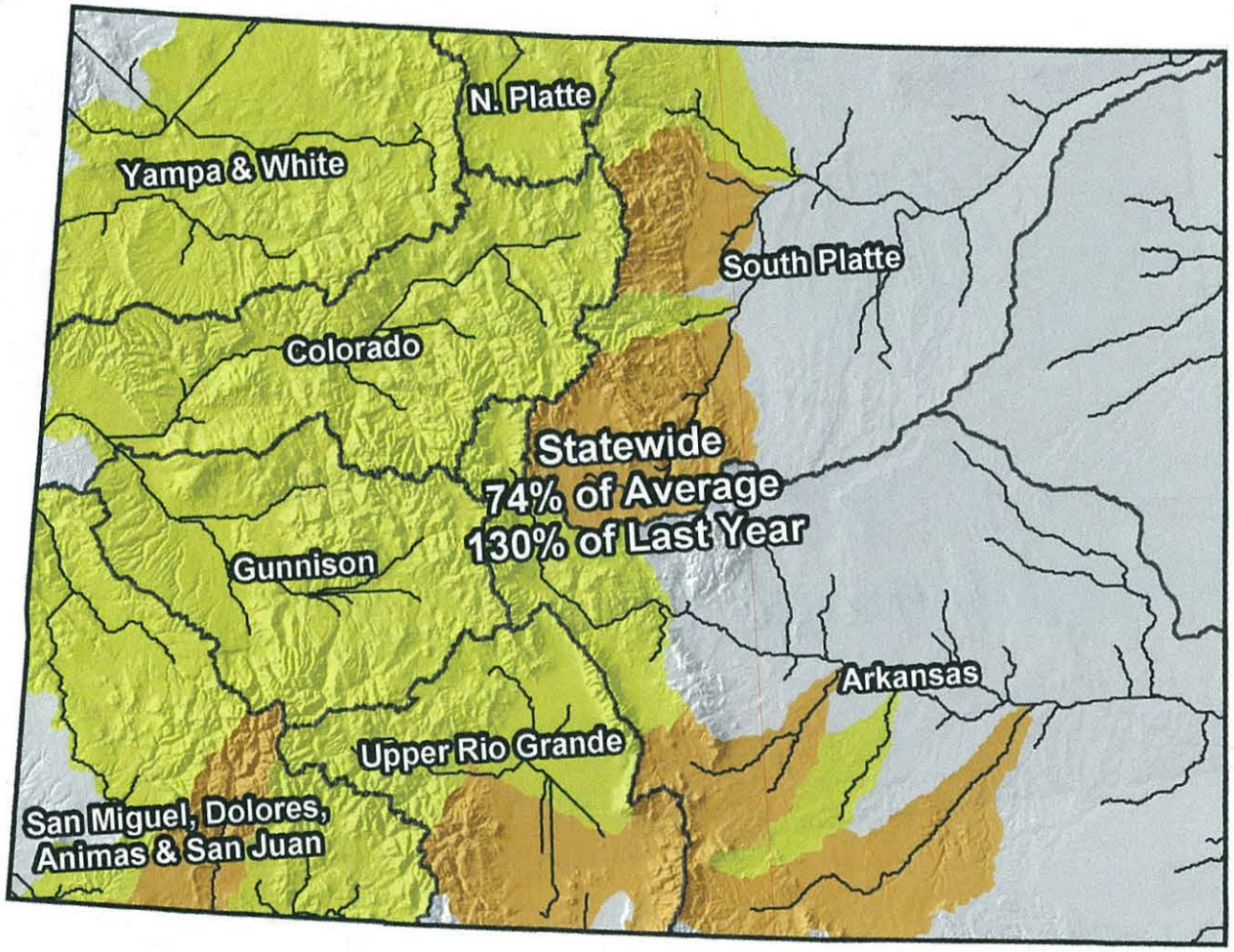
Colorado Snowpack Map

NRCS
Natural Resources Conservation Service

Percent of Average

- >= 150
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- < 50

Provisional Data Subject to Revision



Current as of April 1, 2013

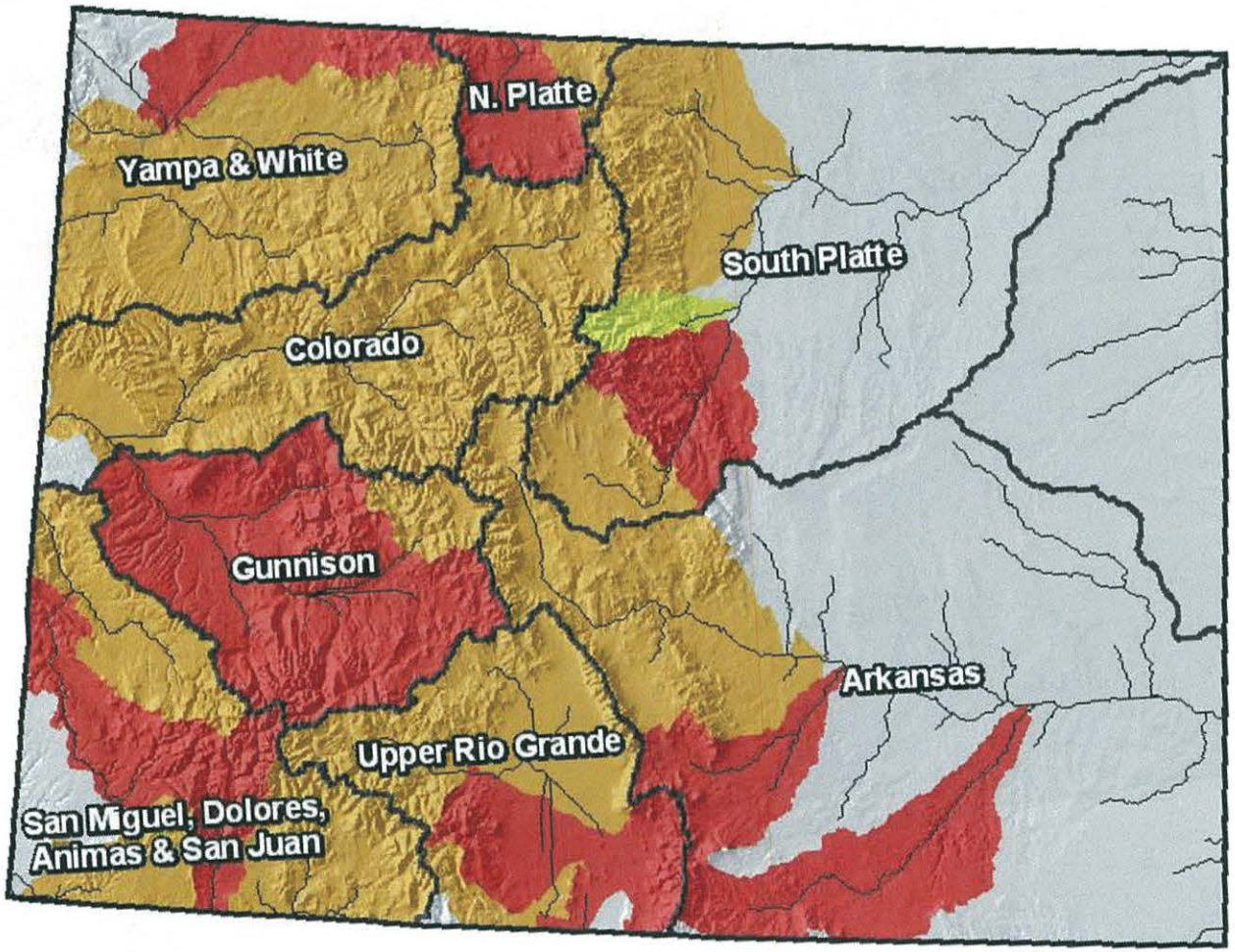
Colorado Streamflow Forecast Map

NRCS
Natural Resources
Conservation Service

Percent of Average

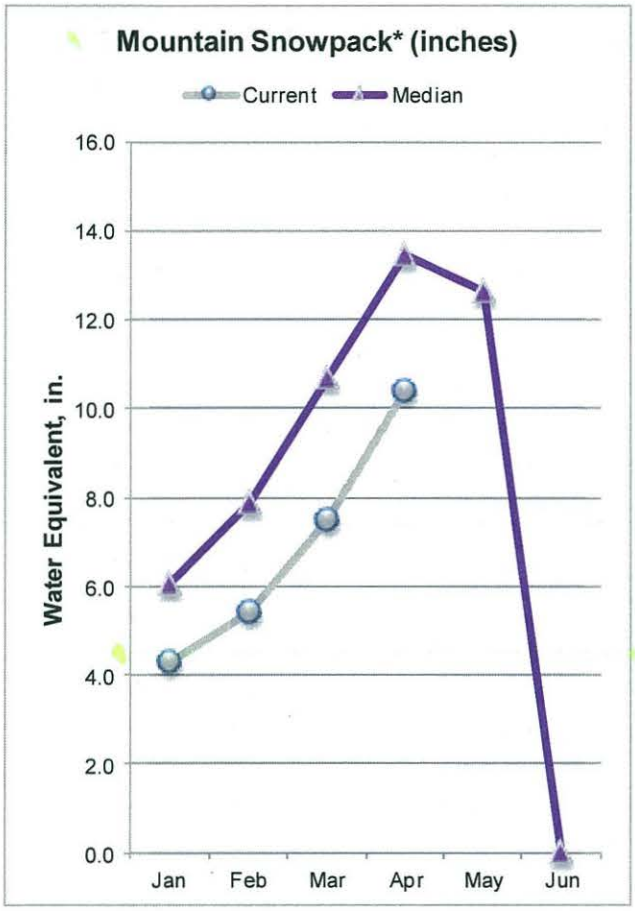
- >= 150
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- < 50

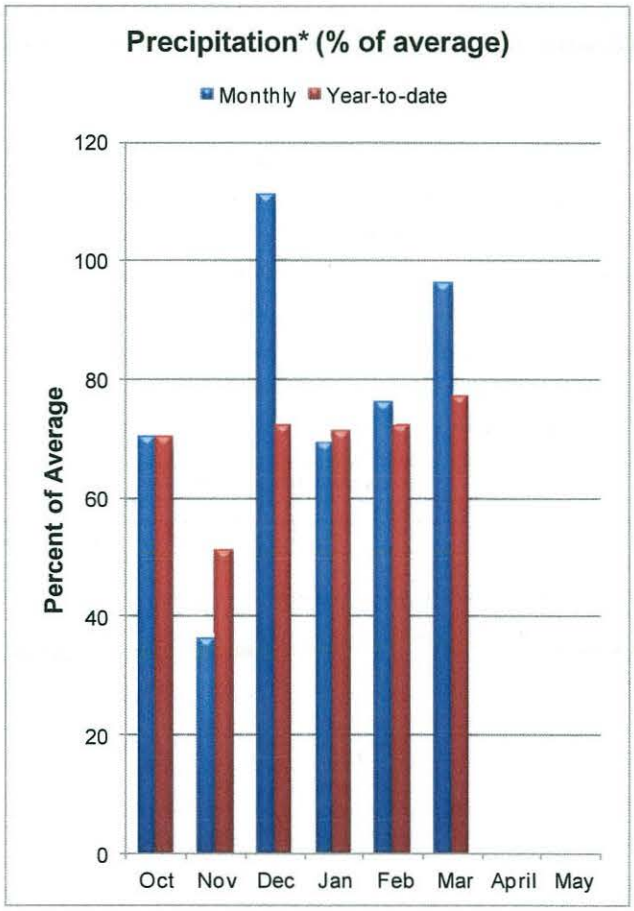
Provisional Data
Subject to Revision



Current as of April 1, 2013

UPPER COLORADO RIVER BASIN
as of April 1, 2013





*Based on selected stations

As of April 1 the snowpack in the Colorado River basin was 77 percent of the median which is 143 percent of last year's snowpack at this time of year. Last year, the snowpack in this basin reached its peak on March 4th and by this time had already melted significantly. This year the basin continues to accumulate snow and has already surpassed last year's peak snowpack reading. The snowpack's in the sub basins vary widely, ranging from 76 percent of median in the Roaring Fork River basin to 92 percent of median in the Muddy Creek drainage.
Precipitation recorded at the SNOTEL sites in the basin was near normal for the month of March, at 96 percent of average. This boosted the year to date precipitation to 77percent of average from 72 percent reported last month.
Reservoir storage in the Colorado River basin was 66 percent of average at the end of March. This is 55 percent of the storage the basin had last year at this time and 40 percent of the capacity of the reservoirs. Thanks to the relatively decent precipitation received during March, April 1 seasonal streamflow forecasts remained fairly constant compared to those issued on March 1. All streams in the basin are still expected to see well below normal runoff from April to July. Current forecasts range from 54 percent of average for the Roaring Fork at Glenwood Springs to 68 percent of average for the Inflow to Willow Creek Reservoir.

UPPER COLORADO RIVER BASIN
Streamflow Forecasts - April 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Lake Granby Inflow (2)	APR-JUL	98	125	145	66	167	200	220
Willow Ck Reservoir Inflow (2)	APR-JUL	17.1	25	32	68	39	51	47
Williams Fk bl Williams Fk Reservoir	APR-JUL	45	57	65	67	74	88	97
Blue R bl Dillon (2)	APR-JUL	74	93	107	66	122	146	163
Blue R bl Green Mountain Reservoir (	APR-JUL	125	158	182	66	210	250	275
Muddy Ck bl Wolford Mtn Reservoir nr	APR-JUL	19.3	26	32	59	38	48	54
Eagle R bl Gypsum (2)	APR-JUL	141	180	210	63	240	295	335
Colorado R nr Dotsero (2)	APR-JUL	555	730	860	61	1000	1230	1400
Ruedi Reservoir Inflow (2)	APR-JUL	56	69	78	56	88	104	139
Roaring Fk at Glenwood Springs (2)	APR-JUL	270	325	370	54	415	485	690
Colorado R nr Cameo (2)	APR-JUL	890	1110	1280	55	1460	1740	2350

UPPER COLORADO RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DILLON	254.0	163.3	243.1	214.5
LAKE GRANBY	465.6	123.4	338.2	263.7
GREEN MOUNTAIN	146.8	53.0	72.9	59.8
HOMESTAKE	43.0	0.3	0.5	22.5
RUEDI	102.0	61.3	71.3	61.9
VEGA	32.9	8.8	18.8	13.1
WILLIAMS FORK	97.0	41.9	82.4	54.8
WILLOW CREEK	9.1	7.1	6.6	6.8

UPPER COLORADO RIVER BASIN
Watershed Snowpack Analysis - April 1, 2013

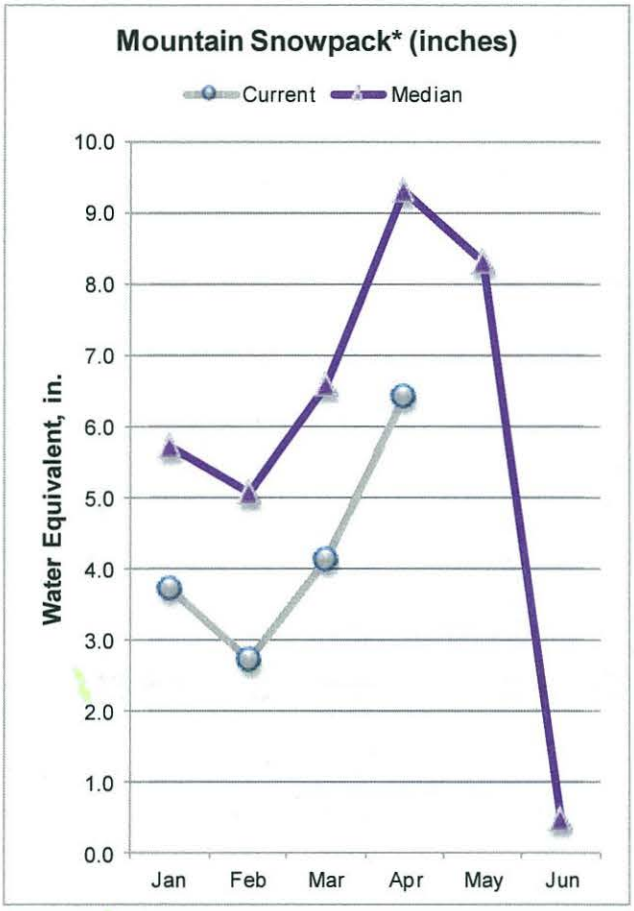
Watershed	Number of Data Sites	This Year as % of Last Yr	Median
BLUE RIVER BASIN	9	139	79
UPPER COLORADO RIVER BASI	31	144	77
MUDDY CREEK BASIN	3	126	86
PLATEAU CREEK BASIN	3	102	77
ROARING FORK BASIN	8	141	77
WILLIAMS FORK BASIN	3	165	89
WILLOW CREEK BASIN	4	125	81
TOTAL COLORADO RIVER BASI	42	138	77

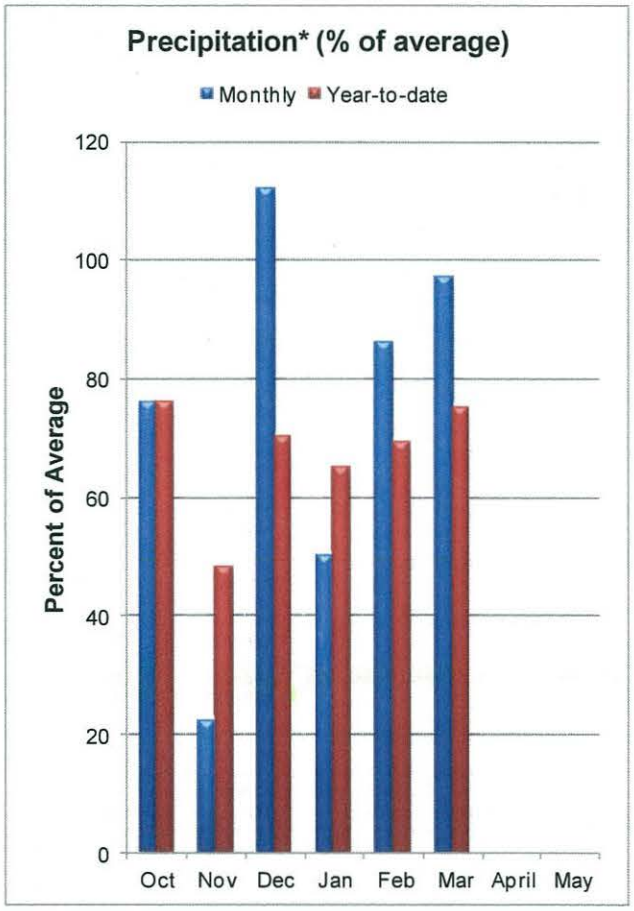
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period, except for the reservoir averages which are from 1971-2000.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

SOUTH PLATTE RIVER BASIN
as of April 1, 2013





*Based on selected stations

Despite recording near average precipitation in the mountains during March, the South Platte River basin's snowpack remains well below average for this time of year. Precipitation for March was 97 percent of average which helped boost the year to date precipitation in the basin up to 75 percent of average, and 92 percent of last year's total. The snowpack as of April 1 was 69 percent of median, up from the March 1 report of 63 percent. The sub basin's snow survey results range from only 55 percent of median in the Saint Vrain watershed, to 80 percent of median in the Clear Creek drainage. Unless the basin continues to benefit from late season storms this spring, snow accumulation in the South Platte River basin will likely peak in the next week or so.

Combined reservoir storage in the basin was 84 percent of average at the end of March. Chambers Lake was missing data this month and is not included in the basin average. Most April 1 streamflow forecasts for the basin have decreased from last month's predictions. The exceptions were in the Clear Creek and Boulder Creek drainages which received good amounts of precipitation in March. Forecasts now range from only 47 percent of average for the Inflow to Antero Reservoir to 72 percent of average for Clear Creek at Golden. Boulder Creek near Orodell is now expected to flow at 69 percent of average from April to July.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - April 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Antero Reservoir Inflow (2)	APR-JUL	3.6	5.3	6.8	47	8.8	12.8	14.5
	APR-SEP	4.2	6.3	8.3	47	10.9	16.3	17.8
Spinney Mountain Res Inflow (2)	APR-JUL	14.6	21	27	56	35	50	48
	APR-SEP	17.0	25	33	54	43	64	61
Elevenmile Canyon Res Inflow (2)	APR-JUL	14.2	21	27	54	35	51	50
	APR-SEP	16.2	25	33	52	44	67	64
Cheesman Lake Inflow (2)	APR-JUL	26	39	51	51	67	101	100
	APR-SEP	32	48	64	51	85	129	126
South Platte R at South Platte (2)	APR-JUL	41	64	88	49	120	190	180
	APR-SEP	51	81	111	49	152	245	225
Bear Ck ab Evergreen	APR-JUL	4.0	6.4	8.7	53	11.9	18.8	16.4
	APR-SEP	5.9	9.2	12.5	60	17.0	27	21
Bear Ck at Morrison	APR-JUL	4.1	7.0	10.2	46	14.8	26	22
	APR-SEP	5.7	9.8	14.1	50	20	35	28
Clear Ck at Golden	APR-JUL	45	63	76	72	89	107	105
	APR-SEP	52	77	94	73	111	136	128
St. Vrain Ck at Lyons (2)	APR-JUL	31	41	48	55	55	65	88
	APR-SEP	38	50	58	56	66	78	103
Boulder Ck nr Orodell (2)	APR-JUL	26	32	37	69	42	48	54
	APR-SEP	28	37	43	68	49	58	63
S Boulder Ck nr Eldorado Springs (2)	APR-JUL	41	47	50	63	53	59	79
	APR-SEP	48	54	59	65	64	70	91
Big Thompson R at Canyon Mouth (2)	APR-JUL	25	38	47	52	56	69	90
	APR-SEP	32	48	59	55	70	86	107
Cache La Poudre at Canyon Mouth (2)	APR-JUL	98	125	147	65	173	220	225
	APR-SEP	111	141	166	66	195	250	250

SOUTH PLATTE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ANTERO	19.9	15.3	16.0	15.9
BARR LAKE	30.1	19.0	28.6	27.9
BLACK HOLLOW	6.5	2.3	3.6	4.0
BOYD LAKE	48.4	16.0	40.2	33.0
BUTTON ROCK/RALPH PRICE	16.2	12.8	12.5	12.1
CACHE LA POUDRE	10.1	5.2	10.6	8.6
CARTER	108.9	87.4	74.6	100.9
CHAMBERS LAKE		NO REPORT		
CHEESMAN	79.0	46.4	66.8	60.8
COBB LAKE	22.3	11.7	19.2	13.9
ELEVEN MILE	98.0	98.4	99.8	96.4
EMPIRE	36.5	21.0	36.4	31.8
FOSSIL CREEK	11.1	10.8	9.5	7.9
GROSS	41.8	26.0	28.1	23.9
HALLIGAN	6.4	5.3	5.0	4.7
HORSECREEK	14.7	3.1	12.2	13.9
HORSETOOTH	149.7	103.0	137.5	119.1
JACKSON	26.1	26.0	26.1	29.9
JULESBURG	20.5	19.9	20.5	20.8
LAKE LOVELAND	10.3	3.3	9.1	9.0
LONE TREE	8.7	7.6	7.8	7.2
MARIANO	5.4	2.5	3.1	4.5
MARSHALL	10.0	6.3	8.5	6.0
MARSTON	13.0	9.4	4.7	13.3
MILTON	23.5	22.7	21.7	18.3
POINT OF ROCKS	70.6	62.2	69.4	68.8
PREWITT	28.2	18.1	24.5	25.0
RIVERSIDE	55.8	53.9	55.6	58.2
SPINNEY MOUNTAIN	49.0	19.9	46.4	32.1
STANDLEY	42.0	29.0	36.5	34.6
TERRY LAKE	8.0	4.8	5.5	5.4
UNION	13.0	5.6	12.3	11.1
WINDSOR	15.2	11.1	12.6	12.4

SOUTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	Median
BIG THOMPSON BASIN	7	94	59
BOULDER CREEK BASIN	5	113	69
CACHE LA POUDRE BASIN	9	130	78
CLEAR CREEK BASIN	3	138	80
SAINT VRAIN BASIN	3	86	55
UPPER SOUTH PLATTE BASIN	11	119	68
TOTAL SOUTH PLATTE BASIN	38	114	69

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period, except for the reservoir averages which are from 1971-2000.
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

Snowpack and Streamflow Comparisons
April 1, 2013

Northern Water

Snow Water Content — **% of Average**

Colorado's Statewide Snowpack	73%
Upper Colorado River (1)	77%
South Platte Tributaries (2)	67%

Snow-Water Content Comparisons (inches)

	April 1, 2013 Snow-Water Content			April 1 Comparative Snow-Water Content			
Watershed	**2013**	**Average**	**% Avg**	**2012**	**2011**	**2010**	**2002**
Blue River	10.7	13.8	77%	60%	140%	76%	70%
Upper Colorado River	10.6	15.2	69%	57%	145%	75%	64%
Willow Creek	8.5	10.3	83%	49%	152%	63%	68%
Fraser River	11.3	14.7	77%	52%	138%	85%	59%
Poudre River	10.3	13.7	75%	56%	144%	84%	65%
Big Thompson River	8.2	14.3	57%	65%	140%	79%	62%
St. Vrain River	6.5	10.1	64%	67%	128%	88%	49%
Boulder Creek	8.1	11.3	72%	65%	126%	94%	57%

Apr-Jul Maximum, Minimum and Most Probable Streamflow Forecasts (1000 af)

Watershed (4)	Forecast Minimum	Most Probable	Forecast Maximum	Apr-Jul Avg (3)	Most Prob % Average
Blue River	125	182	250	275	66%
Upper Colorado River	98	145	200	220	66%
Willow Creek	17	32	51	47	68%
Fraser River	51	75	104	113	66%
Poudre River	98	147	220	225	65%
Big Thompson River	25	47	69	90	52%
St. Vrain River	31	48	65	79	61%
Boulder Creek	26	37	48	54	69%
South Platte Tributaries		279		448	62%

Precipitation within District Boundaries

	Totals	Average	% Average
March	0.92	1.10	84%
Nov-Feb	2.32	2.91	80%

(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) NRCS forecast values, except Fraser River