



WESTMINSTER

Staff Report

TO: The Mayor and Members of the City Council

DATE: April 10, 2013

SUBJECT: Study Session Agenda for April 15, 2013

PREPARED BY: J. Brent McFall, City Manager

Please Note: Study Sessions and Post City Council meetings are open to the public, and individuals are welcome to attend and observe. However, these meetings are not intended to be interactive with the audience, as this time is set aside for City Council to receive information, make inquiries, and provide Staff with policy direction.

Looking ahead to next Monday night's Study Session, the following schedule has been prepared:

A light dinner will be served in the Council Family Room 6:00 P.M.

CITY COUNCIL REPORTS

1. Report from Mayor (5 minutes)
2. Reports from City Councillors (10 minutes)

PRESENTATIONS

1. Water Supply Update
2. Presentation on Graywater Systems

6:30 P.M.

EXECUTIVE SESSION

None at this time.

INFORMATION ONLY ITEMS

1. Public Art at Orchard Town Center Filing No. 2

Additional items may come up between now and Monday night. City Council will be apprised of any changes to the Study Session meeting schedule.

Respectfully submitted,

J. Brent McFall
City Manager



Staff Report

City Council Study Session Meeting
April 15, 2013



SUBJECT: Water Supply Update

PREPARED BY: Josh Nims, Water Resources Engineering Coordinator
Bob Krugmire, Water Resources Engineer
Stu Feinglas, Water Resources Analyst

Recommended City Council Action

Review the current water supply outlook for the City and discuss Staff's recommendation to declare a Stage I Drought, which would institute voluntary water restrictions.

Summary Statement

- Westminster depends heavily upon mountain snowpack runoff for the water used to fill Standley Lake.
- Water supply conditions in the Clear Creek basin are currently below average.
- Currently, snowpack and streamflow forecasts for Westminster's water supply are more favorable than 2012 and significantly better than 2002.
- Thanks to the seniority of Westminster's water rights on Clear Creek, Westminster's varied water rights portfolio, adequate storage levels in Standley Lake and customers' continued conservation habits, the City currently appears to be well positioned to manage its water situation this spring and summer.
- Most water providers in the region have declared drought conditions and imposed either mandatory or voluntary water use restrictions due to individual differences in water supply conditions across the state.
- Staff recommends the declaration of a Stage 1 Drought and requests that all water customers implement voluntary water restrictions effective May 1, 2013, with a goal of 10% savings. Voluntary Restrictions are recommendations that do not require enforcement, and are listed below:
 - Water no more than 2 day per week
 - Do not water between 10:00 AM and 6:00 PM
 - Don't begin watering until May 1
 - Avoid planting new turf areas in July and August
- Staff continues to carefully monitor the dry weather conditions, runoff and customer demands; and, if conditions worsen, Staff is prepared to recommend implementation of mandatory water restrictions.
- Staff will be in attendance with a brief presentation.

Expenditure Required: \$0

Source of Funds: N/A

Policy Issue

Should the City declare a Stage 1 Drought and request implementation of voluntary restrictions designed to reduce water use by 10%?

Alternatives

1. Council could choose to direct Staff to not declare a Stage 1 Drought and not request implementation of voluntary restrictions. Staff does not recommend this option because current dry conditions merit increased water stewardship measures. Since the severity and duration of these dry conditions are unknown, it is advisable to urge wise water use with the intent of reducing water demand and extending water supplies.
2. Council could choose to direct Staff to declare a Stage 2 Drought and implement mandatory restrictions. Staff does not recommend this option due to currently favorable water supply conditions and expected increased supply for Westminster as compared to both 2012 and 2002.

Background Information

As with most Front Range cities, Westminster depends on spring and summer runoff for the majority of water used to fill Standley Lake. In general, the majority of the snowpack that feeds municipal and agricultural water supplies occurs after February 1, and the Clear Creek basin typically receives much of its annual snowfall during the months of March and April, followed by the subsequent peak runoff season of May and June. Experience has shown that the difference between a very wet and a very dry year may come down to the presence or absence of just a few major storm systems. Moreover, spring in Colorado can be unpredictable and it is still possible for conditions to change dramatically with snow and rain events through May and into the early summer.

Snowpack levels, measured as Snow Water Equivalency (SWE), in the Clear Creek basin are below average for this time of year, with the Berthoud site reporting 84% and the Loveland site reporting 81% of average SWE. Both of these sites are significantly higher than the overall South Platte basin snowpack of 69% of average and the statewide value of 73% of average. The table below compares both of these Snotel stations against 2012 and 2002. The table also compares the projected 2013 Clear Creek streamflow against 2012 and 2002. Currently, the City's entitlement in Standley Lake is approximately 78% full. Due to the seniority of the City's water rights on Clear Creek in combination with their growing share ownership, even a below average snowpack can be sufficient to fill the City's account in Standley Lake, and, in spite of current conditions, Staff anticipates that the City's storage in Standley Lake will get very close to filling during runoff.

	2013 % of Average	2012 % of Average	2002 % of Average
Berthoud Snotel (SWE)	84%	58%	60%
Loveland Snotel (SWE)	81%	70%	55%
Clear Creek Streamflow Forecast	74%	47%	30%

Westminster has a strong water rights portfolio centered on water diverted from Clear Creek into storage in Standley Lake. Westminster also has diversity within its water portfolio, a reclaimed water system and customers who have lowered their overall water consumption over the last 10 years. The

City's water portfolio translates into a reliable water supply, especially in times of lower than average streamflow where more junior rights may be called out. The City has water in excess of its current needs due, in part, to the fact that the City has not yet fully grown into its water supply. The additional water supply for growth increases the City's drought reserve tempering the effect of drier than average years and lessening the need for water savings through mandatory restrictions. This is not meant to imply that mandatory restrictions are unnecessary in the case of a severe drought, but to help explain why Westminster can be in a different situation than other regional utilities today.

Due in part to the City's continued water conservation efforts, as well as citizens' general awareness of water supply issues, Westminster's citizens continue to save water. Water usage per capita is approximately 90% of 2001 amounts which is built into Staff's current water planning models. This is a credit to Westminster water users' continuing awareness of good water conservation practices both for inside and outside use.

Regionally, most water providers are declaring some level of drought conditions. Depending upon the situation, various water providers have adopted a range of measures from voluntary to mandatory restrictions. Westminster has been working with regional water providers since 2012 to present a common water stewardship message to citizens about dry conditions and requesting wise water use. In March of this year, the City again coordinated with six neighboring water providers to provide a similar water stewardship message to citizens. Staff will continue working with regional utilities in an effort to communicate a common message and to coordinate any needed drought response.

- Staff recommends declaring a Stage 1 Drought and requesting all customers to implement voluntary restrictions, with the goal of reducing overall water demand by 10%. Voluntary Restrictions are recommendations that do not require enforcement, and are listed below:
 - Water no more than 2 day per week
 - Do not water between 10:00 AM and 6:00 PM
 - Don't begin watering until May 1
 - Avoid planting new turf areas in July and August

At this time it is not possible to predict the severity or duration of the drought. If conditions worsen, Staff will bring Council a recommendation for declaring a Stage 2 Drought that imposes mandatory restrictions based on the needs at that time.

Securing and developing a long-term water supply is a key component of City Council's goal of Financially Sustainable City Government Providing Exceptional Services. Monitoring and tracking the City's source water meets the goal of a Safe and Secure Community by providing affordable, safe and clean drinking water to the citizens.

Respectfully submitted,

J. Brent McFall,
City Manager



WESTMINSTER

Staff Report

City Council Study Session Meeting
April 15, 2013



SUBJECT: Presentation on Graywater Systems

PREPARED BY: Stu Feinglas, Water Resources Analyst
Mary Fabisiak, Water Quality Administrator
Mike Happe, Utilities Planning & Engineering Manager

Recommended City Council Action

Listen to Staff's presentation on graywater systems and provide feedback.

Summary Statement

- Graywater refers to the re-use of water from baths, showers, washing machines, and sinks (household wastewater excluding toilet wastes) for irrigation and toilet flushing.
- Graywater systems require permanent on-site plumbing and storage installations.
- The City of Westminster has developed a Reclaimed Water system to reuse treated wastewater for irrigation on a much larger scale, serving as a citywide graywater system.
- The City has plans to use all available wastewater effluent for the production of reclaimed water or to meet return flow obligations to the South Platte.
- Graywater systems increase the potential of cross connection with the potable water system if improperly installed or maintained. Allowing the installation of graywater systems in Westminster is not worth the potential on-site water quality and maintenance problems in homes since all available water is already used in the Reclaimed Water system.
- Graywater systems may not be a good investment and are redundant with the existing Reclaimed water system in Westminster.
- Legislation that would provide for local governments to allow graywater systems in Colorado is being considered by the state legislature.

Expenditure Required: \$0

Source of Funds: N/A

Policy Issue

Should the City consider the prohibition of graywater systems?

Alternative

Council could direct Staff to discontinue consideration of the prohibition on the installation of graywater systems. This alternative is not recommended as it is not consistent with the City's Comprehensive Water Supply Plan and essentially provides no benefit to Westminster in light of the implementation of the Reclaimed water system.

Background Information

Wastewater produced by Westminster's residents and businesses is treated at either the Big Dry Creek Wastewater Treatment Facility or the Metro Wastewater Reclamation District Facility. Treated wastewater is then returned to the South Platte River to meet the City's return flow obligations or made into reclaimed water for distribution to customers for use in irrigation systems.

Graywater refers to wastewater from baths, showers, washing machines, and sinks (household wastewater excluding toilet wastes). Systems are designed to collect wastewater produced from these fixtures and appliances and reuse the water to offset potable water use for irrigation and toilet flushing. Graywater systems include on-site water storage and/or permanently installed plumbing systems separate from the potable water system.

Reclaimed water is a valuable source of water supply, the development of which is critical to meeting Westminster's water demands, as detailed in the Comprehensive Water Supply Plan. The City has operated a state of the art reclaimed water program since 2000. In 2012, over 1,900 acre feet of reclaimed water was delivered to customers, saving enough potable water to serve over 4,500 homes for a year. At build out, it is anticipated that the reclaimed water system will deliver 3,500 acre-feet of water a year and comprise more than 10% of the City's total water supply. The recent expansion project increased the facility's maximum capacity to 10 million gallons per day (MGD).

All wastewater, including graywater, is already captured and reused within Westminster as reclaimed water or used for paying return flow obligations. Every gallon of wastewater effluent is already dedicated to these purposes. Allowing individual graywater systems in the City of Westminster would have no net benefit to Westminster's overall water situation.

Graywater is not clean water and may contain soap, chemicals and pathogens. Improper installation, maintenance or modifications to a system could pose a potential for a cross-connection to the potable water system; or produce water of poor quality, which could create a health risk to the residents. Required maintenance includes filling chlorine reservoirs and cleaning filters every 1 to 4 weeks.

Residential graywater systems cost between \$2,200 and \$4,500 depending on the size of the system. Expected water savings can range from 4 to 20 gallons per customer per day depending on how the graywater is used. Onsite graywater systems are an expensive investment for customers. In a recent study of 25 installed systems, best case return on investment for available systems was calculated at 18 years and the worst case was 56 years. The graywater systems that produced the biggest savings were the ones installed in homes with the least efficient appliances and fixtures installed. The City of Westminster is already a leader in efficient water use in homes. The City's emphasis on high efficiency appliances and fixtures further reduces the cost effectiveness of graywater systems. In Staff's opinion, treating and distributing all of the City's wastewater from one professionally managed location is the safest and most cost effective way to reuse water.

With the potential water quality problems to customers through improper maintenance and cross connection to the potable water system and the fact that the City already uses all available wastewater to produce safe reclaimed water cost effectively, Staff believes individual graywater systems should not be allowed in Westminster.

Legislation has been proposed in the Colorado legislature in both 2012 and 2013 to allow for the onsite collection and use of graywater. In 2012, the legislation did not pass. Legislation (HB 13-1044) has been introduced in 2013; however, at this time, the reuse of graywater has not been authorized by the Colorado General Assembly. If the current legislation passes, it is expected that there will be aggressive marketing campaigns for graywater systems to the City's residents. The City could consider not allowing graywater systems to be installed in Westminster, so there will be a consistent message that we are already accomplishing the water savings with our Reclaimed water system.

The consideration of the prohibition of graywater systems supports the City of Westminster's Strategic Plan goals and objectives of "Beautiful and Environmentally Sensitive City" and "Financially Sustainable City Government Providing Exceptional Services" by having environmentally sensitive city operations and investing in well-maintained and sustainable city infrastructure.

Respectfully submitted,

J. Brent McFall
City Manager



WESTMINSTER

Staff Report

City Council Information Only Staff Report
April 15, 2013



SUBJECT: Public Art at Orchard Town Center Filing No. 2 (McWhinney Apartments)

PREPARED BY: Michele McLoughlin, Planner III

Summary Statement

This report is for City Council information only and requires no action by City Council.

Background Information

The Official Development Plan (ODP) for the McWhinney multi-family development (Orchard Town Center Filing No. 2) was approved by the Planning Commission on April 9, 2013. The ODP depicts details of the proposed 394 unit apartment complex to be located at the northeast corner of Huron Street and 148th Avenue, in the Orchard Town Center.

McWhinney representatives have selected Colorado artist John King to construct a steel, wind powered kinetic sculpture to be located within the public park that will be located at the northwest corner of Fox Street and 148th Avenue. The sculpture (dancing apple tree) will be constructed of steel and colored glass and will be the focal point of the park accessed by sidewalks. The art work will align with the pedestrian “paseo” that extends south of 148th Avenue, through the Arbour Square apartments to the retail area. The height of the sculpture will be approximately 20 feet above grade. The area surrounding the sculpture will include landscaping, site furniture, and lighting enhancements. The kinetic sculpture represents an apple tree to tie in with “The Orchard Theme.”

Strategic Plan Goals and Objectives

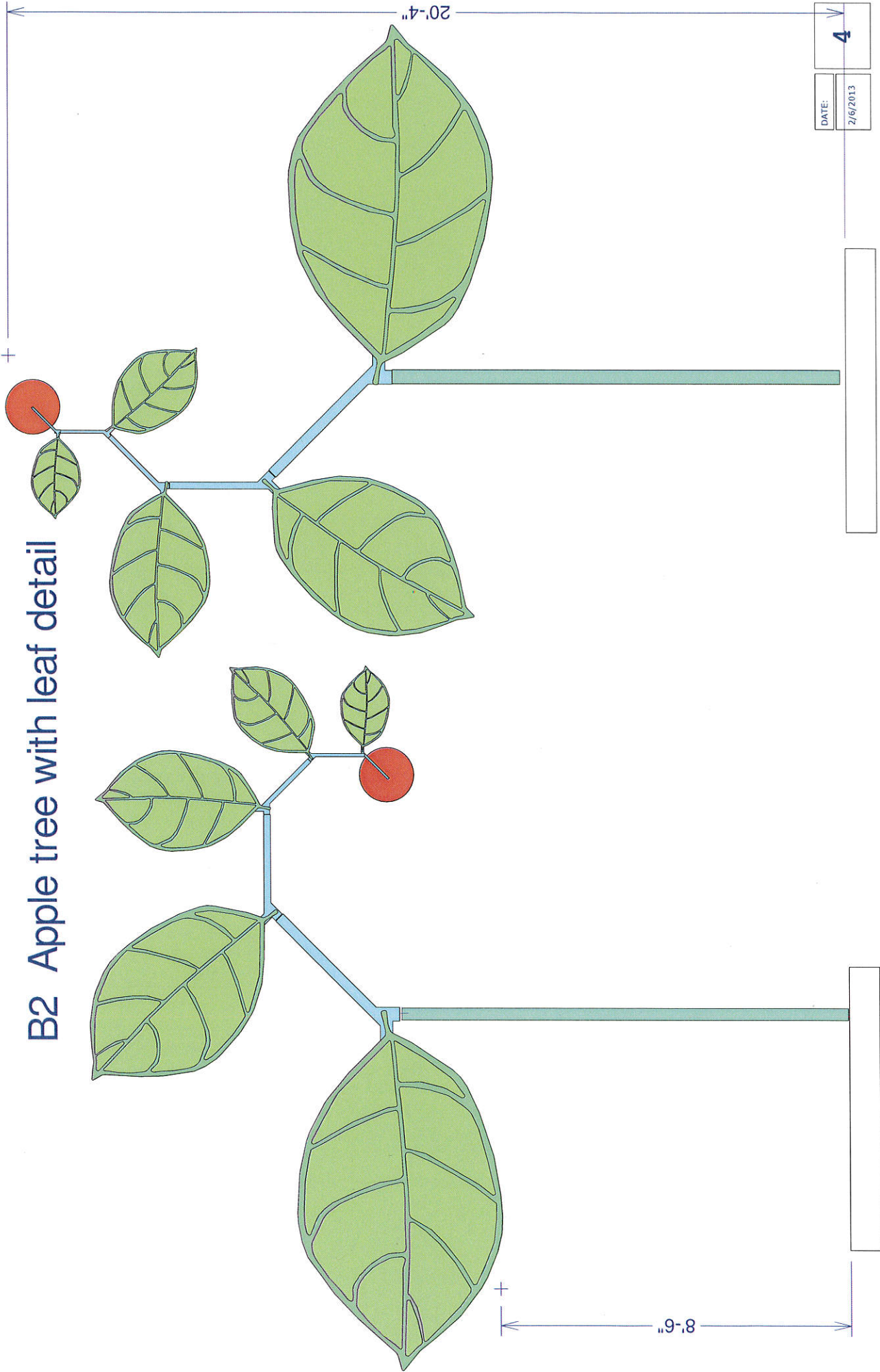
The City requires that developers of all nonresidential, mixed use and multi-family projects of more than one acre dedicate public art to the City or make a cash-in-lieu payment. Public art supports Westminster’s goal of a Beautiful and Environmentally Sensitive City.

Respectfully submitted,

J. Brent McFall
City Manager

Attachment 1 – Apple Tree w/Leaf Detail
Attachment 2 – Site Design
Attachment 3 – Public Art Location Detail

B2 Apple tree with leaf detail



DATE: 2/6/2013

Shay Ditch

Regional Trail

Athletic Field

PHASE 2

Activity Green

PHASE 1

Welcome Center

Pool

Park with Artwork

Public Artwork Location

Existing Lifetime Fitness

148TH AVENUE

Existing Apartments

HURON STREET

FOX STREET

