



INFORMATION PACKET

TO: Mayor Osborne and Members of Council
FROM: Dianne Marshall, Administrative Specialist III
DATE: May 11, 2011
SUBJECT: Information Packet

1. Call Ups

- A. Call-up Item: Landmark Alteration Certificate to demolish a non-contributing garage and in its place construct a two-car, 594 sq. ft. garage at 568 Marine Street in the Highland Lawn Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00051)
- B. Landmark Alteration Certificate to demolish an existing house and in its place construct a two-story, 3,080 sq. ft. house and 340 sq. ft. free-standing garage at 580 Spruce Street in the Mapleton Hill Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00025).

2. Information Items from Staff

- A. Fourmile Canyon Fire and 2011 Flood Season
- B. Update on SmartRegs Implementation
- C. Update on Water Supply Conditions and Status of Rules and Regulations for Responding to a Drought
- D. Valmont Butte Voluntary Cleanup Program Update (*Slip In*)
- E. Youth Homelessness and Emergency Services

Information Items from Others

- F. First Quarter Report – Boulder Convention and Visitors Bureau (CVB)

3. Boards and Commissions Minutes

- A. Library Commission – May 4, 2011

4. Declarations

- A. National Kids to Parks Day
- B. Pastor Hansford Vann Day
- C. World Falun Dafa Day

Complete copies of all items listed above are available for review at www.bouldercolorado.gov, Central Records and the Main Public Library's Reference Center. If you have any questions, please call the City Manager's Office at 303-441-3090.



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
David Driskell, Executive Director of Community Planning and Sustainability
Susan Richstone, Comprehensive Planning Manager
James Hewat, Historic Preservation Planner
Marie Zuzack, Historic Preservation Planner

Date: May 12, 2011

Subject: Call-up Item: Landmark Alteration Certificate to demolish a non-contributing garage and in its place construct a two-car, 594 sq. ft. garage at 568 Marine Street in the Highland Lawn Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00051). This Landmark Alteration Certificate is subject to City Council call-up no later than **May 17, 2011**.

Executive Summary

The proposal to demolish a non-contributing garage and in its place construct a two-car, 594 sq. ft. garage at 568 Marine Street was approved by the Landmarks Board (5-0) at the May 4, 2011 meeting. The decision was based upon the board's consideration that the proposed construction meets the requirements in Section 9-11-18, B.R.C. 1981.

The board's approval is subject to a 14-day call-up period by City Council. Therefore, this Landmark Alteration Certificate is subject to City Council call-up no later than **May 17, 2011**.

ATTACHMENTS:

- A. Notice of Disposition dated May 4, 2011
- B. Photographs and Drawings of 568 Marine Street

Notice of Disposition

You are hereby advised that on May 4, 2011 the following action was taken:

- ACTION:** Approved by a vote of 5-0.
- APPLICATION:** Public hearing and consideration of a Landmark Alteration Certificate to demolish a non-contributing garage and in its place construct a two-car, 594 sq. ft. garage at 568 Marine Street in the Highland Lawn Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00051).
- LOCATION:** 568 Marine Street
- ZONING:** Residential Low – (RL-1)
- APPLICANT/OWNER:** Kristin Lewis Architects/John and Tish Winsor

This decision was arrived at based on the purposes and intent of the Historic Preservation Code as set forth in 9-11-18, B.R.C., 1981, as applied to the Landmark Alteration Certificate application.

Public Hearing

Abby Daniels, Director of Historic Boulder, 1123 Spruce, spoke in support of issuing a landmark alteration certificate.

Motion

On a motion by **M. Gerwing**, seconded by **J. Spitzer**, the Landmarks Board approved (5-0) a landmark alteration certificate to demolish the existing garage and in its place construct a new 594 square foot, two-car garage at the contributing property at 568 Marine Street in the Highland Lawn Historic District in that the proposed construction meets the requirements set forth in Chapter 9-11-18, B.R.C. 1981, subject to the conditions below, and adopted the staff memorandum dated 5.4.2011 as findings of the board.

CONDITIONS OF APPROVAL

1. The applicant shall be responsible for ensuring that the development is constructed in compliance with all approved plans on file in the City of Boulder Planning Department, except as modified by these conditions of approval.
2. Prior to a building permit application, the applicant shall submit, subject to the final review and approval of the Landmarks design review committee, architectural plans indicating details regarding roof, windows, doors, and siding materials. The applicant shall demonstrate that the design details are in compliance with the intent of this approval and the *Highland Lawn Design Guidelines* and *General Design Guidelines*.

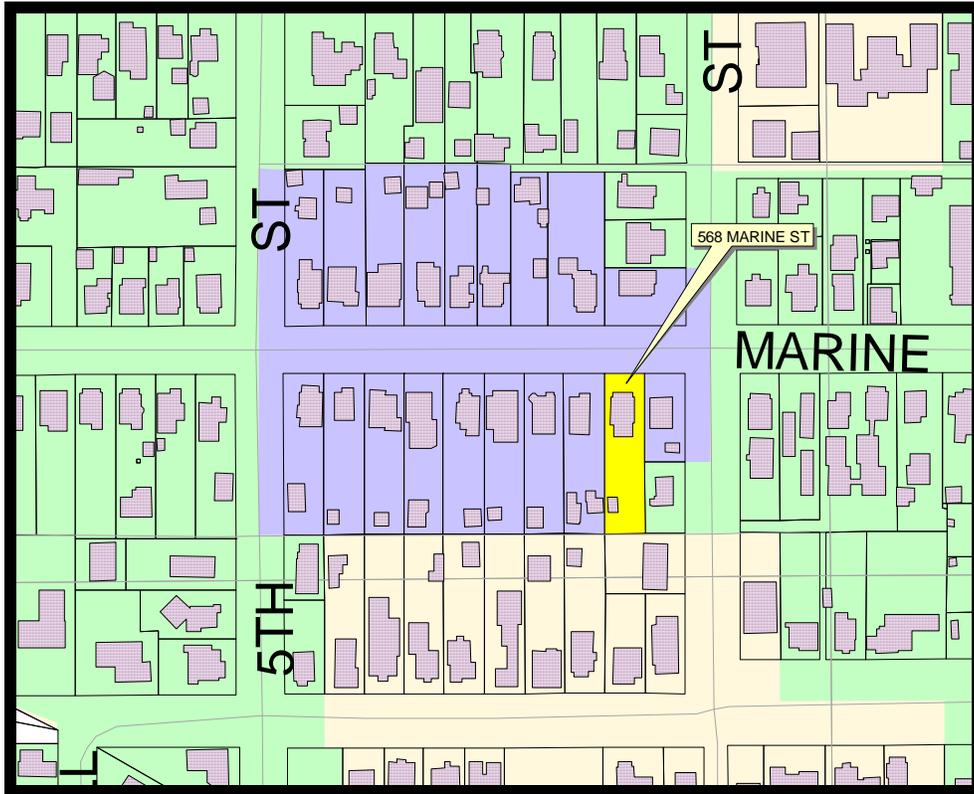


Figure 1. 568 Marine Street, Location Map



Figure 2. 568 Marine Street (House)



Figure 3. 568 Marine Street, existing garage

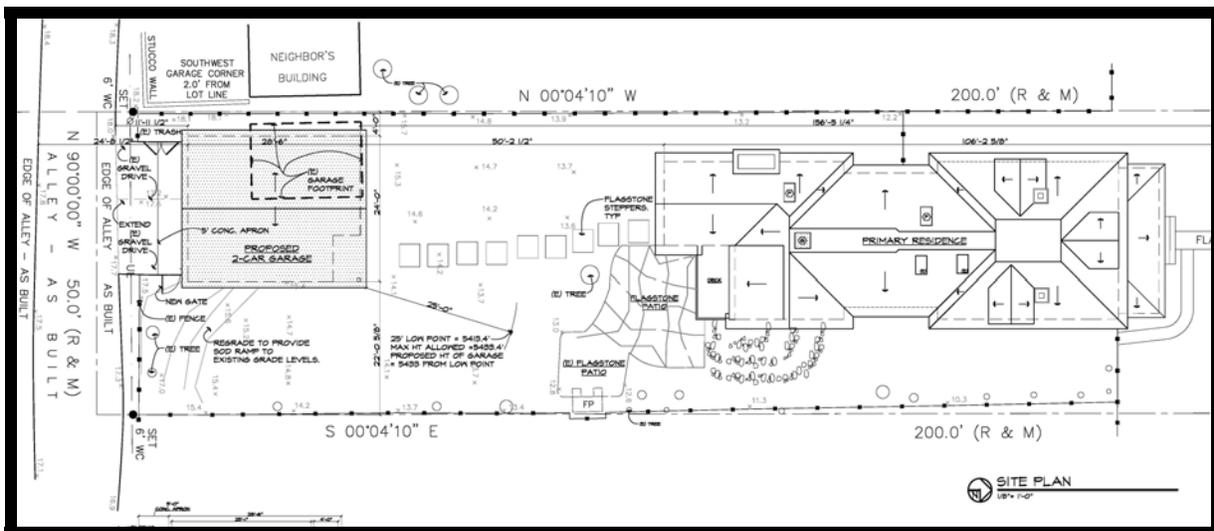


Figure 4. Proposed site plan (existing garage hatched line upper left)

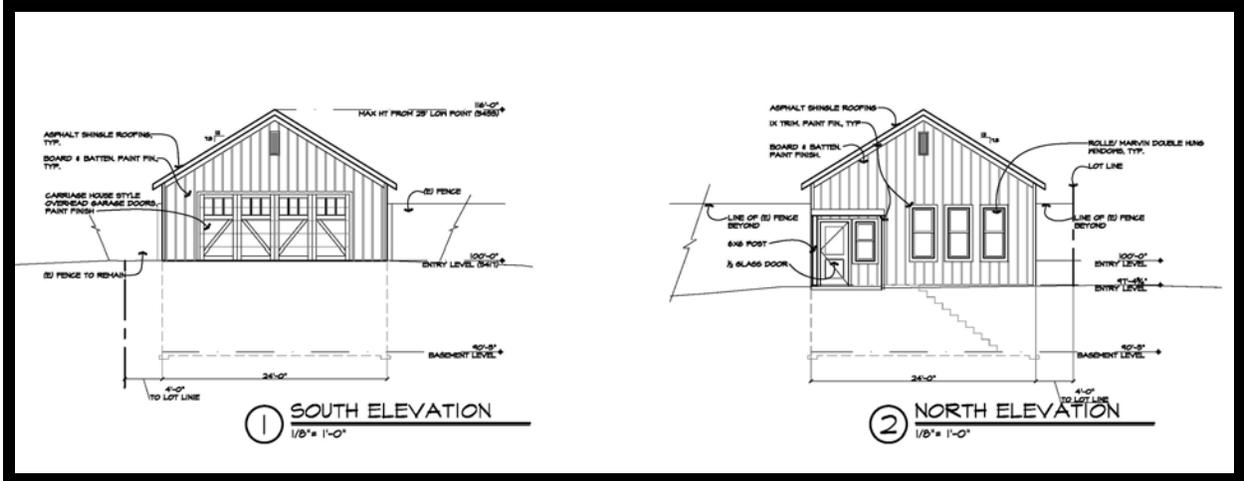


Figure 5. Proposed north and south elevations

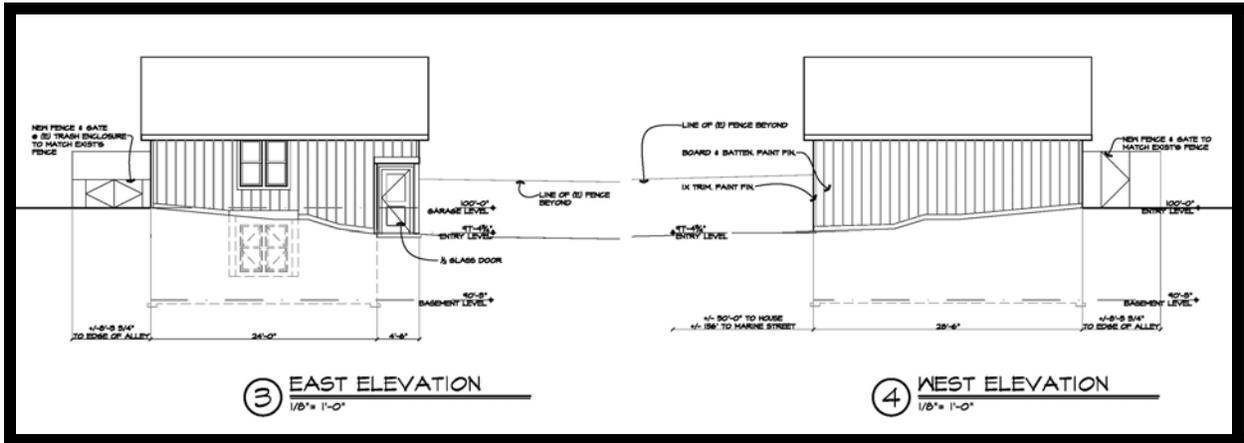


Figure 6. Proposed east and west elevations



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
David Driskell, Executive Director of Community Planning and Sustainability
Susan Richstone, Comprehensive Planning Manager
James Hewat, Historic Preservation Planner
Marie Zuzack, Historic Preservation Planner

Date: May 12, 2011

Subject: Call-up Item: Landmark Alteration Certificate to demolish an existing house and in its place construct a two-story, 3,080 sq. ft. house and 340 sq. ft. free-standing garage at 580 Spruce Street in the Mapleton Hill Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00025). This Landmark Alteration Certificate is subject to City Council call-up no later than **May 17, 2011**.

Executive Summary

The proposal to demolish an existing non-contributing house and in its place construct a two-story, 3,080 sq. ft. house and 340 sq. ft. free-standing garage at 580 Spruce Street was approved by the Landmarks Board (3-2, **L. Podmajersky** and **M. Gerwing** opposed) at the May 4, 2011 meeting. The decision was based upon the board's consideration that the proposed construction meets the requirements in Section 9-11-18, B.R.C. 1981.

The board's approval is subject to a 14-day call-up period by City Council. Therefore, this Landmark Alteration Certificate is subject to City Council call-up no later than **May 17, 2011**.

ATTACHMENTS:

- A. Notice of Disposition dated May 4, 2011
- B. Photographs and Drawings of 580 Spruce Street

Notice of Disposition

You are hereby advised that on May 4, 2011 the following action was taken:

- ACTION:** Approved by a vote of 3-2 (**L. Podmajerksy & M. Gerwing** dissenting).
- APPLICATION:** Public hearing and consideration of a Landmark Alteration Certificate to demolish an existing house and in its place construct a two-story, 3,080 sq. ft. house and 340 sq. ft. free-standing garage at 580 Spruce Street in the Mapleton Hill Historic District, per section 9-11-18 of the Boulder Revised Code (HIS2011-00025).
- LOCATION:** 580 Spruce Street
- ZONING:** Residential Low – (RL-1)
- APPLICANT:** MQ Architecture/Doug and Deb Reichardt

This decision was arrived at based on the purposes and intent of the Historic Preservation Code as set forth in 9-11-18, B.R.C., 1981, as applied to the Landmark Alteration Certificate application.

Public Hearing

Phil Robertson, 550 Spruce St., stated that he believes the existing house is 35’ feet high. He expressed concern that the proposed location of the new house will impact the roots and compromise the health of a large tree that straddles the property line and provides valuable shade. He also suggested moving the garage to the other side of the lot to protect views.

Ethel Berry, 600 Spruce St., spoke in support of issuing a landmark alteration certificate.

Joe Maurer, 541 Spruce St., spoke in support of issuing a landmark alteration certificate.

Jacqueline Boone, 608 Spruce St., spoke in support of issuing a landmark alteration certificate.

Doug Reichardt, 580 Spruce St., expressed appreciation for his neighbors who supported issuance of a landmark alteration certificate for his property.

Abby Daniels, Director of Historic Boulder, 1123 Spruce St., spoke in support of demolition of the existing house.

Motion:

On a motion by **J. Spitzer**, seconded by **K. Nordback**, the Landmarks Board approved (3-2, **L. Podmajersky** and **M. Gerwing** opposed) the demolition of the non-contributing house and the

construction of the proposed 3,080 sq. ft. house and 340 sq. ft. garage at 580 Spruce Street as shown on plans dated 03.30.2011, finding that they generally meet the standards for issuance of a Landmark Alteration Certificate in Chapter 9-11-18, B.R.C. 1981, subject to the conditions below and adopted the staff memorandum dated 5.4.2011 as findings of the board.

CONDITIONS OF APPROVAL:

1. The applicant shall be responsible for constructing the house in compliance with the approved plans dated 03.30.2011, except as modified by these conditions of approval.
2. Prior to submitting a building permit application and final issuance of the Landmark Alteration Certificate, the applicant shall submit the following, which shall be subject to the final review and approval of the Landmarks design review committee (Ldrc): final architectural plans that include revisions to increase the pitch of the side and rear gable roof forms on the house and roof on the garage to more closely match the pitch shown on the proposed north gable on the house; revisions to significantly lengthen the north-south dimension of the east wall of the north gable; revisions to decrease the use of stone, especially at the rear and side of the house; revisions to the round arch front doorway and north facing bay to make it more compatible with historic houses in the streetscape; reduction of French doors at the rear of the house and appropriate modifications to fenestration on the south face of the house; and revisions to make moldings on the house and the garage more proportional to the windows and doors they frame.
3. Details regarding garage door and stone and stucco finish and paint colors be reviewed by the Ldrc to ensure that the approval is consistent with the *General Design Guidelines* and the *Mapleton Hill Historic District Guidelines* and the intent of this approval.
4. The applicant shall bring to Ldrc conceptual design alternatives for size and massing and site plan, particularly addressing the “house in a hole” issue.
5. The applicant shall provide an accurate tree survey and a plan for preserving and protecting any trees of value.

L. Podmajersky and **M. Gerwing** opposed the motion because they felt that the needed design changes were substantial enough to necessitate full board approval.

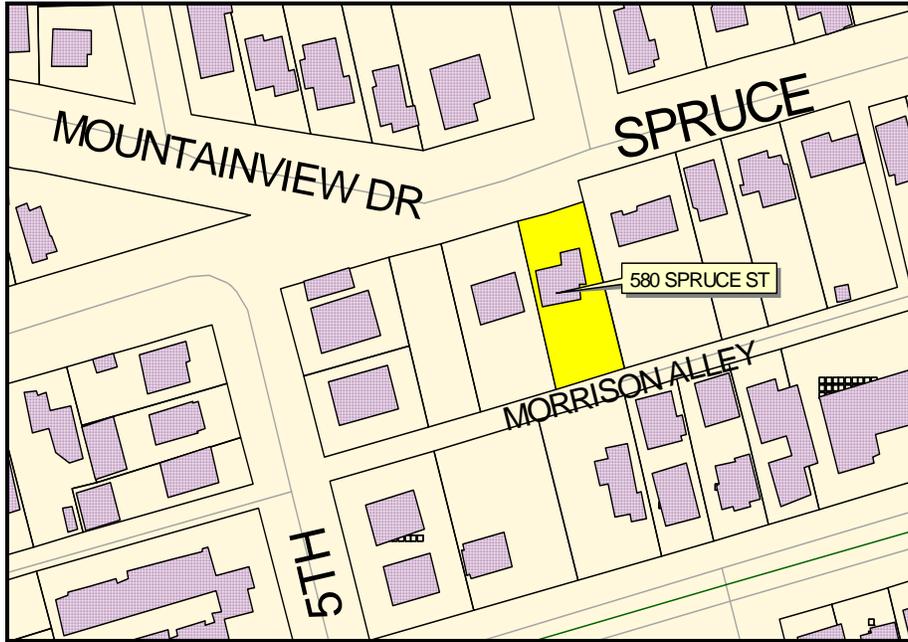


Figure 1. Location Map



Figure 2. Street view of non-contributing house at 580 Spruce Street



Figure 3. South (rear) face of existing house facing Morrison Alley.

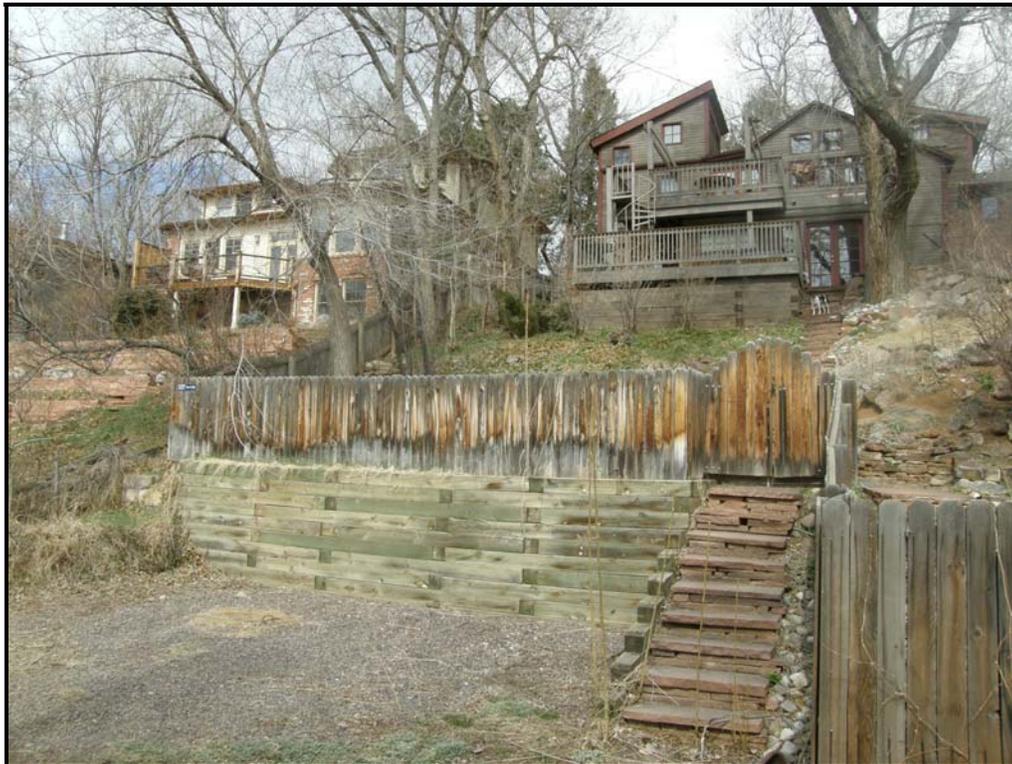


Figure 4. Location of Proposed Garage in foreground



Figure 5. View from Pearl Street to subject property behind trees in background

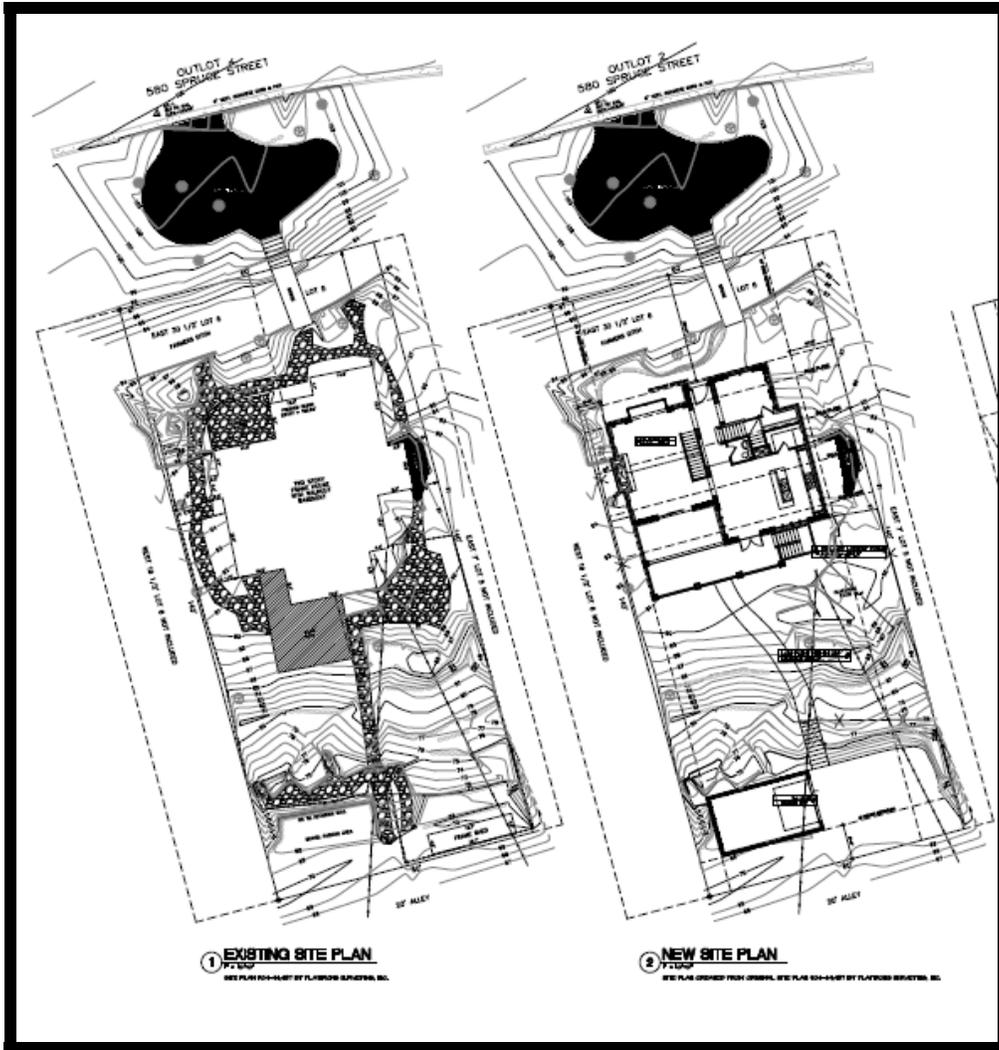


Figure 6. Existing and proposed site plan



Figure 7. Proposed north elevation

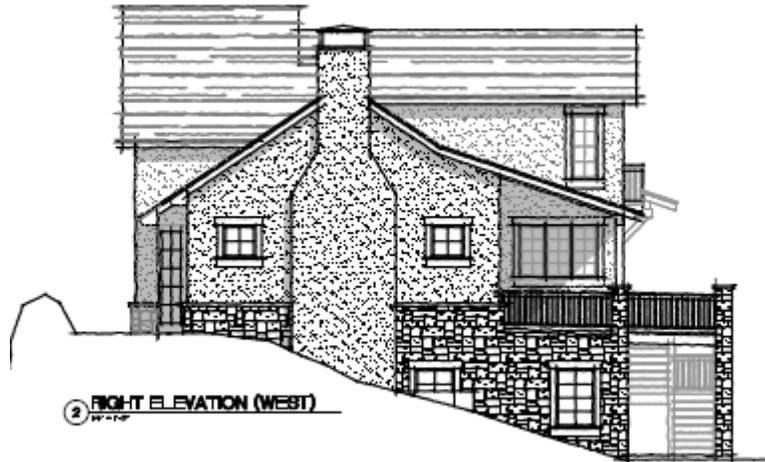


Figure 8. Proposed west elevation



Figure 9. Proposed east elevation



Figure 10. Proposed south elevation

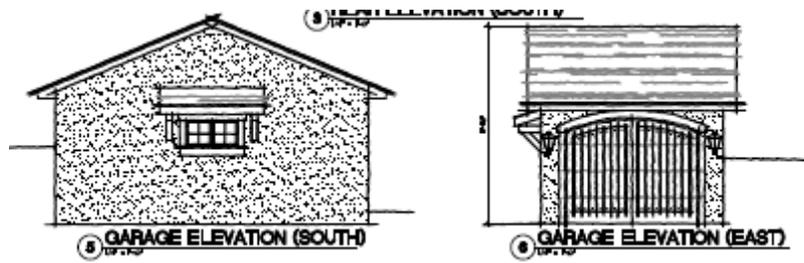


Figure 11. Proposed south and east elevations

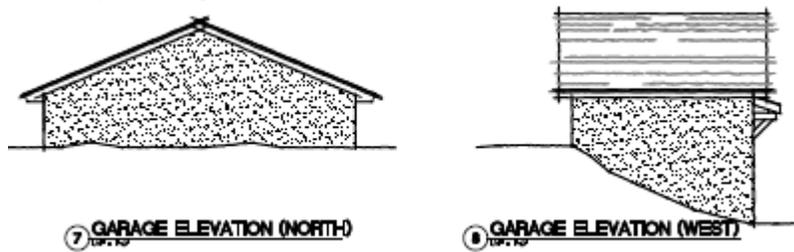


Figure 12. Proposed north and west elevations



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
Maureen Rait, Executive Director of Public Works
Ned Williams, Director of Public Works for Utilities
Bob Harberg, Utilities Project Management Coordinator
Kurt Bauer, Engineering Project Manager

Date: May 11, 2011

Subject: Information Item: Fourmile Canyon Fire and 2011 Flood Season

EXECUTIVE SUMMARY

This memorandum provides an overview of the potential impacts to the City of Boulder from the September 2010 Fourmile Canyon wildfire along with 2011 flood season preparations. While this memorandum primarily focuses on potential impacts to the City of Boulder and mitigation measures within the city, a summary of mitigation measures and outreach within the burn area is also provided.

Recent studies indicate that the burn area poses an increased flood threat to Boulder Creek and Fourmile Canyon Creek for up to 10 years; although, the threat of increased runoff decreases annually as vegetation is established within the burn area. Specific rainfall thresholds for storms that center over the burn area have been established to assist with monitoring rain events and predicting various levels of flooding. The city, Boulder Office of Emergency Management (OEM), the Urban Drainage and Flood Control District (UDFCD) and the National Weather Service will be on heightened awareness during the 2011 flood season.

FISCAL IMPACT

1. State grant funds and UDFCD funds were used for hydrologic studies.
2. UDFCD funds are used for debris removal along Fourmile Canyon Creek.

3. Increased staff time will be required to plan for and support emergency response efforts. Staff time will be charged to the Utilities Division flood operating budget.
4. \$5,000 from the Stormwater Quality Operations Fund budget was used for water quality and aquatic monitoring on Boulder Creek.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS

While the following are always considered potential impacts from flash floods occurring in the city, the Fourmile Fire burn area increases the risk of flooding along Boulder Creek and Fourmile Canyon Creek for the next 10 years, thus increasing the risk of the impacts below.

- Economic:
 1. Flooding along Boulder Creek and Fourmile Canyon Creek could result in property and infrastructure damages.
 2. Potential increased maintenance efforts may be required to remove debris and sediment along Boulder Creek and Fourmile Canyon Creek following flood events.
 3. There may be potential impacts to special events along Boulder Creek.
- Environmental:
 1. Increased sediment loads could result in ecological damage along Boulder Creek and Fourmile Canyon Creek.
- Social:
 1. Flooding along Boulder Creek and Fourmile Canyon Creek could result in a risk to human life and property.
 2. Higher flows could reduce recreation along Boulder Creek.
 3. Increased sediment loads will impact the 'clear water' aesthetic experience along Boulder Creek and Fourmile Canyon Creek.
 4. Flooding could impact special events along Boulder Creek.
 5. Underpasses near creeks could be flooded more often, thus impacting mobility along the city's multi-use paths.

BACKGROUND

The Fourmile Canyon Fire was one of the most costly fires in Colorado history, destroying 168 homes with property losses estimated at \$217 million. The fire started on Sept. 6, 2010 and burned nearly 6,200 acres of steep, forested canyon area just west of Boulder. Approximately 60 percent of the area was severely or moderately burned.

There are two drainage areas of concern to Boulder. Approximately 80 percent of the burn area is located in land tributary to Fourmile Creek, which is a tributary to Boulder Creek (approximately two miles west of Boulder). Approximately 20 percent of the burn area is located in the Fourmile Canyon Creek watershed. Fourmile Canyon Creek flows through north Boulder and is also tributary to Boulder Creek but downstream of the City of Boulder limits. (Note: Fourmile Canyon Creek and Fourmile Creek are two different creeks.) **Attachment A** presents a figure showing the burn area in relationship to Boulder Creek and Fourmile Canyon Creek.

The city and Boulder County hired a consultant, Wright Water Engineers, to estimate peak runoff from the burn area by rainfall event. Peak flow estimates were derived for both Boulder Creek at the confluence with Fourmile Creek and the upstream end of Fourmile Canyon Creek. The peak flows were used to define potential flood threats from rainfall events located over the burn area. The study was funded by state agencies.

Boulder County is seeding and mulching areas within the burn area, distributing over 70,000 sand bags with installation brochures and installing devices to help catch and/or divert debris from high risk homes and drainages within the burn area.

A verbal update to City Council was provided by Ned Williams on March 1 regarding analysis, mitigation and outreach steps being taken by the city and its partners in preparation for the 2011 flood season. A subsequent Heads Up was sent on April 15 with updated information on outreach efforts.

The city and county have a unified message for the 2011 flood season. The extent of messaging and outreach, however, are different for people living in and around the burn area than for people living and working within the city. The county has conducted numerous small meetings and public outreach efforts with those living in the burn area and is educating on evacuation planning, flood and debris flow potential, and protection of property. Approximately 40 people have signed up to be volunteer weather spotters to provide on-the-ground storm information from the burn area. This information will be provided real-time to the Boulder OEM. A video camera was also installed at the confluence with Fourmile Canyon Creek and Boulder Creek/US 119. The city, county and Boulder OEM staff will have access to the video feed, which will help provide real time information on flood and debris conditions.

The city has cleaned out existing sediment “catchments” in Boulder Creek in order to capture sediment runoff from the burn area and is working with the UDFCD to remove debris along Fourmile Canyon Creek. The \$85,000 debris removal effort along Fourmile Canyon Creek is being funded by the UDFCD and will be completed by mid May.

The city sent out an updated version of its annual flood safety brochure flier with April utility bills stating that, as a result of the fire, rain events could result in muddy creek water, creek levels rising more quickly and higher frequency of underpass flooding. The flier urges increased caution near creeks and provides a link to the city’s website providing additional information (www.boulderfloodinfo.net). The County has also set up a website to provide additional flood related information (www.bouldercounty.org > live > environment > land > Fourmile Canyon Fire).

The city also sent the brochure along with a direct mail letter to property owners and residents within the 100-year floodplains of both Boulder Creek and Fourmile Canyon Creek the week of April 11, 2011 (approximately 2,100 letters). The letter provides a summary of the potential increased flood threat, describes what people can do to prepare for the flood season and encourages people to purchase flood insurance. A copy of this letter is provided as **Attachment B**. A press release on April 7, 2011 provided similar information (**Attachment C**). The

University of Colorado put out a press release with similar information to its community around the same time. The city has also updated its Family Flood Action Plan handouts and is distributing these and the brochures at events and locations throughout the city. These materials are also available at www.boulderfloodinfo.net. Finally, the city will tweet safety tips throughout the season to its Twitter and Facebook accounts.

The city maintains, operates and tests warning sirens throughout the city. The Boulder OEM has the ability to activate the sirens with either warning tones or specific verbal instructions. The location of the sirens is provided as **Attachment D**. Also, the Boulder OEM can activate emergency phone alerts to any specific area within the city.

ANALYSIS

Recent studies indicate that the burn area poses an increased flood threat for up to 10 years; although, the threat of increased runoff decreases annually as vegetation is established within the burn area. In addition, the flood threat is dependent on the tracking, intensity and duration of a storm as well as how high the creeks are already flowing and moisture content in the ground prior to a storm event. Increased flood warnings and trail closures along Boulder Creek and Fourmile Canyon Creek should be anticipated for the next several flood seasons.

The city has developed rainfall rate thresholds based on the hydraulic modeling of the burn area and resulting inundation along Boulder Creek and Fourmile Canyon Creek. The thresholds are based on inches of rainfall per hour over the burn area. Rainfall rates were developed for both a “heightened awareness” level and a “flooding is imminent” level. Two different sets of thresholds were developed for Boulder Creek; one for when the creek was running full in the spring (assumed 1,000 cubic feet per second (cfs) base flow) and the second for later in the summer during low base flow (assumed 50 cfs base flow). A trail warning threshold was also developed for low base flow conditions in Boulder Creek because of the potential rapid rise in the creek. Only one set of thresholds was developed for Fourmile Canyon Creek because the base flow in the creek does not vary seasonally like Boulder Creek.

The “heightened awareness” level prompts increased monitoring of the weather conditions, rain gages and stream gages. The “flooding is imminent” level prompts activation of the Boulder OEM. If activated, the Boulder OEM, in conjunction with the City Manager’s Office, will then begin appropriate response measures including alert messaging, evacuations, etc. depending on the anticipated or occurring event conditions and locations. **Attachment E** presents the rainfall thresholds by alert level.

While there is an increased flood threat resulting from the Fourmile Fire, the burn area does not pose a threat to the city’s drinking water supply due to the locations of the watersheds. In addition, large debris washed from the burn area will likely not be transported downstream to the city and therefore will not likely pose an increased flood risk. The burn area will likely, however, result in increased sediment loading to Boulder Creek and Fourmile Canyon Creek (more “muddy” water days).

The UDFCD employs meteorologists around the clock from April 15 through Sept. 15 each year. Beginning April 15, the UDFCD emails Boulder OEM and Public Works staff daily precipitation forecasts. On days when heavy rainfall is anticipated, both the National Weather Service and UDFCD send email messages to Boulder OEM and Public Works staff that include anticipated total precipitation amounts and likely movement (speed and tracking) of storm systems. Boulder OEM and Public Works staff review the daily forecasts and on days with a chance for heavy precipitation, monitor the city's network of rain and stream gages along with radar data. The network of gages provides real-time data on rainfall rates and stream flows. The city has developed a web-based Geographic Information System (GIS) application that can be accessed anywhere the internet is available. The application includes all the gage data, radar data, inundation mapping and infrastructure data.

NEXT STEPS

Boulder OEM, in conjunction with the City Manager's Office will make evacuation decisions based on best available information. Flash floods provide very little time for evacuations and notifications. As a result, decisions to evacuate particular areas or creek side events may result in "false alarms". To help reduce these occurrences, the city and UDFCD will be evaluating and modifying the rainfall thresholds for the burn area based on actual runoff from rainfall events as the season progresses.

ATTACHMENTS

Attachment A: Map of Burn Area Tributary to Boulder Creek and Fourmile Canyon Creek

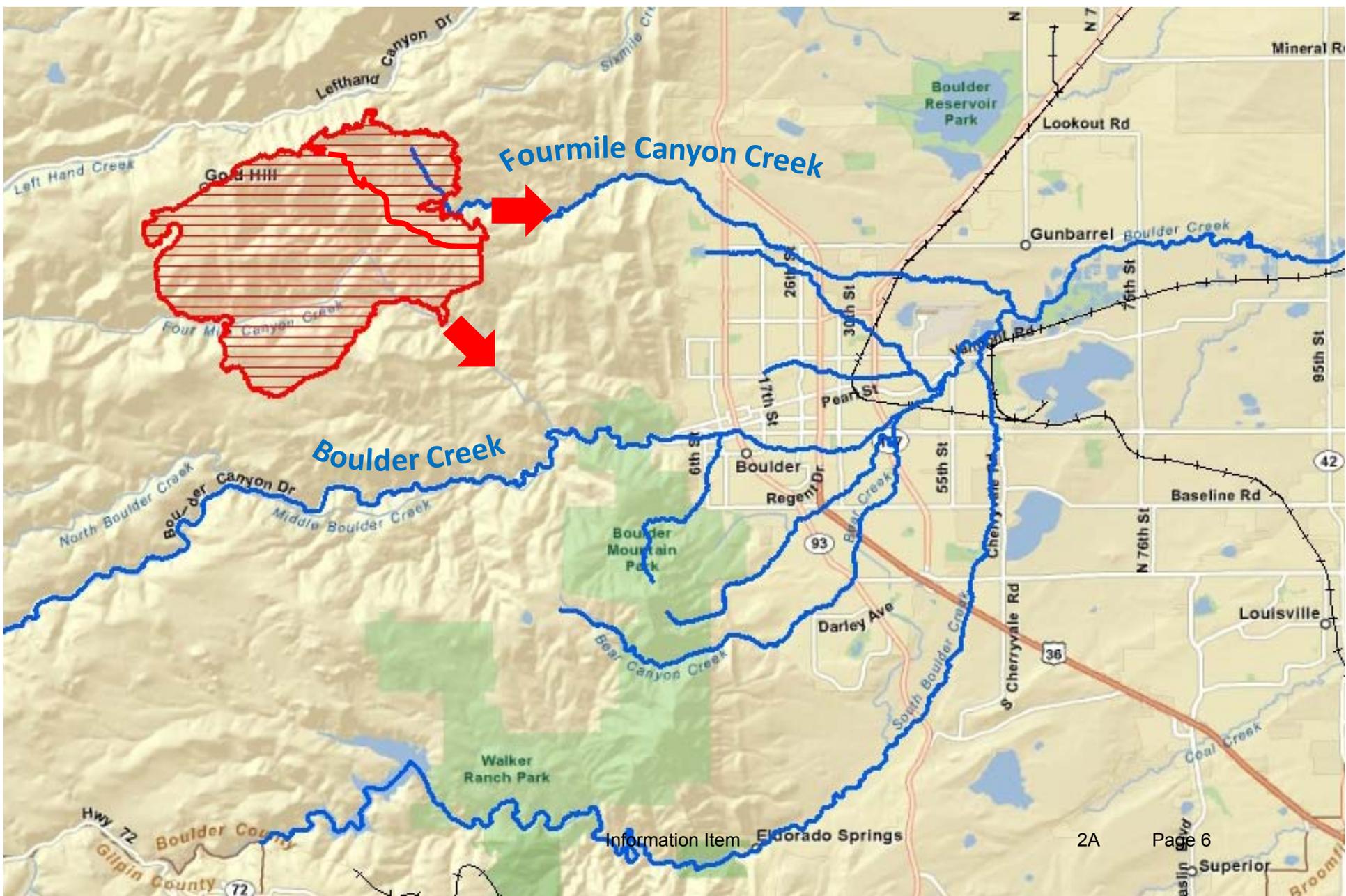
Attachment B: Floodplain Letter

Attachment C: Press Release

Attachment D: City Siren Locations

Attachment E: Rainfall Alert Thresholds

Attachment A: Fourmile Creek Burn Area Tributary to Boulder Creek and Fourmile Canyon Creek



CITY OF BOULDER

Department of Public Works
PO Box 791
1739 Broadway
Boulder, Colorado 80306



April 12, 2011

Dear property owner or resident:

You are receiving this letter because our records show that you own property or live/work within the Fourmile Canyon Creek or Boulder Creek floodplains.

Boulder is known as the number one flash flood risk community in the state; therefore, flood safety and preparation is always a high priority for the community. However, following last September's Fourmile Canyon Fire, there is a lack of vegetation and permeable soil in the burn area. This creates an increased possibility of rain run-off and flooding on Fourmile Canyon Creek and Boulder Creek. This increased flood potential could endure through 2021 until the landscape starts to recover. The City of Boulder and its partners are working together to prepare for the season and communicate with community members.

What can you do?

1. Be alert. It can be raining in the mountains and dry in Boulder.

Rainfall in the burn area could result in:

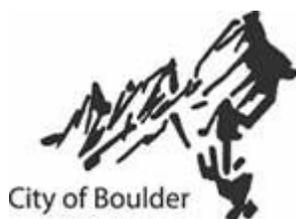
- Muddy or murky creek water downstream.
- Creek levels rising more quickly.
- Higher frequency of flooded underpasses.*
- Increased possibility of flash flooding.

*If it is raining, avoid seeking shelter in underpasses. Many of Boulder's underpasses serve the double purpose of conveying flood waters. This means they are meant to flood and help contain flood waters from overflowing into other areas.

2. Due to the increased possibility of flooding on Boulder Creek and Fourmile Canyon Creek, property owners should consider buying flood insurance. In the event that your home or property is impacted by rain run-off, flooding, or surface water debris flows, your homeowner's policy will not cover the damage. By law, flood insurance is issued as a separate insurance policy. You can buy flood insurance no matter your flood risk, whether you're in a floodplain or not. There is a 30-day waiting period before coverage goes into effect. You should be able to buy flood insurance from your existing insurance company and agent.
3. There is no way to predict whether flooding will occur. It is dependent on many variables including when a storm hits, where it sets up, its intensity and how long it lasts. The best course of action is to be alert and be prepared. There are a number of at-home preparation tips available at www.boulderfloodinfo.net. There, you can print off a Family Flood Action Plan and sign up to get emergency alerts sent to you on your phone, e-mail or Twitter account. Included in this letter is the City of Boulder's *In a Flash* informational brochure.

Sincerely,

Ned Williams
Director of Public Works for Utilities
City of Boulder
303-441-3266



NEWS

Thursday, April 7, 2011

Contact(s):

Jody Jacobson, Public Works, 303-441-3122

Sarah Huntley, Media Relations, 303-441-3155

www.bouldercolorado.gov

Flood season begins in Boulder

April 10 to April 16, 2011, is Colorado Severe Weather Awareness Week, and the City of Boulder would like to remind community members that along with severe weather comes flash flood season. Boulder's flood season officially begins in April and runs through the end of September, but floods can happen at any time.

Boulder is the number one flash flood risk community in Colorado due to its location at the mouth of Boulder Canyon, the number of people who live and work within the Boulder Creek floodplain, and the numerous other drainage basins running through the city. Therefore, flood safety and preparation is always a high priority for the community. However, following the Fourmile Canyon Fire, there is a lack of vegetation and permeable soil in the burn area. This creates an increased possibility of rain run-off and flooding on both Boulder Creek and Fourmile Canyon Creek if a severe storm were to occur over the burn area. This increased flood potential could last anywhere from 2 to 10 years until the landscape starts to recover.

The City of Boulder and its partners are working together to prepare for the season and to educate community members on how to prepare.

What can you do?

Be alert. It can be raining in the mountains and dry in Boulder. Rainfall in the burn area could result in:

- Muddy or murky creek water downstream.
- Creek levels rising more quickly.
- Higher frequency of flooded underpasses.
- Increased possibility of flash flooding.

If it is raining, avoid seeking shelter in underpasses. Many of Boulder's underpasses serve the double purpose of conveying flood waters. This means that they are meant to flood and to help contain flood waters from overflowing into other areas.

Remember, flash floods can literally occur **IN A FLASH** during a severe storm. It's important that residents and people who work in Boulder keep track of the weather and know the dangers.

Here are some steps residents and employees can take to increase their safety if a flood event should occur in Boulder:

Before a flood – Be ready:

- Have a plan for where to meet in an emergency and make sure children know where to go when they are at school or away from home.
- Keep an emergency kit accessible. Include a battery-powered radio, extra batteries, flashlights, rubber boots and gloves, first-aid supplies, medicines, water stored in tightly-sealed containers and food that requires no cooking or refrigeration.
- If you're concerned about your property being flooded, consider purchasing flood insurance. A homeowner's insurance policy will not cover flood damage. There is a 30-day waiting period before new coverage goes into effect.
- Fill out a Family Flood Action Plan and post it in your home. Visit www.boulderfloodinfo.net to print off a Family Flood Action Plan or pick one up at one of the Boulder Public Library branches or at the city's Municipal Building at 1777 Broadway.
- Sign up to get emergency alerts sent to you on your phone, email or Twitter account at www.BoCo911Alert.com.

During a flood:

- Move to higher ground immediately.
- Stay out of flowing waters. Swift moving waters may sweep people away.
- Avoid driving through flooded areas. Cars float in 18 inches of water and half of all flood fatalities are auto related.
- Stay away from power lines and electrical wires. Electrocution is the number two killer in floods.
- If time allows, turn off electricity and gas.
- When an emergency warning is issued by sirens, radio or other media, seek response information immediately. Tune radios to 850 AM or televisions to local news stations.

After a flood:

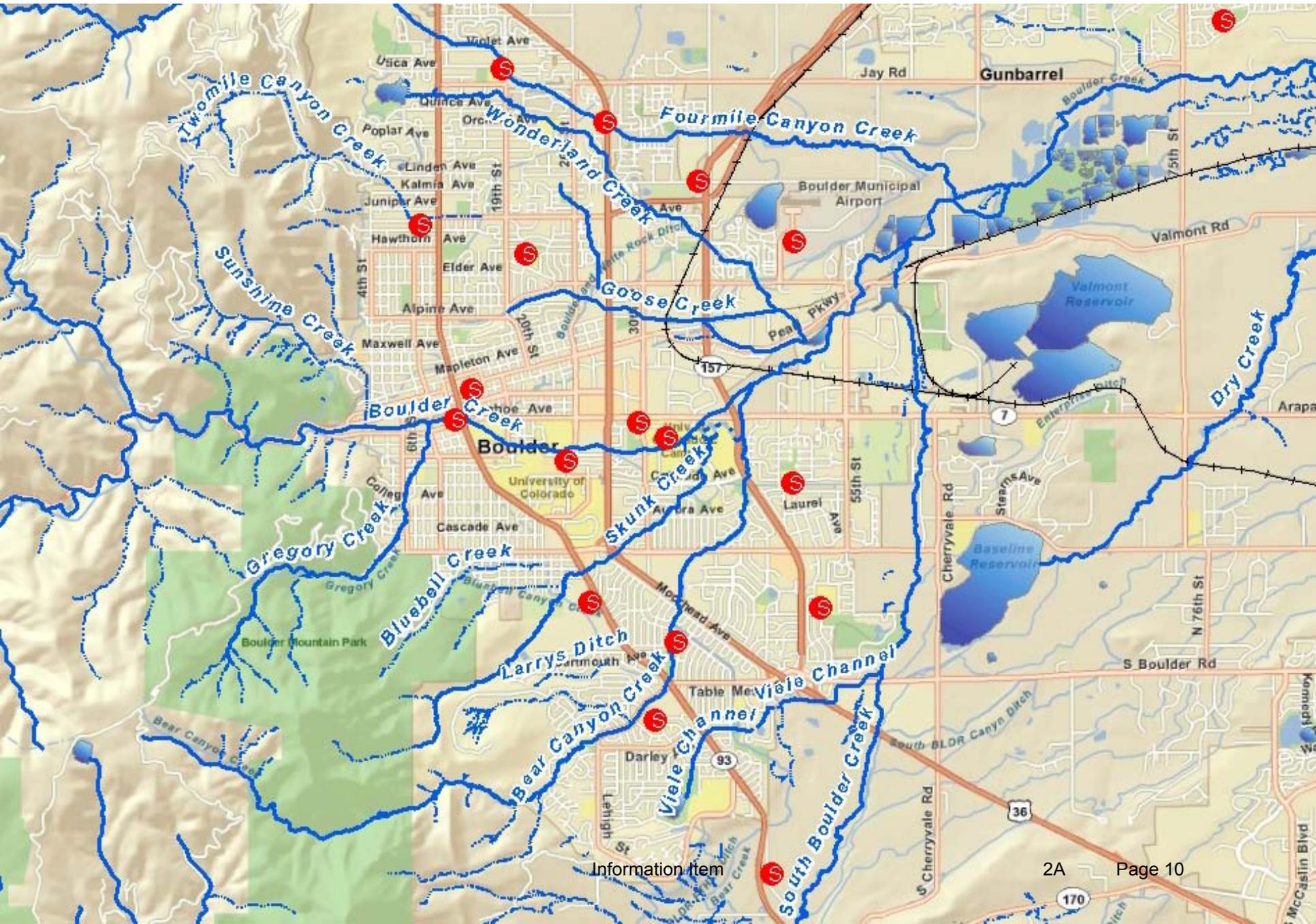
- Stay away from disaster areas until authorized. Clean everything that got wet to avoid bacteria and mold.
- Continue to monitor local media for disaster and recovery information.

There is no way to predict whether flooding will occur. It is dependent on many variables including intensity, duration and location of storms as well as existing soil conditions. The best course of action is to be alert and be prepared.

The city maintains a flood information website that can help residents prepare before, during and after a flood event. For more information about personal preparedness, visit www.boulderfloodinfo.net. To sign up for emergency alerts on your phone, email or Twitter account, go to www.BoCo911Alert.com.

--CITY--

Attachment D: Warning Siren Locations



ATTACHMENT E – 2011 RAINFALL ALERT THRESHOLDS OVER BURN AREA

Table 1.0 presents the threshold rainfall rates for Boulder Creek and Fourmile Canyon Creek. Two different sets of thresholds were developed for Boulder Creek, one for when the creek was running full in the spring (assumed 1,000 cfs base flow) and the second for later in the summer during low base flow (assumed 50 cfs). A trail warning threshold is included for low base flow condition in Boulder Creek because of the potential rapid rise in the creek. Only one set of thresholds was developed for Fourmile Canyon Creek.

The thresholds are for inches of rainfall per hour for a storm located over the burn area. The thresholds are based on the likely inundation resulting from the estimated peak flows from the burn area. Many factors such as existing creek base flows, antecedent moisture conditions within the watershed and extent of storm coverage over the burn or other watersheds will need to be considered while monitoring during the flood season.

Table 1.0 Rainfall Thresholds over the Burn by Alert Level

Location	Alert Level Rainfall Threshold			
	Heightened Awareness Alert Level		Flooding is Imminent Alert Level	
	(in/hr)	(cfs)	(in/hr)	(cfs)
Fourmile Canyon Creek	1.7	620	2	~865
Boulder Creek high base flow condition (1,000 cfs base flow)	1*	1,780 (1,000 + 780)	1.7	3,600 (1,000 + 2,600)
Boulder Creek low flow condition (50 cfs base flow)	1.5*	1,850 (50 + 1,800)	2	3,650 (50 + 3,600)
Boulder Creek low flow condition trail warning (50 cfs base flow)	-	50	1	830 (50 + 780)

* Heightened awareness alert level for city, flooding is imminent alert for CU housing



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council members

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
David Driskell, Executive Director, Community Planning and Sustainability
Maureen Rait, Executive Director, Public Works
Mary Ann Weideman, Deputy Director, Community Planning and Sustainability
Kara Mertz, Local Environmental Action Manager
Yael Gichon, Residential Sustainability Coordinator
Kirk Moors, Acting Chief Building Official
Megan Cuzzolino, Residential Sustainability Specialist
Kelle Boumansour, Contracts and Data Manager

Date: May 11, 2011

Subject: Update on SmartRegs Implementation

EXECUTIVE SUMMARY:

This memo is the first of the bi-monthly reports to council regarding implementation of the SmartRegs energy efficiency requirements. This initial report also includes updates on the implementation of all three SmartRegs ordinances.

The SmartRegs project included three ordinances. Two updated the housing code and the rental licensing program and one created a new requirement for energy efficiency in rental housing. In response to concerns about the financial impact on property owners, a deferred energy efficiency compliance date of Jan. 2, 2019 was developed.

The first three years of the eight-year implementation period serve as an incentive period when rebates and assistance are available to help property owners reach compliance. In a partnership with Boulder County, EnergySmart, a suite of one-stop-shop building efficiency services, launched countywide in January 2011. The EnergySmart service provides a convenient solution for assisting property owners with SmartRegs compliance. Through this service, the City of Boulder is able to offer rebates and incentives for compliance in addition to those offered by the countywide EnergySmart service.

For 2011, a benchmark was set for 1,000 properties to receive the initial inspection to measure baseline points, which is accomplished through enrollment in the EnergySmart service. The second benchmark set was for 500 properties to be certified compliant with SmartRegs.

With 786 units already enrolled and many large property management companies beginning discussions with EnergySmart staff, the city anticipates reaching and possibly exceeding the enrollment benchmark in 2011. With 345 units compliant, the program is also on pace to meet the second benchmark of 500 units reaching compliance in 2011. Ongoing outreach and education efforts are expected to further impact participation and implementation efforts.

Bi-monthly reports on SmartRegs will continue during 2011. A comprehensive annual report is scheduled to be provided to council in April 2012. One of the issues raised by council and the public during the consideration of SmartRegs is whether the city is effectively enforcing rental license code compliance. An update on a pilot program and the enforcement of rental housing licensing will be provided at a study session during the third quarter of 2011.

FISCAL IMPACT

The costs for SmartRegs implementation and reporting are included within the 2011 operating budget.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS

The SmartRegs reporting outline included in the [September 7, 2010 memo](#) addresses economic, environmental and social concerns.

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- **Economic:** The key concern conveyed by council and the public is the costs for property owners to comply with the energy efficiency provisions. During the implementation phase, the cost impacts are mitigated with incentive programs as well as by deferred compliance.

To date, not enough data has been compiled to report on program compliance costs. As of April 25, 2011, 786 rental units had enrolled in the EnergySmart program, a program developed by the city and administered through Boulder County for facilitating energy efficiency improvements for property owners, including for property owners trying to comply with SmartRegs for their rental properties. As more property owners complete improvements following their initial SmartRegs property inspection, more economic impact information will be available for future bi-monthly reports.

- **Environmental:** Boulder's energy efficiency requirements for new construction contribute to the council adopted Climate Action Plan goal of greenhouse gas reduction. However, new construction represents a small percentage of the overall buildings within the city. Improving the energy efficiency of the existing residential housing stock will have a more pronounced impact on greenhouse gas reduction.

Of the 786 rental properties currently participating in EnergySmart, about 87 percent were found to meet the SmartRegs energy efficiency requirements without any needed improvements. As more data is compiled on improving the units that are found to be noncompliant, projections can be developed about the greenhouse gas savings represented by properties upgraded to SmartRegs standards.

- **Social:** Housing codes help control the potential impacts of the built environment on life and property. Safe buildings, a healthy environment and the reduction of climate change impacts have social benefits. Property owners and tenants benefit from lower and more predictable utility bills. To date, the majority of rebate and incentive programs for energy efficiency improvements have been focused on owner-occupied housing. The SmartRegs energy efficiency requirements in partnership with EnergySmart services represent a combination of mandatory requirements and incentives for increasing the efficiency of rental housing. As properties are improved to comply with SmartRegs energy efficiency requirements, renters will increasingly experience the benefits of improved efficiency such as lower utility costs and increased comfort.

BACKGROUND:

The SmartRegs project included three ordinances. Two updated the housing code and the rental licensing program and one created a new requirement for energy efficiency in rental housing. These ordinances were adopted by council on Sept. 21, 2010. In response to concerns about the financial impact on property owners, a deferred energy efficiency compliance date of Jan. 2, 2019 was adopted.

Rental properties must demonstrate compliance through the use of either a performance or prescriptive compliance method. The prescriptive pathway requires that properties achieve 100 points from the checklist adopted in the ordinance. The performance pathway requires that properties achieve a score of 120 on the Home Energy Rating System (HERS). Since no properties have employed the performance pathway to date, this memo will focus on results related to the prescriptive pathway.

The first three years of the eight-year implementation period serve as an incentive period when rebates and assistance are available to help property owners reach compliance. In a partnership with Boulder County, EnergySmart - a suite of one-stop-shop building efficiency services - launched countywide in January 2011. The city contracted independently with the EnergySmart program administrator to offer services and support specific to rental properties for the SmartRegs implementation. This includes assessing rental properties for SmartRegs energy efficiency compliance; providing a data portal for inspectors to report SmartRegs results; tracking and reporting program benchmarks; dedicating program staff to SmartRegs scheduling and a call center hotline; developing detailed case studies; and providing quality assurance on inspections. The EnergySmart service provides a convenient solution for assisting property owners with SmartRegs compliance. Through this service, the City of Boulder is able to offer rebates and incentives for compliance in addition to those offered by the countywide EnergySmart service.

Benchmarks for SmartRegs participation for the eight-year implementation period were presented to council in the [Sept. 7, 2010 memo](#).

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The benchmarks for 2011 are for 1,000 properties to receive the initial inspection to measure baseline points and for 500 properties to be certified compliant with SmartRegs.

ANALYSIS:

The SmartRegs implementation period began Jan. 3, 2011. Properties enrolling through EnergySmart receive the following services for \$120:

- Assessment of unit by a Class G license inspector¹, including a completed SmartRegs Prescriptive checklist
- Energy advisor service, including an individualized plan for compliance, coordinated with rebate and financing assistance
- Quick installs of low-cost energy and water efficiency measures, such as compact fluorescent light bulbs (CFLs)
- Access to rebates from the city, Governor's Energy Office (GEO), Xcel Energy and the Department of Energy (DOE) EnergySmart grant
- Access to the EnergySmart pre-approved contractor pool as well as assistance scheduling contractors and understanding bids
- The benefit of EnergySmart quality assurance

EnergySmart services for SmartRegs customers have been developed to address the specific concerns of multifamily residential buildings. This includes customized service for various building types, coordination with Xcel's commercial energy audits if applicable, and development of a sampling protocol² for similar unit types in the same building.

¹ To inspect properties for compliance with the energy efficiency components of SmartRegs, the ordinance included a new Class G License for inspectors to verify compliance. A pool of Class G license inspectors is managed through the city's contribution to the EnergySmart program administration to provide inspections in conjunction with the service.

² The sampling protocol includes a method for sampling representative unit types in a building where the units inspected are not in compliance. The property owner is given a recommended implementation plan before proceeding with the inspection of each individual unit.

Participation in EnergySmart (data was compiled as of April 25, 2011):

- Of the approximately 1,121 units enrolled in EnergySmart:
 - 86% (963 units) are units in the City of Boulder
 - 70% (786 units) are rental units within the City of Boulder. Of the 786 rental units:
 - 90% (705 units) are units within multifamily buildings
 - 10% (81 units) are single-family homes

Of the 786 rental properties enrolled in EnergySmart:

- 51% (397 units) have been inspected
- 7% (54 units) have not had inspection data recorded³
- 40% (316 units) are being sampled²
- 2% (19 units) are scheduled for inspection

Of the 397 units inspected to date:

- 87% (345 units) were compliant at the initial inspection
- 13% (52 units) were not compliant at the initial inspection

Of those units that were initially non-compliant:

- The average point total on the checklist was 79 on a scale where 100 points meets the energy efficiency provisions
- Baseline points ranged from 30 to 99⁴

Benchmarks

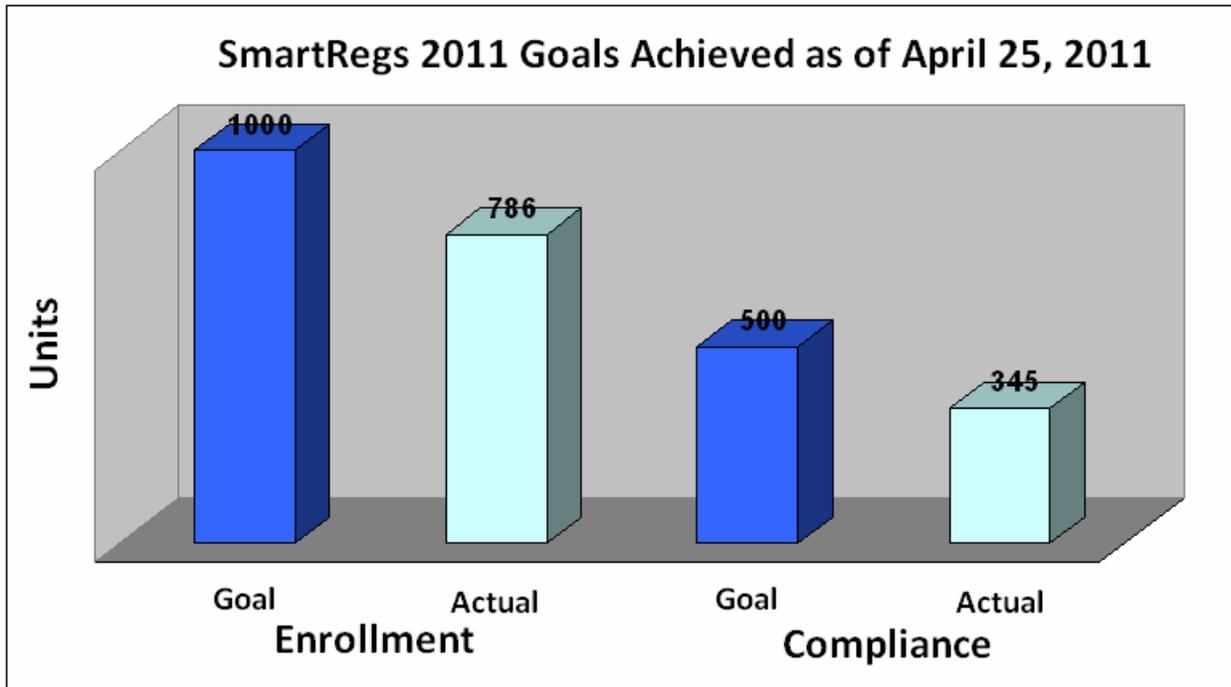
For 2011, a benchmark was set for 1,000 properties to receive the initial inspection to measure baseline points, which is accomplished through enrollment in the EnergySmart service. The second benchmark set was for 500 properties to be certified compliant with SmartRegs. The

³ During the first quarter of 2011, the system for recording data and results was established. Data from inspections that took place in the first quarter were being entered into the system at the time this memo was written. Complete data will be available for future council updates.

⁴ Does not include one property that had 110 points but failed to meet the mandatory water conservation point level and therefore had not been deemed compliant.

graph on page 6 shows the progress towards the benchmarks based on EnergySmart participation, as of April 25, 2011.

With 786 units already enrolled and many large property management companies beginning discussions with EnergySmart staff, the city anticipates reaching and possibly exceeding the enrollment benchmark in 2011. With 345 units compliant, the program is also on pace to meet the second benchmark of 500 units reaching compliance in 2011. Additionally, outreach and education efforts described below will drive participation and implementation.



SmartRegs Outreach and Education

In late December 2010, the [SmartRegs website](http://bouldercolorado.gov/smartregs) (bouldercolorado.gov/smartregs) transitioned from a project-based website to a comprehensive implementation resource center. Designed specifically to cater to the three main target audiences (property owners, tenants and inspectors), the implementation website provides complete information and resources for each audience.

In early January 2011, the SmartRegs email list (consisting of more than 400 community members) was used to promote the new website and inform recipients that all adopted ordinances had gone into effect. In addition, the city sent a direct mail postcard to all property owners and inspectors in the rental licensing database with similar information. The postcard also previewed the benefits of the city/county EnergySmart services.

With assistance from Boulder County, the city will engage in significant outreach for the EnergySmart service. Because EnergySmart programs and rebates will only be available for a limited time, outreach will focus on encouraging property owners to take advantage as early as possible. A large part of the EnergySmart outreach efforts focus on publicizing the rebates and assistance available in the early years of implementation. In addition to the overarching

EnergySmart communications, messages specifically tailored to rental property owners will be developed by the city to highlight the SmartRegs requirements and available incentives.

As part of the countywide communications effort, the city received a SmartRegs/EnergySmart-specific marketing plan from EnergySmart-contracted consultants. The marketing plan provides an overall communication strategy, target segmentation, messaging and tactics. Outreach and education tactics from the plan include:

- Targeted “SmartRegs 101” presentations to property owners and managers, by a third-party consultant;
- Direct mail pieces to property owners communicating the benefits of EnergySmart;
- Use of social networks to engage and educate tenants; and
- Leveraging community partnerships to deliver audience-specific information.

The marketing plan is currently being finalized and will be implemented throughout 2011 and beyond.

EnergySmart and SmartRegs education will also be incorporated into other outreach avenues typically employed by staff, including but not limited to: CU’s Green Teams for tenants in the University Hill and Goss Grove neighborhoods; weekly Farmers’ Markets; neighborhood meetings; and other local events.

SmartRegs Trainings

SmartRegs includes a Class G License requirement for inspectors who must verify that properties comply with the energy efficiency components. Certain prerequisite licenses or certifications are required to attend Class G license trainings. Four one-day trainings were held in December and January and approximately 80 inspectors attended. The training included a one-hour exam. To date, 29 Class G Licenses have been issued. Another training is scheduled for May 20, 2011 and additional trainings are being considered for late summer 2011.

The housing update component of the SmartRegs project included replacing the locally developed housing code with the International Property Maintenance Code (IPMC). Three trainings were conducted in December, January, and February for the purpose of educating rental license inspectors and homeowners about the IPMC. Approximately 85 people attended the housing code/IPMC related trainings.

Safety Updates

The rental license program features inspection checklists that are used by private third-party inspectors to verify code compliance for rental units. Prior to the recent SmartRegs code update, life and safety features of a rental unit were inspected when a property changed ownership. The renewal of the rental license every four years also required a “safety inspection.” However, that inspection was limited to checking the gas-fueled mechanical appliances. The updated license renewal process is designed to have the inspector verify safe maintenance of life and safety features with each renewal.

Rental License Enforcement

One of the issues raised by council and the public during the consideration of SmartRegs is whether the city is effectively enforcing rental license code compliance. There was concern that the number of non-compliant rentals in the city was already high and could worsen given the costs for required energy efficient upgrades. In response to the concern, a pilot rental license enforcement position was developed. The position is designed to be a fully cost-recovered position through the use of administrative fees. The position is currently being filled.

Once the pilot program begins, if a property is investigated and determined to require rental licensing, a \$250 investigative fee will be assessed. An update on the pilot program and the enforcement of rental housing licensing will be provided at a study session during the third quarter of 2011.

Data Collection

The EnergySmart program administrator manages all day-to-day operations of the EnergySmart service as well as data intake. A Customer Relationship Management (CRM) platform is used to track all EnergySmart data. The city contracted with the EnergySmart program administrator to create specific procedures and data collection points for the SmartRegs services. A SmartRegs-specific portal was created to enable Class G licensed inspectors to enter results of inspections directly into the CRM. The SmartRegs portal provides an interactive version of the SmartRegs prescriptive checklist that captures both baseline and final SmartRegs points achieved by each property. The program administrator has also been contracted to develop an automated checklist, which functions within, as well as separate from, the portal. This checklist offers a tool for inspectors to calculate a cost-per-point factor to help property owners evaluate choices on next steps towards compliance.

Contractors who hold a City of Boulder Class G license can use a laptop or tablet on-site to complete the form in the CRM portal. The CRM generates a SmartRegs certificate of compliance document for properties reaching 100+ points, and captures many other data points desired by the city. By using this portal, data can be collected and organized by the CRM. Data will be delivered to staff at the end of each month, and is accessible by staff at any time, via the portal itself. Since the portal was completed after the launch of the program, staff and consultants are still entering early participant data into the portal.

All Class G inspectors are given individual login information to access this portal. The cost of individual subscriptions for the portal is subsidized for all inspectors holding a Class G license for the year of 2011. The feasibility of continuing this subsidy will be assessed.

NEXT STEPS:

During the remainder of 2011, an outreach and communications plan will be completed and implemented. This effort will include fine-tuning the systems created for data collection and reporting, entering data, and active outreach and education on SmartRegs in the community.

Bi-monthly reports on SmartRegs are scheduled to be provided to council in June, August, October and December 2011. A comprehensive annual report is scheduled to be provided to council in April 2012.



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
Maureen Rait, Executive Director of Public Works
Robert E. Williams, Director of Public Works for Utilities
Joanna Crean, Public Works Administrator

Date: May 11, 2011

Subject: Information Item: Update on water supply conditions and status of Rules and Regulations for responding to a drought

EXECUTIVE SUMMARY:

The purpose of this informational item is to update City Council on the:

- water supply conditions for this year;
- status of rules and regulations for responding to a drought; and
- response to questions about water budgets

Based on the May 1 snow course readings in the Silver Lake Watershed and on current reservoir storage levels, Boulder's reservoirs on upper Boulder Creek are expected to fully fill in late May or early June. Therefore, the city's water supply will be adequate to meet customer needs throughout the coming year.

On March 1, 2011, council approved a drought ordinance that added the ability to reduce water budgets as a drought response measure and emphasized water savings as a priority. The rules and regulations provide the specific details that the city manager, in consultation with City Council, may use to guide an appropriate response to a drought event. The Water Resources Advisory Board (WRAB) met on April 18, 2011 and unanimously approved the proposed rules and regulations (**Attachment A**). The public comment period for the "Rulemaking" process (Boulder Revised Code 1-4) will be approximately three weeks, from mid-May to mid-June, 2011. Approved rules and regulations are expected to be issued by the end of June.

At the City Council meeting on March 1, 2011, council members also asked a few questions related to water budgets. Responses to the questions are provided in this memorandum.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS:

- Economic – Due to current snowpack conditions, a drought is not anticipated for the upcoming irrigation season. If there were a drought it would impact all city water customer classes, including commercial, industrial and institutional customers. The drought response measures included in the rules and regulations are intended to ensure that the economic impacts of a drought are minimized, when possible, and are fairly distributed to all customer classes.
- Environmental – The city’s Water Conservation Program and drought response measures promote the use of water in an efficient manner, discourage and penalize water waste during a drought, and sustain trees, shrubs and other types of vegetation to the greatest extent possible during limited water supply periods.
- Social – The city’s Water Conservation Program and drought response measures promote efficient water use in a way that is fair and equitable across all customer classes.

OTHER IMPACTS:

- Fiscal – There is no fiscal impact.
- Staff time – No additional staff resources are needed.

BACKGROUND:

No municipal water system is drought proof. The cost of building additional facility capacity and purchasing water rights that might be used once in many decades would be high. In 1989, City Council decided that paying for infrastructure and water rights to allow the city to provide water for all uses under all drought conditions was not a wise use of funds. At that time, council established reliability criteria for the acceptable frequency and level of drought water use restrictions. The city began planning to reduce the amount of water provided by the municipal water system during infrequent, more significant droughts. Water system modeling shows that the city’s robust water rights portfolio is expected to perform better than specified by the adopted reliability criteria.

Reductions in water use will be required during droughts when the available supply of water is expected to be less than anticipated water demand over an extended period of time, usually until the next spring snowmelt in the mountains. The *Drought Planning and Response Plan*, which is based on the established drought reliability criteria and on experience with previous drought events, is an important part of providing a prompt and appropriate response to droughts.

The Drought Plan, Volume 1: *Drought Planning and Response Plan* which was updated and accepted by WRAB on March 15, 2010, provides guidance for recognizing droughts that limit the city’s available water supply and for responding accordingly to these droughts. As a result of the updated *Drought Planning and Response Plan*, the Boulder Revised Code (BRC) was revised (approved by City Council on March 1, 2011) to reflect the additional drought response measures as outlined in the plan. While the BRC provides the general context and legal authority to respond to a drought, it does not provide specifics on response measures (e.g., how much water budgets should be reduced at each drought stage). Instead, rules and regulations will

provide the specific detail and will be used by the city manager to respond during each drought stage.

UPDATE ON WATER SUPPLY CONDITIONS:

The city's water supply will be adequate to meet customer needs throughout the coming year. Based on the May 1 snowcourse readings in the city's Silver Lake Watershed and on current reservoir storage levels, Boulder's reservoirs on upper Boulder Creek are expected to fully fill in late May or early June. Boulder expects to receive an average amount of water deliveries from its western slope supplies that is slightly above average. An evaluation of the drought response trigger contained in the city's Drought Response Plan shows that no drought stage declaration is necessary this year. Even though a drought declaration is not needed, the community is encouraged to continue water conservation efforts that help keep the city's reservoirs at safe storage levels.

Snowpack in the mountain areas that supply Boulder's municipal water supply was above average through the winter of 2010/ 2011. The two snow course readings on May 1, 2011 in the city's Silver Lake Watershed ranged from 133 to 135 percent of average from previous May 1 readings. Peak spring streamflow levels are likely to be higher than average as a result. Boulder relies on reservoir water stored in the spring to meet its needs during most of the rest of the year.

UPDATE ON DROUGHT RULES AND REGULATIONS:

At the City Council meeting on March 1, 2011, the drought ordinance was unanimously approved by council. The changes to the BRC related to drought included:

- incorporating the updated *Drought Planning and Response Plan*;
- adding the ability to reduce water budgets as a drought response measure; and
- emphasizing water savings as a priority.

The rules and regulations provide the specific details that the city manager, in consultation with City Council, may use to guide an appropriate response to a drought event. Based on feedback from WRAB at the Feb. 24, 2011 meeting, the rules and regulations were revised to incorporate more specifics on removing a drought declaration and monitoring water use to be sure that the water budget reduction goals are being achieved. At the April 18, 2011 meeting, WRAB made a final recommendation to unanimously approve the proposed rules and regulations (**Attachment A**) for declaring and removing a drought alert stage as well as responding to a drought.

The public comment period for the "Rulemaking" process (Boulder Revised Code 1-4) will be approximately three weeks, from mid-May to mid-June, 2011. As required by the BRC, the normal process will be followed which includes posting a notice about the rules and regulations in the Daily Camera. All comments will be reviewed and changes will be made, if appropriate, before being submitted to the city manager for final issuance. Approved rules and regulations are expected to be issued by the end of June. Any council feedback on the proposed rules and regulations should be directed to Ned Williams, Director of Public Works for Utilities, at 303-441-3209 or williamsn@bouldercolorado.gov.

RESPONSE TO QUESTIONS ABOUT WATER BUDGETS

At the City Council meeting on March 1, 2011, council members asked some questions related to water budgets. Questions and responses are provided below.

(1) How many customers go into blocks 3, 4 and 5 in a single month?

Response: A customer’s water budget is contained in the first two billing blocks (blocks 1 and 2). Block 3 is considered a “transition” block while blocks 4 and 5 are the penalty blocks. In July 2010, 3,271 customers went into block 3, while 891 went into block 4, and 288 went into block 5. In December 2010, 1,924 customers went into block 3, but only 518 went into block 4, and 278 went into block 5. There are about 28,000 customers/accounts each month.

Tables I-IV further illustrate the number of customers by category that went into each billing block in the month of July and December 2010. These two months were selected to demonstrate the difference between a high water-use month related to the summer irrigation season and a low water-use month when almost all water use takes place indoors. Tables I and III show the percentage of customers in each block. Tables II and IV show the total number of customers categorized by the highest block reached in the individual customer’s water bill.

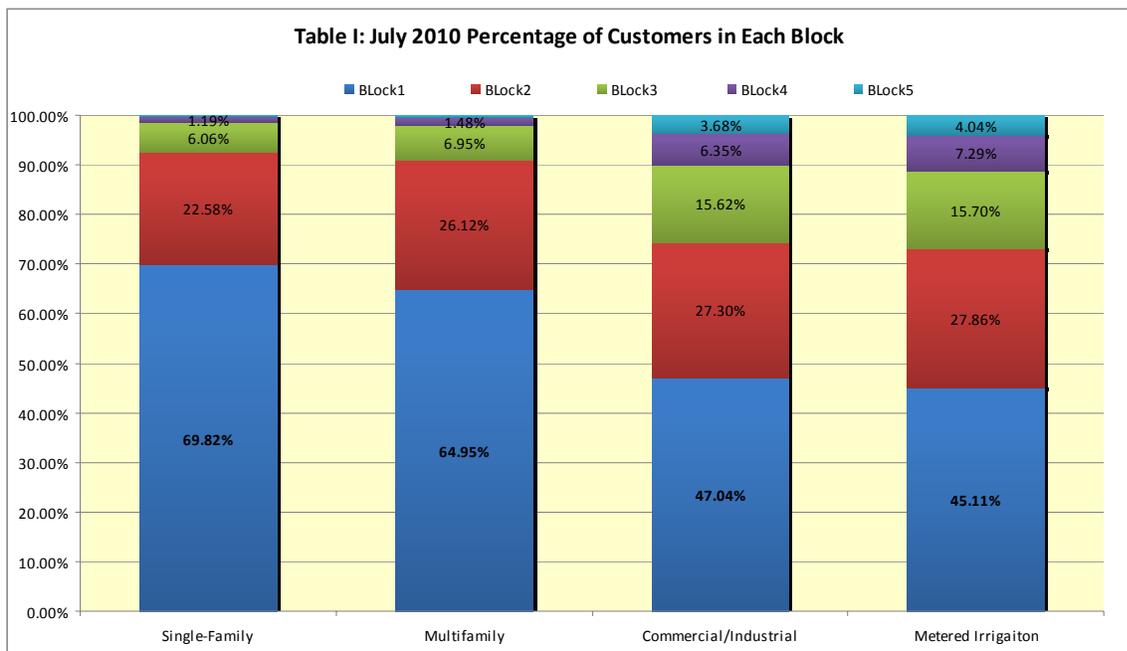


Table II: July 2010 – Number of Customers by Block

	Single-Family Residential	Multifamily Residential	Commercial/Industrial/Institutional	Irrigation Only	TOTAL
Block 1	22,485	2,494	1,918	1,195	28,092
Block 2	7,272	1,003	1,113	738	10,126
Block 3	1,951	267	637	416	3,271
Block 4	382	57	259	193	891
Block 5	112	19	150	107	388

Table III: December 2010 Percentage of Customers in Each Block

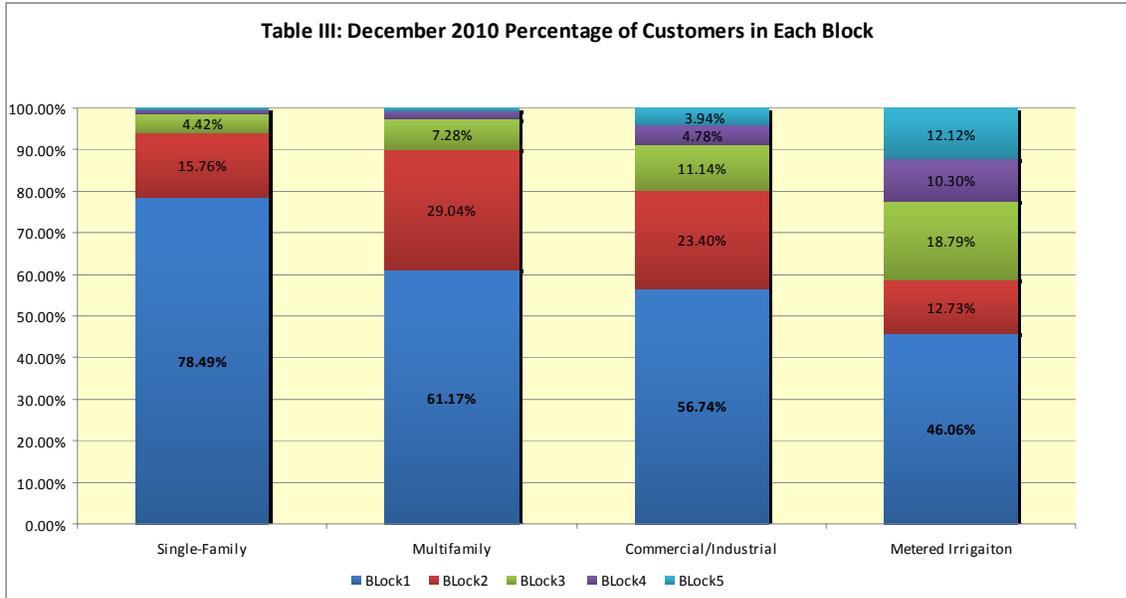


Table IV: December 2010 – Number of Customers by Block

	Single-Family Residential	Multifamily Residential	Commercial/Industrial/Institutional	Irrigation Only	TOTAL
Block 1	21,799	2,494	1,874	76	26,243
Block 2	4,377	1,184	773	21	6,355
Block 3	1,228	297	368	31	1,924
Block 4	269	74	158	17	518
Block 5	100	28	130	20	278

The total number of accounts changes somewhat each month because the tables capture only those accounts that are actively being billed for water use. Some customers leave during the winter months and therefore, do not have any water use. The total number of customers that are in blocks 4 and 5 is relatively low in comparison to the number of customers that stay within their budget (blocks 1 and 2). For each customer class, the majority of customers stay within their budget and, except for irrigation-only accounts in the winter, fewer than 10 percent go into blocks 4 and 5.

(2) How and when does the city notify customers who are over their budget?

Response: If a customer account is 250 percent higher than last month or water consumption is 500,000 gallons or more, then a meter technician checks the property for leaks. If a leak is found, then the customer is notified. If no leak is found, then the city does not contact the customer. If a customer contacts the city due to high water usage and there is no leak, then the customer is put in touch with the Water Conservation Program which will advise the customer on and/or inspect the property for potential sources of waste

Staff does not review reports and monitor for customers who go over budget since staff does not compare current usage to budgets. This is an additional report that may be added after the current Utility Billing system is updated to Version 3 later this summer.

In the spring of 2007, the city did a targeted mailing to irrigation-only and multi-family accounts. Customers that had been in blocks 4 and 5 for three consecutive months the previous year were sent a letter alerting them about their usage and asking them to verify that their water budget was established correctly.

(3) Can the city use e-mail notifications?

Response: The city could use e-mail notifications to contact customers. Currently, e-mail notifications are used only for those customers who have registered to receive e-bills. About 1,700 customers (6 percent of the total accounts) are signed up to receive e-bills. Most customers continue to receive their monthly utility bills in paper form. The city will continue to encourage customers to receive e-bills and to sign up for electronic information.

NEXT STEPS:

Following the completion of the public comment period for the proposed rules and regulations for responding to a drought, staff will review all comments and make changes, as appropriate, before submitting to the city manager for final issuance. Approved rules and regulations are expected to be issued by the end of June. If council has any feedback on the proposed rules and regulations, or if there are any additional questions, please contact Ned Williams, Director of Public Works for Utilities, at 303-441-3209 or williamsn@bouldercolorado.gov.

ATTACHMENTS:

A – Proposed Rules and Regulations for Declaring and Removing a Drought and Responding to a Drought

RULE RELATED TO DECLARING AND REMOVING A DROUGHT ALERT AND ADDRESSING RESPONSES TO A DROUGHT OR POTENTIAL DROUGHT, THE CITY MANAGER MAY DECLARE.
AMENDED – EFFECTIVE XXXX

1. Authority.

This rule is issued pursuant to Chapter 1-4, Rulemaking, and Sections 11-1-3, “Rules and Regulations,” 11-1-27, “Water Restrictions in Case of Emergency,” 11-1-48, “Declaring and Removing a Drought Alert Stage,” 11-1-49, “Drought Response Measures,” and 11-1-51, “Enforcement of Drought Response Measures”, B.R.C. 1981 related to declaring and removing a drought alert and addressing necessary responses to a drought or potential drought. Under sections 11-1-48 and 11-1-49, B.R.C. 1981, the city manager may, depending on the severity of the drought and the declared Drought Alert Stage, impose drought response measures after twenty-four hours' public notice. The manager will determine the extent and duration of any drought response measures implemented.

In issuing this rule, the city manager will consider relevant factors, including:

- (1) Boulder's projected mountain storage during the ensuing May through June period based on snowpack measurements and the projected resulting streamflows during the spring runoff period;
- (2) Boulder's portion of water projected to be available in Colorado Big Thompson Storage Reservoirs during the ensuing May through June period;
- (3) Boulder's unrestrained water demand;
- (4) Other appropriate data and operating experience; and
- (5) Conservation responses to each Drought Alert Stage.

2. Purpose and Applicability.

The City of Boulder has adopted a Drought Plan that provides a framework for addressing droughts. The Drought Plan consists of two volumes that complement each other. Volume I is the *Drought Planning and Response Plan*, which includes a categorization of drought levels according to severity, and a summary of response measures that might be taken to respond to each drought alert level. Volume II is the *Drought Technical Information and Analysis* that provides the supporting documentation for the *Drought Planning and Response Plan*. Volume II contains the detailed background information and analysis behind the development of the drought response actions, the assessment of Boulder’s water supply system, and implementation of the drought response plan.

The Boulder Revised Code (B.R.C.) authorizes the city manager to declare and remove a drought alert stage as well as to address necessary responses to a drought. The Drought Plan provides guidance for recognizing droughts that limit the city’s available water supply and for responding suitably to these droughts. These rules and regulations provide the specific details that the city manager, in consultation with City Council, may use to declare and remove a drought alert stage

as well as to guide an appropriate response to a drought event. It should be noted that climate change is an unknown factor in the implementation of these rules and regulations and therefore, conditions and the associated response may be different than currently anticipated.

The purposes of this rule are to:

- 1) Preserve and allocate water to protect the public health, safety, and welfare and to ensure an adequate amount of water supply for each particular water year, plus a reasonable amount of water reserved for future years;
- 2) Establish methodology used to inform the decision to declare and remove a drought alert stage in conjunction with other appropriate data and operating experience; and
- 3) Outline drought response measures to result in the necessary levels of water use reduction, promote the efficient use of water, support community goals, reflect the value of water, and avoid or minimize the costs of new water development and expanded water treatment.

3. Definitions and Abbreviations.

"Additional Fee" means additional fees imposed, as drought response measures, on customers who have water use in the higher rate blocks (i.e., blocks 3, 4 and 5) for one or more consecutive months, depending on the severity of the drought.

"Administrative Charges" means the financial penalty assessed to a customer for using water over the budgeted amount. For the first violation, a warning notice is sent and for the subsequent violations a financial penalty is assessed.

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"CBT" means Colorado-Big Thompson system. The CBT system is a water supply project owned by the Bureau of Reclamation and operated by the Northern Colorado Water Conservancy District. The system brings water from the western slope to northeastern Colorado to serve as a supplemental water supply to native basin supplies.

"CII" means Commercial/Industrial/Institutional customer account.

"Drought Stage" means the severity of the drought. There are four drought stages that include: Stage I - Moderate, Stage II - Serious, Stage III - Severe, and Stage IV - Extreme.

"ET" means evapotranspiration (also, see ET rate).

"ET rate" means the amount of water that vegetation will use through the natural processes of surface evaporation and plant transpiration (loss of water through the leaves) in an average year. The average annual minimum ET rate for a healthy bluegrass lawn less the average annual local precipitation is the basis for the annual application rate of 15 gallons per square foot (gpsf) used for calculating a city water customer's outdoor water budget. For single-family residential customers with more than 5,000 square feet of irrigable area, reduced ET rates are assumed for the areas in excess of 5,000 square feet to encourage use of grass types with lower water needs

and xeriscaping for larger irrigable areas. The percentages for distribution of the annual ET rate in non-drought years are shown by month in the Table I. (Also see “Monthly Water Budget”).

Table I: Monthly Percentage for Distribution of Annual ET Rate in Non-Drought Years

Month	Percent of Annual ET Rate
January	0%
February	0%
March	1%
April	7%
May	14%
June	20%
July	20%
August	18%
September	12%
October	7%
November	1%
December	0%
Total	100%

“GPSF” means gallons per square foot.

“HMU” means historical monthly use.

“Irrigable area” means the area (in square feet) that a customer is required to maintain pursuant to Title 6, Title 8 and Title 9, B.R.C. 1981, is not covered by a hard surface (such as a roof, driveway, patio or sidewalk) and that may require outdoor watering.

“MFR” means multifamily residential customer account.

“Monthly Water Budget” means the amount of water allocated to the water utility customer to meet that customer’s anticipated water needs for the month. The monthly water budget shall be the sum of the indoor and/or outdoor allocation for each water utility customer. The allocation shall be based on reasonable and necessary indoor and/or outdoor use, water conservation, and other relevant factors associated with water use in the city and may be reduced during droughts.

“SFR” means single-family residential customer account.

4. Declaring and Removing a Drought Stage

The city monitors the snowpack levels in its Silver Lake Watershed beginning in February of each year, but the most appropriate time for final identification and classification of drought status and for planning drought responses is late April to early May. During this timeframe, knowledge of the expected maximum spring snowpack accumulation provides a relatively high degree of confidence regarding the amount of runoff that will occur and information about local soil moisture levels allows projections of expected water rights call patterns. In addition, the amount of water that Boulder will have available for the year from the Colorado-Big Thompson

(CBT) system is known. Demands can be projected for the year based on the irrigation season that still lies ahead.

Droughts can be categorized into four stages depending on the level of severity. Drought triggers corresponding to each drought stage were developed through modeling studies of the city's water supply system and are described in more detail in Volume II of the Drought Plan (*Drought Technical Information and Analysis*). The drought triggers reflect the city water supply storage levels that likely require an active drought response by the city to avoid threatening the reliability of the city's water supply and to avoid serious water supply shortages. The determination of the drought trigger values and the associated water use reduction percentages for each drought stage was based on the drought response values necessary to achieve the city's adopted water system reliability criteria throughout a modeled 300-year period of reconstructed historic streamflow.

The drought triggers incorporated three main quantitative factors that have a large effect on the city's ability to provide a reliable water supply:

- Boulder's projected mountain storage during the ensuing May-June period based on snowpack measurements and the projected resulting streamflows during the spring runoff period. The potential for senior calls from the Platte River water users could affect the ability of the City of Boulder to store spring runoff.
- Boulder's portion of water projected to be available in CBT reservoirs following the ensuing May-June reservoir filling period.
- Boulder's unrestrained water demand, which is the average of Boulder's treated water demand from May 1 to April 30 of the previous two non-drought years.

The triggers illustrated in Table II incorporate all three of the factors listed above. Boulder's portion of CBT storage is discounted by 40 percent because of the multi-year carryover function of this supply and the methodology used to set the annual CBT quota for water deliveries. The trigger values presented in the table were calculated based on May 1 water supply conditions and projections of maximum expected reservoir levels reached during spring snowmelt. It may be appropriate to recalculate and confirm the Drought Alert Stage once the spring snowmelt period ends. The drought trigger values are not appropriately applied to water storage levels at any other time than the maximum spring filling of the reservoir.

The drought triggers were derived from sophisticated water system modeling, but still cannot reflect all of the real-world conditions that may affect a decision to declare or remove a Drought Alert Stage. Other factors to consider might include soil moisture levels, rate of snowpack dissipation, streamflow response to snowmelt, pattern of water rights calls from Boulder Creek and the South Platte basins, state water administration issues, city water system operational constraints, the degree to which current unrestrained water demands approach projected build-out water demand levels, the exercise of drought reservation clauses in city contracts such as for the instream flow program, or any other factor that may be affecting either water supply or water demand during the drought period. The drought triggers are intended to be used only as a guideline and in conjunction with other appropriate data and operating experience. The overriding goal of achieving the city's water system reliability criteria should be kept foremost when evaluating the drought response suggested by the drought response triggers.

Table II: Suggested drought response triggers for May 1

Projected Storage Index ⁽¹⁾	Drought Alert Stage
Greater than 0.85	None
Between 0.85 and 0.7	I
Between 0.7 and 0.55	II
Between 0.55 and 0.4	III
Less than 0.4	IV

⁽¹⁾Projected storage index = (projected usable Boulder mountain storage + 40% of Boulder’s portion of projected CBT storage) / Boulder’s unrestrained water demand in non-drought years.

When deciding to declare a drought alert stage, at a minimum, the city manager will consider the three main quantitative factors listed earlier, as incorporated into the Projected Storage Index calculation, along with all other appropriate data and factors unique to the particular drought. Once a drought alert stage has been declared, city staff will continue to monitor trends in snowpack, runoff conditions, reservoir filling, customer usage, and inform the city manager if conditions change.

Each of the drought stages is associated with a certain level of reduction in Boulder’s overall water use (see Table III) that is required to maintain the ability to supply enough water for Boulder’s most important water needs until the drought is over. Achieving the total annual water use reduction goals is the overarching purpose of drought response efforts. The water use reduction goals associated with each drought stage were developed in conjunction with the drought response triggers through modeling studies of the city’s water supply system, as described in Volume II of the Drought Plan (*Drought Technical Information and Analysis*). These goals may change with revised modeling or unexpected changes in water yields or demands projected for Boulder’s build-out. The total annual water use reduction goals include reductions in both indoor and outdoor water use and represents the required percentage of reduction that must be achieved for the entire year to assure sufficient water supplies remain in storage to last through the drought.

Table III: Drought Stages and Annual Water Use Reduction Goals

Drought Alert Stage	Total Annual Water Use Reduction Levels
I	8%
II	14%
III	22%
IV	40%

City staff will monitor changing water supply conditions and the results of drought response measures throughout the year, especially in June when the spring snowmelt is typically concluded and in the fall to evaluate the degree to which water use reduction goals have been achieved after the highest use season (irrigation in the summer). Due to the city's annual water supply being directly dependent on spring snowmelt, the decision to officially lift a Drought Alert Stage will not be made until the following spring (April/May timeframe). Although changes in water demand during the year will not affect the city's water supply availability sufficiently to remove a Drought Alert Stage declaration until the following spring, larger than expected water use reductions might be cause for an easing of the severity of drought response measures prior to the next spring snowmelt period. For instance, if city-wide water use is reduced sufficiently at some point during the year so that the annual water use reduction goals are achieved early, then the need for drought response measures will be reevaluated and may be reduced by the city manager. While the drought response measures may be lessened, a Drought Alert Stage will never be eliminated until the following spring. Once drought conditions have completely ended, as determined based on restoration of full city water supplies following spring snowmelt, the city will remove the drought stage declaration and will fully restore monthly water budgets, remove surcharges, and remove fines for certain types of water use.

5. Strategies to Decrease Water Demand during a Drought

Each drought is unique and there are a variety of ways that the necessary levels of water use reduction as shown in Table III might be achieved. Some of the ways to decrease water use include reducing monthly water budgets, extensive drought-focused education efforts, adding drought surcharges, and implementing mandatory water use limitation. These response options would be considered at each of the four stages of the drought. The response options that are selected for implementation during any particular drought are those that are most likely to result in achievement of the annual water use reduction levels for a drought of that severity and with the unique characteristics of that drought period. The results of the selected response options should be monitored and adjustments made in the type or stringency of response measures as required.

When monthly water budget reductions, surcharges and limitations are all used together, it is more likely customers will remain within their monthly water budget and that the burden of water shortages will be more fairly shared across all segments of the community. If drought conditions persist over an extended period of time (multi-year drought), then it may be necessary to implement a higher level response to sustain the required reductions; therefore, both the severity of the drought and the duration over which the drought is experienced will determine the appropriate response.

(a) Monthly Water Budget Reductions

The amount of monthly water budget reductions would be determined by the city manager, in consultation with City Council. Reductions in water budgets create a price incentive to decrease water use by moving a portion of the non-drought water budget amount into a more expensive rate block. The reduced monthly water budget amounts shown in Tables IV, V, and VI are based on current modeling and calculations, as documented in the *Drought Planning and Response*

Plan (see Table 2, page six of the plan). If any of the conditions included in the current modeling change significantly, then customer monthly water budget reduction amounts may need to be revised in the future. These conditions might include any changes in water use patterns, such as indoor/outdoor distribution or relative proportions of water use for each customer class, or revision of the annual water use reduction goals.

Table IV illustrates the monthly water budgets for the indoor allocation for residential accounts for each drought stage and for non-drought periods. Table V shows the percentage of the annual outdoor monthly water budget allocation to be applied in each month for the outdoor component of residential and indoor/outdoor commercial accounts and for all irrigation-only accounts in both non-drought and drought years. Monthly outdoor allocations for residential, indoor/outdoor commercial and irrigation-only accounts are calculated using the customer-specific irrigable area multiplied by the application rates set forth below and then allocated over the irrigation season using the appropriate monthly percentages set forth in Table V.

Non-drought year single-family residential outdoor allocations are calculated based on the following application rates:

- For the first 5,000 square feet of irrigable area: 15 gpf
- For the next 9,000 square feet of irrigable area: 12 gpf
- For irrigable area in excess of 14,000 square feet: 10 gpf

Non-drought year multi-family residential and all other outdoor allocations are calculated based on an application rate of 15 gpf for all irrigable area.

In order to reflect varying seasonal outdoor monthly watering requirements, the total annual allocation of water for irrigable area is distributed to each month based upon that month's percentage of the annual outdoor amount as described by the historic monthly distribution of the annual ET rate (Table I). Using the customer-specific monthly water budget allocation and the ET rate, the response for each drought stage can be defined as reductions to the monthly distribution percentages for the ET rates used for outdoor monthly water budget calculations.

Table IV: Suggested Monthly Water Budgets for Residential Indoor Allocation

Residential Indoor Use Monthly Water Budget	Non-Drought Year	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
SFR gallons/month	7,000	6,400	6,300	6,200	6,000
MFR gallons/month	4,000	3,600	3,600	3,500	3,400

Table V: Suggested Monthly Percentages for Allocation of Annual Outdoor Water Budgets for Residential, Irrigation-Only, and Indoor/Outdoor CII Accounts (shown as a percentage of the total annual outdoor allocation allowed in non-drought years based on gpsf of irrigable area)

	Non-Drought Year	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
Jan	0%	0%	0%	0%	0%
Feb	0%	0%	0%	0%	0%
Mar	1%	1%	1%	1%	1%
Apr	7%	7%	7%	7%	6%
May	14%	13%	13%	11%	8%
Jun	20%	19%	18%	17%	10%
Jul	20%	16%	14%	12%	7%
Aug	18%	12%	10%	9%	5%
Sep	12%	8%	6%	4%	1%
Oct	7%	2%	0%	0%	0%
Nov	1%	0%	0%	0%	0%
Dec	0%	0%	0%	0%	0%
Total	100%	78%	69%	61%	38%

CII has four sub-customer classes: 1) CII AMU; 2) CII HMU; 3) CII indoor/outdoor; and, 4) CII efficiency standard with and without irrigation. The method used to calculate the monthly water budget for each of these sub-customer classes is described in the Rules and Regulations: Water Budget Methodology 11-1-3.A(09). Monthly water budgets for the CII sub-classes HMU and AMU will be reduced as illustrated in Table VI. The outdoor use component of monthly water budgets for the CII indoor/outdoor sub-class and the CII efficiency standard with irrigation will reflect the monthly water budgets as illustrated in Table V. The CII efficiency standard without irrigation will reduce their budgets based on the overall goals for water use reduction for the entire city as illustrated in Table VI.

Table VI: Suggested Annual Water Budget Reductions for CII Sub-Classes: HMU, AMU, & Efficiency

	STAGE I	STAGE II	STAGE III	STAGE IV
CII HMU & AMU	13%	23%	34%	50%
CII Efficiency Standard w/o irrig	8%	14%	22%	40%

(b) Surcharges and Rates

Drought surcharges would be used by the city manager to encourage a reduction in water use. A drought surcharge is a multiplier applied to the normal charges (standard block rates) for water. During a drought, surcharges would be applied to normal water charges in blocks 3, 4, and 5. The city manager may implement drought surcharges based on Table VII, which was derived from modeling of the current water rate structure and price elasticities for the purpose of achieving the water use reduction goals necessary at each drought stage. If during the course of a drought event, the suggested drought surcharge rates do not support the intended result of achieving the necessary water use reduction goals appropriate for the declared drought stage, the City Manager, in consultation with City Council, may modify the surcharge rates.

In addition, with approval by City Council through an ordinance, the city may adjust the standard water block rates that existed prior to the drought stage declaration. This may be necessary to maintain revenue stability for the water utility during a drought.

Table VII: Surcharge Rates for each Drought Stage

Surcharge Rates (amount x base)					
	Non-Drought Rate	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
Block 1	¾ x base	¾ x base	¾ x base	¾ x base	¾ x base
Block 2	Base	Base	Base	Base	Base
Block 3	2 x base	2 x base	2 x base	2 x base	3 x base
Block 4	3 x base	3 x base	3 x base	4 x base	4 x base
Block 5	5 x base	5 x base	7 x base	8 x base	8 x base

(c) Water Use Limitations and Fines for Violations

Mandatory water use limitations may be necessary in more severe droughts to achieve the quick response needed to protect reservoir levels and to assure that the burden of water use reductions are shared by all socio-economic classes. Customers may not feel the impacts of rate-based incentives to use less water until the first water bill is received one month or more after a Drought Stage Alert is declared. In a drought, reservoir levels may be so greatly reduced in this one month period that water use limitations going forward are required to be more stringent than if an immediate response were achieved to the drought declaration. Therefore, quick implementation of mandatory measures during more severe or extreme droughts may reduce the overall severity of drought response measures that are required. For a summary of possible response measures, see Table 3 on page 10 of the *Drought Planning and Response Plan*. The city manager may impose water use limitations and penalties for violating as described in Table VIII or may impose other limitations that are deemed necessary to encourage efficient water use and to protect city water supplies needed for essential purposes.

Table VIII: Possible Penalties for Violating Water Use Limitations Per Drought Stage

Drought Stage	Water Use Limitations	Penalties for Violating Water Use Limitations
Stage I Moderate	Discourage 3 consecutive months of block 5 water use.	Send reminder warning notice to customers who are using block 5 water for 3 consecutive months.
Stage II Serious	Limit of 3 consecutive months of block 5 water use.	If block 5 water use continues for 3 consecutive months, then penalize with additional fees.* Consider installation of flow restrictors.
Stage III Severe	Limit of 2 consecutive months of block 4 or 5 water use.	Apply additional fees* following 2 consecutive months of water use in blocks 4 or 5. Consider installation of flow restrictors.
Stage IV Extreme	Limit water use in blocks 3, 4, or 5. Consider moratorium on building permits.	Apply additional fees* following 1 month of water use in blocks 3, 4 or 5. Consider flow restrictors or, for extreme water waste offenders, termination of water service.

**Additional fees are per subsection 11-1-49(d)(4) “Drought Response Measures” and as implemented per Section 11-1-51, “Enforcement of Drought Response Measures”, B.R.C. 1981, these administrative charges include the following: (1) a \$100 water waste charge; and (2) a \$300 water waste charge. Failure to pay administrative charges may, in turn, trigger water cut off, criminal penalties, or both.*

6. Public Facilities Drought Response Measures.

As part of the development of the Drought Plan, the city held numerous public meetings in order to elicit feedback on responding to drought. The city received extensive public input at these meetings as well as in response to the city’s watering restriction program in 2002. The details of the public process and feedback can be found in Volume II. One of the key issues raised in the process was that while maintaining equity between all customers was a good thing, it may be necessary to allow a different watering standard on “public property” than on private property. “Public property” includes those properties that are owned and operated by the government (such as the City of Boulder, University of Colorado, and the Boulder Valley School District properties) for use by residents. These public areas (such as parks and athletic fields) may need to have a higher degree of flexibility for water use than private areas, in order to preserve the ability to use these limited public areas during a drought. However, the public areas still must comply with the overall water reduction objective but they may do so with the flexibility to manage their entire systems. For example, the City of Boulder’s Department of Parks and

Recreation may use the overall water budget reduction goal as outlined in Table III to reduce irrigation at some lesser-used parks and increase water use on higher-use athletic fields or to irrigate mature and critical trees. In total, the Parks and Recreation Department will still need to meet the overall water budget reduction goal. This concept can be incorporated into each of the Drought Alert Stages.

7. Exceptions/ Variances to Drought Response Measures.

The City of Boulder may, at its discretion, grant exemptions from the drought response for individual water customers. The city manager may approve exemptions in instances of extreme economic impacts or health and safety issues. Violation of any term or condition of an exemption may result in the variance being revoked after the water customer has an opportunity for a hearing under chapter 1-3, “Quasi-Judicial Hearings,” B.R.C. 1981.

8. Drought Response Measures Example.

The tables below illustrate examples of different customer types and the possible impacts during a Drought Stage II-Serious. Table IX is an example of a SFR customer with 5,000 square feet of irrigable area. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the example shows the possible impact to a SFR customer depending on which drought response measures were implemented.

Table IX: Example of a Single-Family Residential Customer in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly Indoor Budget	7,000 gallons	6,300 gallons
	Monthly Outdoor Budget	18% (Aug.)	10% (Aug.)
	Total August Budget	20,500 gallons	13,800 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
	Penalties for Violations	No penalty.	1 st violation = warning notice; 2 nd violation = \$100 water waste charge

**The example uses the 2011 utility rates, in which the base rate is \$2.90.*

Table X is an example of a CII customer that has an average monthly usage (AMU) water budget, which means the budget does not change from month to month. In this example, the CII customer has an annual water budget of 795,000 gallons and a monthly water budget of 67,000 gallons. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the CII customer’s water budget would be reduced by 23 percent annually.

Table X: Example of a CII Customer (using AMU) in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly Budget	67,000 gallons	51,012 gallons
	Total Annual Budget	795,000 gallons	612,150 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
	Penalties for Violations	No penalty.	1 st violation = warning notice; 2 nd violation = \$100 water waste charge

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Table XI is an example of an irrigation-only customer with 30,500 square feet of irrigable area and an annual water budget of 457,500 gallons. In August, the monthly percentage of allocation for annual outdoor water would normally be 18 percent. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the example shows the possible impact to an irrigation-only customer depending on which drought response measures were implemented.

Table XI: Example of an Irrigation-Only Customer in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly (August) Outdoor Budget	82,350 gallons (18%)	31,570 gallons (10%)
	Total Annual Budget	457,500 gallons	315,675 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
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**The example uses the 2011 utility rates, in which the base rate is \$2.90.*

RULE RELATED TO DECLARING AND REMOVING A DROUGHT ALERT AND ADDRESSING RESPONSES TO A DROUGHT OR POTENTIAL DROUGHT, THE CITY MANAGER MAY DECLARE.

AMENDED – EFFECTIVE XXXX

1. Authority.

This rule is issued pursuant to Chapter 1-4, Rulemaking, and Sections 11-1-3, “Rules and Regulations,” 11-1-27, “Water Restrictions in Case of Emergency,” 11-1-48, “Declaring and Removing a Drought Alert Stage,” 11-1-49, “Drought Response Measures,” and 11-1-51, “Enforcement of Drought Response Measures”, B.R.C. 1981 related to declaring and removing a drought alert and addressing necessary responses to a drought or potential drought. Under sections 11-1-48 and 11-1-49, B.R.C. 1981, the city manager may, depending on the severity of the drought and the declared Drought Alert Stage, impose drought response measures after twenty-four hours' public notice. The manager will determine the extent and duration of any drought response measures implemented.

In issuing this rule, the city manager will consider relevant factors, including:

- (1) Boulder's projected mountain storage during the ensuing May through June period based on snowpack measurements and the projected resulting streamflows during the spring runoff period;
- (2) Boulder's portion of water projected to be available in Colorado Big Thompson Storage Reservoirs during the ensuing May through June period;
- (3) Boulder's unrestrained water demand;
- (4) Other appropriate data and operating experience; and
- (5) Conservation responses to each Drought Alert Stage.

2. Purpose and Applicability.

The City of Boulder has adopted a Drought Plan that provides a framework for addressing droughts. The Drought Plan consists of two volumes that complement each other. Volume I is the *Drought Planning and Response Plan*, which includes a categorization of drought levels according to severity, and a summary of response measures that might be taken to respond to each drought alert level. Volume II is the *Drought Technical Information and Analysis* that provides the supporting documentation for the *Drought Planning and Response Plan*. Volume II contains the detailed background information and analysis behind the development of the drought response actions, the assessment of Boulder’s water supply system, and implementation of the drought response plan.

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as well as to guide an appropriate response to a drought event. It should be noted that climate change is an unknown factor in the implementation of these rules and regulations and therefore, conditions and the associated response may be different than currently anticipated.

The purposes of this rule are to:

- 1) Preserve and allocate water to protect the public health, safety, and welfare and to ensure an adequate amount of water supply for each particular water year, plus a reasonable amount of water reserved for future years;
- 2) Establish methodology used to inform the decision to declare and remove a drought alert stage in conjunction with other appropriate data and operating experience; and
- 3) Outline drought response measures to result in the necessary levels of water use reduction, promote the efficient use of water, support community goals, reflect the value of water, and avoid or minimize the costs of new water development and expanded water treatment.

3. Definitions and Abbreviations.

"Additional Fee" means additional fees imposed, as drought response measures, on customers who have water use in the higher rate blocks (i.e., blocks 3, 4 and 5) for one or more consecutive months, depending on the severity of the drought.

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and xeriscaping for larger irrigable areas. The percentages for distribution of the annual ET rate in non-drought years are shown by month in the Table I. (Also see “Monthly Water Budget”).

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May	14%
June	20%
July	20%
August	18%
September	12%
October	7%
November	1%
December	0%
Total	100%

“GPSF” means gallons per square foot.

“HMU” means historical monthly use.

“Irrigable area” means the area (in square feet) that a customer is required to maintain pursuant to Title 6, Title 8 and Title 9, B.R.C. 1981, is not covered by a hard surface (such as a roof, driveway, patio or sidewalk) and that may require outdoor watering.

“MFR” means multifamily residential customer account.

“Monthly Water Budget” means the amount of water allocated to the water utility customer to meet that customer’s anticipated water needs for the month. The monthly water budget shall be the sum of the indoor and/or outdoor allocation for each water utility customer. The allocation shall be based on reasonable and necessary indoor and/or outdoor use, water conservation, and other relevant factors associated with water use in the city and may be reduced during droughts.

“SFR” means single-family residential customer account.

4. Declaring and Removing a Drought Stage

The city monitors the snowpack levels in its Silver Lake Watershed beginning in February of each year, but the most appropriate time for final identification and classification of drought status and for planning drought responses is late April to early May. During this timeframe, knowledge of the expected maximum spring snowpack accumulation provides a relatively high degree of confidence regarding the amount of runoff that will occur and information about local soil moisture levels allows projections of expected water rights call patterns. In addition, the amount of water that Boulder will have available for the year from the Colorado-Big Thompson

(CBT) system is known. Demands can be projected for the year based on the irrigation season that still lies ahead.

Droughts can be categorized into four stages depending on the level of severity. Drought triggers corresponding to each drought stage were developed through modeling studies of the city's water supply system and are described in more detail in Volume II of the Drought Plan (*Drought Technical Information and Analysis*). The drought triggers reflect the city water supply storage levels that likely require an active drought response by the city to avoid threatening the reliability of the city's water supply and to avoid serious water supply shortages. The determination of the drought trigger values and the associated water use reduction percentages for each drought stage was based on the drought response values necessary to achieve the city's adopted water system reliability criteria throughout a modeled 300-year period of reconstructed historic streamflow.

The drought triggers incorporated three main quantitative factors that have a large effect on the city's ability to provide a reliable water supply:

- Boulder's projected mountain storage during the ensuing May-June period based on snowpack measurements and the projected resulting streamflows during the spring runoff period. The potential for senior calls from the Platte River water users could affect the ability of the City of Boulder to store spring runoff.
- Boulder's portion of water projected to be available in CBT reservoirs following the ensuing May-June reservoir filling period.
- Boulder's unrestrained water demand, which is the average of Boulder's treated water demand from May 1 to April 30 of the previous two non-drought years.

The triggers illustrated in Table II incorporate all three of the factors listed above. Boulder's portion of CBT storage is discounted by 40 percent because of the multi-year carryover function of this supply and the methodology used to set the annual CBT quota for water deliveries. The trigger values presented in the table were calculated based on May 1 water supply conditions and projections of maximum expected reservoir levels reached during spring snowmelt. It may be appropriate to recalculate and confirm the Drought Alert Stage once the spring snowmelt period ends. The drought trigger values are not appropriately applied to water storage levels at any other time than the maximum spring filling of the reservoir.

The drought triggers were derived from sophisticated water system modeling, but still cannot reflect all of the real-world conditions that may affect a decision to declare or remove a Drought Alert Stage. Other factors to consider might include soil moisture levels, rate of snowpack dissipation, streamflow response to snowmelt, pattern of water rights calls from Boulder Creek and the South Platte basins, state water administration issues, city water system operational constraints, the degree to which current unrestrained water demands approach projected build-out water demand levels, the exercise of drought reservation clauses in city contracts such as for the instream flow program, or any other factor that may be affecting either water supply or water demand during the drought period. The drought triggers are intended to be used only as a guideline and in conjunction with other appropriate data and operating experience. The overriding goal of achieving the city's water system reliability criteria should be kept foremost when evaluating the drought response suggested by the drought response triggers.

Table II: Suggested drought response triggers for May 1

Projected Storage Index ⁽¹⁾	Drought Alert Stage
Greater than 0.85	None
Between 0.85 and 0.7	I
Between 0.7 and 0.55	II
Between 0.55 and 0.4	III
Less than 0.4	IV

⁽¹⁾*Projected storage index = (projected usable Boulder mountain storage + 40% of Boulder’s portion of projected CBT storage) / Boulder’s unrestrained water demand in non-drought years.*

When deciding to declare a drought alert stage, at a minimum, the city manager will consider the three main quantitative factors listed earlier, as incorporated into the Projected Storage Index calculation, along with all other appropriate data and factors unique to the particular drought. Once a drought alert stage has been declared, city staff will continue to monitor trends in snowpack, runoff conditions, reservoir filling, customer usage, and inform the city manager if conditions change.

Each of the drought stages is associated with a certain level of reduction in Boulder’s overall water use (see Table III) that is required to maintain the ability to supply enough water for Boulder’s most important water needs until the drought is over. Achieving the total annual water use reduction goals is the overarching purpose of drought response efforts. The water use reduction goals associated with each drought stage were developed in conjunction with the drought response triggers through modeling studies of the city’s water supply system, as described in Volume II of the Drought Plan (*Drought Technical Information and Analysis*). These goals may change with revised modeling or unexpected changes in water yields or demands projected for Boulder’s build-out. The total annual water use reduction goals include reductions in both indoor and outdoor water use and represents the required percentage of reduction that must be achieved for the entire year to assure sufficient water supplies remain in storage to last through the drought.

Table III: Drought Stages and Annual Water Use Reduction Goals

Drought Alert Stage	Total Annual Water Use Reduction Levels
I	8%
II	14%
III	22%
IV	40%

City staff will monitor changing water supply conditions and the results of drought response measures throughout the year, especially in June when the spring snowmelt is typically concluded and in the fall to evaluate the degree to which water use reduction goals have been achieved after the highest use season (irrigation in the summer). Due to the city's annual water supply being directly dependent on spring snowmelt, the decision to officially lift a Drought Alert Stage will not be made until the following spring (April/May timeframe). Although changes in water demand during the year will not affect the city's water supply availability sufficiently to remove a Drought Alert Stage declaration until the following spring, larger than expected water use reductions might be cause for an easing of the severity of drought response measures prior to the next spring snowmelt period. For instance, if city-wide water use is reduced sufficiently at some point during the year so that the annual water use reduction goals are achieved early, then the need for drought response measures will be reevaluated and may be reduced by the city manager. While the drought response measures may be lessened, a Drought Alert Stage will never be eliminated until the following spring. Once drought conditions have completely ended, as determined based on restoration of full city water supplies following spring snowmelt, the city will remove the drought stage declaration and will fully restore monthly water budgets, remove surcharges, and remove fines for certain types of water use.

5. Strategies to Decrease Water Demand during a Drought

Each drought is unique and there are a variety of ways that the necessary levels of water use reduction as shown in Table III might be achieved. Some of the ways to decrease water use include reducing monthly water budgets, extensive drought-focused education efforts, adding drought surcharges, and implementing mandatory water use limitation. These response options would be considered at each of the four stages of the drought. The response options that are selected for implementation during any particular drought are those that are most likely to result in achievement of the annual water use reduction levels for a drought of that severity and with the unique characteristics of that drought period. The results of the selected response options should be monitored and adjustments made in the type or stringency of response measures as required.

When monthly water budget reductions, surcharges and limitations are all used together, it is more likely customers will remain within their monthly water budget and that the burden of water shortages will be more fairly shared across all segments of the community. If drought conditions persist over an extended period of time (multi-year drought), then it may be necessary to implement a higher level response to sustain the required reductions; therefore, both the severity of the drought and the duration over which the drought is experienced will determine the appropriate response.

(a) Monthly Water Budget Reductions

The amount of monthly water budget reductions would be determined by the city manager, in consultation with City Council. Reductions in water budgets create a price incentive to decrease water use by moving a portion of the non-drought water budget amount into a more expensive rate block. The reduced monthly water budget amounts shown in Tables IV, V, and VI are based on current modeling and calculations, as documented in the *Drought Planning and Response*

Plan (see Table 2, page six of the plan). If any of the conditions included in the current modeling change significantly, then customer monthly water budget reduction amounts may need to be revised in the future. These conditions might include any changes in water use patterns, such as indoor/outdoor distribution or relative proportions of water use for each customer class, or revision of the annual water use reduction goals.

Table IV illustrates the monthly water budgets for the indoor allocation for residential accounts for each drought stage and for non-drought periods. Table V shows the percentage of the annual outdoor monthly water budget allocation to be applied in each month for the outdoor component of residential and indoor/outdoor commercial accounts and for all irrigation-only accounts in both non-drought and drought years. Monthly outdoor allocations for residential, indoor/outdoor commercial and irrigation-only accounts are calculated using the customer-specific irrigable area multiplied by the application rates set forth below and then allocated over the irrigation season using the appropriate monthly percentages set forth in Table V.

Non-drought year single-family residential outdoor allocations are calculated based on the following application rates:

- For the first 5,000 square feet of irrigable area: 15 gpf
- For the next 9,000 square feet of irrigable area: 12 gpf
- For irrigable area in excess of 14,000 square feet: 10 gpf

Non-drought year multi-family residential and all other outdoor allocations are calculated based on an application rate of 15 gpf for all irrigable area.

In order to reflect varying seasonal outdoor monthly watering requirements, the total annual allocation of water for irrigable area is distributed to each month based upon that month’s percentage of the annual outdoor amount as described by the historic monthly distribution of the annual ET rate (Table I). Using the customer-specific monthly water budget allocation and the ET rate, the response for each drought stage can be defined as reductions to the monthly distribution percentages for the ET rates used for outdoor monthly water budget calculations.

Table IV: Suggested Monthly Water Budgets for Residential Indoor Allocation

Residential Indoor Use Monthly Water Budget	Non-Drought Year	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
SFR gallons/month	7,000	6,400	6,300	6,200	6,000
MFR gallons/month	4,000	3,600	3,600	3,500	3,400

Table V: Suggested Monthly Percentages for Allocation of Annual Outdoor Water Budgets for Residential, Irrigation-Only, and Indoor/Outdoor CII Accounts (shown as a percentage of the total annual outdoor allocation allowed in non-drought years based on gpsf of irrigable area)

	Non-Drought Year	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
Jan	0%	0%	0%	0%	0%
Feb	0%	0%	0%	0%	0%
Mar	1%	1%	1%	1%	1%
Apr	7%	7%	7%	7%	6%
May	14%	13%	13%	11%	8%
Jun	20%	19%	18%	17%	10%
Jul	20%	16%	14%	12%	7%
Aug	18%	12%	10%	9%	5%
Sep	12%	8%	6%	4%	1%
Oct	7%	2%	0%	0%	0%
Nov	1%	0%	0%	0%	0%
Dec	0%	0%	0%	0%	0%
Total	100%	78%	69%	61%	38%

CII has four sub-customer classes: 1) CII AMU; 2) CII HMU; 3) CII indoor/outdoor; and, 4) CII efficiency standard with and without irrigation. The method used to calculate the monthly water budget for each of these sub-customer classes is described in the Rules and Regulations: Water Budget Methodology 11-1-3.A(09). Monthly water budgets for the CII sub-classes HMU and AMU will be reduced as illustrated in Table VI. The outdoor use component of monthly water budgets for the CII indoor/outdoor sub-class and the CII efficiency standard with irrigation will reflect the monthly water budgets as illustrated in Table V. The CII efficiency standard without irrigation will reduce their budgets based on the overall goals for water use reduction for the entire city as illustrated in Table VI.

Table VI: Suggested Annual Water Budget Reductions for CII Sub-Classes: HMU, AMU, & Efficiency

	STAGE I	STAGE II	STAGE III	STAGE IV
CII HMU & AMU	13%	23%	34%	50%
CII Efficiency Standard w/o irrig	8%	14%	22%	40%

(b) Surcharges and Rates

Drought surcharges would be used by the city manager to encourage a reduction in water use. A drought surcharge is a multiplier applied to the normal charges (standard block rates) for water. During a drought, surcharges would be applied to normal water charges in blocks 3, 4, and 5. The city manager may implement drought surcharges based on Table VII, which was derived from modeling of the current water rate structure and price elasticities for the purpose of achieving the water use reduction goals necessary at each drought stage. If during the course of a drought event, the suggested drought surcharge rates do not support the intended result of achieving the necessary water use reduction goals appropriate for the declared drought stage, the City Manager, in consultation with City Council, may modify the surcharge rates.

In addition, with approval by City Council through an ordinance, the city may adjust the standard water block rates that existed prior to the drought stage declaration. This may be necessary to maintain revenue stability for the water utility during a drought.

Table VII: Surcharge Rates for each Drought Stage

Surcharge Rates (amount x base)					
	Non-Drought Rate	Stage I Drought	Stage II Drought	Stage III Drought	Stage IV Drought
Block 1	¾ x base	¾ x base	¾ x base	¾ x base	¾ x base
Block 2	Base	Base	Base	Base	Base
Block 3	2 x base	2 x base	2 x base	2 x base	3 x base
Block 4	3 x base	3 x base	3 x base	4 x base	4 x base
Block 5	5 x base	5 x base	7 x base	8 x base	8 x base

(c) Water Use Limitations and Fines for Violations

Mandatory water use limitations may be necessary in more severe droughts to achieve the quick response needed to protect reservoir levels and to assure that the burden of water use reductions are shared by all socio-economic classes. Customers may not feel the impacts of rate-based incentives to use less water until the first water bill is received one month or more after a Drought Stage Alert is declared. In a drought, reservoir levels may be so greatly reduced in this one month period that water use limitations going forward are required to be more stringent than if an immediate response were achieved to the drought declaration. Therefore, quick implementation of mandatory measures during more severe or extreme droughts may reduce the overall severity of drought response measures that are required. For a summary of possible response measures, see Table 3 on page 10 of the *Drought Planning and Response Plan*. The city manager may impose water use limitations and penalties for violating as described in Table VIII or may impose other limitations that are deemed necessary to encourage efficient water use and to protect city water supplies needed for essential purposes.

Table VIII: Possible Penalties for Violating Water Use Limitations Per Drought Stage

Drought Stage	Water Use Limitations	Penalties for Violating Water Use Limitations
Stage I Moderate	Discourage 3 consecutive months of block 5 water use.	Send reminder warning notice to customers who are using block 5 water for 3 consecutive months.
Stage II Serious	Limit of 3 consecutive months of block 5 water use.	If block 5 water use continues for 3 consecutive months, then penalize with additional fees.* Consider installation of flow restrictors.
Stage III Severe	Limit of 2 consecutive months of block 4 or 5 water use.	Apply additional fees* following 2 consecutive months of water use in blocks 4 or 5. Consider installation of flow restrictors.
Stage IV Extreme	Limit water use in blocks 3, 4, or 5. Consider moratorium on building permits.	Apply additional fees* following 1 month of water use in blocks 3, 4 or 5. Consider flow restrictors or, for extreme water waste offenders, termination of water service.

**Additional fees are per subsection 11-1-49(d)(4) “Drought Response Measures” and as implemented per Section 11-1-51, “Enforcement of Drought Response Measures”, B.R.C. 1981, these administrative charges include the following: (1) a \$100 water waste charge; and (2) a \$300 water waste charge. Failure to pay administrative charges may, in turn, trigger water cut off, criminal penalties, or both.*

6. Public Facilities Drought Response Measures.

As part of the development of the Drought Plan, the city held numerous public meetings in order to elicit feedback on responding to drought. The city received extensive public input at these meetings as well as in response to the city’s watering restriction program in 2002. The details of the public process and feedback can be found in Volume II. One of the key issues raised in the process was that while maintaining equity between all customers was a good thing, it may be necessary to allow a different watering standard on “public property” than on private property. “Public property” includes those properties that are owned and operated by the government (such as the City of Boulder, University of Colorado, and the Boulder Valley School District properties) for use by residents. These public areas (such as parks and athletic fields) may need to have a higher degree of flexibility for water use than private areas, in order to preserve the ability to use these limited public areas during a drought. However, the public areas still must comply with the overall water reduction objective but they may do so with the flexibility to manage their entire systems. For example, the City of Boulder’s Department of Parks and

Recreation may use the overall water budget reduction goal as outlined in Table III to reduce irrigation at some lesser-used parks and increase water use on higher-use athletic fields or to irrigate mature and critical trees. In total, the Parks and Recreation Department will still need to meet the overall water budget reduction goal. This concept can be incorporated into each of the Drought Alert Stages.

7. Exceptions/ Variances to Drought Response Measures.

The City of Boulder may, at its discretion, grant exemptions from the drought response for individual water customers. The city manager may approve exemptions in instances of extreme economic impacts or health and safety issues. Violation of any term or condition of an exemption may result in the variance being revoked after the water customer has an opportunity for a hearing under chapter 1-3, “Quasi-Judicial Hearings,” B.R.C. 1981.

8. Drought Response Measures Example.

The tables below illustrate examples of different customer types and the possible impacts during a Drought Stage II-Serious. Table IX is an example of a SFR customer with 5,000 square feet of irrigable area. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the example shows the possible impact to a SFR customer depending on which drought response measures were implemented.

Table IX: Example of a Single-Family Residential Customer in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly Indoor Budget	7,000 gallons	6,300 gallons
	Monthly Outdoor Budget	18% (Aug.)	10% (Aug.)
	Total August Budget	20,500 gallons	13,800 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
	Penalties for Violations	No penalty.	1 st violation = warning notice; 2 nd violation = \$100 water waste charge

**The example uses the 2011 utility rates, in which the base rate is \$2.90.*

Table X is an example of a CII customer that has an average monthly usage (AMU) water budget, which means the budget does not change from month to month. In this example, the CII customer has an annual water budget of 795,000 gallons and a monthly water budget of 67,000 gallons. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the CII customer’s water budget would be reduced by 23 percent annually.

Table X: Example of a CII Customer (using AMU) in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly Budget	67,000 gallons	51,012 gallons
	Total Annual Budget	795,000 gallons	612,150 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
	Penalties for Violations	No penalty.	1 st violation = warning notice; 2 nd violation = \$100 water waste charge

**The example uses the 2011 utility rates, in which the base rate is \$2.90.*

Table XI is an example of an irrigation-only customer with 30,500 square feet of irrigable area and an annual water budget of 457,500 gallons. In August, the monthly percentage of allocation for annual outdoor water would normally be 18 percent. If the city declared a Stage II – Serious drought and the city manager implemented the rules and regulations, the example shows the possible impact to an irrigation-only customer depending on which drought response measures were implemented.

Table XI: Example of an Irrigation-Only Customer in Drought Stage II

Drought Response Measures		Non-Drought Year	Stage II Drought
Monthly Water Budget	Monthly (August) Outdoor Budget	82,350 gallons (18%)	31,570 gallons (10%)
	Total Annual Budget	457,500 gallons	315,675 gallons
Surcharges*	Surcharges for Block 5 Water Use	\$14.50 per 1,000 gallons (5 x base rate)	\$20.30 per 1,000 gallons (7 x base rate)
Water Use Limits and Penalties	Water Use Limitations	No limits.	Block 5 water use (3 consecutive months)
	Penalties for Violations	No penalty.	1 st violation = warning notice; 2 nd violation = \$100 water waste charge

**The example uses the 2011 utility rates, in which the base rate is \$2.90.*



**INFORMATION PACKET
MEMORANDUM**

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager

Office of the City Attorney
Tom Carr, City Attorney
David Gehr, Deputy City Attorney

Department of Public Works
Maureen Rait, Executive Director of Public Works
Joe Castro, Facilities and Fleet Manager
Bill Boyes, Facilities Maintenance Program Manager

Date: May 11, 2011

Subject: Information Item: Valmont Butte Voluntary Clean Up Program Update

EXECUTIVE SUMMARY

The purpose of this information item is to provide the council with a status update of regulatory matters related to the ongoing clean up efforts at the Valmont Butte.

In September 2010, the city received approval of the Voluntary Clean-Up Program (VCUP) for the Valmont Butte property by the Colorado Department of Public Health and Environment (CDPHE), in order to consolidate contaminated soils within the area of the primary tailings pond and to replace the inadequate and failed cap with a durable engineered dirt and rock cap intended to prevent future prairie dog encroachment. This will, among other things, help ensure compliance with CDPHE covenant obligations. The next step in the process of completing construction is securing County Land Use Approvals for remedy construction.

On March 9, 2011, the City of Boulder submitted a Limited Impact Special Use Review Application to Boulder County for remediation work on the Valmont Butte property. The Information Item

property is zoned General Industrial and Agricultural under the Boulder County Zoning Resolution. In either case, grading of more than 500 cubic yards requires a limited impact special review.

Although Valmont Butte is a city-owned property, because it is located in the county outside of the city limits, the county must conduct the use review. Ultimately, the county limited impact special use review will need to be approved by the County Commissioners. As part of the review process, the application was referred to the County Historic Preservation Advisory Board (HPAB) for comments and a recommendation. The HPAB reviewed the city's application at its April 7, 2011 meeting. The HPAB held two subcommittee meetings and a site visit on April 21 and 27 and hosted a public comment session on May 5. The HPAB is expected to adopt its final recommendations to the county commissioners at a special meeting on May 23. The Boulder County Commissioners' public hearing on the VCUP application will be scheduled after the HPAB meeting. At the May 5 HPAB meeting, board members expressed interest in preserving all structures on the site, including those that were planned for demolition, and designating the entire site as a historic landmark as conditions of permit approval.

The VCUP requires that remediation work begin prior to Aug. 31, 2011 and be complete by Aug. 31, 2012.

FISCAL IMPACT

Retaining and maintaining additional structures that are currently planned for demolition will have significant budget impacts. If landmark designated, future uses on the site will require HPAB review for most activities, which may potentially limit any and all activities or uses of the property.

BACKGROUND

When the city purchased the property in 2000, the property had undergone certain cleanup and closure activities to support CDPHE termination of the Colorado Radioactive Materials License then applicable to the property. The license termination was subject to a set of environmental covenants that run with the land and particularly relate to the tailings ponds area. However, subsequent to the purchase, the city discovered that there were several other areas of remaining soil contamination, and the cap over the tailings ponds area was insufficient. In particular, after the decision was made not to use the Valmont Butte Property for a wastewater biosolids composting facility or a fire training center, the city undertook additional investigation of the property in response to issues raised during the review process. Extensive soil sampling and analysis was completed after the city decided to pursue the VCUP program with CDPHE. The basic conclusions were:

1. There are 14 areas of contaminated soils outside of the covenant area (often referred to as the "tailings ponds").
2. The cap over the tailings ponds was inadequate.
3. The contaminated area of the tailings ponds was larger than indicated in the original VCUP.

4. Prairie dogs had moved into the tailings ponds area and further compromised the integrity of the tailings ponds cap.

The [2011 Council Reference Book](#) includes background information on the Valmont Butte property since the city's purchase in 2000. It can be found at www.bouldercolorado.gov > Government > City Council > Council Reference Books > 2011. Additional information and documents are available at the city's website at www.valmontbutte.net.

ANALYSIS

On March 9, 2011, the city submitted a Limited Impact Special Use Review Application to Boulder County for remediation work on the city's Valmont Butte site. The application was for a permit to allow 304,000 cubic yards of earthwork and the demolition of selected industrial structures associated with the remediation of the site where a former mill operated and industrial and debris disposal occurred. The application documents can be found on Boulder County's website at <http://www.bouldercounty.org/live/property/pages/docketdetails.aspx?docid=94>.

The Voluntary Clean-Up Program (VCUP) managed by CDPHE approved the remediation plan in September 2010 and also established site soil cleanup levels of:

- 800 mg/kg for total lead content
- 50 mg/kg for arsenic
- 68 micor rem/hr (whole body dose) for safe radiation levels

The VCUP site characterization identified 14 areas where surface soils are impacted with heavy metals exceeding the 800 mg/kg action level. In most cases on the Valmont site, areas with arsenic concentrations in excess of the 50 mg/kg action level are co-located with the lead concentrations in excess of the 800 mg/kg action level. The city's proposal is to complete remediation of these impacted surface soils to limit the risk to human health and the environment.

In general, the work includes excavating and consolidating impacted soils onto the primary tailings pond. Then, the impacted soils in the secondary tailings pond will be moved to the primary tailings pond. The primary tailings pond will then be recapped with two feet of clean soil overlain by 1.5 feet of rock as a protective cover against prairie dogs and erosion. Excavated areas will be filled and revegetated. The excavation will include regrading a portion of the site for proper drainage. After the site is regraded and seeded, the revegetation plan requires monitoring for five years.

Demolition of 18 buildings is proposed due to soil impacts around the structures, and in one case, underneath the structure, or due to impedance of proper site drainage. (See **Attachment A.**) Four buildings are proposed to be retained. The mill building and water clock tower are eligible for inclusion in the National Register of Historic Places and the cistern is eligible for local landmarking. Those buildings will be protected. Buildings planned for demolition have been photographically documented in accordance with city preservation archival requirements.

As part of the county's use review, HPAB reviewed the city's application at its April 7, 2011 meeting. The HPAB held two subsequent subcommittee meetings. One subcommittee meeting reviewed the mill buildings and the other reviewed cultural assets. At the May 5 HPAB meeting, board members expressed interest in preserving all structures on the site, including those that were planned for demolition, and designating the entire site as a historic landmark. City staff and consultants will identify impacts and costs for retaining additional structures and continue to work with Boulder County.

NEXT STEPS

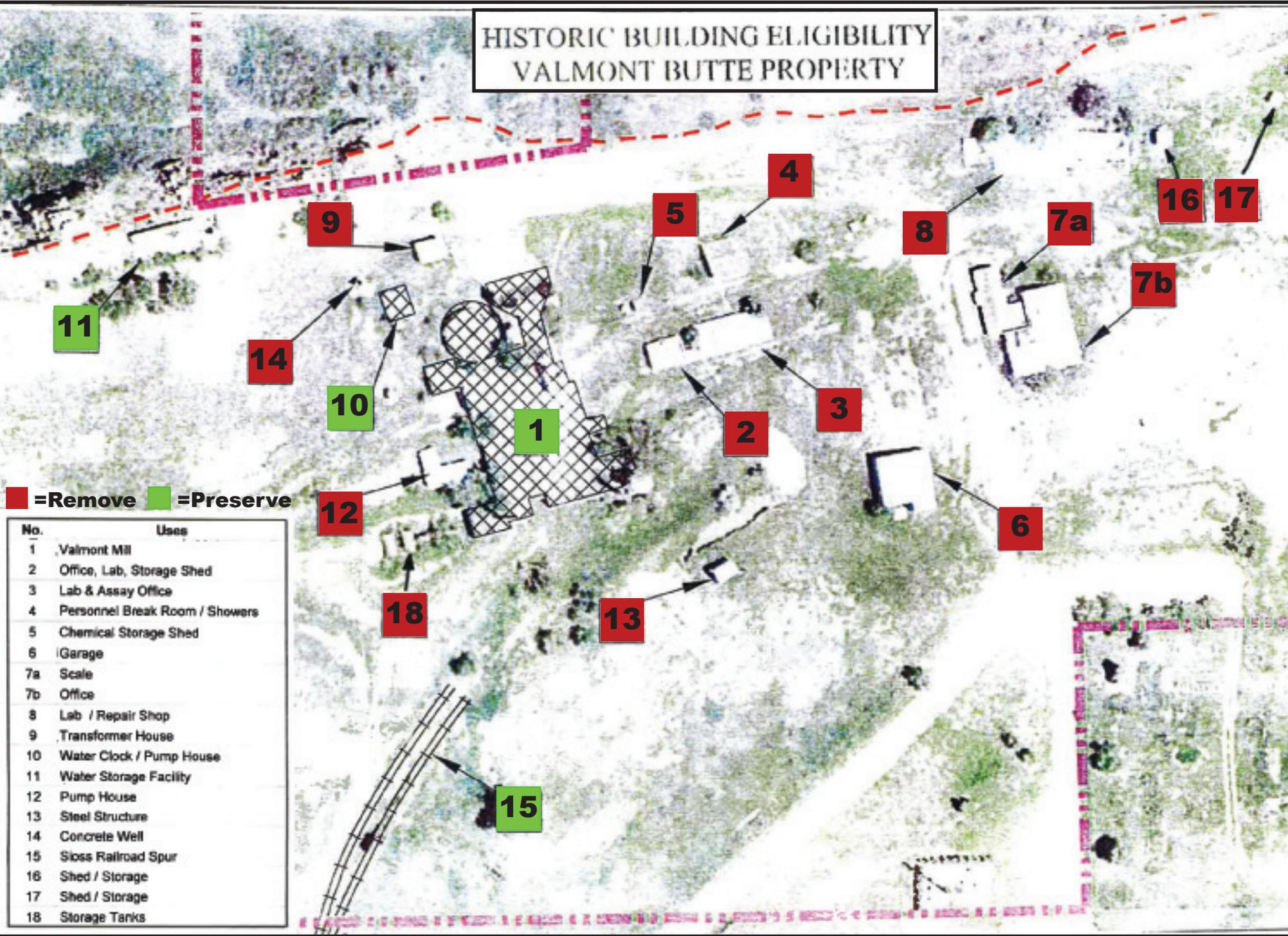
The county HPAB is expected to make its final recommendation at a special meeting on May 23. The Boulder County Commissioners' public hearing on the VCUP application will be scheduled after the HPAB meeting.

As required by CDPHE, site remediation actions in the VCUP must start by Aug. 31, 2011 and be completed by Aug. 31, 2012.

ATTACHMENTS:

- A. Map of Proposed Structure Removal

HISTORIC BUILDING ELIGIBILITY VALMONT BUTTE PROPERTY



■ =Remove ■ =Preserve

No.	Uses
1	Valmont Mill
2	Office, Lab, Storage Shed
3	Lab & Assay Office
4	Personnel Break Room / Showers
5	Chemical Storage Shed
6	Garage
7a	Scale
7b	Office
8	Lab / Repair Shop
9	Transformer House
10	Water Clock / Pump House
11	Water Storage Facility
12	Pump House
13	Steel Structure
14	Concrete Well
15	Sloss Railroad Spur
16	Shed / Storage
17	Shed / Storage
18	Storage Tanks



INFORMATION PACKET MEMORANDUM

To: Mayor Osborne and City Council

From: Jane S. Brautigam, City Manager
Paul J. Fetherston, Deputy City Manager
Karen Rahn, Director, Housing and Human Services
Valerie Watson, Human Services Planner

Date: March 1, 2011

Subject: Information Item: Youth Homelessness and Emergency Services

EXECUTIVE SUMMARY

This memorandum provides background information on youth homelessness, specifically unaccompanied homeless young people under eighteen years of age who are on their own and not under the care or supervision of a parent or guardian, and related emergency services needs in Boulder.

During public participation at the Jan. 4, 2011 City Council meeting, Mr. Jim Rianoshek, executive director of Attention Homes, requested city support in addressing youth homelessness in Boulder. He presented information on the increase of homeless youth in Boulder and throughout the country. He stressed that the most rapidly increasing subpopulation of homeless in the United States is youth and called for the city to consider a strategic plan for youth homelessness.

FISCAL IMPACT

Sheltering and emergency services for unaccompanied homeless youth in Boulder are supported through the 2010 funding allocations of the Human Services Fund and the Housing Fund of the Department of Housing and Human Services (HHS).

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS

- Economic: The cost of transitional housing for a homeless youth is estimated at \$12,000 a year while the cost of housing a youth in the child welfare or juvenile justice systems with public funds ranges between \$25,000 and \$55,000 per year. A recent Colorado report

indicates that it costs \$53,665 to maintain a youth in the juvenile justice system for one year, and approximately \$5,887 to permanently move a homeless youth off the streets.

- **Social:** Without the stability of a home it is more difficult to obtain and maintain other basic necessities of life and avoid more costly interventions such as emergency medical care, drug and alcohol treatment and mental health services. Addressing youth homelessness in a sustainable, comprehensive and coordinated manner helps homeless youth into more stable daily living. To be most effective in addressing homelessness in the long-term, services for homeless youth should be balanced with the needs of other homeless populations and with other critical human services needs, in coordination with other community resources.

BACKGROUND

Characteristics of Homeless Youth

According to Colorado's Advisory Committee on Homeless Youth (government, non-profit and faith-based agencies working to end youth homelessness in Colorado by improving the quality, availability and accessibility of services provided to homeless youth and those at risk of homelessness) youth become homeless for a wide variety of reasons. Unaccompanied homeless youth have service needs and options distinct from homeless families and adults (eighteen to twenty-four years of age). Homeless youth experience higher rates of depression, anxiety, low self-esteem, conduct disorder, post traumatic stress disorder and poor health and nutrition compared to their housed peers. High risk behaviors are also common and include drug and alcohol abuse, trading sex for food, shelter and money.

Youth homelessness is largely a reflection of family breakdown and youth generally fall into one of the following categories:

- *Runaways:* most commonly fleeing physical, emotional or sexual abuse or neglect by their parent or guardian, substance abuse in the home and the affects of untreated mental illness,
- *"Throw aways"/ expelled:* forced to leave or abandoned, typically due to conflict over the sexual orientation of the youth, substance abuse either by the parents or the youth, family poverty or homelessness and behaviors stemming from untreated mental illness,
- *Discharged from institutional care:* including emancipated foster youth and youth discharged from youth correctional facilities, and
- *Teen parents:* may also fall into one of the previously mentioned categories, but have the added challenge of caring for a young child of their own.

ANALYSIS

National studies report increases in the number of families who are homeless and reflect increasing numbers of homeless families with children and increased numbers of doubled up and unaccompanied youth across the country. In its 2009 Annual Homeless Assessment Report, the U.S. Department of Housing and Urban Development reported that slightly more than 170,000 families were homeless in 2009, about a 30 percent increase since 2007. The report notes that about three fifths (61 percent) of homeless family members are children under age 18.

Estimates of the number of homeless youth in Boulder are reported by local service providers and through point-in-time homeless counts conducted every two years. These counts, conducted

across the country, provide a snapshot showing the number of homeless people in a community and suggest what resources are needed to address homelessness at the local level. The most recent biennial point-in-time count was held in January 2011. The information from this count is not yet available. The previous 2009 point-in-time homeless count reported nineteen unaccompanied homeless youth in the City of Boulder.

Prior to 2009, point-in-time counts in Boulder did not ascertain whether youth were unaccompanied. Point-in-time counts have, however, reported on the number of all children who were homeless over time. In 2009, 214 homeless children under age eighteen were counted and in 2006, 100 homeless children and youth were counted. The Boulder Valley School District (BVSD) reports registering 14 unaccompanied youth this school year (up to Jan. 26, 2001) in City of Boulder high schools, the majority of whom are 16 to 18 years of age. BVSD staff believe there are more unaccompanied youth in Boulder schools who are living with relatives or friends and who have not been identified as homeless.

Data provided by Attention Homes indicates there are up to 200 homeless teens on Boulder County's streets at any given time. This estimate is higher than anticipated by other service providers in Boulder (e.g., Boulder County and Boulder Shelter for the Homeless) and by point-in-time counts. The estimate is partly based on a street survey of youth conducted by Attention Homes in downtown Boulder during August 2010 in which 42 teens completed surveys during a six hour period.

Emergency Services for Homeless Youth in the City of Boulder

For a variety of reasons including personal safety, youth avoid or are ineligible for services in shelters that serve a largely older clientele. Boulder Shelter for the Homeless limits its services to individuals over eighteen years of age. Homeless youth are referred by Boulder Shelter and other local referring agencies to Attention Homes and, if they are teen parents with infant children, to the Emergency Family Assistance Association's (EFAA) family shelter program. Two or three City of Boulder homeless teens with infant children were provided shelter by EFAA in the last year. While Carriage House and Boulder Outreach for Homeless Overflow (BOHO) staff report providing drop-in and emergency shelter services to small numbers of homeless youth, staff of both agencies stress that youth should be served by youth serving organizations. Attention Homes is the only Boulder agency that targets emergency shelter services to homeless youth.

Non-residential emergency services targeted to homeless youth in Boulder are provided by BVSD, StandUp for Kids and Family Tree. BVSD's McKinney-Vento Homeless Program identifies children and youth enrolled in the school district living in homeless situations and provides appropriate services. One service is immediate school enrollment even when the student lacks paperwork normally required for enrollment; another is immediate placement in the Free and Reduced Lunch/Breakfast Program. The McKinney-Vento Act also allows for students to remain in their "school of origin," which could be the school they attended before becoming homeless or the school they last attended, and mandates that transportation be provided. Fees for school programs are waived for this group, evaluations are expedited and attempts are made to put services in place for students to achieve academic success.

StandUp For Kids is a Boulder chapter of a national organization whose mission is to end the cycle of youth homelessness. This organization serves the homeless youth population by doing street outreach and providing a drop-in center. Volunteers walk the streets of Boulder handing out food, clothing and hygiene products. The drop-in center, located in the Masonic Lodge at Pine and Broadway in downtown Boulder, is open five days a week and provides youth with hot meals, showers, internet and a safe place. The agency offers assistance with securing identification, GED testing, medical referrals, legal referrals, job hunting, life skills and mentoring. Over 70 youth from the City of Boulder and elsewhere in the county have been served through StandUp for Kids since June, 2010.

Family Tree is a Denver based agency mandated to provide a broad range of services and shelter to families and youth in metropolitan Denver to overcome child abuse, domestic violence and homelessness. Gemini, the children's services division of Family Tree, operates a job training focused resource center at Canyon and 18th Street in downtown Boulder. It also provides outreach services and is working to build new partnerships in Boulder to provide runaway and homeless youth with greater access to resources. For example, Gemini Boulder outreach staff work with the Boulder Police Department to coordinate services and provide education and training to officers and other law enforcement staff referring youth to metropolitan Denver area shelters, including Gemini. Nineteen Boulder County homeless youth and their families were provided services at the Boulder resource center in 2009. (Family Tree does not record how many residents are from the City of Boulder.)

Attention Homes' Service Model

Attention Homes historical model is primarily providing residential treatment services to youth who are in programs such as juvenile justice or transitioning from foster care. As a funder and service provider, Boulder County's youth services model has recently evolved, emphasizing prevention and early intervention services rather than a focus on system services. The focus is on maintaining family unification and preventing children and youth from entering foster care and juvenile justice. As a result, its referrals, over time, of youth to Attention Homes for residential treatment has decreased along with funding. In 2010, Attention Homes' demand for services decreased from serving as many as 20 to between six and nine youth residents each day. In response, the agency merged its Broadway House and Chase House programs into its Broadway Avenue facility and has since completed an assessment of community need and redesign of its programs.

Attention Homes conducted a survey of youth on the streets of Boulder in August 2010 to determine the unmet needs of homeless youth in the City of Boulder and Boulder County. Through this survey and consultations with a range of youth serving organizations (including StandUp for Kids, Family Tree's Gemini Program, Carriage House, Boulder Shelter for the Homeless, BVSD and St. Vrain McKinny Vento staff) agency staff learned that there is a need for outreach services, meals, internet access, showers, laundry services, a day drop-in center, basic medical services, a shelter and various related services. Attention Homes has added outreach, drop-in and aftercare services, beginning in November 2010, to its residential treatment, counseling and safe shelter to at-risk youth. These services are described below:

1. **Street Outreach Services:** builds relationships with street youth through direct contact where teens are living, meets basic survival needs on the street and provides referrals to necessary services.
2. **Drop-In Services:** builds relationships with street youth through direct contact in center, meets basic needs (food, clothing, showers, hygiene items) in a safe environment, provides referral to necessary services and increases teen's social support network through communication with family and friends.
3. **Emergency Shelter Services:** provides safe, overnight shelter for up to twelve youth per night, long-term housing options and/or family reunification, referral to necessary services and up to a year of after-care services.
4. **Aftercare Services:** reinforces pro-social behaviors, teaches youth and family long-term, health relationship skills, provides assistance in obtaining jobs, housing and social support systems.

City of Boulder Youth Served and Funding

Historically, Attention Homes has served lower than targeted numbers of City of Boulder homeless youth. For this reason, in 2002 the agency was not awarded city funds. In 2004, when the agency served 27 city youth, it received \$20,000 to support its services. Since then, the city has provided \$19,604 annually to support the agency's Broadway House (youth shelter). During this period, the agency has consistently served fewer than targeted City of Boulder homeless youth (serving between 14 and 73 percent of its targets each year). Over the last five years, the agency has provided at least 30 days of safe shelter to an average of five youth each year. In 2010, the agency contracted to provide these services to seven City of Boulder youth and served one.

Between Dec. 15, 2010 and Feb. 14, 2011, ten unduplicated youth have been provided shelter in Attention Homes' newly opened emergency shelter, five from the City of Boulder.

Ten-Year Plan to Address Homelessness

City Council accepted the Boulder County Ten-Year Plan to Address Homelessness (Ten-Year Plan) on April 20, 2010. It provides a blueprint for how communities will work together to prevent homelessness, address issues that keep people in homelessness and create housing and supportive services needed to end homelessness. Central to this plan is the Housing First model to address homelessness among people of all ages, focusing on early intervention and permanent supportive housing. The Ten-Year Plan acknowledges the many social conditions that contribute to homelessness. Among the social conditions noted that pertain specifically to youth, the Ten-Year Plan stresses family violence and youth being unequipped to deal with emancipation and their transitions from institutions and systems of care such as foster homes and youth detention and mental health institutions.

City staff suggest that, rather than developing a new strategic plan for homeless youth, which would, in many ways duplicate the Ten-Year Plan, homeless youth service providers continue to work collaboratively to prevent homelessness and to develop comprehensive wrap-around services tailored to meet the needs of homeless youth, consistent with the Ten-Year Plan:

- Support better information exchange, improved coordination of services, development and implementation of more effective case management and outreach efforts, and augmentation of the use of cross-system data to focus government and non-profits systems in ways that have a more lasting impact on homelessness.
- Provide reintegration programs to those leaving institutional systems.
- Provide temporary shelter, alternative housing and supportive services for those who are temporarily homeless.

NEXT STEPS

1. Staff has met with Attention Homes and suggested they apply to the Human Services Fund for homeless youth shelter services for the 2012-2014 fund round. Applications will be available in spring 2011.
2. Staff has offered technical assistance to Attention Homes to help them develop funding applications which will assist them in securing funds from other potential sources.

BOULDER

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Boulder Convention and Visitors Bureau
244 Pearl Street
Boulder, Co 80502

April 25, 2011

To: Mayor Susan Osborne
Boulder City Council
City Manager, Jane Brautigam
C/o Interim City Liaison, Paul Fetherston
From: Mary Ann Mahoney, Executive Director Boulder Convention and Visitors Bureau

It is once again our pleasure to present the First Quarter Report about the Boulder Convention and Visitors Bureau's (CVB) activities.

As the first quarter closed, the hospitality community is optimistic about the 2011. The consumer confidence is growing, which in turn reflects the meetings market and business traveler bookings continued to improve. As William Hopping of the WH Hopping & Associates told the Boulder Hotel & Motel Association a few weeks ago, in 2011 the Boulder hotel market should show a 7% growth in occupancy and a slight increase in the average room rate. The Colorado Business Economic Outlook, by the Colorado Leeds School of business, anticipates a 5-10% growth in 2011 as prices recover. The Boulder/Denver market recuperated better in 2010 than anticipated, this trend is continuing through the first quarter of 2011. The first quarter of 2011, the Boulder hotels occupancy grew 5.1% points and almost 1% in hotel room rates.

2011 First Quarter, Hotel occupancies and Average Hotel Room Rate:

	Average Occupancies	Average Hotel rate
Metro Denver (including Boulder/Hwy 36)	59.5%	\$102.80
Highway 36 corridor	59.5%	\$100.67
Boulder	56.9%	\$103.74
U.S.	54.9%	\$ 99.37

This data was collected from Boulder Hotel and Motel Association, Rocky Mountain Lodging Report, and Smith Travel Research.

The group meeting manager booked 298 more rooms in the first quarter over 2010, targeting specific groups to meet the various needs of our hotels. The electronic postcards sent out to meeting planners and we have had very positive feedback. The messages are linked to articles about how to make their time more efficient and effective. This is a great way to keep a successful relationship with our meeting planners without always asking them to 'bring their business to Boulder.'

Also, if anyone in the City belongs to any professional associations, the CVB has a *Bring Your Conference Home* program. This gives the CVB a referral name to contact and offer our 'free' services for their meeting. So many people want to show off Boulder. We have found some great referrals and would love to work with many organizations to promote this program.

In 2011, the CVB has decided to measure activities that do not have a direct 'return on investment'. There are many services we provide that have a value and create exposure for so many organizations and it is worthwhile to measure. This information will be realization for us to

see the collective measurements and set a baseline for the future to reflect our full program of work.

Boulder has had a lot of interest with national writers and television producers. As the CVB is also the Boulder County Film Commission, we can be working on a 'press lead' which turns into a film crew coming to Boulder. In February, CNBC was here to ask many business and university leaders 'Why is Boulder one of the most innovative cities in the country?' Boulder was featured with live interviews throughout the two-hour program.

As the CVB and City staff was guided, we are rewriting the Sustainable Tourism Plan with many partners. The next step will be to create a suggested program of work for 2012 for approval. This is a very exciting time for the CVB as there is more interest in tourism while creating a balanced approach for year-round visitors.

If you ever have any questions or suggestion, please feel free to contact me at 303.938.2072 or maryann.mahoney@bouldercvb.com

BOULDER CONVENTION AND VISITORS BUREAU

PERFORMANCE INDICATORS

Reporting Period: 2011 XXX Quarter	2011 First Quarter	Change over last years First quarter	2011 Year to date
Number of meeting planner contacts			
Tradeshows/Personal contacts	2 82	Same / 7 more	2 82
Telemarketing/Communications	508	233 more	508
Meeting page web visits	718	211 fewer	718
On-site inspections	1	1 fewer	1
Request for Proposals Generated/Booked	49 13	5 fewer 3 fewer	49 13
Total Sleeping Rooms booked	2,018	289 more	2,018
Number of responses mailed to inquiries	1,216	207 more	1,216
Number of responses to phone and email inquiries	1,577	325 fewer	1,577
Number of web site users sessions	88,167	1,200 more	88,167
Web page view visits:	477,771	9,049 fewer	478
Average time: minutes on bouldercoloradousa.co	4 min	1 min less	4 min

*

	Through February 2011	Change over 2010
Accommodation tax collection figures	\$ 480,569	incr. 4.76%
Hotel / Motel Association Occupancy	59.3%	incr. 6. %
Restaurant tax collection figures	\$ 79,305	incr. 10.3%
Downtown Boulder tax collection figures	\$ 564,580	incr. 5.7%
Twenty Ninth Street tax collection figures	\$ 377,093	incr. 8.3%

Services/programs provided to the cultural arts in Boulder:

Worked with the Boulder International Film Festival and the DiMe Symposium (digital media symposium) and paid for three weeks of radio promotion for the festival awareness.

The CVB marketing team met with Boulder Arts and Crafts Gallery to assist in creating a campaign for their year-long 40th Anniversary year-long celebration.

Met with Flagstaff House marketing team to create some destination packages with various cultural organizations.

The CVB staff hosted the 7th Annual Packaging Forum with over 45 partners, including the cultural arts organizations and museums, walking, biking and driving tour guides, restaurants and hotels.

CVB started a baseline measurement of all services provided that do not have a direct return on investment, including all cultural events featured on our website, electronic newsletter, and package offerings.

Large, Ann

From: Mary Ann Mahoney [maryann.mahoney@bouldercvb.com]
Sent: Monday, April 25, 2011 7:26 PM
To: Fetherston, Paul; Large, Ann
Subject: CVB 1st Qtr. Report
Attachments: 2011 First Qtr letter.doc; 2011 First Qtr Measurements.xlsm

Good evening Paul and Ann, I hope you both are well.

Attached is the CVB 2011 first quarter report. Please let me know if you have any questions.

Thanks so much,

Mary Ann

Mary Ann Mahoney
maryann.mahoney@bouldercvb.com
Executive Director
Boulder Convention and Visitors Bureau
2440 Pearl Street
Boulder, CO 80302
303-442-2911

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**CITY OF BOULDER, COLORADO
BOARDS AND COMMISSIONS MEETING SUMMARY FORM**

NAME OF BOARD/COMMISSION: LIBRARY COMMISSION
*DATE OF MEETING: May 4, 2011
NAME/TELEPHONE OF PERSON PREPARING SUMMARY: Leanne Rizzo X3106
NAMES OF MEMBERS, STAFF AND INVITED GUESTS PRESENT: <i>MEMBERS:</i> Sam Fuqua, Annette Mitchell, Anne Sawyer, Donna O'Brien, and Celeste Landry <i>LIBRARY STAFF:</i> Jennifer Miles, Mary Jane Holland, Gwen Holton, Kathleen Janosko, and Leanne Rizzo <i>CITY STAFF:</i> David Mallett and Tom Carr <i>Public Present:</i> none
Call to order The meeting was called to order at 6:45 p.m. Minutes The minutes of March 2, 2011 and April 6, 2011 were approved as amended. Public Participation none. Matters from the Director & Staff <ul style="list-style-type: none"> • Commission priority discussion: Tom Carr, City Attorney, clarified the Library Commission's role and responsibility according to the city charter. • 2011 budget process update: David Mallett, from the Budget Transition Team, discussed the library fund adjustments to base. • 2011 Summer Reading Program: Mary Jane Holland, Children's & Youth Services Manager, presented the details of the Toddler, Children and Teen's Summer Reading Programs, entitled, "One World, Many Stories." Update on Library matters: <ul style="list-style-type: none"> • Commission meeting schedule- The meeting schedule was discussed regarding the Library Commission's priority discussion topics for the June and July meetings. The Library Commission will discuss the necessary next steps for each priority discussion topic at the June meeting. The Commission will meet at the Reynolds branch on Wednesday, July 6th and at the Meadows branch on Wednesday, Sept. 7th. • Capital Improvement Program submission for the Library- Acting Library & Arts Director, Jennifer Miles informed the Commission of the important deficiency project being submitted by the FAM department on behalf of the library: modernize/upgrade two of the elevators at the Main Library and installation of flood-proof doors at the east entrances of the Main Library's north building. • Commissioner Landry's query about book discussion group petition- The petition will be submitted to the new library director after her arrival on June 13th. • Commissioner Landry's query about Library Café and RFID project- A budget supplemental request was submitted to council to cover the cost of the utilities for the café services on the Main Library bridge. There is no update regarding the RFID or other big projects for the Library. • Commissioner Landry's query about the status of vacant positions- A table of the library's vacant positions was distributed. Miles explained that she would be making a request to fill the Branch Services Manager position at the Reynolds branch library, as the person that holds this position will be resigning on May 14th, 2011. 2011 Library usage statistics- 1st quarter: A table with this information was distributed and discussed. Matters from the Commission <ul style="list-style-type: none"> • Update on Library/Commission promotion at the Boulder Creek Festival: Commission Sawyer decided against running a booth at the festival as library staff (as discussed at the March meeting) and the necessary resources will not be available. Adjournment – The meeting was adjourned at 8:50 p.m.
ATTACH BRIEF DETAILS OF ANY PUBLIC COMMENTS (LIMIT TO ONE PAGE):
TIME AND LOCATION OF ANY FUTURE MEETINGS, COMMITTEES OR SPECIAL HEARINGS: The next meeting will be held on Wednesday, June 1st, 2011, at the Main Branch Library, 1001 Arapahoe Ave., Arapahoe Conference Room.

**National Kids to Parks Day
May 21, 2011**

WHEREAS, May 21st is the first National Kids to Parks Day organized and launched by the National Park Trust; and

WHEREAS, National Kids to Parks Day empowers kids and encourages families to get outdoors and visit America's parks; and

WHEREAS, it is important to introduce a new generation to our nation's parks because of the decline in Park attendance over the last decades; and

WHEREAS, we should encourage children to lead a more active lifestyle to combat the issues of childhood obesity, diabetes mellitus, hypertension and hypercholesterolemia; and

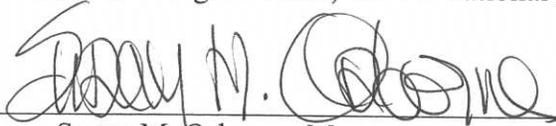
WHEREAS, National Kids to Parks Day is open to all children and adults across the country to encourage a large and diverse group of participants; and

WHEREAS, National Kids to Parks Day will broaden children's appreciation for nature and the outdoors; and

NOW THEREFORE, I, Susan M. Osborne, Mayor of Boulder, Colorado, do hereby proclaim May 21

National Kids to Parks Day

and urge residents of Boulder to make time to take the children in their lives to a neighborhood, state or national park.


Susan M. Osborne, Mayor



**Pastor Hansford Vann Day
June 11-12, 2011**

WHEREAS, Pastor Vann has served the Boulder Community for the past thirty-nine years, faithfully led the congregation of Second Baptist church and worked throughout Boulder County making a positive difference everywhere he served; and

WHEREAS, Pastor Vann's multi-cultural congregation attracts visitors from all over the world, whether it is to experience a riveting sermon, listen to gospel music or participate in diverse programs; and

WHEREAS, under Pastor Vann's leadership, Second Baptist Church of Boulder grew to record size, retired its mortgage and celebrated over 100 years of service; and

WHEREAS, Pastor Vann traveled the world while honorably serving his county as a member of the United States Navy; and

WHEREAS, Pastor Vann has served the Boulder Community as chaplain for the Athletic Department at the University of Colorado/Boulder, as chaplain for the Colorado House of Representatives, was a member of the Boulder County Community Corrections Board and the Boulder Christian Men's Fellowship, founder of a variety of food banks, clothing drives, black history and diversity-related programs, missionary to the sick and shut-ins; and

WHEREAS, in 2010, he was the recipient of the Living Legend Award and

THEREFORE, I, Susan M. Osborne, Mayor of the City of Boulder, Colorado, declare June 11-12

Pastor Hansford Vann Day



Susan M. Osborne, Mayor



**World Falun Dafa Day
May 13, 2011**

Whereas, since its public introduction in 1992 by Mr. Li Hongzhi, Falun Dafa has brought health and peace of mind to over 100 million people around the world; and

Whereas, Falun Dafa, also known as Falun Gong, is an ancient practice of exercise, meditation and study that promotes good spirit and mental health; and

Whereas, Falun Dafa is based on the principles of Zhen-Shan-Ren, which are "Truthfulness, Compassion and Forbearance" as the virtue of the universe; and

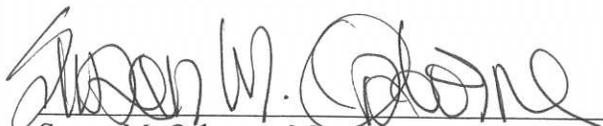
Whereas, Falun Dafa transcends cultural and racial boundaries and contributes to the universal dream of a peaceful, tolerant and more compassionate society; and

Whereas, Falun Dafa is practiced all over Colorado by many citizens of all ages; and

Whereas, all Falun Dafa activities are always free of charge.

Now, Therefore, I, Susan M. Osborne, Mayor of Boulder, Colorado, do hereby proclaim May 13, 2011 as

World Falun Dafa Day


Susan M. Osborne, Mayor

