

CITY OF BOULDER, COLORADO
BOARDS AND COMMISSIONS MEETING MINUTES

Name of Board / Commission: Water Resources Advisory Board	
Date of Meeting: 15 September 2014	
Contact Information of Person Preparing Minutes: Andrea Flanagan 303.413.7372	
Board Members Present: Vicki Scharnhorst, Dan Johnson, Mark Squillace, Lesley Smith, Ed Clancy Board Members Absent: None	
Staff Present: Jeff Arthur, Director of Public Works for Utilities Bob Harberg, Principal Engineer - Utilities Katie Knapp, Engineering Project Manager Annie Noble, Flood and Greenways Engineering Coordinator Kurt Bauer, Engineering Project Manager - Utilities Bret Linenfelser, Water Quality and Environmental Services Manager Joe Taddeucci, Water Resources Manager Joanna Bloom, Source Water Administrator Andrea Flanagan, Board Secretary	
Cooperating Agencies Present: Craig Jacobson, Principal Engineer, ICON Engineering	
Meeting Type: Regular	
Agenda Item 1 – Call to Order	[7:01 p.m.]
Agenda Item 2 – Approval of the 18 August 2014 Meeting Minutes: [7:01 p.m.] 18 August minutes: Motion to approve minutes from August 18th as presented. Moved by: Squillace ; Seconded by: Johnson Vote: 5:0	
Agenda Item 3 – Public Participation and Comment	[7:02 p.m.]
Public Comment: None Board follow up: None	
Agenda Item 4 –	[7:03 p.m.]
Public Hearing and Consideration of a Recommendation to City Council Regarding Floodplain Mapping Updates for Skunk Creek, Bluebell Canyon Creek, and King’s Gulch Katie Knapp and Utilities staff presented the item to the board, which included a PowerPoint presentation.	
Executive Summary from the Packet Materials: Floodplain mapping provides the basis for flood management by identifying the areas subject to the greatest risk of flooding. This information is essential for determining areas where life safety is threatened and property damage is likely and is the basis for floodplain regulations and the National Flood Insurance Program (NFIP). The city’s floodplain maps need to be periodically updated to reflect changes in the floodplain resulting from land development, flood mitigation improvements, new topographic mapping information and new mapping study technologies.	
The Skunk Creek Floodplain Mapping Update includes the King’s Gulch, Skunk and Bluebell Canyon Creek floodplains between the city limits to east of Foothills Parkway where Skunk Creek confluences into Bear Canyon Creek as shown in red below.	



Engineering consultants provided hydraulic modeling to update the existing Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) and City of Boulder floodplains, water surface elevations, conveyance and high hazard zones.

The proposed mapping of the Skunk Creek Floodplain would result in a net:

- Increase of 44 structures identified in the 100-year floodplain;
- Decrease of 27 structures identified in the conveyance zone and;
- Decrease of 17 structures identified in the high hazard zone.

WRAB Discussion Included:

- Questions about whether the assumptions on which the study is based are going to be posted on the website?
- Questions about whether the information presented is complete enough to allow the WRAB to make a recommendation today.
- Discussion around whether the board feels the mapping is substantially incomplete. The board always reserves the right to request additional updates.
- Questions regarding how the determination of the 100-year flood plain boundaries are determined; Whether individuals have the opportunity to review this and have changes made based upon new findings; Whether the additional communication that was recommended by board with the affected parties is under way?
- Questions about what happens with flood insurance and CU after additional analysis is completed? Is the flood insurance policy affected?
- Very good job with timeline and the flood mapping regarding mitigation steps.
- Confusion expressed regarding the volume of rain and the accuracy if in a drainage way.
- If the suggested motion does move forward, board requests information back regarding the high hazard zone delineations and the distribution of the Bluebell Canyon Creek split flow paths downstream of 15th Street. Most residents live after the split shown in the flood mapping; question if this going to be revisited? Board requests explanation as to the reasoning and suggests maybe holding off on approval.
- Discussion regarding further refinements to the mapping and the possibility of moving affected residents' properties out of the floodplain.
- Questions about whether this study by ICON Engineering is going to be peer-reviewed and how many floodplain maps from the past have not been peer-reviewed?
- Questions regarding actual flows up Columbine and how they compare to the flood mapping predictions. Concerns with how residents are being notified and how addresses are obtained for issuing announcements.
- Mention of rock dam that burst during the flood. Questions seeking confirmation on whether this event happened or not.
- Questions about FEMA requirements and whether or not standard debris flow gets modeled?
- Question about next steps in making a motion to Council and the intended communications that will go out to residents prior to presenting to Council?

Public Comment:

- **Christina Jurgens** – Concerns are with the Bluebell and that there were no diversions, which isn't reflected accurately in the mapping presented. Question is if a lot of water falls in the area, water will not flow uphill to 19th street and over Columbine if it's natural direction is downhill. She would like for this to be considered when moving forward with the amendment.
- **Bryan Boots** – Owns a home at 20th and Columbine, which is in a newly designated hazard zone. He was completely unaware of the changes in zoning and is feeling like he is coming to the conversation late. Questions the assumptions that are going into this decision making and having a hard time reconciling the recent studies with what he actually experienced last September. He would like to better understand the next steps in the process regarding what is decided. It doesn't seem reasonable to put the burden on residents. He is requesting better, more effective outreach to citizens.
- **Tim Fuller-Rowell** – Lives on Columbine Avenue, which is affected by the new floodplain, which now makes up half of his property. Increase in the water table flooded the basement. Flow down Mariposa didn't affect us. Rock dam broke causing a flash flood and persistent rainfall and wonders if that was factored into the analysis, but didn't see any major flow on Columbine. Wants to understand the actual impact of flood to his property and physical reasons why it is now included on the floodplain. What is the process for deciding how the new boundaries are drawn and decided? Premature to start approving a new floodplain before the previous event is fully understood and would like the city to have more interaction with the people who are actually affected.
- **Jamie Krapohl** – Property owner affected by the proposed flow split changes at 15th is his major concern. He didn't observe what is being shown on the maps and feels there is a lack of correlation in how the split affects these three blocks. On the Saturday of the flood, he was at 15th and Mariposa and didn't observe any diversions that were put into place by residents. The flooding on his corner was due to the Anderson Ditch overflowing, which is not represented in the changes. Since the open house, he has reached out to neighbors, but there are many renters around his property. He contacted three other property owners and informed them of the recent flood mapping changes. Feels that neighbors were not aware of these new changes. Concerned with the accuracy of the models, based on observations from walking around the neighborhood and what is being reflected in the updated maps. He feels this just doesn't make sense.

Motion by: Johnson; **Seconded:** Smith

Motion to recommend that City Council adopt the Skunk Creek floodplain mapping update including potential additional refinements made prior to Council's consideration and with the understanding that should such additional refinements result in substantial modifications to affected properties, that WRAB would have the opportunity to review the results prior to Council's review

Vote: 3-2, Motion Passes (Clancy, Squillace Opposed)

Opposition Statement by Clancy: People have right to peer-review process and an additional outside party should be asked to review findings, as there is great benefit to the peer-review process.

Agenda Item 5 – Matters

[8:33 p.m.]

From the Board:

Board Member Smith brought up the below matter(s):

- Attended flood commemorative event and acknowledges that staff members put a lot of work into this event. The Science of Disaster Planning Research and Response featured excellent panels talking about the flood in terms of science, social science and climate science, where she learned about new technology called non-contact radar sensors to measure stream flows. She is impressed by these new, modern sensors used on bridges to monitor stream flows to gather data. Professor and hydrologist from CSU spoke about importance of diversity in floodplains.

Board member Johnson brought up the below matter(s):

- Communication about budget used to hire additional staff to have more resources, but there are questions staff had relative to improvements that might be made. Suggests maybe taking a step back instead of taking the approach to reline the conduits right now in order to get a better return on our investment.

Board Member Clancy brought up the below matter(s):

- City of San Francisco and the County Water District there has recommended that fluoride in drinking water should not be used in bottled milk for infants and whether there is a duty to

warn about potential health risks to children? Recommending additional discussion at next WRAB meeting.

- Are children especially vulnerable to fluoride and the use of formula milk, based on concerns expressed in said studies?

Board member Scharnhorst brought up the below matter(s):

- Attended community flood event and felt it was very good. Thanks to staff for all the hours of hard work that were invested, post-flood.

From Staff:

[8:45p.m.]

Northern Water Study: Northern performed recent financial analysis of its CBT rates starting in 2013 and started rolling out process to allottees in January, 2014 for review and comment, which included January informational meeting. Comprehensive presentation of rate study at spring user's meeting. Solicited input from allottees and city staff felt their study was a thorough and comprehensive analysis of their rates. Most questions and comments were regarding fixed rate contracts.

- Half of revenue comes from property taxes and prior to 2008 recession, saw about an 8% increase in revenue and after that, went flat. Conducted rate study using industry standard cost of service model. Different categories of contracts that they have, factored in ability to pay for their irrigation class customers. Study looked at different sources of revenue, but limited in what board of directors can influence on total revenue. CBT Assessments contribute about 20% of Northern's total revenue and of that, 2/3 is from \$2.00 per unit fixed rate contracts and the remainder is from \$28 per unit open rate contracts. Open rate assessments are going to increase in a stepped manner beginning in 2015 with the goal of rebuilding Northern's reserves over the next several years.
- Summary highlights: our current CBT bill is around \$260,000.00 based on the mixture of open and fixed rate contracts. By 2018, this bill would go up to around \$500,000.00, causing a noticeable rate increase.
- A board member suggested the city explore alternative water sources to Northern's. CBT shares are one of the only types of freely marketable water rights in the country, which is unique.
- In 2009, the city's Source Water Master Plan was completed, with recommendation to consider getting rid of rest of Windy Gap shares. Eliminating CBT shares was not something recommended in the SWMP, although we are always thinking about the effect that future compact calls could have on west slope supplies.

Water Budget: One-on-one outreach conducted between staff and businesses has highlighted frustration and concern about rate structure in terms of whether these are equitable across customer types. The level of concern is such that it is worth additional follow-up. Potentially get into close look at rates starting next year, and future conversations with board early next year to get recommendation for future for changes.

- The stormwater monthly fee and formula may not work well with particularly large sites. Suggestion to take a look at possible alternatives for limited number of very large users who have these unique situations.

Study Session: Study session scheduled September 30th with City Council on flood topics, with updated version of presentation by Wright Water Engineers, as well as a high level information about mitigation mapping studies and how to best move these studies through future agendas. Will also check in with Council about South Boulder Creek after presenting to Open Space Board of Trustees and received a motion from them regarding impacts to open space. Would like to also receive Council's thoughts on what considerations they would like to see around upstream of 36 option.

Agenda Item 6 – Future Schedule

[9:18 p.m.]

- October Information Item: Update on Twomile/Upper Goose Creek Mapping Studies (Bauer)
- October Update on Skunk, Bluebell, King's Gulch Mapping Study
- October Information Item: Update on Gregory Creek Mitigation
- October Matters Item: Update on Wright Water Rainfall/Recurrence Analysis
- November Information Item: Update on Twomile/Upper Goose Creek Mapping Studies (Bauer)
- December Update on Betasso

Adjournment

[9:21 p.m.]

There being no further business to come before the Board at this time, by motion regularly adopted, the meeting was adjourned at 9:21 p.m.

Motion to adjourn by: Squillace; **Seconded by:** Johnson

Motion Passes 5:0

Date, Time, and Location of Next Meeting:

The next WRAB meeting will be Monday, 20 October 2014 at 7:00 p.m., in the Council Chambers, 1777 Broadway, 80302.

APPROVED BY:

ATTESTED BY:

Board Chair

Board Secretary

Date

Date

An audio recording of the full meeting for which these minutes are a summary, is available on the Water Resources Advisory Board web page.