

Subject: Wonderland Creek flooding Boulder White Rock Ditch update
From: Nancy Loving (nancy@LovingGardensDesign.com)
Date: Friday, October 11, 2013 10:35 AM

To all,

I received an official response to my Sept. 19 letter to Kurt Bauer this week (see below at bottom of email), and also spoke to him last evening for almost an hour. I was not totally satisfied with Mr. Bauer's official written answers to my questions, but after speaking to him last night, I have a better understanding of some of the complexities of the issues surrounding the flooding of the Greater Kings Ridge area neighborhoods which are best addressed in a community meeting. We are currently working on organizing a presentation to our community regarding the Wonderland Creek Improvement Project and how the Boulder & White Rock ditch & their historic legal rights impacts that project, and also plenty of time for Q&A. The WCIP will redesign the confluence of those two waterways to limit the BWR ditch to decreed flow rates and allow the excess ditch water or floodwaters from Wonderland Creek to flow over a weir and into the WC box culverts built for that purpose. Currently the berm on the south side of the ditch is too high preventing floodwaters from reaching the WC box culverts, resulting in the flooding of this entire area as far back as 1995 (that I know of). This morning, I also invited Kim Hutton, Water Resources Specialist for COB Public Works Department to the meeting as she is in charge of the ditch systems in Boulder, so can best explain issues around the ditch system in general and the BWR ditch as relates to the WCIP & our neighborhoods. I will prepare a flyer about the meeting and send a pdf to all for distribution to the 6 HOA's that I have made contact with thus far, and hopefully some folks may have time to do outreach to any other surrounding HOA's that you think might be interested.

I have attached an article from Boulder Weekly and here is an excerpt:

Ditch problems

According to Gochis, one of the most important lessons he expects to come out of the recent storms and floods may well be the need for better ditch maintenance and management. Driving

around the area on Saturday, he says, he saw lots of standing water and debris in areas outside of the floodplain and far from any creeks or significant waterways. Some local ditches are old, in need of upkeep and are not managed properly during heavy rains, Gochis explains, and as the water levels rose, many overflowed or failed. He says that with the exception of major ditches, for the most part the local ditch network is ignored when flood modeling is conducted. "That stuff's not really in the floodplain mapping exercise," Gochis says. "So a key lesson is to incorporate ditches into the projections. How well are those ditches documented and operated and accounted for in flood scenarios? I hate to say it, but I'm guessing there is going to be a fair amount of litigation over ditch operation as an outcome of this because property was damaged."

Nancy Loving

Northcreek HOA

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From: Bauer, Kurt [mailto:BauerK@bouldercolorado.gov]
Sent: Wednesday, October 09, 2013 1:30 PM
To: Nancy Loving
Cc: Entire_Northcreek_Neighborhood@yahoogroups.com
Subject: Wonderland Creek

Dear Nancy:

Sorry it has taken so long for me to get back to you on your emailed questions but we have been very busy since the flood event. Below are answers to your six specific questions. As mentioned in one of the answers below, I would be glad to meet with your neighborhood to discuss the Wonderland Creek Greenways Improvement Project. I also encourage you to visit boulderfloodinfo.net for information on ways to file a claim with FEMA to get some reimbursement for damages sustained from the flood.

Sincerely,

Kurt Bauer, P.E. C.F.M.
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Hi Kurt,

This summer while trying to help my neighbors, who often struggle with the excessively high levels of water in the Boulder White Rock (BWR) ditch (& various apparent breaches along the ditch) flowing through their sump pumps and into our neighborhood streets to flood our detention pond for weeks and months on end, I was reminded of the Wonderland Creek Greenways Improvement Project (WCIP). At the time, I wondered if the Wonderland Creek was causing the BWR ditch to flow unusually high and fast & if so, if the WCIP might help their plight if/when it ever gets built & especially if a BWR ditch Flow Control Plate gets installed just west of Foothills highway. My neighbor, Sue Hirschfeld, and I walked through the areas of this confluence just west of Foothills Parkway, and also observed the existing state of the Wonderland Creek drainage west of Talisman Place and north of Howard Hueston Park. We concluded at that time, that the Wonderland "Creek" was mostly a sediment & cattail-clogged damp swale so it did not seem to be impacting the very high flow of the BWR ditch at that time, but even so, I sent the attached WCIP plans to the Northcreek Neighborhood HOA (75 households) so they were aware that "help may be on the way".

However, we also noticed that if Wonderland Creek did contain flood water, that it would obviously directly flow into and flood the BWR ditch due to the high berm preventing it from flowing into the Wonderland Creek box culverts which were built to contain such a flood. We concluded at that time that since all that flood water would go directly into the BWR ditch, that our neighborhoods along that ditch would also flood, even though that is not what is represented on your ex. conditions plans for the WCIP (attached), or by the City of Boulder 100 and 500-year flood plain maps (attached). Anyone interested in the WCIP plans can go to the following link for more info: <https://bouldercolorado.gov/pages/wonderland-creek-foothills-parkway-to-30th-street-greenways-improvement-project>

Imagine our surprise when this flood event actually happened so soon after discovering this previously unknown hazard, and which actually happened as we predicted, and even much worse. By now you are probably aware of the extensive flooding of the neighborhoods east of Foothills Parkway, especially Kings Ridge Blvd., Sentinel Drive, Hopkins Pl., Macintosh Pl. & Baldwin Pl. (& probably other areas East & South of these neighborhoods some of which are on the flood plain map, and some not). It is tragic that the confluence of those two flooded waterways inundated this entire area causing both surface drainage into basements and crawl spaces, and storm drain water & sewage backup into basements from below. Consequently, most of the homeowners in this area are faced with tens of thousands of dollars in damage due to flooding even though they were told by their insurance reps that they did not need to purchase flood insurance since these neighborhoods are not in the hazard flood plain, much less the 100 or 500-year flood plain map!

Please let me know if you, as the Engineering Project Manager, can answer some questions for our community, and if not, to whom we should direct these inquiries:

1. Why do the WCIP ex. conditions maps show that at the confluence of BWR ditch and floodwaters of Wonderland Creek, the water will flow up and over a high berm & into the ex. Wonderland Creek box culverts which drain south of Kings Ridge Blvd., when one of the major purposes of that project is to mitigate the fact that they won't overflow the berm until after damage has already been done downstream, and which would obviously result in massive flooding of BWR ditch, and the neighborhoods all along it, which has actually just occurred?

[The floodplain mapping study for Wonderland Creek assumed the irrigation ditch would be flowing full during a flood. This is in accordance with FEMA and Urban Drainage and Flood Control District \(UDFCD\) protocol. Special Flood Hazard Areas are typically not delineated along an irrigation canal unless that canal has the sole purpose of providing stormwater conveyance.](#)

2. Why are existing 100-year and 500-year flood plain maps based on how the Wonderland Creek drainage system will impact BWR ditch AFTER the WCIP flood drainage mitigation project is completed (which is now scheduled back to 2015 instead of this fall)?

The existing conditions floodplains represent conditions as they exist today along Wonderland Creek without the proposed Greenways Project features. Following completion of the Wonderland Creek Greenways Improvement project, the city will submit revised floodplain maps to FEMA for review and adoption. The revised floodplain maps will then represent the flood hazard reduction resulting from the constructed project.

3. What entity actually determines the hazard, 100-year, and 500-year flood plain maps?

The city hires a consultant team to revise floodplain maps. The work is managed by the city in conjunction with the Urban Drainage and Flood Control District. The draft revised maps are presented to the public, city boards and City Council. City Council makes a determination to adopt the revised floodplain maps. The maps are then forwarded to FEMA for review and formal adoption.

4. Has the COB determined which options of the WCIP Phase I (Wonderland Creek from Foothills Parkway to 34th St.) Flood Mitigation Alternatives are to be built yet (Phase 2 looks like the only one that implements a BWR ditch Flow Control Plate)?

The key project components include construction of a new railroad bridge and separation of the Boulder and White Rock Irrigation Ditch from Wonderland Creek. The new creek will be conveyed under the railroad bridge to the existing box culverts located under Foothills Parkway. The project will include a mechanism to limit flows in the realigned irrigation ditch to the decreed water rights. The system will likely be located just upstream of the existing irrigation ditch box culverts on the west side of Foothills Parkway. The project web site shows the project improvements (Preliminary Design Summary) and can be found at:

www.bouldercolorado.gov > City A-Z > G > Greenways Program > Greenways Projects

5. Can you send updates of Wonderland Creek Improvement Project to the Northcreek Neighborhood email list (CC'd above), and invite our participation in the planning and/or implementation of this project since our residents are obviously impacted, both by the Boulder White Rock ditch seepage under even "normal" conditions as well as flooding of the BWR ditch during flood conditions until the Wonderland Creek drainage mitigation project gets completed?

The city conducted numerous outreach efforts during the planning and preliminary design phase of the project. We are currently in the final design phase of the project and do not anticipate any further public process for this project. The project website is the best location for current information on the project. I would, however, be glad to meet with your neighborhood to discuss the Wonderland Creek project in greater detail.

6. What is holding up the implementation of the WCIP Phase I which I thought was previously scheduled to start this year? Is it design plans, budget, other higher priorities?

The Wonderland Creek Greenways Improvement Project has been one of our program's priority flood mitigation Capital Improvement Project since the project's inception in 2010. We are currently in the final design phase of the project and have begun the process of purchasing the necessary easements for the project. Funds are secured for the project, including federal grants and money from the Urban Drainage and Flood Control District. The federal grants stipulate that the project be advertized for construction no later than May 30, 2015. We hope to advertize sooner but cannot guarantee anything at this point in time.

Finally, I do want to thank you for your otherwise excellent design plans for the proposed WCIP, and many of us also look forward to the planned multi-use path connections that will link the existing paths on the East side of Foothills Parkway, with those to the Northwest of 30th & Diagonal Highway without crossing the BNSF railroad which is now illegal. I appreciate the probability that the COB is now overwhelmed with existing after-flood

conditions, but I hope that instead of pushing the WCIP project further down the road, that it may be considered a higher priority to prevent the extensive damage to private property & other safety hazards from occurring again anytime soon.

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