



# Transportation Department

2525 13th Street, Suite 203 • Boulder, Colorado 80304 • Tel: 303.441.3900 • Fax: 303.441.4594

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## BOARD OF COUNTY COMMISSIONERS

### AGENDA ITEM

September 14, 2010 – 3:45 P.M.

Hearing Room, Third Floor, Boulder County Courthouse

#### PUBLIC HEARING

#### **Docket DC-10-0005: MAP AND TEXT AMENDMENTS TO ARTICLE 4 (FLOODPLAIN MAP).**

**Request:** Proposed Land Use Code amendment to adopt and include Bullhead Gulch and Prince Tributaries Flood Study and Fourmile Canyon Creek, Wonderland Creek Restudy in Article 4-402 as part of the official floodplain map of Boulder County. (Transportation Staff Planner: Justin Gindlesperger)

#### SUMMARY

Bullhead Gulch and its associated tributaries, including Prince Tributary, East and West branches, and the Indian Peaks Tributary were studied and the floodplains were mapped in 1998. The floodplains for Fourmile Canyon Creek and Wonderland Creek were remapped as part of a restudy in 2005. These floodplains are included on the most recent FEMA Flood Insurance Rate Maps (FIRM). However, these flood studies were never formally adopted by Boulder County as part of the official floodplain map. Staff is requesting that Planning Commission make a formal recommendation to the Board of County Commissioners to incorporate these studies into the Land Use Code and Boulder County Zoning Map.

#### DISCUSSION

On May 18, 2010, the Colorado Water Conservation Board (CWCB) officially approved by resolution the "Flood Insurance Study for Boulder County and Incorporated Areas," by the Federal Emergency Management Agency, October 2002. Included within this flood insurance study are Bullhead Gulch, Prince Tributary East, Prince Tributary West, Indian Peaks Tributary, Fourmile Canyon Creek and Wonderland Creek.

The Bullhead Gulch drainage, which includes both Prince Tributaries and the Indian Peaks Tributary, was studied in 1998 by Taggart and Associates. The drainage area extends from Lafayette north to Boulder Creek in the eastern part of Boulder County.

Fourmile Canyon Creek and Wonderland Creek were restudied in 2005 by Love & Associates. The drainage area for Fourmile Canyon Creek extends from Pine Brook Hills along Linden Avenue east to the confluence with Lower Boulder Creek near N 61<sup>st</sup> Street. Wonderland Creek originates at Wonderland Lake and extends east to its confluence with Goose Creek near Pearl Parkway just south of Valmont Park.

In accordance with Article 4-402(F)(1), "the County Engineer shall review such reports and make recommendations to the Planning Commission regarding necessary amendments or additions to the boundaries of the FO district once the CWCB and FEMA designate such studies." The floodplains for the above mentioned drainages have been approved by CWCB and FEMA, and are included on the most recent FEMA Flood Insurance Rate Maps (FIRM) for Boulder County.

Once the flood studies and floodplain maps are adopted and included in the Land Use Code as part of Article 4-402 (Designation of Official Floodplain Overlay District Zoning Maps), Boulder County's official floodplain maps will correspond with the FEMA FIRM panels and will aid in the public's understanding of the flood mapping in these areas. The studies will be included in Article 4-402.A. as:

**16. 'Flood Insurance Study, Boulder County and Incorporated Areas, Bullhead Gulch, Prince Tributaries and Indian Peaks Tributary,' prepared by Taggart Engineering Associates, Inc., dated May 1998.**

**17. 'Fourmile Canyon Creek and Wonderland Creek Major Drainageway Planning Final Plan,' March 28, 2007, prepared for City of Boulder by Love & Associates, Inc.**

FEMA regulations allow communities to regulate to the "best available data." Boulder County is currently regulating to the floodplain requirements based on these flood studies since these flood studies supercede previous existing studies, or provide information where no studies previously existed. Therefore, the adoption of the flood studies will not constitute a policy change.

Adoption of these studies will require a comprehensive rezoning of properties in the Bullhead Gulch and Tributaries study area to apply the Floodplain Overlay zone on top of the existing zone districts. The underlying zone districts (predominately Agricultural and Rural Residential) will continue to control setbacks, maximum height, and the types of uses that can operate in those areas.

**REVIEW CRITERIA – TEXT AMENDMENTS (related to text in subject reports proposed for adoption)**

Review criteria for text amendments to the Land Use Code are found in Article 16 of this Code.

*No text amendment shall be adopted by the Board of County Commissioners unless the Board has determined that:*

1. *the existing text is in need of the amendment;*

The two studies being considered for incorporation in the Land Use Code have been reviewed and adopted by FEMA and the Colorado Water Conservation Board. In addition, the County has been administering the maps as required as a participant of the FIRM program.

2. *the amendment is not contrary to the intent and purpose of this Code; and*

The amendment is not contrary to the Code. It reflects best available floodplain data. Adoption of these studies will allow the County to continue to regulate the floodplain effectively under Article 4-400 of the Land Use Code.

3. *the amendment is in accordance with the Boulder County Comprehensive Plan*

Policy 4.01 in the Natural Hazards element states, "The county should strongly discourage and strictly control land use development from locating in designated floodplains, as identified in the Boulder County Zoning Maps." As previously stated, the two studies proposed for incorporation have been adopted by FEMA and the Colorado Water Conservation Board and should now be incorporated into the Code so that the Floodplain Overlay District can accurately reflect all areas in

the floodplain and the county can continue to discourage and appropriately regulate development in the floodplain.

REVIEW CRITERIA – MAP AMENDMENTS (related to maps in subject reports proposed for adoption: see also analysis of overlapping text amendment criteria, above)

Review criteria for map amendments are found in Article 4-1100 of the Land Use Code. This comprehensive map amendment is necessary as a result of the text amendments proposed in this docket. Staff finds the proposal to rezone certain properties to include the Floodplain Overlay designation has been met.

*No map amendment shall be adopted by the Board of County Commissioners unless the Board has determined that:*

1. *a public need exists for the map amendment;*

The floodplain studies have been adopted by State and Federal agencies. This map amendment reflects the best available engineering and will enable staff and property owners to identify affected properties.

2. *the amendment is consistent with and in furtherance of the stated intent and purposes of this Code;*

As stated previously, this amendment implements the best available floodplain data, as approved by the administering state and federal agencies. Individual reports designate the location and boundaries of the Floodplain Overlay district. This map amendment is a result of the reports being incorporated as a text amendment in this docket.

3. *the amendment is in accordance with the Boulder County Comprehensive Plan and any applicable intergovernmental agreement affecting land use or development;*

The Comprehensive Plan discourages development in the floodplain. This map amendment will increase the ability of the county to discourage development in the floodplain.

4. *the subject property is an appropriate site for the map amendment, and is a reasonable unit of land for such reclassification;*

The underlying zone districts will not be affected as a result of this proposal. The Floodplain Overlay zone is an indication of the existing regulatory floodplains as identified by FEMA and CWCB and as enforced through the Boulder County Transportation and Land Use Departments. The identified areas are “reasonable unit[s] of land for such reclassification” because they have been identified as floodplains by the previously mentioned, approved engineering studies.

5. *the map amendment would not have a material adverse effect on the surrounding area;*

The map amendment will incorporate the existing regulated floodplain into the Boulder County Zoning maps. The affected property owners were noticed of the floodplain studies when they were being reviewed by FEMA.

6. *the map amendment will not result in an over-intensive use of land;*

The map amendment will not result in an over-intensive use of land.

7. *the map amendment will not have a material adverse effect on community capital improvement programs;*

The proposal will not affect capital improvement programs.

8. *the map amendment will not require a level of community facilities and services greater than that which is available;*

The proposal will not affect community facilities or services.

9. *the map amendment will not result in undue traffic congestion or traffic hazards;*  
The proposed map amendment will not affect traffic.

10. *the map amendment will not cause significant air, water, or noise pollution;*  
The proposed map amendment will not cause air, water, or noise pollution.

11. *the map amendment will not permit the use of any area designated within the Boulder County Comprehensive Plan for the extraction of commercial mineral deposits in a manner which would interfere with the present or future extraction of such deposit by an extractor to any greater extent than under the present zoning of the property;*  
The map amendment will not alter the ability of any property owner to extract mineral deposits.

12. *it must be demonstrated that any structures to be built on the property will not be affected by geologic hazards if they exist; and*  
No structures are proposed as a result of this proposed map amendment. The Geologic Hazards map in the Comprehensive Plan identifies areas proposed for the Floodplain Overlay district are in areas of Moderate and Minor geologic constraint.

13. *the map amendment will not otherwise be detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County.*  
The proposed map amendment will help protect the health, safety, and welfare of the present and future residents of Boulder County by allowing the continued regulation of the Floodplain Overlay District consistent with currently approved state and federal studies and maps.

#### REFERRALS

This docket was referred to property owners within unincorporated Boulder County whose property is either wholly or partially inundated by the Bullhead Gulch floodplain, the Fourmile Canyon Creek Floodplain, or the Wonderland Creek floodplain. Approximately 300 property owners were notified of the changes to the floodplain map updates as part of this docket.

**Adjacent Property Owners** – 4 property owners responded to the docket. The first property owner was concerned that the Letter of Map Amendment was not indicated on their property. The LOMA was performed following the completion of the study; however, adoption of the flood study will not affect LOMA.

Other responses included a question on how the map amendment will affect the zoning of an individual's property, whether a certain property was still outside the 100-YR floodplain and whether or not the floodway was indicated on the map amendment.

The map amendment will not affect the underlying zoning of a property. The maps are available to view by the public at the Transportation Department offices and the flood status of specific properties can be determined by staff. Existing uses may remain on the property and adoption of the flood studies will not necessitate compliance to the floodplain regulations for existing structures.

The floodway is not indicated on the floodplain map for Bullhead Gulch. The floodway was not calculated as part of the original flood study, but is currently being calculated as part of a floodway mapping project that will identify all floodways in Boulder County and incorporate them in electronic mapping format.

#### PLANNING COMMISSION:

This proposal was heard at a public hearing in front of the Boulder County Planning Commission on August 18, 2010. At this hearing, the Planning Commission asked about the dates for the Bullhead

Gulch study. The staff recommendation stated that the study for Bullhead Gulch was completed in 1999, but the title of the report was listed as 1991. The 1991 study was completed by Advanced Sciences and was never adopted. The Taggart and Associates study, completed in 1998, superceded the 1991 study and was formally adopted by both FEMA and CWCB. The staff recommendation has been amended accordingly.

Two members of the public spoke to the docket. The first person to speak said that the maps available online and mailed with the public hearing notice were difficult to determine the actual flood boundaries on specific parcels. They were also concerned with the affects that a floodplain, and specifically, the floodway, will have on existing septic systems in the area.

The second speaker raised similar questions in regard to the septic systems in the floodplain area and also questioned why flooding was a concern at this point, but not in the past and when the last 100-year flood occurred in this area.

Bullhead Gulch was identified as a potential source of flooding, and the flood studies were completed to map that risk. The "100-year flood" is a statistical analysis and is more accurately termed the "1 percent annual chance flood" because it has the same percent chance, 1 percent, of occurring each year. This storm is the industry standard for flood risk assessment.

Septic systems are permitted within the floodplain. They are not, however, permitted within the floodway. Staff recognizes that there are potential conflicts with Septic Smart if a property is wholly within the floodway boundary. At this time, staff is working with Boulder County Public Health on options for homeowners in a situation where their entire property is within the floodway and their septic system is unpermitted, failing, or needs replaced.

Commissioner Gerstle moved to recommend approval of the proposal, subject to the suggested changes in #16 of the staff recommendation. The motion was seconded by Commissioner Blaugrund. The motion passed unanimously.

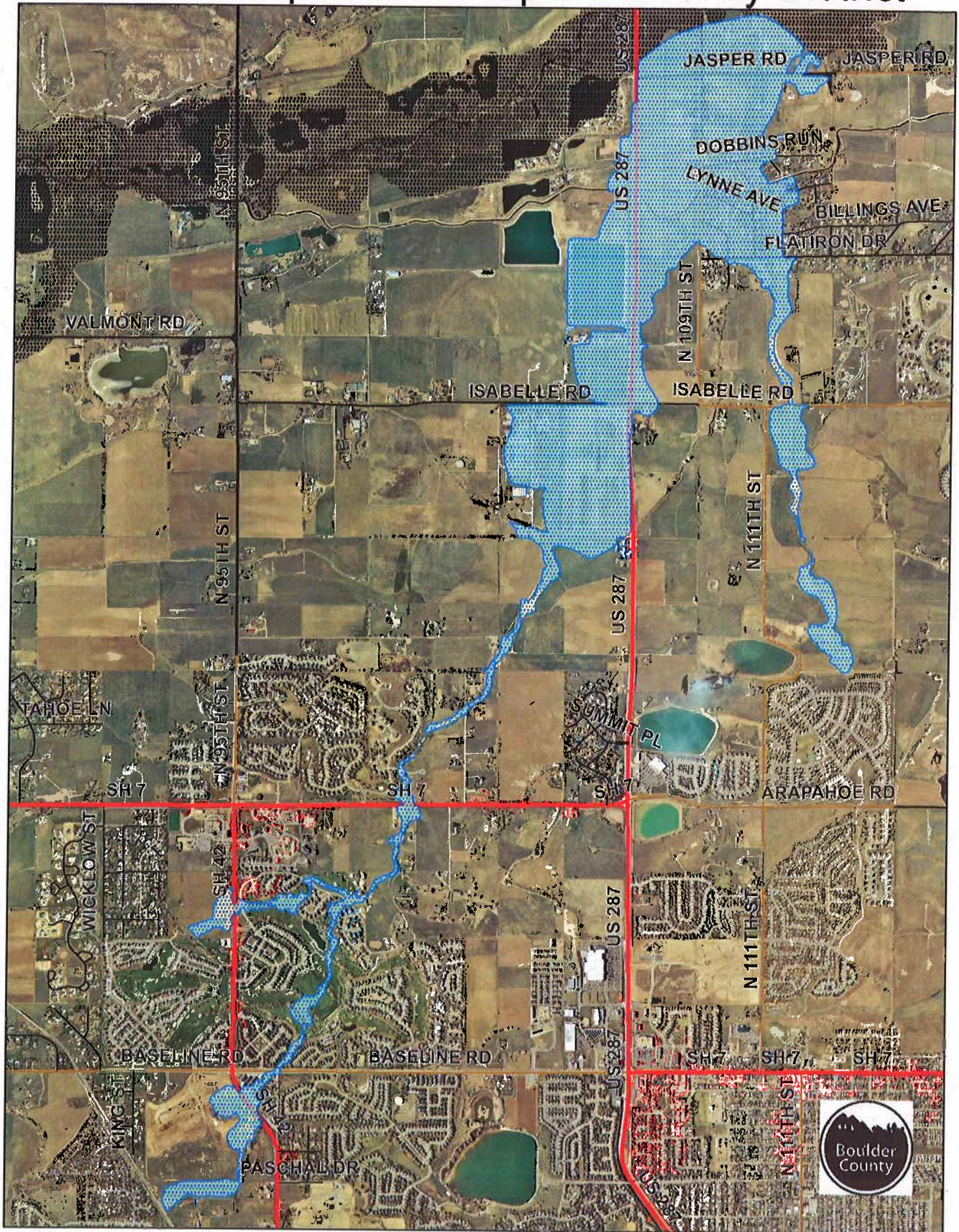
#### RECOMMENDATION

This text amendment meets the criteria of Article 16 of the Land Use Code: the need for the amendment has been demonstrated, the amendment is not contrary to the intent and purpose of the Code, and the amendment does not conflict with the Boulder County Comprehensive Plan. In addition, the proposed comprehensive map amendment meets the criteria for rezoning as described in Article 4-1100. **STAFF RECOMMENDS THAT THE BOARD OF COUNTY COMMISSIONERS APPROVE DOCKET DC-10-0005: MAP AND TEXT AMENDMENTS TO ARTICLE 4 (FLOODPLAIN MAP).**

#### ATTACHMENTS

- Public Notification Letter and Maps
- Referral Responses

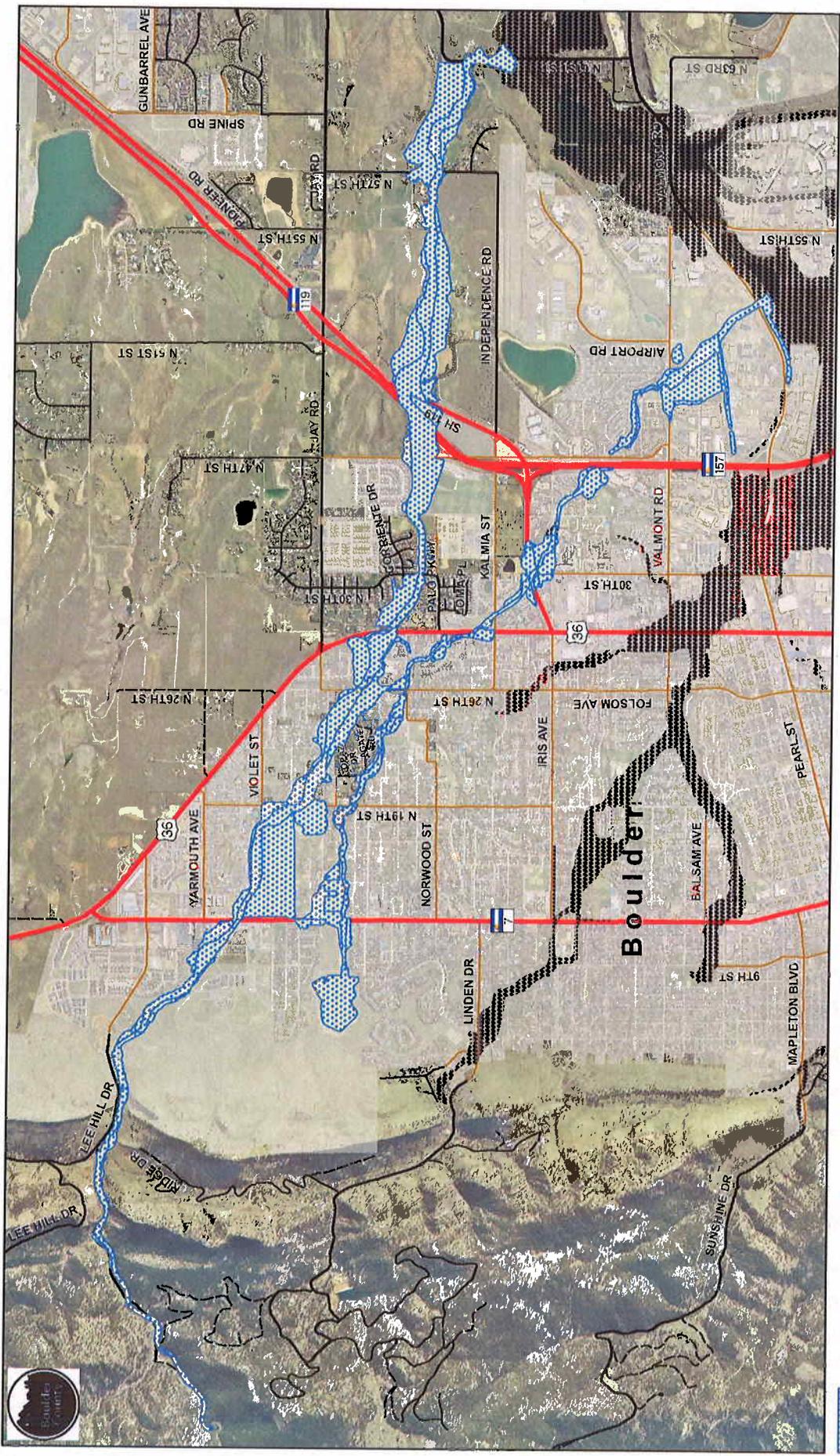
# Bullhead Gulch and Tributaries Regulatory Floodplain and Proposed Floodplain Overlay District



-  Proposed Addition to Floodplain Overlay Zone (Bullhead Gulch)
-  Existing Floodplain Overlay



# Fourmile Canyon Creek and Wonderland Creek Regulatory Floodplain and Proposed Floodplain Overlay District



Proposed Addition to Floodplain Overlay Zone (Fourmile Canyon Creek and Wonderland Creek)

Existing Floodplain Overlay



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## PUBLIC HEARING: BOULDER COUNTY, COLORADO COUNTY PLANNING COMMISSION

DATE: August 18, 2010

TIME: 1:30 P.M.

PLACE: Commissioners' Hearing Room, Third Floor,  
Boulder County Courthouse, 1325 Pearl Street, Boulder

### **Docket DC-10-0005: MAP AND TEXT AMENDMENTS TO ARTICLE 4-402 (FLOODPLAIN)**

Request: Proposed Land Use Code amendment to adopt and include Bullhead Gulch and Prince Tributaries Flood Study and Fourmile Canyon Creek, Wonderland Creek Restudy in Article 4-402 as part of the official floodplain map of Boulder County.

(Transportation Staff Planner: Justin Gindlesperger)

Dear Property Owner,

This is notification of a proposed Land Use Code amendment to adopt the Bullhead Gulch and Prince Tributaries Flood Study in Article 4-402 as part of the official floodplain map of Boulder County. You are receiving this letter because our records indicate you own property in the study area.

Bullhead Gulch and its associated tributaries, including the East and West branches of Prince Tributary and the Indian Peaks Tributary were studied and the floodplains were mapped in 1999. These floodplains are included on the most recent FEMA Flood Insurance Rate Maps (FIRM). FEMA regulations allow communities to regulate to the "best available data." Boulder County is currently regulating to the floodplain requirements based on these flood studies since these flood studies supercede existing studies, or provide information where no studies previously existed. **The adoption of this flood study will not change the flood designation of your property.**

This docket proposes to formally incorporate the study into the Land Use Code in Article 4-402 and to amend the Floodplain Overlay district to reflect the 1999 Bullhead Gulch and Prince Tributaries Flood Study. The underlying zoning of your property (Agricultural, Rural Residential, etc.) will not change.

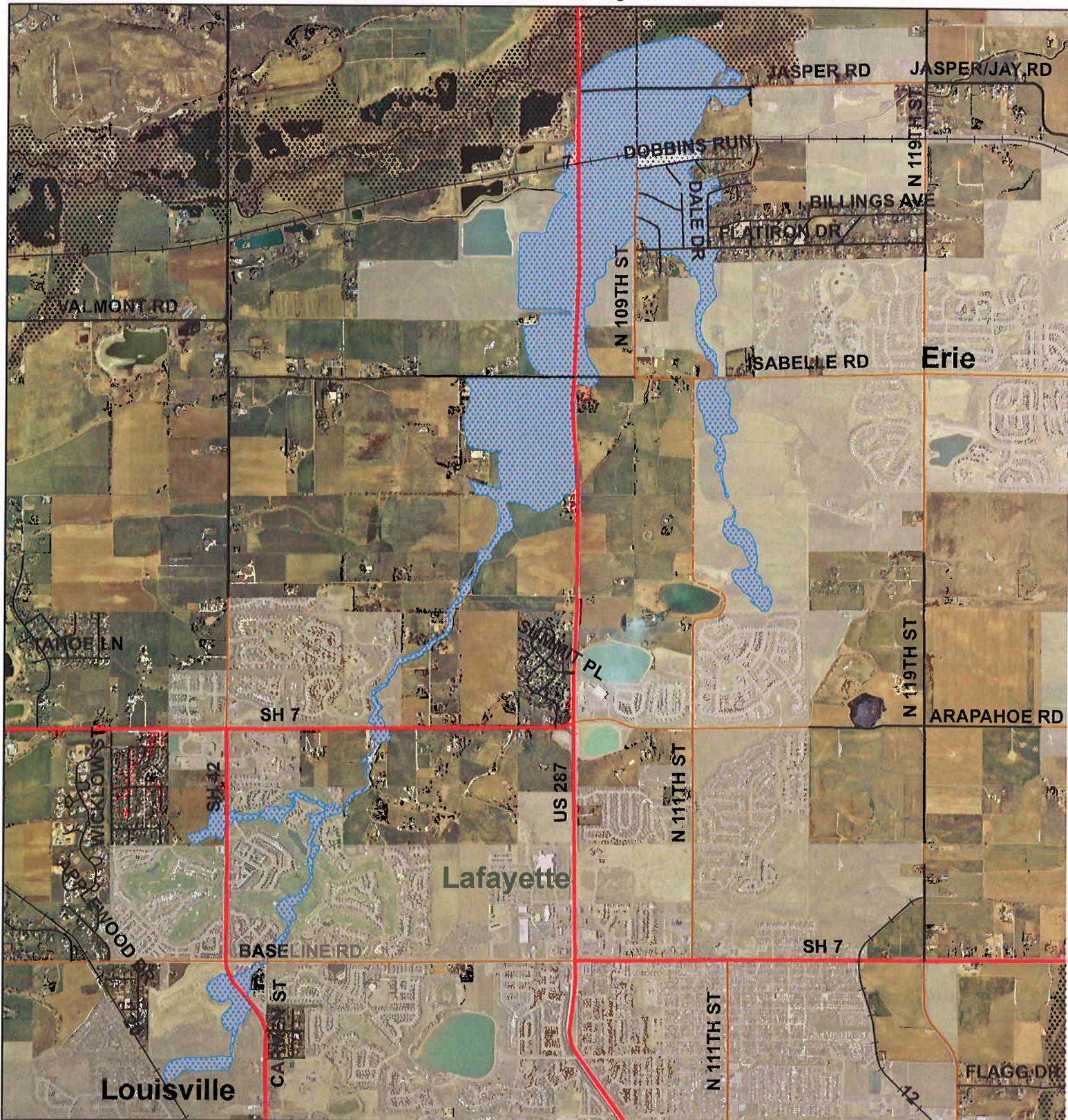
You may view the map and the staff report in our office or online at:

**[http://www.bouldercounty.org/lu/code\\_updates/index.htm](http://www.bouldercounty.org/lu/code_updates/index.htm)** by selecting the docket number. You can also call Justin Gindlesperger at 720-564-2659 to request a referral packet.

If you have any comments or concerns regarding this docket please respond in writing and be sure to include the docket number. You may e-mail ([jgindlesperger@bouldercounty.org](mailto:jgindlesperger@bouldercounty.org)), fax (303-441-4594), drop off, or mail your response to the Transportation Department by **AUGUST 10, 2010**. Your comments will become part of the public record. Late responses will be reviewed as the process permits. Public testimony will be taken during the Planning Commission meeting as well.

*Free Parking in the City of Boulder CAGID lots is available for Planning Commission hearing participants. See staff at the hearing for city parking vouchers. Persons needing special services provided under the Americans with Disabilities Act, please contact Julia Yager, the ADA Coordinator with the Boulder County Human Resources Office at (303-441-3508) at least 48 hours before the scheduled hearing.*

# Bullhead Gulch and Tributaries Regulatory Floodplain and Proposed Floodplain Overlay District



## Legend

-  Proposed Addition to Floodplain Overlay Zone (Bullhead Gulch)
-  Existing Floodplain Overlay



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(Transportation Staff Planner: Justin Gindlesperger)

Dear Property Owner,

This is notification of a proposed Land Use Code amendment to adopt the Fourmile Canyon Creek, Wonderland Creek Restudy in Article 4-402 as part of the official floodplain map of Boulder County. You are receiving this letter because our records indicate you own property in the study area.

The floodplains for Fourmile Canyon Creek and Wonderland Creek were remapped as part of a restudy in 2005. These floodplains are included on the most recent FEMA Flood Insurance Rate Maps (FIRM). FEMA regulations allow communities to regulate to the "best available data." Boulder County is currently regulating to the floodplain requirements based on these flood studies since these flood studies supercede existing studies, or provide information where no studies previously existed. **The adoption of this flood study will not change the flood designation of your property.**

This docket proposes to formally incorporate the study into the Land Use Code in Article 4-402 and to amend the Floodplain Overlay district to reflect the 2005 Fourmile Canyon Creek and Wonderland Creek Restudy. The underlying zoning of your property (Agricultural, Rural Residential, etc.) will not change.

You may view the map and the staff report in our office or online at:

[http://www.bouldercounty.org/lu/code\\_updates/index.htm](http://www.bouldercounty.org/lu/code_updates/index.htm) by selecting the docket number. You can also call Justin Gindlesperger at 720-564-2659 to request a referral packet.

If you have any comments or concerns regarding this docket please respond in writing and be sure to include the docket number. You may e-mail ([jgindlesperger@bouldercounty.org](mailto:jgindlesperger@bouldercounty.org)), fax (303-441-4594), drop off, or mail your response to the Transportation Department by **AUGUST 10, 2010**. Your comments will become part of the public record. Late responses will be reviewed as the process permits. Public testimony will be taken during the Planning Commission meeting as well.

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**Gindlesperger, Justin**

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**From:** David Broberg [David@broberg.com]  
**Sent:** Sunday, August 01, 2010 4:53 PM  
**To:** Gindlesperger, Justin  
**Subject:** Docket DC-10-0005 map errors  
**Importance:** High

Regarding Docket DC-10-0005 and the FEMA floodplain map being proposed for incorporation into an amendment of the Boulder County floodplain map:

Please be advised that the FEMA Flood Insurance Rate Map you want to use is in error. At my own personal expense I commissioned an elevation survey and have attached an elevation certificate which was also provided to FEMA to correct their map. The map you are using is out of date and has not been corrected to show the proper elevation of my property. If this map is updated there should be a cut-out or exclusion surrounding my property. Please update your map accordingly.

Please see the attached elevation certificate.

Sincerely,

David Broberg  
4440 N 109th St  
Lafayette, CO 80026  
Ph: 303-604-9988

Legal description:

Lot 2, Meadow Creek Farm N.U.P.U.D.

Boulder County, CO

**Gindlesperger, Justin**

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**From:** Annaleen Vermeulen [annaleen.vermeulen@gmail.com]  
**Sent:** Tuesday, August 10, 2010 9:18 AM  
**To:** Gindlesperger, Justin  
**Subject:** Docket DC-10-0005

## Concerning Bullhead Gulch and Tributaries Floodplain:

As owners of the property at 2967 N 107th St. (Hwy 287), Lafayette, CO, we are concerned what the designation of our property being in a flood plain would mean, in particular if we wished to sell the property. We understand that current use is 'grandfathered' for us.

- 1) If we were to sell the property, would the new owners be required to have flood insurance added to their mortgage?
- 2) Are there floodway and flood-fringe sections, or some other sub-divisions of flood danger like 100-year vs 500-year flood areas, designated within the floodplain? If so, where are they relative to property lines? From reading the Land Use regulations, it is clear that there are more strict regulations concerning these different areas. What is the safe-from-flood level and is there some portion of the property that is above this level? Are current structures above the level? How can we find out this information?
- 3) If we sold would part of the fence have to be removed? Would there be other changes to structures required for a sale?
- 4) Because the Boulder County Health Department has recently initiated a program requiring inspection and updating of septic systems on sale of a property, would there be a change required in our septic system at the time of sale due to the flood plain designation? To my knowledge, there is no sewer available for us, or our three neighbors, to hook up to. Therefore, if floodplain designation removed our ability to have the septic updated to meet current code at the time of sale, we would be unable to sell the property as a residence, which would make its value almost nothing. We do not wish to be caught in a situation where the combination of regulations by two unrelated County departments would leave us with property that was of no value, and no recourse for us.

Barbara Robertson  
Anna Vermeulen

2967 N 107th Street  
Lafayette, CO 80026