

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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MEMORANDUM

TO: Colorado Water Conservation Board Members
FROM: Larry Lang, P.E., Chief, Flood Protection Section
DATE: July 12, 2004
SUBJECT: Agenda Item 8.b, July 20-21, 2004 Board Meeting --
Outline for the revision of the CWCB "Rules and Regulations for the
Designations and Approval of Floodplains and of Storm or Floodwater
Runoff Channels in Colorado"

Bill Owens
Governor

Russell George
Executive Director

Rod Kuharich
CWCB Director

Dan McAuliffe
Deputy Director

*Revised 8/27/04 by LFL and TWB
for Committee Meeting Handout*

Background

The CWCB conducted rulemaking during late 1987 and early 1988 in order to promulgate rules and regulations entitled "Rules and Regulations for the Designation and Approval of Floodplains and of Storm and Floodwater Runoff Channels in Colorado" (Floodplain Rules). They officially became effective on January 30, 1988 and have served the Board very well since that time. The CWCB received its flood protection responsibilities in 1937, and its initial authority to review, designate and approve floodplains in 1966. The Board approved the first floodplain designation in Colorado during that same year. Colorado entities and their consulting engineers have understood the need to comply with these Floodplain Rules for use on floodplain studies in order to receive Board approval.

CWCB staff, consulting engineers, floodplain managers and other interested parties have realized the need to revise the existing Floodplain Rules due to a number of factors that have materialized since 1988. Those factors include such things as changes in federal policies and mandates; technological advances in modeling techniques, GIS, and digital mapping; and flood related issues such as debris flows, erosion hazards, alluvial fan hazards, post-wildfire hydrology, stormwater detention, and ice jam flooding that were previously not addressed.

Discussion

The previous agenda item (8.a – Criteria Manual Operating Principles) outlined the first step in this multiple-step process. The Operating Principles serve as objectives and guiding language for the preparation of the Colorado Floodplain and Stormwater Criteria Manual (Manual). The Manual will provide the references to engineering and technical information that will work in harmony and provide significant technical support for the revised Floodplain Rules. The Manual, in concert with the revision of the Floodplain Rules, will provide the necessary statutory authority and guidelines to assist Colorado communities with good floodplain mapping and sound floodplain management practices.

Staff will make a formal presentation regarding the proposed rule changes, rulemaking process, and timeline for the revision and adoption of the Floodplain Rules. The following table presents a summary of the existing and proposed rule titles. The CWCB staff's proposal incorporates all of the old rules in the rulemaking process. The process anticipates eight new rules for a total of twenty-three rules, with some of the existing rules being revised as necessary. Attachment A provides a brief description of the existing rules and a summary of the new rules.

CWCB Floodplain Rules and Regulations

Summary of Proposed New and Revised Rules – July 2004

1	1	Title	No change
2	2	Authority	No change
3	3	Purpose	No change
4	4	Definitions	Minor revisions
5	N/A	State Regulatory Floodplain	New Rule
6	N/A	Previous CWCB Designations and Approvals	New Rule
7	5	Standards for delineation of detailed floodplain information	Major revisions (models, techniques, digital maps, GIS, FEMA requirements, Lidar, etc.)
8	6	Standards for delineation of approximate floodplain information	Major revisions (methods, techniques, digital maps, GIS, automated procedures, etc.)
9	N/A	Floodways	New Rule
10	7	Criteria for determining when the effects of dams on floods may be taken into account	Minor revisions
11	8	Criteria for determining when the effects of levees on floods may be taken into account	Minor revisions
12	N/A	Unique Floodplains	New Rule
13	N/A	Criteria for stormwater detention	New Rule
14	N/A	Regulatory floodplain map changes	New Rule
15	N/A	Flood Protection Measures <ul style="list-style-type: none"> • Studies and designs performed using professional engineering standards and must be signed and sealed • Must obtain floodplain development permit, LOMR and all other relevant permits as necessary • Standards for critical facilities • Structural and non-structural mitigation measures • Disaster declarations and program assistance?? 	New Rule
16	N/A	Standards for determining floodplain effects from agricultural, recreational, and environmental activities.	New Rule
17	9	Designation and approval of floodplain information	Minor revisions
18	10	Changes in designations and approvals of floodplain information	Minor revisions
19	11	Variances	No change
20	12	Incorporation by reference	Revisions to include the new statewide criteria manual
21	13	Severability	No change
22	14	Revision of Rules	No change
23	15	Effective Date	Revisions to reflect current activity

Timeline

Staff has established an approximate timeline, with assistance from the AG's office, for the proposed rulemaking process. A formal notice of rulemaking is scheduled to be published in January 2005. For Board member information only, the timeline for key elements of the process are provided below.

Date
July 2004

Action:
Presentation to the CWCB regarding the proposed Floodplain Rules revision

August 2004

Formulation of Floodplain Rules Advisory Committee (State, Federal, County, City representation). Six meetings total will be held with staff and Advisory Committee to finalize the draft Floodplain Rules prior to presenting them to the Board.

November 2004	Staff provides CWCB with draft Floodplain Rules for discussion and refinement; CWCB authorizes staff to initiate rulemaking process.
December 2005	Submit formal Notice of Rulemaking and proposed rules to Secretary of State for publications and to DORA. Post proposed rules on CWCB website and send to CWCB agenda mailing list.
January 2005	Formal Notice of Rulemaking published in CCR (Colorado Register)
February 2005	Deadline for submitting Notice of Party Status
March 2005	Deadline for submitting Prehearing Statement
March 2005	Prehearing Conference
April 2005	Deadline for submitting Rebuttal Statement
May 2005	CWCB holds formal Floodplain Rules Rulemaking hearing
May 2005	Submit Final Floodplain Rules to AGO for rule opinion
June 2005	Submit Final Floodplain Rules to Secretary of State and Legal Services
July 2005	Final Floodplain Rules Published in CCR
August 2005 (est.)	Effective Date of Revised Floodplain Rules

Rulemaking Coordination/Development

CWCB staff will seek guidance and assistance from a Floodplain Rules Advisory Committee (Committee) composed of: the Deputy Director of the CWCB (or his designee), Flood Protection Section Staff Members, a representative from FEMA, a representative from the Urban Drainage and Flood Control District, a representative from City Government, and a representative from County Government.

Staff will draft the new Floodplain Rules for Board consideration based on staff expertise and significant input from the Committee. The existing Floodplain Rules will be revised as necessary in the same fashion. The Colorado Floodplain and Stormwater Criteria Manual will serve as the technical and engineering standards for the development and content of these rules.

Updating and revising the existing Floodplain Rules can reasonably achieve additional hazard protection, and the CWCB will be able to provide Colorado entities with modernized and technically sound information. Use of the Floodplain Rules and Manual can lead to more accurate floodplain designations that will greatly assist communities in maintaining their eligibility in the National Flood Insurance Program and will help minimize damages caused by flood events. The Floodplain Rules in conjunction with the Manual will also provide Colorado floodplain study contractors and local governments with the requirements for compliance with state statutes and federal mandates.

Conclusion

The 1988 Floodplain Rules established the technical procedures for delineating 100-year floodplains in order to reasonably depict flood hazards using the state-of-science at that time. The revision of these Floodplain Rules will keep the original objective intact, but also will expand into methods and procedures that incorporate better floodplain management tools and modernized guidelines for the floodplain community.

Staff is not requesting Board action on this agenda item. This is an informational item that provides notice that CWCB will be initiating a Rulemaking process. Since this represents a proposed major revision to the CWCB's Floodplain Rules, staff solicits any guidance or comments that the Board may have at this time.

Attachment A

CWCB Floodplain Rules and Regulations

Summary of Existing and New Rules - July 2004

1	1	Describes the full and short titles of the rules and regulations	NA
2	2	Describes the authority granted to the CWCB to promulgate these rules	NA
3	3	Describes the purpose of the rules, which focus on uniform technical standards and the process for designation by the Board. The scope of these rules apply to floodplain information for zoning and subdivisions. They do not apply to design criteria or dam failure floodplains	NA
4	4	Provides definitions for 31 different flood-related terms within the rules	Address new FEMA and Corps terms and definitions
5	N/A	N/A	Proposed changes to the "Storm or Floodwater Runoff Channels" that would include specific language regarding the 100-year floodplain. 24-65.1-403(3) C.R.S (new reference) states the CWCB must address the 100-year floodplain for matters of State interest
6	N/A	N/A	The new rules should not be retroactive and should not make invalid the actions of the CWCB during previous years. The engineering principles and theories are much the same; however, the models and techniques have changed for improved and more accurate floodplain determinations.
7	5	Provides details on the types of technical information (i.e. topo, hydrology, hydraulics, etc.) that are required in order for the information to qualify as detailed.	<ul style="list-style-type: none"> • Use the best locally/regionally/state/federally approved hydrology and the best available planimetric information for the base map (streets, corporate limits, etc.) • Use the best hydraulic analyses and makes sure that flood lines conform to the best available topographic info. • Address the minimum drainage basin size for floodplains vs. local drainage problems • Address blockage of drainage structures during floods • Address ongoing urbanization of watersheds and effects on flows • Address GIS and database format and technical requirements • Ensures conformance with FEMA contractor guidelines and specifications

8	6	Provides details on the types of technical information (i.e. topo, hydrology, hydraulics, etc.) that are required in order for the information to qualify as approximate.	<ul style="list-style-type: none"> • Use the best locally/regionally/state/federally approved hydrology • Use the best planimetric information for the base map (streets, corporate limits, etc.) • Use approximate analyses and makes sure that flood lines conform to the best available topographic info. • Address the minimum drainage basin size for floodplains vs. local drainage problems • Address GIS and database format and technical requirements • Ensures conformance with FEMA contractor guidelines and specifications
9	N/A	N/A	It is timely for the CWCB to create a rule regarding floodways. Staff has been working with the TAC and other interested parties to better define what an appropriate floodway rule is for Colorado.
10	7	Describes the types of impoundment facilities that are applicable for flood control benefits in floodplain studies	Minor revisions
11	8	Describes the standards for levees that are applicable for flood control benefits in floodplain studies	Minor revisions
12	N/A	N/A	FEMA and CWCB are producing engineering studies for special flood hazards. Those special hazards may include debris flows, alluvial fans, increased hydrology resulting from wildfire burn areas, ice jams and other special hazards. We should also address ongoing urbanization of watersheds and effects on flows.
13	N/A	N/A	Hydrologic determinations and increased runoff from development/urbanization should consider detention measures to mitigate the higher runoff characteristics. (Note: the manual will provide engineering procedures for this rule)
14	N/A	N/A	Community development activity is creating the need for official changes to floodplain information via FEMA LOMC's. The CWCB needs a conditional approval process for the map changes, which may include CWCB/UDFCD review or approval of LOMCs (Note: the manual will provide a procedure for these requests)
15	N/A	N/A	The existing rules only addresses levees and dams, and we feel that the revised rule should address other modern day flood mitigation measures as well.
16	N/A	N/A	The rule should address stream and floodplain restoration activities, agricultural structures and recreational facilities in floodplains (Note: Policies by the Corps, FEMA and CWCB will be incorporated into this rule)
17	9	Describes the conditions and process by which floodplain information may become designated and approved by the CWCB	Minor Revisions
18	10	Describes the process by which changes to existing floodplain designations may take place	Minor Revisions
19	11	Describes the conditions under which a variance to the rules may be granted by the CWCB	Expand the conditions for exempting certain agricultural and irrigation diversion activities (Note: The Corps' 404 permitting process exempts certain irrigation activities in streams)

20	12	Incorporates the Statement of Basis and Purpose for the adoption of the rules	Incorporate the "Colorado Floodplain and Stormwater Criteria Manual Into the Rules and Regulations. Ensure that the relationship to 12 principles in Drainage Criteria Manual is discussed
21	13	Asserts that remaining portions of the rules will be valid in the event that other portions become invalid.	AG review
22	14	States that the CWCB may engage in rulemaking activities in accordance with State law.	AG review and comment
23	15	Provides the effective date of the rules and states that the rules are non-retroactive.	As Required