

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Tom Browning, P.E., Section Chief
Kevin Houck, P.E., Section Engineer
Watershed Protection & Flood Mitigation Section

DATE: January 15, 2009

SUBJECT: **Agenda Item 10, January 27-28, 2009 Board Meeting**
Report on Colorado Levee Inspections and Proposed Levee Assistance Guidelines

Bill Ritter, Jr.
Governor

Harris D. Sherman
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Dan McAuliffe
CWCB Deputy Director

Introduction

Recent flooding events around the country have led to an increased scrutiny of flood protection levees and other flood structures in Colorado and nationwide. As part of this increased scrutiny, both FEMA and the Corps of Engineers (Corps) are re-evaluating how they address levees and related public safety concerns. The Corps has stepped up their inspections for structures within their Inspection of Completed Works Program, and has performed numerous inspections during the past two years in Colorado.

Background

The levee and flood control project inspections by the Corps have led to inspection reports outlining various maintenance deficiencies and/or land use problems that could impact the ability of the levees to afford proper protection. Some of the inspected levees in Colorado only have minor problems, while others have significant issues that may be challenging to correct. In order to assist communities in bringing their levees back into federal compliance, Staff have endeavored to undertake a “levee assistance program” that provides technical and financial assistance where appropriate. This program was implemented over the past year on an informal basis. Staff would now like to formalize the program through Board action. Staff’s presentation will consist of: 1) brief overview of the topic, 2) summary of recent levee inspection results (map attached), 3) brief presentation of a success story by Town of Granada officials, 4) update on the National Levee Safety Committee, and 5) request for the Board to approve levee assistance guidelines (attached).

Staff Recommendation

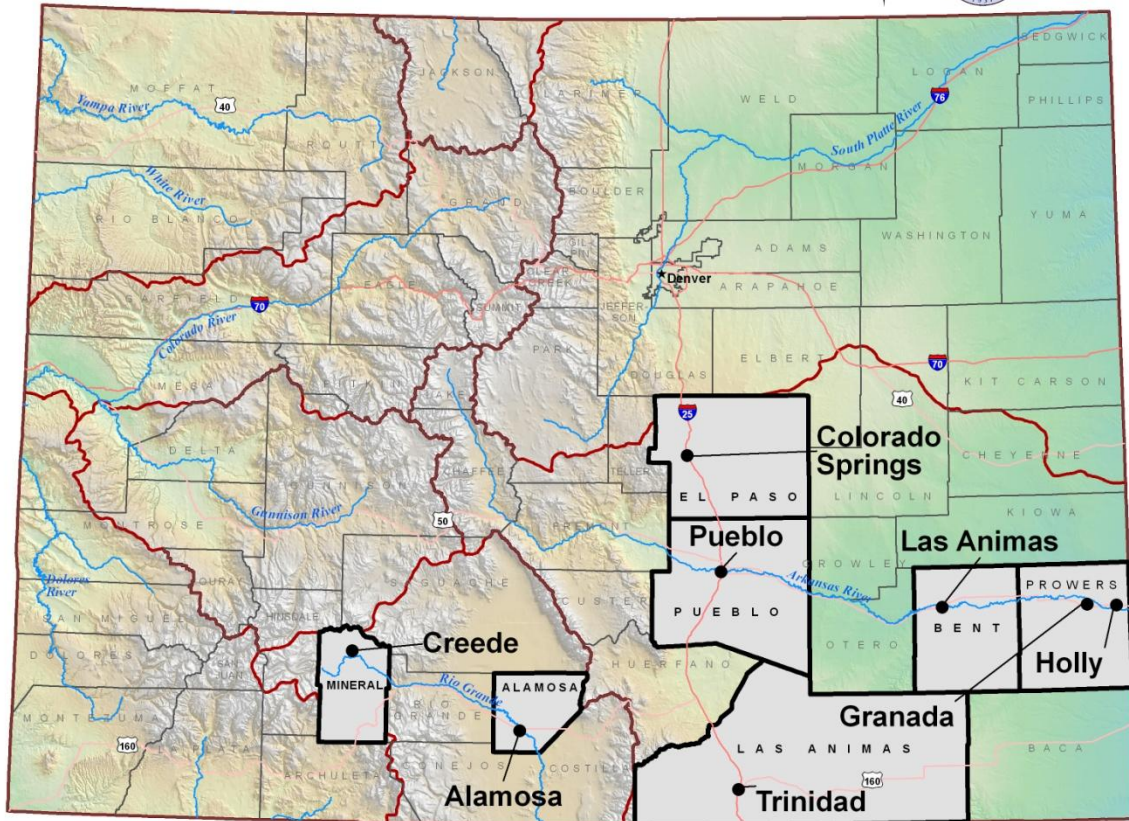
Staff recommends that the Board approve the attached “CWCB Levee Assistance Guidelines” and authorize staff to assist affected communities under the terms of the guidelines on a case-by-case basis.

2007-2008 COE Inspections

0 25 50 Miles



Watershed
Protection
& Flood
Mitigation
Section



CWCB LEVEE ASSISTANCE GUIDELINES

EFFECTIVE DATE: January 27, 2009

BACKGROUND

Recent national events have emphasized the fragile nature of the protection levees can provide to adjacent lands. While designed to prevent flooding up to specified return intervals, many recent examples can be made of flooding exacerbated by levees that either fail during more frequent events due to structural problems or are overwhelmed by larger magnitude events. While actual levee policies are being reevaluated in most cases, these events have also caused both the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers (Corps) to reevaluate the enforcement of their levee policies in regards to post-flood rebuilding and floodplain mapping. As part of these reevaluations, stricter inspections are being conducted by both agencies to determine the degree of risk in place for levee structures.

A number of Corps-built levees exist around the state. Numerous other non-federal levees or flood control structures also exist. These levees vary greatly in their quality and maintenance condition. Recent Corps inspections have indicated a need for maintenance actions along many of the levees in order to bring them back into compliance with current federal standards and regulations. The CWCB is committed to assisting local governments in an effort to bring these structures into compliance, and encourages continued local maintenance.

AUTHORITY

These Guidelines are consistent with the CWCB's broad floodplain management and public safety authorities, for the prevention of floods and flood damages therefrom, granted under 37-60-106(1)(c) through 37-60-106(1)(f), and 37-60-106(1)(k). In addition, the CWCB has funding authority for floodplain technical services within Colorado House Bill 06-1313, and for flood response activities within Colorado HB 08-1346. The CWCB also promulgated "Rules and Regulations for Regulatory Floodplains in Colorado"(2-CCR-408-1) for the purpose of providing uniform standards for regulatory floodplains, including criteria for the effects of levees on regulatory floodplains.

EXPLANATION OF CWCB ASSISTANCE

The CWCB is committed to providing assistance to local governments for the purpose of bringing existing levee structures up to current levels of compliance. The initial assistance efforts are intended to help local governments with Corps-built structures. Additional assistance may include non-federal levees and flood control structures for consideration on a case-by-case basis. Assistance will be provided as both technical assistance and, where appropriate, financial assistance.

Technical assistance will be provided for any eligible entity (see below) at no cost to the entity. Technical assistance may include participation in federal levee inspections; review of inspection reports from others; assistance in development of scope of Maintenance Deficiency Correction Plans (MDCP); site visits before, during, and after levee construction activities; attendance at meetings and public hearings (if appropriate); and other general technical assistance.

Financial assistance may be provided to eligible entities where appropriate. The decision to provide financial assistance in the form of grants will be made by CWCB staff based on these Guidelines or any instructions provided by the Board on a case by case basis. All financial assistance must meet the cost share requirements and local responsibilities outlined below.

Financial assistance in the form of low interest loans is available at anytime for entities that meet the lending requirements established by the CWCB and policies related to the Water Project Loan Program.

ELIGIBLE ENTITIES FOR CWCB GRANT FUNDING

Entities that are eligible to receive CWCB assistance include communities (incorporated towns and cities, as well as unincorporated counties within the state of Colorado), flood control districts, levee districts, water conservation districts, water conservancy districts, special districts, irrigation districts, stormwater authorities, water authorities. Communities must be enrolled and in good standing within the National Flood Insurance Program (NFIP) to be eligible for assistance.

All non-community entities utilizing CWCB assistance must receive acknowledgment from the affected local communities. Direct involvement by affected communities is not necessary beyond acknowledgment and acceptance of levee activities.

Entities that are not eligible for CWCB assistance include private-sector businesses, individuals, non-governmental organizations, and state and federal agencies.

COST SHARE REQUIREMENTS FOR GRANT FUNDING

All financial assistance in the form of grants from the CWCB will require a substantive local cost-share to further encourage local ownership and buy-in of the work being performed. The target local cost-share for grant funding is 25% of the project cost as a cash match. Communities that are unable to meet the standard cost-share requirement may: 1) obtain match funding from other sources, 2) petition the CWCB to provide a lower cost-share amount, or 3) provide in-kind services to meet a portion of the match. Alternative cost share plans will be reviewed and may be approved on a case-by-case basis. Under no circumstance will the local cash match be less than 10% of the total project cost.

Grant funding will generally be limited to \$100,000 of CWCB funds. For larger projects, larger funding may be considered on a case-by-case basis, and will require Board approval. Grants in excess of \$100,000 may require larger cost share percentages.

LOCAL RESPONSIBILITIES

In exchange for grant funding, the eligible entity receiving the grant shall provide written acceptance of standard local responsibilities, all of which will be performed at local expense and using local resources. These responsibilities include the following:

- The creation of an up-to-date operations and maintenance plan. This plan shall conform to applicable federal and state criteria, and shall be approved by CWCB staff, and any other necessary government entities.
- Monthly progress reports shall be provided to CWCB staff. Progress reports may be in the form of standard mail, email, or fax contact, but shall include, at a minimum, a description of the progress made, an accounting of funds expended and remaining, and any anticipated schedule problems.

- All construction shall be performed in order to meet criteria by all necessary state agencies, including, but not limited to, FEMA, COE, CWCB, Colorado DWR. The eligible entity shall be responsible for coordinating with all necessary agencies and ensuring that all applicable criteria is addressed, with technical assistance by the CWCB, if needed.
- A final inspection will be performed by CWCB staff, or another agency, ~~if~~ when appropriate. Final invoices will not be paid until a final inspection showing the levee structure is in compliance has been completed.
- The receiving entity shall provide a local point of contact for levee issues. The entity shall continue to provide an up-to-date contact if changes are made for a period of five years following the final inspection.
- All local fiscal rules shall be followed throughout the project.
- For grant funding associated with an eligible entity seeking FEMA certification, the affected community shall be responsible for coordination of the certification process, with technical assistance by CWCB staff, if needed.

CONTACT INFORMATION AND PAYMENT PROCEDURES

For purposes of CWCB assistance, the primary point of contact is:

Kevin Houck, P.E., CFM
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The secondary point of contact is:

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REFERENCES

The following references are available for further guidelines on levee issues:

Colorado levee policy
<http://cwcb.state.co.us/NR/ronlyres/19E6CAAE-90A4-4B9C-B423-6F979741F8F0/0/16.pdf>

Colorado Floodplain Rules and Regulations
<http://cwcb.state.co.us/WatershedProtectionFloodMitigation/RelatedInformation/LawsRules/Rules/RulesOnly.htm>

CWCB Floodplain and Stormwater Criteria Manual
<http://cwcb.state.co.us/WatershedProtectionFloodMitigation/RelatedInformation/ToolsResources/CriteriaManual/FloodplainStormwaterCriteriaManual.htm>

ACOE Guidelines for Landscaping and Vegetation Management at Floodwalls, Levees and Embankment Dams
<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA402104&Location=U2&doc=GetTRDoc.pdf>

National Committee on Levee Safety
<http://www.iwr.usace.army.mil/ncls/index.cfm>

Treatment of Vegetation within Local Flood-Damage-Reduction Systems
http://www.familywateralliance.com/pdf/ACOE_Standards.pdf

FEMA Levee Guidelines
http://www.fema.gov/plan/prevent/fhm/lv_ctp.shtm