

12. FLOOD CONTROL DISTRICT #10

12.1 MULTI-HAZARD MITIGATION PLAN POINT OF CONTACT

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12.2 JURISDICTION PROFILE

12.2.1 Overview

Boise River Flood Control District No. 10 is responsible for working to minimize flood damage and to protect and promote the health, safety and general welfare (Idaho Code Section 42-3102). The District was organized on October 13, 1970 through an Order by the Director of the State of Idaho, Department of Water Administration (Idaho Department of Water Resources). The District was formed to “provide control of the Boise River and its tributaries in the affected area to protect life and property, preserve the public health and welfare and conserve and develop natural resources of the State of Idaho” (Order Creating Flood Control District No. 10 of Idaho) as they relate to potential flooding in Ada and Canyon Counties within the District’s boundaries. State law provides the District with statutory authority and responsibility to operate and maintain structural works of improvement for the prevention of floodwater and sediment damages, and to exercise all other powers necessary, convenient or incidental to carry out the provisions of the Flood Control District Act (Idaho Code sections 42-3101—42-3128).

Flood Control District No. 10 has observed continued rapid development along the Boise River within the jurisdictional boundaries. The District believes that land use changes significantly affect flood plain conveyance and storage, affecting individual sites and reaches above and below these sites. Development in the flood plain, combined with lack of channel forming flow events, sediment erosion and deposition, and the growth of gravel bars and associated vegetation, reduces the conveyance capacity of the Boise River and increases flooding risks. The District is also concerned that gravel pits developed adjacent to the banks of the river may be captured by the river during high flows, threatening both public and private facilities. The most pressing issue facing the District in the future, minimizing flood impacts in the face of rapid growth requires river maintenance and protection of unimpeded access to the river, which will allow the District to continue normal maintenance activities, and effective planning for the Rivet corridor.

Historically, the District has had greater latitude to conduct responsibilities under the law and to maintain channel capacity. Flood Control District No. 10’s channel maintenance activities have become progressively more difficult to accomplish due to interpretations of regulations that vary over time and increasing concerns about environmental impacts. These factors combine to increase future flooding risks and damages for the residents within the boundaries of the District and impair the District’s ability to carry out responsibilities under the law.

The District is governed by a Board of three Commissioners, appointed by the Idaho Department of Water Resources. The District employs a staff of one, a Project Manager. Revenues are generated through taxation collected on assessments on real property within the District.

The geographical extents of the District generally are along the Boise River and a portion of Dry Creek. Along the Boise River, the District is bounded by Chinden Blvd (State Highway 20-26) on the South, State Street (State Highway -44) on the North. The downstream limit is River Mile 22 (approximately 1- mile upstream of I-84 river bridges in Caldwell, ID), while the upstream limit is River Mile 49 (approximately 1-½ miles upstream of the Glenwood Bridge). In addition to the Boise River, a three mile long reach of Dry Creek, from the confluence with the Boise River upstream to Beacon Light Road in Eagle is included in the District boundaries.

12.2.2 Service Area and Trends

The district serves a population of 41,000 (est. + 20% growth since Jan. 2010). Its service area covers an area of 25,000 acres, which has a total value of \$2,131,428,797. (est. + 15% growth since January 2010)

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Home sites and businesses along both the Boise River and Dry Creek continue to command a premium in the marketplace. Prior to the current economic downturn, population within the District was growing at approximately 10-percent per year. As the economy recovers, population trends within the District are anticipated to return to an annualized growth rate of five to eight percent per year.

12.2.3 Assets

Table 12-1 summarizes the critical assets of the district and their value.

Asset	Value
Property	The Flood Control District owns no land.
Critical Infrastructure and Equipment	
Water Inflatable Dam	\$20,000
Total:	\$20,000
Critical Facilities	The Flood Control District owns no critical facilities

12.3 PLANNING AND REGULATORY CAPABILITIES

The following existing codes, ordinances, policies or plans are applicable to this Multi-Hazard Mitigation Plan:

- State of Idaho, Stream Channel Alteration Permit
- US EPA, Clean Water Act, Section 404, Administered by the U.S. Army Corps of Engineers

- US EPA, Clean Water Act, National Pollutant Discharge Elimination System (NPDES)
- Municipal and County Floodplain Ordinances –
 - Municipal: Boise, Garden City, Eagle, Meridian, Star, Middleton, Nampa, Caldwell
 - County: Ada and Canyon
- County Highway Districts—Policy Manuals –
 - Ada County Highway District
 - Canyon County Highway District #4
- County Hazard Mitigation Plans
 - Ada County
 - Canyon County
- The District Board of Commissioners have passed a number of resolutions dealing with floodplain development, including a no net adverse impact provision. These Resolutions remain in effect with this plan.

12.4 FISCAL, ADMINISTRATIVE AND TECHNICAL CAPABILITIES

An assessment of fiscal capabilities is presented in Table 12-2. An assessment of administrative and technical capabilities is presented in Table 12-3.

Table 12-2. Fiscal Capability

Financial Resources	Accessible or Eligible to Use?
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
State-Sponsored Grant Programs	No
Development Impact Fees for Homebuyers or Developers	No
Other	N/A

Table 12-3. Administrative and Technical Capability

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Contract Services
Engineers or professionals trained in building or infrastructure construction practices	No	
Planners or engineers with an understanding of natural hazards	Yes	Contract Services
Staff with training in benefit/cost analysis	No	
Surveyors	Yes	Contract Services
Personnel skilled or trained in GIS applications	Yes	Contract Services
Scientist familiar with natural hazards in local area	No	
Emergency manager	No	
Grant writers	No	
Other	N/A	

12.5 EDUCATION AND OUTREACH CAPABILITIES

An assessment of education and outreach capabilities is presented in Table 12-4.

Criteria	Response
Do you have a Public Information Officer or Communications Office?	No
Do you have personnel skilled or trained in website development?	Yes, Contract Services
Do you have hazard mitigation information available on your website? <ul style="list-style-type: none"> If yes, please briefly describe. 	No
Do you utilize social media for hazard mitigation education and outreach? <ul style="list-style-type: none"> If yes, please briefly describe. 	Yes Newspaper ads during maintenance operations
Do you have any citizen boards or commissions that address issues related to hazard mitigation? <ul style="list-style-type: none"> If yes, please briefly specify. 	Yes 3 member Board
Do you have any other programs already in place that could be used to communicate hazard-related information? <ul style="list-style-type: none"> If yes, please briefly describe. 	No
Do you have any established warning systems for hazard events? <ul style="list-style-type: none"> If yes, please briefly describe. 	Yes Code Red/ISAWS – residents may sign up to receive emergency notifications and critical community alerts. Both systems are IPAWS enabled and may additionally access that integrated system for public warnings.

12.6 INTEGRATION WITH OTHER PLANNING INITIATIVES

The following describe the jurisdiction’s process for integrating the Multi-Hazard Mitigation Plan into existing plans and programs.

12.6.1 Existing Integration

The following plans and programs currently integrate the goals, risk assessment and/or recommendations of the Multi-Hazard Mitigation Plan:

- The District Board of Commissioners have passed a number of resolutions dealing with floodplain development, including a no net adverse impact provision. These Resolutions remain in effect with this plan.

12.6.2 Opportunities for Future Integration

The following plans and programs do not currently integrate the goals, risk assessment and/or recommendations of the Multi-Hazard Mitigation Plan, but provide an opportunity for future integration:

- FCD #10 5 Year Strategic Plan – Boise River Flood Control District #10 will integrate portions of the Ada County Multi-Hazard Mitigation Plan into their final 5 Year Strategic Plan to be completed in 2017.

12.7 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 12-5 lists all past occurrences of natural hazards within the jurisdiction.

Table 12-5. Natural Hazard Events

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Laguna Point Pit Capture	N/A	2006	\$500,000
Brookwood Breach/Capture	N/A	2006	\$200,000
Mace Breach	N/A	2006	\$60,000
Eagle Isl. Levee Breach	N/A	1997	\$30,000
Linder Rd. Bridge Blockage	N/A	1996	\$2,000

12.8 JURISDICTION-SPECIFIC VULNERABILITIES

Noted vulnerabilities the jurisdiction include:

- Development in the Floodplain, especially close to the river banks restricts access points for the District to perform routine maintenance and hazard tree removal.

12.9 HAZARD RISK RANKING

Table 12-6 presents the ranking of the hazards of concern.

Table 12-6. Hazard Risk Ranking

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Flood	54	High
2	Severe Weather	55	High
3	Dam Failure	18	Medium
4	Earthquake	9	Low
5	Volcano	6	Low
6	Landslide	3	Low
7	Wildfire	3	Low
8	Drought	0	Low

12.10 STATUS OF PREVIOUS PLAN INITIATIVES

Table 12-7 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 12-7. Status of Previous Action Plan

Action Item	Completed	Carry Over to Plan Update	Removed; No Longer Feasible
Action #FCD10-1 —Repair bank erosion, various sites, District-wide <i>Comment: This item will continue indefinitely</i>		X	
Action #FCD10-2 - Irrigation Diversion Headgate Flood Mitigation <i>Comment:</i>		X	
Action #FCD10-3 —Remove accumulated sediment from Boise River and Dry Cr. <i>Comment: Some sediment has been removed, but sediment continues to be deposited.</i>		X	
Action #FCD10-4 —Develop long-term plan to manage Boise River at Eagle Isl. Split. <i>Comment:</i>		X	
Action #FCD10-5 —Develop short-term plan to manage Dry Cr.at Brookwood area <i>Comment: Plan is to perform maintenance annually to keep debris buildup at a minimum.</i>	X		
Action #FCD10-6 —Update FEMA mapping within the District <i>Comment: New FEMA FIRM maps are out in draft. District will follow up after final maps approved.</i>		X	
Action #FCD10-7 —Develop floodplain mitigation techniques to apply vegetative blockages in the stream channels. <i>Comment: District is working with experts to analyze new proven techniques from other areas.</i>		X	
Action #FCD10-8 —Remove naturally occurring vegetation blockages in the stream channels <i>Comment: This will be a continuing activity</i>		X	
Action #FCD10-9 —Support County-wide initiatives identified in Volume 1 <i>Comment:</i>		X	
Action #FCD10-10 —Continue to support the implementation, monitoring, maintenance and updating of this Plan as defined in Volume 1. <i>Comment:</i>		X	

12.11 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED ACTIONS

Table 12-8 lists the actions that make up the Flood Control District #10 hazard mitigation action plan. Table 12-9 identifies the priority for each action. Table 12-10 summarizes the mitigation actions by hazard of concern and the six mitigation types.

Table 12-8. Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Action #FCD10-1 —Support CRS program participation of participating jurisdictions within Ada County that interface with the FCD #10 operational area.						
New	Flood	2,3,4,5,6,8,9,10	FCD #10	Low	FCD #10	Short term
Action #FCD10-2 —Remove naturally occurring vegetative blockages in the river channels						
EX	Flood/Diversion Failure	3,8,9	FCD# 10	Medium	FCD #10	Short term
Action #FCD10-3 —Modify FCD #10 website to include links to flood hazard mitigation and preparedness sites.						
New	All	2,3,7,8	FCD #10	Low	FCD #10	Short term
Action #FCD10-4 —Develop partnership with local City/County Planning and Zoning staffs to mitigate flood risk						
New	Flood	1,2,4,5,6,8,9,10	FCD #10	Low	FCD #10/Staffs	Short term
Action #FCD10-5 — Update FEMA mapping within the District						
EX	Flood	2,4,9	FCD #10	Medium	FCD #10/FEMA	Long term
Action #FCD10-6 –Remove accumulated sediment from Boise River and Dry Cr.						
EX	Flood	1,2,3,8	FCD #10	High	FCD #10/ Grant/ Local landowners	Long term
Action #FCD10-7 —Develop long term plan to manage Boise River at the Head of Eagle Island split.						
EX	Flood	2,3,6,8,9,10	FCD #10	Medium	FCD #10	Long term
Action #FCD10-8 —Develop floodplain mitigation techniques to apply vegetative structures in the stream channels.						
EX	Flood	2,6,9	FCD #10	Medium	FCD #10/Grant	Long term
Action #FCD10-9 —Irrigation Diversion Headgate Flood Mitigation						
EX	Flood	1,8,9	FCD #10	Low	FCD #10/Irrigators	Long term
Action #FCD10-10 —Support County-wide initiatives identified in Volume 1						
EX	All Hazards	All	FCD #10/ACEM	Low	FCD #10/Grant	Long term
Action #FCD10-11 —Continue to support the implementation, monitoring, maintenance and updating of this plan as defined in Volume 1.						
EX	All Hazards	All	FCD #10/ACEM		Low	Long term
Action #FCD10-12 — Meet and coordinate with private organizations, state, federal and other local agencies to develop, conduct and maintain wildfire mitigation projects.						
New and Existing	Wildfire	1,6,9,10	Boise Fire Department	Low	Local	On-going

Table 12-9. Mitigation Strategy Priority Schedule

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority ^a	Grant Priority ^a
FCD10-1	8	High	Low	Yes	No	Yes	High	Low
FCD10-2	3	High	Medium	Yes	No	Yes	High	Low
FCD10-3	10 (all)	High	Low	Yes	No	Yes	High	Low
FCD10-4	9	High	Low	Yes	No	Yes	Medium	Low
FCD10-5	4	High	high	Yes	Yes	No	Medium	Medium
FCD10-6	3	Medium	Medium	Yes	No	Yes	Medium	Low
FCD10-7	6	Medium	Medium	Yes	No	Yes	Medium	Low
FCD10-8	3	Medium	Medium	Yes	Yes	Yes	Low	Low
FCD10-9	3	Low	Low	Yes	No	Yes	Medium	Low
FCD10-10	10 (all)	Medium	Low	Yes	Yes	Yes	Medium	Medium
FCD10-11	10 (all)	Medium	Low	Yes	Yes	Yes	Medium	Low
FCD10-12	2, 5, 9	High	Medium	Yes	Yes	No	Medium	High

a. See the introduction to this volume for explanation of priorities.

Table 12-10. Analysis of Mitigation Actions

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Dam Failure	FCD10-4, FCD10-10, FCD10-11, FCD10-12	FCD10-2, FCD10-5, FCD10-7	FCD10-3, FCD10-4, FCD10-12	FCD10-2, FCD10-5, FCD10-12	FCD10-10	FCD10-4
Drought	FCD10-10, FCD10-11		FCD10-3	FCD10-2, FCD10-5	FCD10-3, FCD10-10	FCD10-8
Earthquake	FCD10-3, FCD10-6, FCD10-10	FCD10-3, FCD10-10	FCD10-1, FCD10-3, FCD10-4	FCD10-5, FCD10-8	FCD10-1, FCD10-3, FCD10-10	FCD10-8
Flood	FCD10-1, FCD10-2, FCD10-3, FCD10-4, FCD10-5, FCD10-6, FCD10-10, FCD10-11, FCD10-12	FCD10-2, FCD10-5, FCD10-8, FCD10-12	FCD10-3, FCD10-4, FCD10-6	FCD10-2, FCD10-5, FCD10-8, FCD10-12	FCD10-3, FCD10-4, FCD10-10, FCD10-11	FCD10-5, FCD10-8, FCD10-9
Landslide	FCD10-3, FCD10-10, FCD10-11	FCD10-3, FCD10-10, FCD10-11	FCD10-3, FCD10-4	FCD10-10, FCD10-11	FCD10-3, FCD10-10, FCD10-11	FCD10-2, FCD10-5
Severe Weather	FCD10-2, FCD10-3, FCD10-4, FCD10-5, FCD10-10, FCD10-11	FCD10-2, FCD10-3, FCD10-5	FCD10-3, FCD10-10	FCD10-2, FCD10-5	FCD10-3, FCD10-10, FCD10-11	FCD10-2, FCD10-5, FCD10-9
Volcano	FCD10-10, FCD10-11	FCD10-10	FCD10-3, FCD10-10, FCD10-11	FCD10-3	FCD10-3, FCD10-10, FCD10-11	
Wildfire	FCD10-1, FCD10-3, FCD10-10 11	FCD10-3, FCD10-4, FCD10-10 11	FCD10-3, FCD10-4	FCD10-3, FCD10-10	FCD10-3, FCD10-10, FCD10-11	FCD10-9, FCD10-10, FCD10-11

a. See the introduction to this volume for explanation of mitigation types.