



Floodplain and River Management Working Group Agenda

Tuesday, October 24, 2017

1:00 PM – 4:00 PM

Location: Sierra Room at Carson City Community Center
William Street, Carson City, NV 89703

Contact: Direct questions to Brenda Hunt, 887-9005, brenda@cwsd.org

1. Welcome
2. 1:00 –3:00 pm **Agenda FEMA Discovery and Floodplain Management Plan Update Meeting**
 - A. Project Overview of Discovery and Floodplain Management Plan Updates
 1. Purpose and Background
 2. Recent Flood Events
 3. Project Timeline
 - B. Present Findings for Potential Flood Risk Projects for Discovery Update
 1. Review identified projects by jurisdiction (Carson City – Douglas County – Lyon County – Churchill County, Storey County, & Alpine County)
 2. Gather additional community feedback
 - C. Table Top Map Review
 1. Breakout Session to review maps by jurisdiction
 - D. Prepare for Next Meeting
 1. Comment on Draft Discovery Report (due December 15, 2017)
 2. Discuss Data Request (Floodplain Mgmt. Plan Update)
3. Next Floodplain Management Plan Revision/Update Meeting Date
4. 3:00-4:00 pm **CRC Floodplain & River Management Working Group - Regular Meeting:**
 - A. CWSD is the Governor's designated Clean Water Act Section 208 Planning Agency – Discuss Planning needs with County reps regarding use of watershed level planning funding.
 - B. Floodplain Management Plan Suggested Action Implementation (See Attached Table):
 - i. *Higher Regulatory Standards SA-11 -13:*
 - ❖ Update on recent CWSD RFQ - Update Floodplain Ordinance Language for Alpine County, Douglas County, Carson City, and Lyon County

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- ii. *Flood Data Information and Maintenance SA-17:*
 - ❖ Update on recent CWSD RFQ - Request for Qualifications for Dayton Valley Area Drainage Master Plan
 - ❖ Update on Johnson Lane Area Drainage Master Plan study
- iii. *Floodplain and Flood Hazard Outreach and Education SA-33*
 - ❖ Update on meetings, website, media and planned events.
- iv. *Protect Floodplain Natural Functions and Values SA 1-10*
 - ❖ Determine next steps based on last meetings discussions (see meeting notes) and whether ideas can be incorporated into Floodplain Management Plan update.

C. Rotating Floodplain and River Management Working Group meeting with field trips – Y or N, next steps.

D. 3-minute Round Robin updates including:

- ❖ Carson Valley Floodplain Map – FEMA progress
- ❖ Jan/Feb 2017 damages and repair of grade control/diversion structures progress
- ❖ 319 awards and projects

5. Schedule Next Meeting

Table 4.7-1
Summary of Suggested Actions

Plan Element	Suggested Action	Responsible (or suggested responsible) Party	Existing or Potential Funding Source
Protect Floodplain Natural Functions and Values			
SA-1	Adopt Living River approach to retain river system in a more natural state that allows the river to access its floodplain. Recognize that not all areas of the river system can be allowed to migrate freely due to special designation (i.e., Superfund area) and/or existing infrastructure.	All entities	n/a
SA-2	Adopt a good neighbor floodplain management policy that recognizes that actions by one property owner can impact adjacent and downstream property owners.	All entities	n/a
SA-3	Floodplain and flood hazards should be considered with open space program objectives when selecting acquisition targets and establishing management strategies for open spaces.	Local and tribal governments, NGOs, CWSD	n/a
SA-4	Investigate areas where the implementation of stream zone buffers would provide multi-objective benefits for river system and downstream communities.	Local and tribal governments	n/a
SA-5	Plan for and mitigate cumulative effects of watershed urbanization.	All entities	n/a
SA-6	Manage development in special flood hazard areas and other flood hazard areas (those known flood hazard areas not included on most current FIRMs) to provide public safety and protect the natural functions and benefits of floodplain lands.	Local and tribal governments; CWSD	n/a
SA-7	Retain lands that provide floodplain storage and maintain or restore connection of river with floodplain through land acquisition, conservation easements, local open space programs, TDR and PDR Programs, and other protection methods.	Local and tribal governments, NGOs, landowners	Question 1; SNPLMA; NGOs; local governments
SA-8	Encourage the incorporation of low impact development principles into sub-division development proposals for floodplain lands to decrease run-off and minimize loss of floodplain storage capacity.	Local governments	n/a

Plan Element	Suggested Action	Responsible (or suggested responsible) Party	Existing or Potential Funding Source
SA-9	Identify and promote options for landowner incentive programs, such as floodplain leasing program and conservation easements that provide compensation to landowners providing ecosystem services.	Local & tribal governments, NGOs, CWSD, CRC, landowners	Federal, State and local sources, Question 1, SNPLMA
SA-10	Promote and utilize best management practices as a means of protecting riparian habitat.	All entities	n/a
Higher Regulatory Standards			
SA-11	Implement or enhance county ordinances that include floodplain protection as a purpose, account for the loss of floodplain storage volume, and mitigate losses through a variety of methods.	Local governments	n/a
SA-12	Investigate feasibility of implementing additional measures that go beyond minimum FMEA requirements.	Local governments	
SA-13	Develop model watershed floodplain management ordinance language that can be adopted by counties to provide watershed-wide consistency.	CWSD, CRC, local governments	n/a
Flood Data Information and Maintenance			
SA-14	Secure funding for and conduct watershed-wide unsteady state modeling to identify flood water storage requirements and to look at the cumulative effects of watershed development.	Local & state governments, CWSD	NDEP, CWSD, other local & state entities
SA-15	Support FEMA's Map Modernization Program and encourage FEMA to update FIRMs with current and future conditions. Significant verification of topography and other variables should be conducted prior to release of draft FIRMs.	Local governments FEMA CWSD	n/a
SA-16	CWSD continue to participate in FEMA's Cooperating Technical Partner Program.	CWSD, FEMA	n/a
SA-17	Strive for up-to-date and consistent data collection and maintenance to include updating of flood studies where necessary and conduct studies for significant water courses and alluvial fan areas that have not been analyzed. This data should be used to update FEMA maps and fill data gaps. Complete delineation of the floodway throughout river system and incorporate into FIRMs.	CWSD Local governments	Federal, state and local grant sources
SA-18	Flood studies and maps should be updated after significant flooding events.	Local governments	All grant sources

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SA-19	Elevation Reference Marks (ERM) should be permanent monuments and updated on a regular basis.	Local governments	n/a
SA-20	ERMs should be in the same datum as base flood elevations on FIRMs or a datum that is readily convertible to FIRM datum. Move towards FEMA recommended NAVD 88 datum.	Local governments	n/a
SA-21	A master list of ERMs should be developed, maintained, and made available to interested parties.	Local governments; CWSD	n/a
SA-22	Photo-Monitoring program (on-the-ground and aerial) should be developed and coordinated on a watershed level to document flooding and flood hazards in a consistent matter.	CWSD	n/a
Channel Migration and Bank Erosion Monitoring			
SA-23	Known and projected hazard areas including channel migration hazards should continue to be documented and updated information should be incorporated into planning processes.	Conservation Districts, CWSD, NDEP, WNRC&D, FEMA, local & tribal governments	Federal, state and local resources
SA-24	LiDAR and/or aerial photography (on a watershed level) should be conducted on a 5-year basis, or as needed, to provide updated information on channel movement and floodplain condition.	CWSD, NDEP, CVCD, DVCD, WNRC&D, NGOs, BOR, local governments	Federal, state and local grant sources
SA-25	Establish building set-backs in flood hazard areas, where appropriate, to reduce severe hazards from channel migration.	Local and state entities	n/a
SA-26	Channel cross-sectional surveys should be conducted and well documented to track long term changes in river channel.	CWSD, conservation districts, WNRC&D	Federal, state and local grant sources
SA-27	Identify unstable stream banks and areas with high potential for erosion.	Conservation districts, WNRC&D, NDEP, CWSD	n/a
SA-28	Promote the use of non-structural, bio-engineering (soft-engineering utilizing natural materials) techniques in river restoration projects in combination with other proven methods.	All entities	n/a

Plan Element	Suggested Action	Responsible (or suggested responsible) Party	Existing or Potential Funding Source
SA-29	Update the 1996 Fluvial Geomorphic Assessment.	WNRC&D, CWSD, NDEP, conservation districts	Federal, state and local grant sources
Floodplain and Flood Hazard Outreach and Education			
SA-30	Develop watershed-wide outreach and education program about floodplain importance and flooding hazards.	CWSD, CRC	Federal, state and local grant sources
SA-31	Brochures should be developed for distribution on a watershed level with consistent messages and information for the general public.	CWSD, CRC	n/a
SA-32	CWSD website will provide information on the Regional Floodplain Management Plan and provide emergency contact information. Local governments and other entities can link to this website to increase distribution.	CWSD	n/a
SA-33	Annual Flood Awareness Week will be established with the objective of providing information about flooding and flood hazards to the general public.	CWSD, CRC, Local & tribal governments	n/a
SA-34	Special Events, River Work Days, and other outreach opportunities should be utilized to help raise awareness of flooding hazards and importance of floodplains.	CRC, WNRC&D and other local & tribal entities	Federal, state and local grant sources
Reduce Infrastructure Impacts			
SA-35	Investigate opportunities to remove existing restrictions, such as berms, to allow flood waters to access floodplain.	Local & tribal government organizations, landowners	Federal, state and local sources
SA-36	Limit the use of future management measures such as dams, levees, and floodwalls.	Local & tribal government organizations, landowners,	n/a
SA-37	Design future bridges and roads to protect floodplain, accommodate and not restrict changing river course, and minimize back up of flood water.	NDOT, local governments	Federal, state and local sources
SA-38	Investigate opportunities to enhance grade control structures	Local governments, CWSD	n/a