



## Floodplain and River Management Working Group Meeting Notes

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](mailto:brenda@cwsd.org)

### 1. Welcome –

Norm Harry, Washoe Tribe  
Louise Thompson, CWSD  
Kayla Meyer, NDWR  
Robb Fellows, Carson City  
Mitch Blum, HDR  
Jeanne Ruefer, Tetra Tech  
Rob Pyzel, Lyon County  
Michael Johnson, Churchill County  
Dean Patterson, Churchill County  
Steve Endocott, City of Fallon  
Rob Loveberg, Consultant

Brian Peters, Alpine County  
Courtney Walker, Douglas County  
John Cobourn, UNCE  
Nancy Hoffman, Fish and Wildlife  
Craig Burnside, CVSD  
Barry, Fallon NAS  
Geoff Brownell, Michael Baker  
Karin Peternel, Michael Baker  
Ed James, CWSD  
Brenda Hunt, CWSD  
Deb Neddenriep, CWSD

### 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 was reviewed which covered the Purpose and Background; Recent Flood Events – Flooding winter 2016/ 2017; Project Timeline; and

#### **Upcoming Meetings were announced:**

**January 23, 2018** was the date selected for next CRC Floodplain and River Management Meeting.

**April 11-12, 2018** CRC Forum and Regional Floodplain Management Plan (RFMP) Update meeting

**June 2018** RFMP Draft Summary Meeting

CWSD to implement adoptions within communities

Prior to breakout session, the relevance of watershed-wide items in the Discovery 2012 report were reviewed. The list below identifies content still relevant to the Discovery update; see comments below. Upon review, all watershed-wide items maintained relevancy.

CWSD's Multiyear plan to restudy Carson River / Restudy of Carson River Floodplain DFIRMs have been updated in the Carson River reaches upstream of Weeks bridge to Alpine County's portion of Carson Valley. It was noted DFIRM and mitigations procedures need to be updated downstream of Lahontan Reservoir. DFIRM data is 50 years old in Churchill County. Flood

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mapping will need to be addressed in conjunction with USBR management of Lahontan Reservoir. There is a need to study cross-county boundaries in watershed.

DFIRM Update Procedure: Develop a consistent procedure with GIS, planning, and engineering departments for updating DFIRMS on a watershed-wide basis. This also relates to updating the floodplain model with each new CLOMR/LOMR to ensure cumulative analysis remains consistent (timing, procedure, etc.).

Examine Alluvial Fans

Early Warning: Install additional gauges for the watershed.

Floodplain Preservation: Discussed methods such as easements, floodplains as open space; other means to incentivize floodplain preservation.

Updated floodplain codes: Codes are being updated for each county throughout 2018 as part of FEMA MAS 8, and will be presented for adoption to county boards in spring 2019. Build Wisely Codes were mentioned.

Public Awareness Campaign: A public awareness campaign was developed in 2014 and ongoing efforts to communicate risk to residents and public agencies continues. The campaign is centered around NVFloods.org website and flood awareness week which occurs annually in November.

ERM Gap Analysis: Determined Elevation Reference Marks (ERM) need to be replaced and additional ERMs are needed. The need for standardized elevation reference markers vs. hand drawn markings on buildings was discussed.

Photo Monitoring: Still need to create and establish protocols, applications for photo monitoring of flood events both on-ground and from the air. Courtney Walker mentioned Douglas County has implemented a website in which residents can upload photos of flood events. Geoff mentions a flood database that allows citizens to upload their photos. The importance of consistency in taking photos was discussed along with the idea of having standard locations to record flood events. Drone technology was also discussed as a possible option for recording flooding. City of Fallon staff noted how valuable it was for floods to be recorded from airplanes in 2017 flood events.

Hazard Areas: Discovery Plan needs to align with Hazard Mitigation Plan goals.

Investigate areas for establishment of setbacks and buffer zones in highly hazardous areas.

Infrastructure Design/Replacement: Coordinate with NDOT and local jurisdictions to identify, design, investigate options on all future placement or replacement of infrastructure to ensure it is compatible/consistent with the Regional Floodplain Management Plan.

Carson River Inundation Mapping: Development of inundation mapping for the Carson River.

Groundwater Quality Impacts: Groundwater quality impacts due to flooding need to continue to be evaluated. Sampling continues.

Fluvial Geomorphology Study needs to be updated since it was last completed in '96.

Additional items not listed in 2012 Discovery were discussed:

Rapid response simulation model: It would be helpful to have a model that could run faster during flood events. During 2017 floods, forecast was changing during event; there are only three gage sites on the Carson River which the National Weather Service uses. It would be helpful to get the nodes on their radar region-wise for reporting.

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Sediment transport study of the Upper and Middle Carson River above Lahontan.  
Effect of flooding on water quality of Carson River Mercury superfund site.  
Effect of flooding on water quality of Leviathan Superfund site.

Breakout Sessions were conducted by county to identify county specific items and prioritize each by high, medium, and low priority.

- A. 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 –
- B. Table Top Map Review
  1. Breakout Session allowed jurisdictions to review maps and community worksheets and prioritize projects as low, medium, or high. Refer to community worksheets for details.
- C. Prepare for Next Meeting – **January 23, 2018**
  1. Comment on Draft Discovery Report (due December 15, 2017) –
  2. Discuss Data Request (Floodplain Mgmt. Plan Update) -
- D. Next Floodplain Management Plan Revision/Update Meeting Date - – **January 23, 2018**

The next meeting will include data requests for regional floodplain management plan. The City of Fallon’s representative wanted to know how Regional Floodplain Management is used.

To follow-up on this question, staff has provided the following information to help answer the question.

- Regional Floodplain Management Plan lists suggested actions 5-10 years to minimize flood risk.
- Regional floodplain Management looks at the flooding, health of river, recharge, water quality, etc, as it relates to the entire system providing a broader perspective.
- Identifies funding needs for future studies and hazard mitigation projects.
- Floodplain Management Plan gives Community Rating System (CRS). Residents living in communities that participate in CRS enjoy discounted flood insurance rates. Rated on a scale of 1-10, the lower the rating the higher the discount, eg. 8 receives a 10% discount, 6 receives 20% discount... see attached brochure: [https://www.fema.gov/media-library-data/1444398921661-5a1b30f0f8b60a79fb40cefcaf2bc290/2015\\_NFIP\\_Small\\_Brochure.pdf](https://www.fema.gov/media-library-data/1444398921661-5a1b30f0f8b60a79fb40cefcaf2bc290/2015_NFIP_Small_Brochure.pdf)
- If RFMP is listed in hazard mitigation plan, then its prioritized for funding for pre-disaster mitigation funding (through the state) and makes jurisdictions more competitive for grant applications. It is important to note the overlap between FEMA pots of grant funding: Emergency Management, Hazard Mitigation, Community engagement.

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- Identifies shovel ready projects for when funding becomes available.
- Track progress, identifies needs and opportunities, shows cooperation, and provides leverage
- It is tied into 319 funded Watershed Stewardship Plan and therefore increases eligibility for Nevada Division of Environmental Protection funding.
- It identifies opportunities for stakeholder cooperation. E.g., Washoe Tribal representative noted flooding on tribal lands did not meet threshold in flood declarations; It would be great to work with county to meet funding thresholds.

The group wondered if FEMA funding would be available in 2018 because costly 2017 flood events.

Find out about the status of FEMA funding at Association of State Floodplain Manager's website: [Floods.org](http://Floods.org). Another good place to get answers will be at their Floodplain Conference which will be in Reno after Labor Day 2018.

### 3. 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 – Brenda discussed planning needs with County reps regarding use of watershed level planning funding (\$40K). She presented two options: analyze and identify ordinance language regarding low impact development or do a low impact development demonstration project. Different EPA funding and project types that can be funded that are passed through NDEP were discussed. Clean Water Act, Section 319 funding provide Non-Point Source Pollution grants and 208 funding is for water quality planning. The 208 funding does not require match, but can be used as match with non-federal grants. The group determined to achieve broader LID application the counties would prefer to have someone review the ordinance and make recommendations for what needs to be amended. The group decided CWSD should use funding to pursue ordinance review and creation of LID ordinance language.
- B. Floodplain Management Plan Suggested Action Implementation (See Attached Table):
- i. *Higher Regulatory Standards SA-11 -13:*
    - ❖ Brenda let the group know the CWSD RFQ to update Floodplain Ordinance Language for Alpine County, Douglas County, Carson City, and Lyon County only received one proposal. CWSD is currently working on refining scope.
  - ii. *Flood Data Information and Maintenance SA-17:*
    - ❖ Update on recent CWSD RFQ - Request for Qualifications for Dayton Valley Area Drainage Master Plan. Three engineering firms have contacted CWSD, the SOQs are due Nov 3.
    - ❖ Update on Johnson Lane Area Drainage Master Plan study – They are working on solutions and know how water is flowing. There will be a public meeting on April 10, 2018 from 5-7pm. Findings will be released for public input. If you are interested in similar studies in your jurisdictions, this might be a good meeting to attend.
  - iii. *Floodplain and Flood Hazard Outreach and Education SA-33*

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- ❖ Update on meetings, website, media and planned events. – Katie Clancey, let the group know the events occurring for Flood Awareness Week Nov 12-17, 2017. She also explained the media campaign which would run to promote flood awareness.
- 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. The group discussed the Living River Concept and what that means for the Carson River Watershed. There was concern expressed that some existing and future projects may not be considering the Living River as a principle to follow. The Living River Concept is outlined in the Floodplain Management Plan and was adopted as a concept by all the jurisdictions that the river runs through. The concern that the concept, as originally developed in the Floodplain Management Plan, is being lost as people think it means to make the river a pristine, functioning free flowing river. John Cobourn corrected this misrepresentation. He discussed the original concept idea was to have as natural a system as possible given the known issues (like private property, bridges, irrigation infrastructure, etc.) and *NOT* to have a serial engineering situation where the river becomes like the LA River, entirely cemented like a drain. Does the Floodplain Management Plan need to reiterate or reinstate this Living River goal? Each jurisdiction who adopted the plan has already agreed to the Living River Concept, but it is likely it will need to be discussed again due to the changes in staffing and understanding of its meaning throughout the watershed.

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

The majority of the group thought this was a good idea. CWSD staff will work with group to develop schedule and trips.

D. 3-minute Round Robin updates included:

- ❖ Carson Valley Floodplain Map – FEMA progress – it's in review and it will probably take a while.
- ❖ Jan/Feb 2017 damages and repair of grade control/diversion structures progress – CWSD Board's Legislative Committee recently met and invited Charlie Donahue from Nevada State Lands to discuss ownership and maintenance of the river and the irrigation diversion structures in the river. Ownership of these grade controls/diversions has not been clearly established so FEMA funding was not available to replace damaged infrastructure from 2017 flooding. Flooding also caused erosion of banks that cause loss of several acres of private property. Several possible solutions are being discussed. CWSD staff will be pursuing these and other potential solutions further with our partners in the coming months and will update the group when more information is available.

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- ❖ 319 awards and projects – CWSD was awarded a Watershed Coordination Program Grant and River Wranglers were awarded an Environmental Education Grant.
- ❖ Other:
  - Water Summit end of January 2018
  - Alluvial fan mapping from Army Corps to be included in floodplain management plan. Data may not as descriptive as we thought. (Mitch suggested that he may be able to help if he can get the GIS data.)
  - Looking to possibly move the CWSD Bus Tour to the fall.
  - Planning to hold a CRC Celebration in June.
  - Submitted three proposals to River Rally being held in Squaw Valley Apr 29- May2.

#### 4. Schedule Next Meeting – **January, 23, 2018**