

UPPER FEATHER RIVER
INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM
Regional Water Management Group

Sharon Thrall, Plumas County Flood Control and Water Conservation District
Paul Roen, Sierra County
Terry Swofford, Plumas County
Russel Reid, Feather River Resource Conservation District
Bill Nunes, Sierra Valley Resource Conservation District
Jim Roberti, Sierra Groundwater Management District
Roger Diefendorf, Plumas County Community Development Commission
Trina Cunningham, Maidu Summit Consortium
Jeffrey Greening, Public Member
Joe Hoffman, Plumas National Forest (Advisory)
Carol Thornton, Lassen National Forest (Advisory)
Quentin Youngblood, Tahoe National Forest (Advisory)

**AGENDA FOR REGIONAL WATER MANAGEMENT GROUP MEETING OF
SEPTEMBER 23, 2015 TO BE HELD AT 1:00 P.M. IN THE
PLUMAS COUNTY PLANNING CONFERENCE ROOM, 555 MAIN STREET, QUINCY, CALIFORNIA**

www.featherriver.org

AGENDA

The Regional Water Management Group of the Upper Feather River Integrated Regional Water Management Program welcomes you to its meetings, which are regularly held on the fourth Wednesday of every other month, and your interest is encouraged and appreciated.

Any item without a specified time on the agenda may be taken up at any time and in any order.

Any person desiring to address the Board shall first secure permission of the Regional Water Management Group Chair. Any public comments made during a regular Regional Water Management Group meeting will be recorded. Members of the public may submit their comments in writing to be included in the public record.

CONSENT AGENDA: These matters include routine administrative actions. All items on the consent calendar will be voted on at some time during the meeting under "Consent Agenda." If you wish to have an item removed from the Consent Agenda, you may do so by addressing the Chairperson.



REASONABLE ACCOMMODATIONS: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting please contact Randy Wilson at 530-283-6214. Notification 72 hours prior to the meeting will enable the County to make reasonable arrangements to ensure accessibility. Auxiliary aids and services are available for people with disabilities.

STANDING ORDERS

1:00 P.M. **CALL TO ORDER/ROLL CALL**

ADDITIONS TO OR DELETIONS FROM THE AGENDA

PUBLIC COMMENT OPPORTUNITY

Matters under the jurisdiction of the RWMG, and not on the posted agenda, may be addressed by the general public at the beginning of the regular agenda and any off-agenda matters before the RWMG for consideration. However, California law prohibits the RWMG from taking action on any matter which is not on the posted agenda unless it is determined to be an urgency item by the RWMG. Any member of the public wishing to address the RWMG during the "Public Comment" period will be limited to a maximum of 3 minutes.

ANNOUNCEMENTS/REPORTS

Brief announcements.

CONSENT AGENDA

These items are expected to be routine and non-controversial. The RWMG will act upon them at one time without discussion. Any RWMG members, staff member or interested party may request that an item be removed from the consent agenda for discussion.

A) RWMG

Approve RWMG Meeting Summary for the special meeting held on June 15, 2015.

ACTION AGENDA

1. PROJECT STATUS UPDATE

Update on project schedule, task and budget. Informational.

2. STAKEHOLDER OUTREACH UPDATES

a. Tribal outreach updates. Informational.

b. Workgroup updates. Informational.

3. TRADITIONAL ECOLOGICAL KNOWLEDGE

Presentation by Trina Cunningham on Traditional Ecological Knowledge (TEK). Informational.

4. CHAPTER REVIEW PROCESS AND SCHEDULE

Discussion of a chapter review process and schedule. Discussion and/or direction to staff.

5. RESOURCE MANAGEMENT STRATEGIES – PRESENTATION BY MUNICIPAL SERVICES WORKGROUP

Presentation of draft resource management strategy recommendations by the Municipal Services Workgroup. Frank Motzkus, Workgroup Chair. Request for discussion and/or direction to staff.

6. WORKGROUP INTEGRATION AND CLIMATE CHANGE WORKSHOP SUMMARY

Staff update on the joint Workgroup Integration and Climate Change Workshop and next steps. Informational.

7. SUMMARY OF STEP 2 PROJECT SUBMITTALS

Overview and brief summary of projects submitted for Step 2 of the "Call for Projects."

8. IRWM PROGRAM IMPLEMENTATION

Presentation on the future of IRWM programs and shared knowledge of various RWMG roles and governance, as well as Plan implementation, post-Plan adoption. Elizabeth Betancourt, Watershed Science and Policy Analyst, Forsgren Associates, Inc. Informational.

9. PROJECT SELECTION PROCESS

Discuss and review process for selecting implementation projects for inclusion in IRWM Plan. Request for discussion, approval and/or direction to staff.

10. PROJECT MONITORING

Discussion of Plan Performance and Monitoring, including implementation projects. Request for discussion and/or direction to staff.

11. NEXT MEETING

Schedule and topics for next RWMG meeting. Request for discussion and direction to staff.

ADJOURNMENT

Upper Feather River IRWM Regional Water Management Group

DRAFT MEETING SUMMARY

For the Regular Meeting
On May 29, 2015

Meeting materials are available on the website at: http://featherriver.org/rwmg_meetings/.

Note: due to a technical error, no meeting video is available.

Call to Order and Roll Call

Sherrie Thrall, Chair, called the meeting to order on May 29, 2015 at 1:00 PM, at the Plumas County Planning Conference Room, 555 Main Street, Quincy, California.

Members Present:

Sharon Thrall, Plumas County Flood Control and Water Conservation District
Paul Roen, Sierra County
Terry Swofford, Plumas County
Russell Reid, Feather River Resource Conservation District
Bill Nunes, Sierra Valley Resource Conservation District
Jim Roberti, Sierra Groundwater Management District
Roger Diefendorf, Plumas County Community Development Commission
Trina Cunningham, Maidu Summit Consortium
Jeffrey Greening, Public Member
Joe Hoffman, Plumas National Forest (Advisory)

Members Absent:

Quentin Youngblood, Tahoe National Forest (Advisory)
Carol Thornton, Lassen National Forest (Advisory)

Staff Present:

Randy Wilson, Plumas County Flood Control and Water Conservation District
Uma Hinman, Uma Hinman Consulting
Paul Lackovic, Deer Creek Resources, Inc.
Leah Wills, Uplands and Forest Management Workgroup Coordinator
Terri Rust, Floodplains, Meadows, Waterbodies Management Workgroup Coordinator
Sherri Norris, California Indian Environmental Alliance
Lauren Hughes, California Indian Environmental Alliance

Additions or Deletions from the Agenda

None noted

Public Comment Opportunity

None noted

Announcements / Reports

Uma Hinman provided a report on the IRWM Plan Update project to date, including a summary of task work and overall budget expenditures. Work completed is reflected appropriately in the budget expenditures to date.

Consent Agenda

a. RWVG Approval of Meeting Minutes for May 29, 2015

Upon motion by Paul Roen and second by Terry Swofford, the Meeting Minutes for May 29, 2015 were unanimously approved.

Regular Agenda

1. Stakeholder Outreach Updates

Uma Hinman presented an update on the MOU, tasks and overall budget.

1a. Update on Tribal outreach efforts. Informational.

Sherri Norris of California Indian Environmental Alliance, Tribal Outreach Coordinator, provided an update on Tribal coordination. A meeting of the Tribal Advisory Council (TAC) was held on May 18th. Sherri noted that the TAC is working on developing four projects to submit for the IRWM Plan project consideration.

The TAC have extended an offer to interested project proponents to provide Tribal Ecological Knowledge (TEK) and collaboration with the Tribes on projects. Such a collaboration may make projects stand out to DWR and make them more competitive in future grant solicitations.

Other topics covered in the TAC meeting included selection of priority RMS and review of the Administrative Draft Baseline Study.

During this meeting it was determined that the TAC would most effectively work as a separate Workgroup.

1b. Update on Workgroup efforts. Informational.

Uma Hinman reported that Workgroups have all held their third meetings. The third meetings were focused on identification of linkages between issues, Plan objectives, and resource management strategies; review and identification of additional RMS selections; and discussion of the project development process.

Uma Hinman, Coordinator of the Municipal Services Workgroup, provided a summary of the Municipal Services Group Meeting, noting that there were 15 participants at the April 17th meeting. Next meeting TBD in mid-June.

Carl Felts, Chair of the Meadows, Meadows, Floodplains and Waterbodies Workgroup, provided a summary of their April 24th meeting. Next meeting is scheduled for June 26th at 9am.

Mike De Lasaux, Chair of the Uplands and Forest Workgroup, provided a summary of the May 12th meeting. Deer Creek Resources has been working on mapping to support their Workgroup's efforts. Next meeting is scheduled for June 30th at 9am.

Willo Vieira, Chair for the Agricultural Land Stewardship Workgroup, provided a summary of the Workgroup's May 26th meeting. The Workgroup selected Willo as their Chair at the May meeting. Next meeting is tentatively scheduled for July 20th at 2pm.

Uma reported that two press releases were sent to the Plumas and Sierra newspapers: (1) notice of “call for projects” on April 8th, and (2) notice of two public project solicitation meetings in Chester on May 5 and Portola on May 6.

2. Resource Management Strategies

Uma Hinman presented, requesting the RWMG (1) discuss and possibly assign unselected RMS to Workgroups. The seven remaining RMS were reviewed and assigned to Workgroups. Sherri Norris and Trina Cunningham noted that the TAC would likely be interested in providing RMS recommendations for a number of RMS with the caveat that the TAC would need to approve those tasks at a later date. The following assignments were made:

- RMS 5 Conveyance regional/local: Agricultural Lands Stewardship
- RMS 10 Precipitation Enhancement: Floodplains, Meadows, Waterbodies Management
- RMS 16 Matching water quality to use: Tribal Advisory Committee
- RMS 18 Salt and salinity management: Municipal Services
- RMS 23 Land use management: assigned to all
- RMS 29 Water and culture: Tribal Advisory Committee
- RMS 31 Other Strategies: assigned to all

It was clarified that the assignments were solely to make sure that the regionally relevant RMS had an identified responsible Workgroup. All Workgroups are welcome to submit recommendations on any of the RMS.

Upon motion by Paul Roen and second by Bill Nunes, the RMS assignments were unanimously approved.

3. Project Development Process

3a. Project Solicitation Meetings. Informational.

Uma Hinman presented information and feedback from the two public project solicitation meetings, which were held on May 5th in Chester and May 6th in Portola. Participant feedback included (1) concern regarding project submittal deadlines, (2) whether meadow restoration projects would be accepted, and (3) concerns regarding a general lack of capacity in putting together and administering grants.

3b. Joint Workgroup Integration/Climate Change Workshop

Uma Hinman requested approval of the tentatively scheduled day of workshops for August 21, 2015 from 9am to 4pm at the Plumas County Fairgrounds Tulsa Building.

Upon motion by Paul Roen and second by Bill Nunes, the joint Workgroup Integration/Climate Change Workshop schedule was unanimously approved.

3c. Draft Eligibility Worksheet

Uma Hinman introduced a draft eligibility worksheet for use in the initial vetting of conceptual projects (Step 1). Uma noted three elements from the PRC that were inadvertently omitted and

recommended their inclusion in the list. Additionally, Uma suggested adding a review factor for land owner approval or support for projects.

Upon motion by Paul Roen and second by Bill Nunes, the draft eligibility worksheet was unanimously approved with the noted additions.

3d. Request for Special RWMG Meeting

Uma Hinman requested the RWMG schedule the special RWMG meeting to review the Conceptual Project Summary (Step 1) submittals, suggesting mid-June. It was suggested that project proponents attend so as to answer questions that may arise during the review.

Upon motion by Paul Roen and second by Bill Nunes, the special meeting was unanimously approved for Monday, June 15, 2015 at 10:00 a.m. in the Plumas County Planning Conference Room.

3e. Memorandum of Understanding

Uma Hinman provided an update on the submittal of signed MOUs, stating that only nine had been received to date. The RWMG had previously made a signed MOU a minimum eligibility requirement for the Conceptual Project Summaries (Step 1). Uma noted that several project proponents had indicated their inability to meet that deadline due to Board meeting dates, etc., including Plumas County. After some discussion, the RWMG extended the deadline for MOU submittals to 5:00 p.m. on June 14th, the day before the special RWMG meeting.

4. Project Monitoring

Sherrie Thrall opened the discussion on Project Monitoring, which will apply to beyond the IRWM planning period when projects are applying for and receiving grant funding. The question raised for discussion is “how to manage projects during implementation?” There was some discussion on whether the projects should be monitored by the project proponent or a third party. Monitoring should be objective, transparent, available, and science-based. There was some discussion regarding CEQA/NEPA as well, and where that might fit into the Project Monitoring Policy.

It was recommended by several that there be a central location for hosting the monitoring results, such as the IRWM website or similar site. It was noted that the hosting of project monitoring results would only apply to those projects which are sanctioned by the IRWM RWMG. Randy and Sherrie noted that they could ask the Plumas County Flood Control District Board to discuss it at their regular June 9th meeting.

Tim Beals noted that the Policy, depending on how it is worded, could affect project budgets; consequently it will be important to establish project monitoring policy prior to project proponents submitting grant applications and budgets. Tim also noted that CEQA/NEPA can significantly extend and derail project schedules, which would impact grants.

Randy Wilson suggested that Policy wording should clarify that CEQA/NEPA is the responsibility of the project proponents, thereby necessitating a project sponsor that can act as a lead agency for purposes of CEQA/NEPA.

The RWMG directed staff to develop a Draft Project Monitoring Policy for RWMG review at the June 15th special meeting.

5. Draft Project Selection and Prioritization Criteria

Uma Hinman presented two proposals for project selection and ranking criteria. The first was a modified version of the initial proposal presented at the March 27th RWMG meeting, and the second was a methodology based on the Upper Pit River IRWM Plan.

Staff suggested a method for listing projects that consisted of categorizing projects and would result in ranked projects under each category, thereby reducing some of the conflict and sense of competition. Staff presented some options for categorizing projects including by workgroup, UFR IRWM Plan goals, and tiers with project readiness being the most likely top tier. Staff noted that the established Workgroups are a reflection of the resource management strategies contained in the California Water Plan that were most prominent in the UFR region. Additionally, by setting the Workgroups as categories, it recognized the substantial work effort of Workgroup participants and reflected the integration that was already being developed within the Workgroups. The RWMG unanimously agreed that projects would be categorized by Workgroups, with the addition of the Tribal Advisory Committee, which was included as separate Workgroup earlier in the meeting.

The RWMG worked primarily with the first proposal, directing a number of modifications. Remove the following considerations:

- Matching funds
- Leveling criteria of number of projects submitted

Move the following review factors from assignment of points to a simple “yes/no” criteria:

- Technical feasibility of the project
- Economic feasibility
- Project status
- Contribution of the project in adapting to the effects of climate change
- Contribution of the project in reducing GHG emissions as compared to project alternatives

Sherri Norris suggested making sure the minimum requirements for Proposition 84 were included, as required in the Proposition 84 IRWM Guidelines, as well as integrate some of the Proposition 1 Guidelines to get a jump on that criteria.

Workgroup Coordinators will continue to coordinate with each other and work to integrate projects. Projects that cross categories (Workgroups) will need to be assigned to one category. Project proponents should indicate which category they feel their project should be assigned; if none (or multiple) selected, the RWMG will make that determination.

CEQA/NEPA was again brought up in discussion. It was noted that non-governmental organizations (NGOs) will need to have a lead agency sponsor for the purpose of CEQA. Randy noted that the requirement for CEQA preparation can be passed down through the grant agreement at the time of grant award.

The RWMG directed staff to make the changes described above and bring the project selection/ranking criteria back for review and consideration at the June 15th special meeting.

Uma Hinman requested clarification that the weighting factor for each of the scoring criteria would be addressed at a later date, which was affirmed.

6. Next Meeting

A special meeting was scheduled for Monday, June 15th, 2015 at 10:00am. Meeting topics will include draft project monitoring policy, review directed changes to project selection/ranking criteria, and review of the conceptual project summaries.

The next regular meeting was scheduled for Friday, July 31st, 2015 at 1:00pm.

Adjournment

The meeting was adjourned at approximately 4:00 p.m.

DRAFT

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: UFR IRWM Plan Update Project Schedule, Task and Budget Update
Date: September 14, 2015

SCHEDULE

Based on the contract date between DWR and the Plumas County Flood Control and Water Conservation District, we are currently in the 15th month of the 2-year project. This is the last of six regular RWVG meetings in the first project year, which has been rescheduled from July 31, 2015. All Workgroups have held at least four meetings; consistent with the grant work plan. The next few months will be focused on the projects and chapter development. See attached schedule.

MEMORANDUM OF UNDERSTANDING (MOU)

The MOU is posted on the website and has been presented at each of the Workgroup meetings. Additionally, copies have been provided to requesting agencies and organizations through the Workgroups. To date, 34 signed MOUs have been returned.

On September 16, 2015, Randy Wilson, Uma Hinman, and Trina Cunningham met with Butte County representatives to discuss an MOU to address planning and management in the overlap area, determine areas of responsibility, and provide for appropriate consultation as needed.

BUDGET AND TASK UPDATE

The overall expenditures on the grant project to date are consistent with the project accomplishments, and demonstrate very efficient use of funds.

In October 2014, Plumas County and its partners provided documentation of \$237,489 in match funds, which fulfills the match requirement for the grant contract in its entirety. To date, Uma Hinman Consulting has submitted eleven invoices to DWR totaling \$257,626.03 in reimbursable services, equipment purchases, and operating expenses. Approximately 50 percent of project work has been

completed and the \$234,402.68 invoiced to date for professional and consultant services represents 39 percent of the \$605,708 budget for those services. Additionally, the total grant amount invoiced to date includes county equipment and operating costs, for an overall billing of 38 percent of the total grant budget. See attachment 2 for budget summary.

Looking at the individual grant project tasks, most of the services and budget expenditures have been allocated to tasks one, three and seven. The following are summaries of work completed or initiated by task.

Task 1: Stakeholder Outreach/RWMG/Workgroups/Tribal Engagement/IRWM Coordination

The Stakeholder Outreach efforts have included coordinating, publicizing, and preparing outreach materials and presentations for and conducting the first five regular RWMG meetings and a special meeting to review, discuss and approve the Draft Monitoring Policy and the Draft Project Selection and Scoring Criteria, as well as to review and vet the first phase of Conceptual Project Summary submittals. Past tasks and efforts have included developing the Stakeholder Outreach Plan (SIP), drafting the stakeholder contact lists and an MOU, updating the tribal contact list and drafting the Tribal Engagement Plan, developing and discussing the draft Project Eligibility Worksheet for vetting of Conceptual Projects, review and discussion of draft options for project selection and ranking criteria, as well as coordinating and scheduling individual Workgroup meetings. The Workgroups have held four or five meetings with the recent focus on developing projects proposed for implementation in the IRWM region. In addition a fifth working group was recognized in May: the Tribal Advisory Committee, which has held four meetings to date.

The Joint Workgroup Integration Workshop/Climate Change Workshop was held August 21 from 9am to 4:30pm in the Mineral Building at the Plumas County Fairgrounds. The Workshop had excellent attendance and very productive discussion/participation in both the morning and afternoon sessions.

Staff continues to post articles of interest under the NEWS section of the website, and maintains the calendar and meeting pages with meeting schedules and materials. Please remember to check the website periodically for new posts and information. The subcategory under DOCUMENTS developed for DRAFT IRWM PLAN will contain the draft Plan chapters for review and include deadlines for comments.

Task 2: Baseline Technical Study

The administrative draft Baseline Technical Study has been posted on the website and includes a database of background materials collected and catalogued to date. The draft report is available at <http://featherriver.org>. Staff is continuing to update the document database as the project progresses. The consultant team has developed a database that is linked via GIS to a map that provides a visual catalog of studies and projects in the region. Time was spent compiling, categorizing, summarizing, and uploading baseline studies. The administrative draft Baseline Technical Study Report was presented at the March 27th RWMG meeting.

Work has also focused on refining the scope for the first deliverable for the Forest-Water Balances Study, a white paper on infiltration potential from forest fuels thinning projects. A memorandum from Plumas Geo-Hydrology, dated February 16, 2015, draws attention to the significance of groundwater recharge related to forest canopy thinning (memorandum attached to this progress report). The memorandum indicates that forest management practices to reduce forest canopy closure will increase groundwater recharge, and thereby increase base flow in streams.

Task 3: Data Management Strategy, System Development and Implementation

The IRWM Plan Update website/web portal for the UFR IRWM Project is being kept current. The RWMG meeting agendas, packets, and archived videos of the meetings are and will be available on the site (featherriver.org), as well as other project information and updates.

During May and June, consultants attended the emergency planning committee meeting regarding the Feather River geographic response plan and communicated with California Department of Fish and Wildlife (CDFW) about parallel data collection efforts, worked on map updates, incorporating new layers into maps, completed land managers, precipitation, fire hazard and severity zone, and fire threat maps, added a Tribal Advisory Committee Workgroup page to the website, and wrote a manual on how to record and stream meetings.

The consultant team has developed an online, map-based catalog of studies and projects in the region. The database is linked via GIS to a map that provides a visual catalog of studies and projects in the region (similar to the SWIM site). Time was spent compiling, categorizing, summarizing, and uploading baseline studies. The catalog is available on the website at: <http://featherriver.org/catalog/index.php>.

The Step 2 project submittal data has been put into an online map which can be viewed at <http://featherriver.org/proposed-projects/>. The database includes a summary of the information submitted for each project.

Task 4: Climate Change

During July, Consultants prepared for and participated in the August 21, 2015 Climate Change Workshop, worked on the draft climate change report, and the draft vulnerability assessment. Workgroup comments, and those received during the workshop, will be incorporated into the vulnerability assessment. The August 21 Climate Change Workshop consisted of a working session to present and discuss climate change scenarios, regional vulnerabilities, and recommended adaptation strategies. The Workshop had excellent attendance and very productive discussion/participation in both the morning and afternoon sessions.

The Consultant team has recently focused on developing the vulnerability to climate change assessment and a project worksheet for calculating GHG emissions.

Task 5: Project Development Process

The deadline for the first stage of the project submittal process was June 1, 2015 at 5:00 p.m. Approximately 80 conceptual projects submittals were received. The eligible conceptual project proposals were reviewed by the RWVG during their special meeting on June 15, 2015.

The deadline for Step 2 IRWM Project Information Forms was Monday, August 3, 2015 at 5pm. Eight-one (81) projects were received. The Step 2 project submittals were discussed during the August 21, 2015 Workgroup Integration and Climate Change Workshop with a focus on recommendations for project integration.

Task 6: IRWM Plan Update

The following chapters are in progress: Water and Land Use Chapter, Regional Description, Governance/Stakeholder Participation/Coordination, and Finance. Based on information collected and what is generated through the workgroup meetings, chapters will be drafted by staff and reviewed by workgroups and the RWVG. This process is set for further discussion at the September 23rd RWVG meeting.

Task 7: Grant Administration

Work under Task 7 has included the initial process of documenting the match funding and polishing the invoicing and reporting procedures. We have submitted the first eleven project progress reports and invoices.

REQUEST

Informational.

Attachments: Updated Project Schedule
Budget Summary

IRWM Round 2 Planning Grant Upper Feather River IRWM Plan

	2014					2015												2016							
	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	
TASK 1: UFR IRWM Program Public and Stakeholder Involvement																									
1.1 Develop Session Initiation Protocol (SIP)																									
1.2.1 RWMG Meetings																									
1.2.2 Workgroup Meetings																									
1.2.3 Other Meetings																									
1.3 DAC Outreach																									
1.4 Tribal Outreach																									
1.5 Interregional Outreach																									
TASK 2: Baseline Technical Study																									
2.1 Data Collection and Review																									
2.2 Issue "Call for Papers, Studies, Data"																									
2.4 Develop Information Summaries																									
2.5 Draft Baseline Technical Study																									
TASK 3: Data Management Strategy, System Development and Implementation																									
3.1 Develop, activate and host UFR IRWM Website																									
3.2 Develop UFR IRWM Document Web Library/Data Management																									
3.3 Develop Project GIS Database and Mapping																									
TASK 4: Climate Change Technical Study and Plan Chapter																									
4.1 Describe Legislative and Policy Context																									
4.2 Vulnerability to Climate Change																									
4.3 Discuss Adaptation to Climate Change																									
4.4 Recommend Data Collection Improvements and GHG Calculation Tools for Future IRWM Plan Updates																									
4.5 Identification of Next Steps for Future IRWM Plan Updates																									
4.6 Prepare Climate Change Technical Study and Plan Chapter																									
TASK 5: Project Development Process																									
5.1 Evaluate Existing Water Management Projects and Objectives in Existing IRWMP and Update Plan Objectives to Reflect New Water Management Priorities																									
5.2 Develop Project Selection Criteria																									
5.3 Project Integration and Prioritization Workshop																									
5.4 Project Evaluations and Project Prioritization including DAC and Tribal Effects																									
TASK 6: UFR IRWM Plan Update																									
6.1 Prepare Draft Plan Chapters/ Consistency with New Plan Standards																									
6.2 Present Draft Plan Chapters to the RWMG and Workgroups for Comments																									
6.3 Prepare Draft Plan																									
6.4 Present Draft Plan to the RWMG																									
6.5 Conduct Two Public Hearings on Draft Plan																									
6.6 Present Final Plan to the RWMG for Adoption and Posting on the Website																									
6.7 Present Final Plan to the MOU Entities and Agencies for Adoption																									
TASK 7: Grant Administration																									

- Milestones:
- ◇ = Monthly Report
 - = Draft Project Completion Report
 - = Project Completion Report
 - blue identifies original schedule
 - Purple arrows indicate progress and schedule
 - ★ indicate public hearings

Agreement No.: 4,600,010,066.00

Grantee: Plumas County Flood Control and Water Conservation District

Awarding Body: California Department of Water Resources

Program: Prop 84

Encumbrance FY: 2012

Award Budget	Match
\$679,657.00	\$237,489.00

Line Item	Prop 84 Allotments	Personnel Services	Operating Expenses	Equipment	Professional/ Consultant Services	Total	10% Withholding	Overhead	Match Total
		\$4,220.00	\$7,731.00	\$1,998.00	\$5,708.00	\$19,657.00			
Invoice No.	Billing Period								
1	10/1/08-9/30/14	-	-	\$4,853.84	\$3,510.98	\$8,364.82	\$836.48	\$2,224.98	\$237,489.00
2	9/1/14-10/31/14	-	-	-	\$2,925.60	\$2,925.60	\$292.56	\$675.85	-
3	9/1/14-11/30/14	-	-	-	\$3,009.60	\$3,009.60	\$300.96	\$13.61	-
4	12/1/14-12/31/14	-	-	-	\$867.88	\$867.88	\$86.79	\$55.38	-
5	10/1/14-1/31/15	\$3,892.97	-	-	\$5,774.11	\$9,667.08	\$966.71	\$383.10	-
6	7/1/14-2/28/14	\$2,971.73	\$427.55	-	\$7,285.95	\$11,685.23	\$1,168.52	\$225.20	-
7	11/1/14-3/31/15	-	-	-	\$0,142.35	\$0,142.35	\$14.24	\$656.35	-
8	3/1/15-4/30/15	-	-	-	\$2,887.40	\$2,887.40	\$288.74	\$85.90	-
9	3/1/15-5/31/15	\$4,963.08	\$874.41	-	\$5,654.75	\$11,492.24	\$1,149.22	\$38.00	-
10	9/1/14-6/30/15	-	-	-	\$2,778.71	\$2,778.71	\$277.87	\$806.45	-
11	6/1/15-7/31/15	\$3,926.40	\$13.37	-	\$8,565.35	\$12,805.12	\$1,280.51	\$104.35	-
Total Amount Spent		\$5,754.18	\$7,615.33	\$4,853.84	\$34,402.68	\$57,626.03	\$5,762.60	\$2,879.17	
Allotment Remaining		\$48,465.82	\$1,115.67	\$144.16	\$71,305.32	\$22,030.97			
% Budget Invoiced		24.53%	55.28%	97.12%	38.70%	37.91%			

**Upper Feather River
Integrated Regional Water Management**

**RWMG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Stakeholder Outreach Updates
Date: September 15, 2015

INTRODUCTION

Tribal Engagement

A Tribal Outreach meeting was held in Chester with the Maidu Summit Consortium on July 13, 2015. An update will be provided during the meeting.

Workgroups

The workgroups have all held their fourth meetings consistent with the grant work plan for the first year. The latest meetings were focused on responding to the climate change vulnerability questionnaires, the second phase of project development, and developing resource management strategies.

Project Development and Integration Workshop

Workgroup Coordinators supported project proponents in their development of the Step 2 Project Information Forms, which were due August 3rd. Staff remained in contact with project proponents, providing updates and clarification on process and forms. The Workgroup Integration Workshop, the first of two over the two-year planning period, was held on August 21st from 9am to 12pm. The content of the workshop was focused on integration of projects, collaboration between workgroups, and an overall update on each workgroup's efforts. See Item 6 for additional information about the workshop.

Resource Management Strategies

The Municipal Services Workgroup will be presenting draft RMS recommendations to the RWMG in Item No. 6. Staff anticipates that the Floodplains/Meadows/Waterbodies Workgroup will present their recommendations at the October RWMG meeting, with the Agricultural Stewardship Workgroup presenting at the November RWMG meeting. The Uplands and Forest Workgroup and Tribal Advisory Committee will be working together on the developing recommendations and will also present at the November RWMG meeting.

Assignment/Task Strategy

A total of eight workgroup meetings are identified in the Plan Update work program over the course of the two-year project. The next workgroup meetings will be the Workgroup Integration Workshop, scheduled for the morning of August 21st.

The following table summarizes Workgroup meeting schedules.

Workgroup	Chair	Alternate	Meeting Schedule
Agricultural Land Stewardship	Willo Vieira		January 22, 2015 March 11, 2015 May 26, 2015 July 20, 2015
Floodplains, Meadows and Waterbodies	Carl Felts	Cindy Noble	December 5, 2014 February 13, 2015 April 24, 2015 June 26, 2015
Municipal Services	Frank Motzkus	Robert Meacher	November 20, 2014 February 19, 2015 April 17, 2015 June 17, 2015 July 15, 2015
Uplands and Forest	Mike DeLasaux	John Sheehan	January 29, 2015 March 13, 2015 April 24, 2015 June 30, 2015
Tribal Engagement Committee	Trina Cunningham		January 13, 2015 March 20, 2015 May 18, 2015 July 13, 2015

The fifth round of workgroup meetings will focus on developing RMS recommendations. After recommendations have been developed and presented to the RWMG, the next tasks for the workgroups will primarily be chapter review and comment.

REQUEST

Informational.

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Traditional Ecological Knowledge
Date: September 15, 2015

INTRODUCTION

In brief, Traditional Ecological Knowledge (TEK) refers to the knowledge, innovations and practices of indigenous and local communities. Traditional knowledge is developed from experience gained over the centuries and adapted to the local culture and environment.

Trina Cunningham, Maidu Summit Consortium, will share information about Traditional Ecological Knowledge (TEK) and how it may be applied to projects within the region.

REQUEST

Informational.

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: IRWM Plan Chapter Development Schedule and Review Process
Date: September 15, 2015

INTRODUCTION

In January 2015 a draft chapter development schedule was approved by the RWVG. However, due to an extended project development process, it is necessary to revisit the chapter development schedule. Additionally, staff has discussed chapter review processes with several other IRWM region representatives to gauge what worked best for soliciting stakeholder review and input within their regions. The consensus is a more streamlined process, which relies on a standard 30-day review and comment period for draft chapters.

In general, development of chapters for the IRWM Plan was scheduled to occur in the second year of the Plan update, the first year being focused on project development. In order to be poised for the Proposition 1 IRWM funding, which is scheduled for June 2016, our goal is to have a Draft Plan ready for public review at the beginning of April 2016. To meet this goal, staff is proposing a process similar to other regions. Based on information collected and what is generated through the Workgroup meetings, chapters will be drafted by the consultant team, reviewed internally, and released for a 30-day review and comment period. Chapters would be released as they are developed, with one of the first being the Regional Description—a foundation chapter upon which other chapters build. Comments will be collected and chapter revisions made as appropriate, with more complex questions raised to the RWVG during presentation of the chapters at RWVG meetings.

The following table portrays a draft schedule for chapter development:

Draft UFR IRWM Chapter Schedule

Chapter	2015				2016					
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Executive Summary							X			
Plan Development Process						X				
Governance, Stakeholder Participation, Coordination	X									
Regional Description		X ^a								
Regional Water Issues, Integration, Capacity			X ^a							
Water and Land Use Planning	X									
Climate Change			X							
Goals and Objectives				X						
Resource Management Strategies				X						
Project Development and Review Process					X					
Plan Implementation, Performance and Monitoring					X					
Finance			X							
Impacts and Benefits						X				
Technical Analysis		X ^a								
Data Management						X				
Admin Draft Plan							X			
Public Draft Plan (2 public hearings)								X		
Final Plan (1 public hearing)										X

^a The Community Vulnerability Study, DAC/Tribal Assessments, and Forest-Water Balances Study will be incorporated into these chapters later in the process.

“X” indicates tentative month in which chapter will be released, starting a 30 day review period.

Green indicates baseline chapter, which other chapters will build on.

REQUEST

Discuss, approve, and/or provide direction to staff regarding the proposed process and schedule for the UFR IRWM Plan Update chapter development and review.

**Upper Feather River
Integrated Regional Water Management**

**RWMG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group

From: Uma Hinman, Uma Hinman Consulting

Subject: Resource Management Strategy Recommendations Presentation – Municipal Services Workgroup

Date: September 15, 2015

INTRODUCTION

The intent of developing RMS specific to the region is to identify locally relevant ways to diversify the region's water management portfolio. The RMS selected for inclusion in the Plan should support and be consistent with the issues identified within the region and Plan objectives.

The Municipal Services Workgroup was assigned responsibility for developing recommendations for 12 resource management strategies (RMS), identified as follows:

- RMS-2: Urban Water Use Efficiency
- RMS-6: System Reoperation
- RMS-7: Water Transfers
- RMS-11: Municipal Recycled Water
- RMS-14: Drinking Water Treatment and Distribution
- RMS-15: Groundwater Remediation/Aquifer Remediation
- RMS-18: Salt and Salinity Management
- RMS-19: Urban Stormwater Runoff Management
- RMS-23: Land Use Planning and Management
- RMS-27: Economic Incentives
- RMS-31: Other Strategies
- RMS-32: Wastewater/NPDES

The Municipal Services Workgroup Chair, Frank Motzkus (Plumas-Eureka CSD General Manager), will present the Workgroup's draft recommendations (attached).

Next Steps

Upon direction received from the RWVG, the RMS recommendations will be posted on the website and shared with the other Workgroups for comment. Ultimately, all RMS recommendations will be incorporated into the Draft Plan.

REQUEST

Discussion and/or direction to staff.

Attachment: Municipal Services Workgroup Draft RMS recommendations

Municipal Services Workgroup

Resource Management Strategy Recommendations

RMS 2 – Urban Water Use Efficiency

- Implementing programs such as Best Management Practices (BMPs);
- Provide information to homeowners regarding water efficient landscapes (e.g., encourage leak reporting, rain delay technology, irrigation management)
- Increasing public outreach and encouraging community involvement;
- Funding incentive programs for small districts and economically DACs;
- Large landscape surveys and development of water efficient landscape guidelines;
- Internal water distribution system audits;
- Identify excessive water users and offer water audits
- Promote the use of greywater disposal systems

RMS 6 – System Reoperations

- Collaborating between federal, state, and local agencies on system reoperation studies;
- Perform system audits to identify operational improvements that can be made;
- Conjunctive management

RMS 7 – Water Transfers

- Developing and implementing groundwater management plans, monitoring programs;
- Assemble data from existing monitoring programs and analyze in an effort to identify additional areas to monitor;
- Consider inter-, intra-, and interstate basin transfers to maximize water use

RMS 11 – Municipal Recycled Water

- Increasing funding availability for water reuse/recycling facilities and infrastructure
- Creating education curriculum for public schools and institutions of higher learning to educate the public about recycled water
- Engaging the public in an active dialogue and encouraging participation in the planning process of water recycling projects including non-potable and potable applications
- Providing resources (i.e. funding) to agencies that will perform comprehensive analysis of existing water recycling projects to estimate costs, benefits, and water deliveries
- Assessing water recycling technology to determine least costly and environmentally appropriate technology based on location and need

RMS 14 – Drinking Water Treatment and Distribution

- Developing incentives to allow water systems to reduce waste of limited water resources
- Providing additional funding for water supply, water treatment, and infrastructure projects to ensure safe and reliable supply of drinking water for individuals and communities

- Improving treatment facilities to include more sophisticated methods of treatment such as membrane filtration, ultraviolet light, and ozonation
- Upgrading aging water storage and distribution systems, which may have an impact on water quality that pose public health risks
- Improving water systems to prevent cross connections and backflow in distribution systems
- Perform system audits to identify operational improvements that can be made

RMS 15 – Groundwater/Aquifer Remediation

- Implementing source water protection measures
- Establishing and supporting funding for detecting emerging contaminants by commercial laboratories and installation of wellhead treatment systems
- Treating contaminated groundwater while it is still in the aquifer (in situ)
- Extracting contaminated groundwater from the aquifer and treating it outside of the aquifer (ex situ)
- Implement groundwater management plans for all users of shared groundwater aquifers

RMS 18 – Salt and Salinity Management

- Treatment (i.e., membrane or distillation technologies) to remove salts from treated wastewater and recycled water
- Real-time salinity management – improving coordination of salt loading from upstream point and non-point sources to manage a maximum load of salts that does not exceed water quality objectives

RMS 19 – Urban Stormwater Runoff Management

- Coordinating efforts with agencies, stakeholders, and the public to decide how urban runoff management should be integrated into work plans (i.e. best management practices)
- Working with community to identify opportunities to address urban runoff management
- Providing incentives for the installation of low impact development features on new and existing developments
- Emphasizing source control measures and strong public education/outreach efforts as being the most effective way to manage urban runoff
- Increase community education efforts in coordination with organizations currently doing this work to include “drains to river” notification on storm drains and awareness programs for proper chemical disposal

RMS 23 – Land use planning and management

- Planning for more compact and sustainable communities which will assist in reducing reliance on the state’s water supply
- Planning for growth in a way that considers availability of water supplies, water resource features, wetlands, groundwater recharge areas, and policies and regulations about water quality, drainage, flooding, and storage
- Increased and enhanced communication between land use planners and water managers

RMS 27 – Economic Incentives

- Encourage regular examination and adjustment, where necessary, of water rates
- Encourage use of tiered rate structures
- Adopting policies and programs that promote long-term water use efficiency

RMS 32 Wastewater/NPDES

1. Water/wastewater Treatment: Water and wastewater treatment as a resource management strategy potentially includes integration of agricultural and domestic wastewater into the water supply equation. Water/wastewater treatment has been a significant issue for several decades.
 - Regional facilities
 - Water/wastewater treatment as a supply option, through groundwater recharge and/or other means
2. Aging wastewater infrastructure and the need for upgrades to meet new and revised state standards. This strategy will also be important when considering water-recycling opportunities. Actions might include:
 - Facility upgrades
 - Assessment of private sewage treatment for safety next to wells in areas of semi dense development (one-acre plots)
 - Development of strategies for wastewater treatment to ensure the maintenance of receiving water quality
3. Infrastructure Reliability: recognizes the importance of maintaining and upgrading infrastructure for water supply, treatment, and distribution, wastewater collection, treatment, and disposal, and recycled water treatment and distribution. Infrastructure improvements are continually needed as facilities age, demands on their use increase (due to population growth, degraded water quality, or increased water quality standards), and new technologies are introduced.
4. Provide regional Operator training to enhance knowledge of wastewater collection, treatment, and disposal which will increase the certified operational pool in the area (secession planning).
5. Increase public outreach activities to promote the water and wastewater fields as career paths.

**Upper Feather River
Integrated Regional Water Management**

**RWMG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Workgroup Integration and Climate Change Workshop
Date: September 15, 2015

INTRODUCTION

A joint workshop was held on August 21, 2015 consisting of a Workgroup Integration Workshop from 9:00 to 11:30am and a Climate Change Workshop from 1:00 to 4:00pm. The morning workshop was followed by a wonderful BBQ lunch graciously provided and hosted by the Paul Roen family and Sherrie Thrall. The workshops were held on the same day so as to reduce travel and cost associated with attendance. The more than 30 attendees remained actively engaged in both the morning and afternoon sessions, providing much needed input on integration and potential climate change vulnerabilities of the region. A recording of the workshop is posted on the website: <http://featherriver.org/workgroup-meetings/>.

WORKGROUP INTEGRATION WORKSHOP

Purpose

The primary purposes of the Workgroup Integration Workshop were to meet and hear updates from other workgroups, and to discuss and identify project integration opportunities. This was the first time that the workgroups had met together and one of the goals of the workshop was to provide a forum for participants to “cross-pollinate” and talk about their projects and workgroup efforts with other workgroup participants. The second goal of the Workshop was to, as a group, look at strategic considerations that may have a greater impact to the region if combined.

The IRWM Program encourages RWMGs to consider strategic considerations that may benefit multiple stakeholders and acknowledges that there may be benefit in integrating local projects or project goals in developing regional projects. There is also value in examining projects for potential integration efforts and then deciding that a project is best implemented as submitted to achieve plan implementation. DWR expects RWMGs to take advantage of regional planning and integrating projects where possible, and explaining when a single purpose project needs to be implemented in order to best implement an IRWM Plan. Individual grant solicitations will shape and identify the project selection process as well, which will assist the RWMG in selecting regional, integrated, and/or individual projects.

Content

The meeting started with introductions and an overview of the integration process and purpose. Each Workgroup Coordinator presented a brief summary of each of the projects submitted in their respective categories (see summary in attachment). In all there were 81 Step-2 project submittals. After the presentation, a break-out session provided time and opportunity for participants to mingle and discuss workgroup efforts and integration opportunities. A number of integration opportunities were tentatively identified and discussed. Finally, the workshop was wrapped up with a discussion of next steps and tasks for the workgroups. See attached agenda and presentation for more detail.

Next Steps

The Workgroup Coordinators held a follow-up meeting on September 9th to discuss the integration opportunities identified and to continue the discussion. An initial list of tentatively identified regional projects and projects to be considered for integration is being developed. The draft list will be shared with the workgroups for input and presented to the RWMG at the next meeting.

CLIMATE CHANGE WORKSHOP

Purpose

The purpose of the Climate Change Workshop was to present possible climate change scenarios, vulnerability rankings, and adaptation strategies. The content was based on the required climate change vulnerability assessment and was structured as an interactive working session to identify potential geographic areas, resources, and management activities that may be impacted in the region.

Content

Chris Read (PMC/Baker International) and Michael Prezler (ECORP Consulting) presented an introduction to the Climate Change Study currently being prepared for the Plan Update. The discussion then turned to an interactive discussion on the vulnerabilities identified for the region in which participants provided input on identified vulnerabilities, regional significance, and priority within the region. There was excellent participation and the consultants now have the information and input they needed to complete their tasks for the Climate Change Study.

Next Steps

Using the information gathered from the workgroups and participants in the workshop, the consultants are wrapping up the Climate Change Technical Study and working on the draft Climate Change chapter. The deliverables for this project task will be submitted in early October. The climate change consultants anticipate presenting the Technical Study to the RWMG at the October meeting.

REQUEST

Informational.

- Attachments: Workshop Agenda
Workgroup Integration Workshop Presentation
Climate Change Workshop Presentation

Upper Feather River IRWM Workgroup Integration/Climate Change Workshop



Workshop Agenda

August 21, 2015

9:00 AM – 4:00 PM

Mineral Building, Plumas County Fairgrounds, Quincy

- PART I** **Workgroup Integration Workshop**
- 9:00AM Welcome and Introductions
- 9:15-10:00 Workgroup Updates and Presentations
Hear brief workgroup updates on project submittals and meet the workgroup chairs and alternates. We will also hear some presentations on special studies and integration opportunities.
- 10:00-11:15 Break-out Session/Project Integration
This is an opportunity to talk in depth with other workgroup members, chairs, and Coordinators. Hear about what the other workgroups are doing and discuss project integration opportunities and ideas. Each workgroup table will have project information and copies of work efforts.
- 11:15-11:30 Next Tasks for Workgroups
Hear an update on the tasks workgroups will tackle in the second planning year of the Upper Feather River IRWM Plan update.
- 11:30 – 1:00** **LUNCH-AND-MINGLE** (BBQ provided by Paul Roen and Sherrie Thrall)
- PART II:** **Climate Change Workshop**
Please stay for the working session on climate change as it relates to the Upper Feather River IRWM Plan!
- 1:00-1:30 Introduction to the Climate Change Study
A background discussion of the regulatory framework including Proposition 84 Guidelines and the DWR Climate Change for Regional Planning Handbook. Presentation of the climate change requirements for the IRWM Plan update.
- 1:30-2:45 Vulnerabilities
Hear a presentation of the climate change vulnerabilities identified for the region and have an opportunity to ask questions, discuss, and provide feedback to the consultants.
- 2:45-3:00 BREAK
- 3:00-3:45 Next Steps
- 3:45-4:00 Questions and Comments



Upper Feather River IRWMP Workgroup Integration Workshop

AUGUST 21, 2015



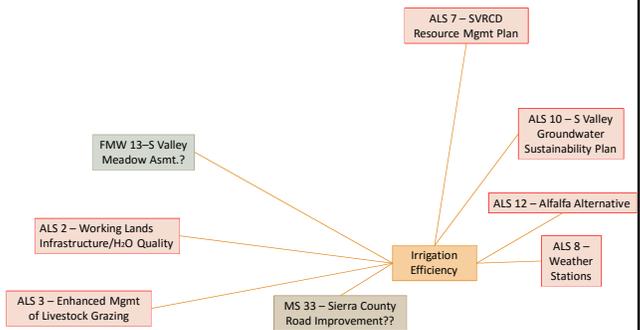
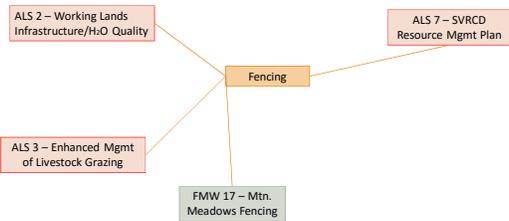
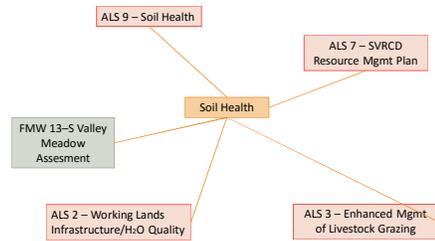
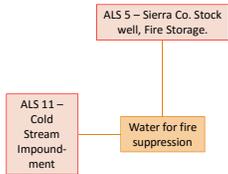
Project Integration

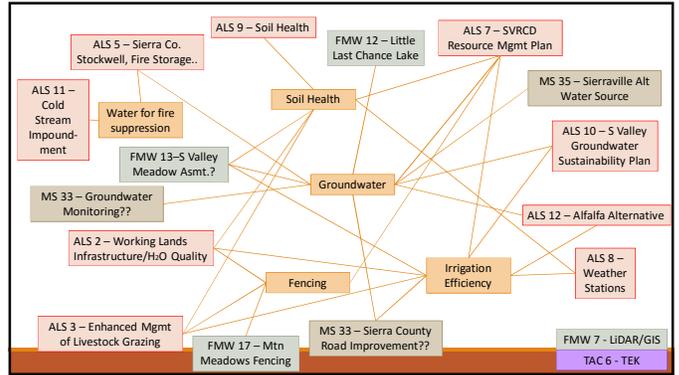
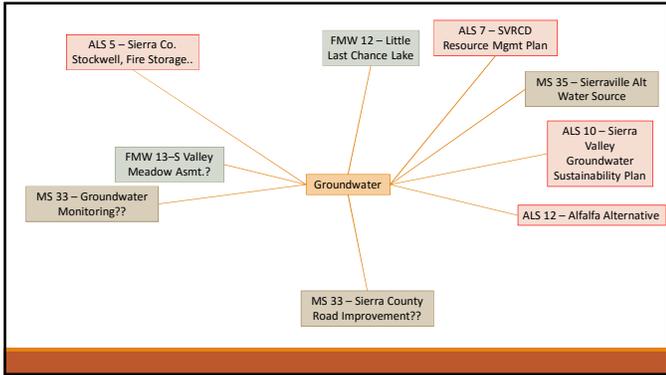
Combining of similar objectives of local interests with a regional project
Opportunity to look at strategic considerations that may benefit multiple stakeholders

Benefits

- Greater impact in the region
- Better IRWM Plan implementation
- Economy of scale – resources of staff, finance, and equipment

Examples...





Traditional Ecological Knowledge (TEK)

TRINA CUNNINGHAM



UFR IRWMP Proposal Summaries

AGRICULTURAL LAND STEWARDSHIP

UPPER FEATHER RIVER IRWM Featherriver.org



Sierra Valley groundwater basin sustainability plan

Organization: Sierra Valley Groundwater Management District
Contact: Carl Genasci, Board Chair

Summary: Preparation of a 20-year horizon Groundwater Sustainability Plan for Sierra Valley

- Basin characteristics, historical data (quality, quantity, levels, demands) & maps
- Groundwater-surface water interactions
- Projected water demands
- Recharge areas identified
- Measurable objectives to achieve sustainability within 20 years
- Monitoring protocols



Feasibility study, pilot: Alternatives for alfalfa production to reduce water usage

Organization: Sierra Valley Resource Conservation District
Contact: Rick Roberti, Kristi Jamason, Tom Getts (UCCE), Holly George

Summary: Investigate alternative production possibilities to existing alfalfa hay production and methods that maintain the agricultural heritage of the watershed without increasing risks to producer viability, community values and natural resources.

- Research of alternative appropriate crops and more efficient alfalfa irrigation methods
- Feasibility study
- Pilot testing, monitoring/measurement, reporting

The project will seek more water-efficient alfalfa hay production methods and/or alternatives to alfalfa production with lower water demands and minimal disruption to existing operations, as well as solid/equivalent returns.

Soil health assessment



Organization: University of California Cooperative Extension

Contact: Holly George

Summary: Further the understanding of the impacts of land, agriculture and livestock management practices on soil health and resultant soil-based ecosystem services, such as water regulation, sequestration of greenhouse gasses, vegetation productivity and other biogeochemical processes.

- Establish baseline for soil health of ag lands / link with Soil Health Network
- Identify ecosystem processes to target for improvement
- Research effects of differing land management practices on targeted soil biogeochemical processes
- Region-wide outreach and education

Coldstream agricultural and fire storage impoundment



Organization: Sierra Valley Resource Conservation District

Contact: Jeff Carmichael

Summary: The concept is consideration of an earthen dam located in a feasible location within the Coldstream drainage south of Sierraville to store agricultural water enabling better utilization and more efficient use of available supplies, provide flood control and water storage for fire suppression that is accessible, functional and reliable.

Also included within the concept is a small hydro electric plant. Limited recreational opportunities may occur but the first phase of this undertaking is a technical feasibility study. This phase will identify engineering and geotechnical findings, mapping and soil/water conditions, biological conditions, and issues of concern to the consideration of future phasing of the project.

Sierra Valley agricultural water diversion efficiency & improvement project



Organization: Sierra Valley Resource Conservation District

Contact: Jeff Carmichael

Summary: The Sierra Valley Water Company operates and maintains a diversion dam and conveyance channel allowing water from the Little Truckee River to be diverted under specific conditions and during a specific season into the Feather River watershed (Sierra Valley). The proposed project is to provide a mechanism for conduit to be installed from the diversion dam for approximately 2.5 miles to significantly increase agricultural water use efficiency and to restore the watercourse ecosystem from Little Truckee Summit to Onion Valley.

The efficiencies in delivery of agricultural water to Sierra Valley under the 1870 water right will also be significantly improved.

Improving water quality with upgrades to infrastructure on working lands



Organization: Feather River Resource Conservation District (FRRCD)

Contact: Nils Lunder

Summary: The project will identify opportunities to improve water quality, reduce erosion and sedimentation and increase water use efficiency in the region. The FRRCD will work in partnership with the SVRCD and other organizations in order to connect with landowners in the project area to install infrastructure to protect and enhance riparian areas, to monitor and improve water quality and to better utilize water supplies in the Upper Feather River watershed.

- Reduce livestock impact on sensitive riparian areas
 - 30 solar-powered off-stream stock watering systems
 - 30,000 feet of riparian fencing
 - 3000 acres of wetlands restored/enhanced
- Assess and improve water delivery infrastructure
 - Irrigation efficiency, 30,000 feet of new pipe

Taylorville Mill Race Farmers Dam resurfacing



Organization: Taylorville Mill Race Group sponsored by Feather River Resource Conservation District

Contact: Brian Kingdon

Summary: Resurface the Mill Race Dam in Taylorville, within the next 10 years, to repair damage and ensure its continued viability for irrigation, wildland fire suppression, flood control, etc.

The dam was last resurfaced in 1986 when the Taylorville Mill Race Group undertook the work of resurfacing the face of the dam with significant amounts of in-kind labor and donated expertise and equipment, but it still cost the participants \$34,400.

Technical assistance for livestock grazing



Organization: Feather River Resource Conservation District and Sierra Valley Resource Conservation District

Contact: Russell Reid

Summary: There is an ongoing need to provide technical assistance to working landscape managers and owners to ensure that their operations continue to stay viable, and that improvements to water quality and quantity management can continue to be made. This project would provide cost-sharing assistance for the following general stewardship practices:

- Technical assistance and training workshops to develop soil and water quality/conservation plans
- Baseline documentation of existing conditions on working landscapes in the region to identify most critical practices
- Management practices to improve soil health
- Fencing to support specific grazing management plans
- Infrastructure to increase irrigation efficiency and water conservation



Eradicate invasive weed species

Organization: Plumas-Sierra County Department of Agriculture
Contact: Tim Gibson

Summary: This multi-year project would support the cohesive strategy of the Plumas-Sierra Ag Department and the Sierra Valley RCD to protect waterways, croplands, timber lands, riparian and wetlands, and recreation areas from the spread of destructive and invasive noxious weeds. The Sierra Nevada Conservancy as well as both Plumas and Sierra RACs are past and current partners in this effort to enhance watershed health by controlling and eradicating invasive weed species. This project will ensure continuation of the successful weed management program in the UFR.

AG LAND STEWARDSHIP STEP 2 PROJECT SUMMARIES 4 19



Sierra Co. agriculture stock well, fire storage, drought reduction project

Organization: County of Sierra – Road Department
Contact: Tim H. Beals

Summary: Water source development and improvements - Retrofit existing water tanks, construct new tanks, develop sites for drought stock wells, fire water storage, continued ag/recreational uses for storage, development, distribution within Sierra Valley.

- USFS, RCD and Sierra County to develop strategic plan for improvements
- Cooperative water resource development
- Mitigates additional groundwater development
- Alternate water supplies for limited community systems in wildland-urban interface

AG LAND STEWARDSHIP STEP 2 PROJECT SUMMARIES 5 20



Sierra Valley RCD – Resource management plan

Organization: Sierra Valley Resource Conservation District
Contact: Bill Nunes

Summary: The proposed project will result in a "Resource Management Plan" for the Sierra Valley Resource Conservation District that will have a similar effect as a County General Plan has to counties and their respective land use programs.

The Resource Management Plan will include the district organizational information, financial information, district services contemplated, a funding component, project review guidelines, education and outreach programs, process for plan updating, and a process for adopting and updating priorities for the many chapters of the plan that define the role and interests of the Resource Conservation District.

AG LAND STEWARDSHIP STEP 2 PROJECT SUMMARIES 7 21



Upper Feather River weather monitoring infrastructure

Organization: Feather River Resource Conservation District (FRRCD)
Contact: Nils Lunder

Summary: This project will establish a weather station in each of the main valley areas in the upper Feather River. These stations will provide real-time, internet accessible data on temperature, precipitation, humidity, soil moisture, wind speed, and solar radiation. This information will be available to residents of the region including ranchers, water managers and municipalities.

AG LAND STEWARDSHIP STEP 2 PROJECT SUMMARIES 8 22



UFR IRWMP Proposal Summaries

FLOODPLAINS/MEADOWS/WATERBODIES

UPPER FEATHER RIVER IRWM Featherriver.org



Restore creek to original path

Organization: Maidu Summit Consortium
Contact: Carl Felts

Summary: Restore creek that runs year round to original path that flows into Lake Almanor. Crew of 4-6 people to walk creek and clear debris to restore it to its former flow. Over the years debris has fallen across the creek which has diverted its flow and caused the creek to spread out across a larger area. This accounts for loss of water due to evaporation and absorption.

9/1/2015 FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 1 24

Promoting, expanding water quality monitoring in the Almanor Basin

Organization: Lake Almanor Watershed Group; Sierra Institute for Community and Environment
Contact: Aaron Seandel

Summary: To expand and extend lake and streamflow monitoring program throughout the Feather River watershed, and provide central clearing house (s) where monitoring data can be assessed and maintained, and programs of interest and for educational purposes about the watershed can be developed, distributed, and maintained.

To continue the sampling program at Lake Almanor.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 2 25

Mountain Meadows Reservoir wildlife enhancement, water quality improvement

Organization: Mountain Meadows Conservancy (MMC)
Contact: Nils Lunder

Summary: The project will lead to the development of infrastructure that will protect the shoreline of the Mountain Meadows Reservoir (MMR) in an attempt to enhance wildlife habitat and improve water quality. It will also fund the development of an annual monitoring program to assess the impact that the infrastructure has on wildlife in and around the MMR and the downstream effects on water quality in partnership with the Lake Almanor Watershed Group.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 4 26

Upper Feather River interpretive and education sites

Organization: Mountain Meadows Conservancy (MMC)
Contact: Nils Lunder

Summary: The project will facilitate the development of two interpretive and educational sites in the upper Feather River. There will be two sites; one will be located approximately 4 miles east of Westwood along the edge of the Mountain Meadows on Highway 36. The second site is located 1 mile east of Chester on Highway 36. The proposed project will increase awareness of the management of lands of the upper Feather River and how those management actions are related to the delivery of water from the watershed to downstream water users. The sites will showcase adaptive management techniques that are being implemented in the region to ensure that downstream water users have reliable, high quality water into the future. Management techniques include rangeland management, forest management, reservoir management, wastewater management, recreational management and wildlife management.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 5 27

Watershed monitoring program

Organization: USDA Natural Resources Conservation Service (NRCS)
Contact: Dan Z. Martynn

Summary: To expand and extend existing streamflow monitoring Program throughout watershed to include Lake Almanor basin and provide central clearing house where monitoring data can be assessed and maintained. Sharing of water quality and quantity data with stakeholders in watershed will allow local water users to make informed decisions and aid in collaboration on future projects.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 6 28

UFR cooperative LiDAR and GIS support program

Organization: Plumas County
Contact: Randy Wilson

Summary: This project will directly support mapping and project-design for a large number of other currently-proposed IRWM projects, and each project could potentially contribute a small portion of their budget to an overall mapping budget for the entire UFR Region.

This project will be a collaborative effort between the US Forest Service, Plumas County, and other IRWM signatories to fund acquisition of LIDAR topography data for the remainder of the Upper Feather River Watershed.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 7 29

Plumas County Spanish Creek restoration

Organization: Plumas County Department of Public Works – Engineering
Contact: Robert A. Perreault, Jr

Summary: During the past several years, the amount of gravel extracted has been curtailed due to permitting requirements by the California Department of Fish and Game. As a result, an increasing amount of gravel has deposited in American Valley, resulting in a re-initiation of bank erosion and land loss. As a result, the Spanish Creek landowners have approached Plumas County for assistance. The community and landowners recognize the need for a holistic and long-term approach to managing the problems.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 8 30

Feather River Watercourse: Plumas to Pacific



Organization: Plumas Unified School District

Contact: Rob Wade

Summary: The Watercourse: Plumas to Pacific is an integrated, year-long course of study that uses the Feather River and its tributaries to teach concepts in life science, earth science, social studies, and mathematics. Building upon established elements of the sixth grade curriculum, students examine the influences of mining, logging, ranching/farming in the region, as well as water uses for transportation, recreation, wildlife/fisheries, hydroelectric power, commerce, and municipal/domestic purposes.

Plumas Corporation had successfully secured funding for the coordination of The Watercourse for the last ten years.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 9

31

Advancing watershed stewardship: Outreach and education



Organization: Sierra Institute for Community and Environment/Lake Almanor Watershed Group

Contact: Courtney Gomola

Summary: There is an imminent need for large-scale reductions in non-point sources of nutrient deposition into the Lake and widespread education on the role of residents and visitors in these issues.

This project will build upon established community connections and previous research to engage the public in activities that increase understanding of human-mediate influences on water quality and invasive species in Lake Almanor, and develop action to reduce nutrient deposition into the Lake Almanor and the potential for invasive species introduction.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 10

32

Runoff and nutrient deposition in the Almanor Basin watershed



Organization: Sierra Institute for Community and Environment/ Lake Almanor Watershed Group

Contact: Charles Plopper

Summary: Goal: Protect, maintain and improve water quality in the Lake Almanor Basin, by

- 1) exploring current practices used in other lake side communities to minimize impact of activity,
- 2) develop recommendations to address modification of current practices,
- 3) develop and engineer plans for addressing identified problems.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 11

33

Restoration of Little Last Chance Lake and surrounding meadow



Organization: Sierra Wildlife Habitat & Community Foundation (SWHCF) and Sierra Valley Resource Conservation District (SVRCD)

Contact: Rick Roberti

Summary: This project will restore and enhance 450 acres of wetland and sub-irrigated meadows back to how this land was before the creek was altered.

General tasks that will be completed:

- Assessment and evaluation of project concept with NRCS assistance.
- Meet with DWR to apply for a supplemental right to divert water from Middle Fork Feather River.
- Obtain signed agreements between all landowners involved in project.
- Finalize design and budget.
- Set project schedule and timeline.
- Develop bid documents.
- Select contractors.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 12

34

Sierra Valley meadow assessment



Organization: Sierra Valley Resource Conservation District

Contact: Rick Roberti

Summary: Sierra Valley RCD would like a study done based solely on the meadows in Sierra Valley. Over the years there have been studies done on meadows in our watershed, but many of those studies were done nearly 50 years ago.

There are capable people who know Sierra Valley and have conducted studies in Sierra Valley, such as UC Cooperative Extension and University Nevada, Reno. The above-mentioned research facilities would be contacted as potential participants in conducting a meadow assessment study.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 13

35

Folchi Meadow restoration



Organization: U.S. Forest Service

Contact: Randy Westmoreland

Summary: Restore the meadow, stream and riparian ecosystems in the Folchi Sub Watershed of Carman Creek Watershed. The project is to remove railroad grade on the north side of the valley to reconnect ephemeral and intermittent drainages that have been disconnected by the rail road grade construction. Obliterate the gully (existing channel) through approximately 1 mile of Folchi Valley using a combination of off-site material and locally generated (in channel) material to intermittently fill the existing channel. This will reconnect the stream with the historic channels on the meadow surface and the floodplain.

9/1/2015

FLOODPLAINS MEADOWS WATER STEP 2 PROJECT SUMMARIES 14

36



Priority projects of FRTU

Organization: Feather River chapter of Trout Unlimited (FRTU)
Contact: Cindy Noble

Summary: the chapter intends to work with the USFS to

- expand the Interpretive Sign program that is currently being developed in the Storrie Fire area,
- work with PCUSD to expand our regional Trout in the classroom program,
- further investigate and plan for a total renovation of the Indian Jim School site in the Feather River Canyon, and
- address fish passage on private lands by installing fish screens where willing landowners exist.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 15 37



Climate change effects on Upper Feather River fisheries

Organization: Ecosystem Sciences Foundation/Upper Feather River Trout Unlimited
Contact: Mark Hill

Summary: This project will develop distribution models from fish species and temperature data for separate time periods, then comparisons made between periods for locations of upstream and downstream distributional boundaries. The shift in fish species across boundaries will be evaluated using bioclimatic models

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 16 38



Mountain Meadows fencing

Organization: W.M. Beaty & Associates
Contact: Ryan Hilburn

Summary: The proposed project includes the installation of approximately 10 miles of fence in order to exclude livestock from active stream channels. The riparian fencing would be one component of a larger effort by participating landowners to restore the historic creek channels, improve pasture management, increase irrigation efficiency and improve forage conditions on lands within the project area.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 18 39



Debris dam survey, inventory and characterization

Organization: Trout Unlimited
Contact: Mike Caltagirone

Summary: This project will locate and characterize all existing dams within the Upper Feather River watershed allowing for prioritization for removal.

Former dam sites will also be cataloged, where available, and characterized as potential remediation projects depending on prioritization levels and residual impacts.

Samples will be taken from the dam sites for contamination testing.

Once identified, the prioritization list of existing and failed dam sites will be utilized to guide the remediation of these sites.

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 20 40



UFR IRWMP Proposal Summaries

MUNICIPAL SERVICES

UPPER FEATHER RIVER IRWM Featherriver.org



41 Project Submittals

- 15 - Infrastructure Upgrades
- 4 - Water supply improvement projects
- 5 - Water efficiency projects (meter installation, Inflow/Infiltration)
- 2 - Water reuse projects
- 1 - Groundwater monitoring
- 12 - Water quality projects (solid waste/wastewater management, roadway/erosion control)
- 14 - DAC projects

9/1/2015 FLOODPLAIN MEADOWS WATER STEP 2 PROJECT SUMMARIES 21 42



Initial Integration Ideas

- Wildfire hazard reduction
- Groundwater monitoring
- Agricultural and fire flow supplies

43



UFR IRWMP Proposal Summaries

UPLANDS AND FOREST

UPPER FEATHER RIVER IRWMP Featherriver.org



Marian Meadow

Organization: Cal Poly – San Luis Obispo
Contact: Christopher Surfleet

Summary: Quantifying the response of meadow restoration assists forest, range, and agricultural land managers determine the effect of their investment in meadow restoration. This study is using a before after control intervention (BACI) study design to study the hydrologic change conifer removal from a historic meadow (Marian Meadow). We have been measuring soil moisture, groundwater levels, and soil hydric characteristics for two years prior to meadow restoration and currently have funding for study one year following meadow restoration. This application is requesting funding to increase the length of study by two years.

9/1/2015 UPLANDS/FOREST STEP 2 PROJECT SUMMARIES 3 45



Rock Creek Meadow restoration

Organization: Collins Pine Company
Contact: Jay Francis

Summary: . This study will use a before/after control intervention (BACI) study design to study the hydrologic change conifer removal from a historic meadow (Rock Creek Meadow). We will be measuring soil moisture, groundwater levels, and soil hydric characteristics for two years prior to meadow restoration and two years following meadow restoration.

9/1/2015 UPLANDS/FOREST STEP 2 PROJECT SUMMARIES 3 46



Round Valley/Keddie handthin

Organization: Plumas National Forest
Contact: Ryan Tompkins

Summary: The project includes 375 acres of handthinning, piling and burning to reduce hazardous ladder and surface fuels in and around the Round Valley Reservoir and the Wildland urban interface east of the reservoir proximate to the community of Greenville. The areas proposed for treatment include NFS lands within the Greenville Municipal Water District (near Round Valley Reservoir) and within the lower Wolf Creek watershed which is a Plumas NF priority watershed classified as "Functioning at Risk" watershed.

9/1/2015 UPLANDS/FOREST STEP 2 PROJECT SUMMARIES 3 47



U.S. Forest Service road improvements

Organization: USDA – Plumas National Forest
Contact: Joe Hoffman

Summary: This project will reduce road-generated sediment delivery to streams in four priority watersheds on Plumas National Forest by improving drainage along roughly 80 miles of Forest roads or motorized trails. All of the 260 miles of road in the 4 watersheds will be field surveyed and treatments will target problem road segments.

9/1/2015 UPLANDS/FOREST STEP 2 PROJECT SUMMARIES 3 48



Goodrich Creek biomass

Organization: W.M. Beaty & Associates
Contact: Ryan Hilburn

Summary: The project would provide for biomass harvesting to be conducted on approximately 2,800 acres of private forestland that is adjacent to a recently funded pond and plug project on tributaries that flow into Goodrich Creek.

The pond and plug project is designed to restore approximately 125 acres of upland meadow to its original hydrologic condition allowing for increased natural water storage.

9/1/2015 UPLAND/FOREST STEP 2 PROJECT SUMMARIES 8 49



Greenville Creek biomass

Organization: W.M. Beaty & Associates
Contact: Ryan Hilburn

Summary: The project would provide for biomass harvesting to be conducted on approximately 1,350 acres of private forestland that is adjacent to a recently funded pond and plug project on Greenville Creek which flows into Mountain Meadows Reservoir.

The project will also reduce fuel levels on the northern slopes of Keddie Ridge reducing the risk of catastrophic wildfire in that area protecting resources such as Deerheart and Homer Lakes.

9/1/2015 UPLAND/FOREST STEP 2 PROJECT SUMMARIES 10 50



Mountain Meadows Creek biomass

Organization: W.M. Beaty & Associates
Contact: Ryan Hilburn

Summary: The project would provide for biomass harvesting to be conducted on approximately 1,700 acres of private forestland that is adjacent to Mountain Meadows Reservoir.

This project will be designed to decrease the density of small understory trees reducing the amount of evapotranspiration and canopy interception.

9/1/2015 UPLAND/FOREST STEP 2 PROJECT SUMMARIES 11 51



UFR cooperative regional thinning

Organization: Soper Company
Contact: Ryan J. McKillop

Summary: The purpose of the project is to:

- 1.) Reduce catastrophic wildfire in overstocked forests through forest thinning ,
2. Restore the forest hydrograph by reducing the rate of conifer evapotranspiration, and
3. Reduce conifer interception of rain and snow and enhance the infiltration of soil moisture by increasing spacing of dominant and codominant overstory trees.

The phased, cooperative project will be designed and implemented at a broad, multi-ownership, landscape level.

9/1/2015 UPLAND/FOREST STEP 2 PROJECT SUMMARIES 12 52



UFR IRWMP Proposal Summaries

TRIBAL ADVISORY COMMITTEE

UPPER FEATHER RIVER IRWM Featherriver.org



Big Springs vegetation management

Organization: Maidu Summit Consortium
Contact: Kenneth Holbrook

Summary: The Big Springs site is largely public land owned by the U.S.F.S. Staff at the Almanor Ranger District has a standing Aspen Restoration Project that they have been planning for some time. The plan calls for mechanical treatment of the surrounding conifer stands, as well as hand treatment for the immediate area surrounding the Springs.

We propose that The Maidu Summit Consortium be contracted for this work, and that a Traditional Ecological Knowledge (TEK) driven ethno-botany study be performed in conjunction with the Aspen restoration.

9/1/2015 TRIBAL ADVISORY COMMITTEE STEP 2 PROJECT SUMMARIES 2 54



Mud Creek habitat recovery

Organization: Maidu Summit Consortium
Contact: Kenneth Holbrook

Summary: The site at Mud Creek is currently grossly undermanaged and the Maidu Summit wishes to restore and improve this site using Maidu Traditional ecological Knowledge (TEK).
 The Maidu Summit will be granted ownership of this area by PG&E within the next two years along with a comprehensive vegetation management program, critical to long-term recovery of the stressed species found there.

TRIBAL ADVISORY COMMITTEE STEP 2 PROJECT SUMMARIES 3 55



Humbug Valley outdoor research/learning center

Organization: Maidu Summit Consortium
Contact: Kenneth Holbrook

Summary: Develop a research area in Humbug Valley featuring Traditional Ecological Knowledge (TEK) and western science in long term impacts of TEK implementation on ecological resources.
 Hydrology, soil analysis, botanical resources, sensitive species, invasive species, habitat inventory, wildlife resources, cultural resources, identifying needed restoration, cultural resources, fire management, boundaries and public use/access are all areas for further development and research.
 The area will be used as a long term outdoor research area and will serve as an outdoor learning center.

TRIBAL ADVISORY COMMITTEE STEP 2 PROJECT SUMMARIES 4 56



Indian Jim River resource center

Organization: Maidu Summit Consortium
Contact: Kenneth Holbrook

Summary: We seek to complete the remediation of hazardous materials at the old Indian Jim School site and to recover the building, if possible, in order to establish a River Resource Center. If the building is unable to be saved, we would secondarily seek to construct a new building.

TRIBAL ADVISORY COMMITTEE STEP 2 PROJECT SUMMARIES 5 57



Traditional Ecological Knowledge

Organization: Maidu Summit Consortium
Contact: Trina Cunningham

Summary: The Upper Feather River Tribal Review Project provides a mechanism for relevant Upper Feather River (UFR) Tribe(s), the Maidu Summit Consortium and/or Tribal Review Committee to evaluate and provide recommendations to each project submitted to the UFR RWMG to incorporate Traditional Ecological Knowledge (TEK). Project reviewers will be comprised of Tribal Environmental Directors, Tribal Elders, and other persons with knowledge of Traditional Practices and sustainability.

TRIBAL ADVISORY COMMITTEE STEP 2 PROJECT SUMMARIES 6 58

Integration

NEXT STEPS....

59



Next Steps in Integration

1. Coordinators will develop a combined list of integration ideas and concepts
2. Review integration list at the next workgroup meetings
3. Recommend integration list to RWMG

60

Break Out Session

WORKGROUP TABLES

61

Next Workgroup Tasks

PLANNING YEAR 2

62

Year 2 Workgroup Tasks



Resource Management Strategies

- Develop regionally relevant recommendations for RWMG consideration

Chapter Review

- Review and provide input on drafted Plan chapters

Forest-Water Balance Study

- Review and provide comment on Study

Community Vulnerability Assessment

- Review and provide comment on Assessment

Meetings

- Three workgroup meetings in 2nd year
- One workgroup integration workshop

NEXT WORKGROUP TASKS

63

Climate Change Working Session

1:00 PM THIS AFTERNOON'S SESSION WILL COVER REGIONAL VULNERABILITIES TO CLIMATE CHANGE – WE LOOK FORWARD TO YOUR PARTICIPATION!

64

BBQ!!!

11:30 – 1:00 EAT, MIX AND MINGLE

SEE YOU BACK IN HERE AT 1:00 FOR CLIMATE CHANGE WORKING SESSION!!

65

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ECORP Consulting, Inc. ENVIRONMENTAL CONSULTANTS



Source: California Department of Fish & Wildlife 2013

Upper Feather River

Integrated Regional Water Management Plan
August 21, 2015 – Climate Change Workshop

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Meeting Objectives

- Discuss IRWMP climate change requirements and project scope
- Share and discuss vulnerability assessment findings
- Prioritize vulnerabilities
- Discuss how climate change will be incorporated into the IRWMP
 - Project selection
 - RMS development

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Agenda

- Introduction
 - Regulatory framework
 - Climate change requirements
- Vulnerability Assessment
 - DWR checklist
 - Review of draft responses
 - Prioritization of vulnerabilities
- Next Steps
- Questions and Comments

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Source: Sacramento River Watershed Program 2010

Introduction

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Climate Change Team

- Michael Baker International
 - Chris Read
 - Tammy Seale
 - Alice Zannmiller
- ECORP
 - Chris Stabenfeldt
 - Michael Preszler




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Why are we talking about climate change?

- Regulatory framework
 - Proposition 84 Guidelines
 - DWR Climate Change Handbook for Regional Water Planning
- Recent conditions underscore the need to plan for more variability



Wildland 2001

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Proposition 84 Guidelines (IV.A.16)

“The IRWM Plan must address both the adaptation to the effects of climate change and the mitigation of GHG emissions.”

Guidelines
2014 IRWM Drought Solatation
Integrated Regional Water Management
Implementation Grant Program
Funded by Proposition 84
June 2014

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Proposition 84 Guidelines (IV.A.16)

This includes:

- A discussion of potential effects of climate change on the region and potential adaptation responses to those vulnerabilities
- A process that considers GHG emissions in selecting project alternatives
- A list of prioritized vulnerabilities
- A plan, program, or method for further monitoring prioritized vulnerabilities

Guidelines
2014 IRWM Drought Solatation
Integrated Regional Water Management
Implementation Grant Program
Funded by Proposition 84
June 2014

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Proposition 84 Guidelines (IV.A.16)

Evaluation must be equivalent to the vulnerability assessment contained in the Climate Change Handbook for Regional Water Planning

Guidelines
2014 IRWM Drought Solatation
Integrated Regional Water Management
Implementation Grant Program
Funded by Proposition 84
June 2014

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DWR Climate Change Handbook

- Provides direction for incorporating climate change analysis and methodologies into DWR planning efforts
- The climate change work completed for the UFR IRWMP will follow the suggested guidelines laid out in the handbook
- Appendix B of the handbook provides a detailed checklist

Climate Change Handbook for Regional Water Planning
The Department of Water Resources
California Department of Water Resources
2014

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Example Climate Change Sections

- Upper Sacramento, McCloud, and Lower Pit IRWMP (http://uppersacirwm.org/upload/plans-sections/USR_IRWM_Plan_Chapter9_ClimateChange.pdf)
- Northern Sacramento Valley IRWMP (<http://nsvwaterplan.org/mdocs-posts/final-nsv-irwmp-chapter-4/>)

Chapter 4
Chapter 9: Climate Change
Upper Sacramento, McCloud, and Lower Pit
Integrated Regional Water Management Plan

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Vulnerability Assessment

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How do we assess our vulnerability?

- Review observed and predicted changes
- Review how important assets have responded to similar impacts in the past and consider how they might respond if those impacts increase
 - DWR Climate Change Handbook for Regional Water Planning – Appendix B

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Observed and Projected Changes

30-Year Moving Average of Water Year Unimpaired Natural Flow in 1,000's Acre Feet for North Fork Feather River Near Pulga, California; Drainage Area = 1,953 Sq Mi; Flows into Uk Oroville

We Make a Difference Source: Freeman 2015

Michael Baker INTERNATIONAL 2015-2016 Program/Market Report Environmental Infrastructure

Observed and Projected Changes

30-Year Moving Average of April-July Unimpaired Natural Flow in 1,000's Acre Feet for North Fork Feather River Near Pulga, California; Drainage Area = 1,953 Sq Mi; Flows into Uk Oroville

We Make a Difference Source: Freeman 2015

Michael Baker INTERNATIONAL 2015-2016 Program/Market Report Environmental Infrastructure

Observed and Projected Changes

HARKNESS FLAT (HRK-#051) - April 1 Snow Water Equivalent
25-Year MAVE for period 1956 through 2014 utilizing data for the period 1932-2014

We Make a Difference Source: Freeman 2015

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Observed and Projected Changes

Mean Annual High Temperature (Fahrenheit)

We Make a Difference Source: Cal-Adapt 2015

Michael Baker INTERNATIONAL 2015-2016 Program/Market Report Environmental Infrastructure

How do we assess our vulnerability?

- Review observed and predicted changes
- Review how important assets have responded to similar impacts in the past and consider how they might respond if those impacts increase
 - DWR Climate Change Handbook for Regional Water Planning – Appendix B

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

1. Water Demand

1.2 Does water use vary by more than 50% seasonally in parts of your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Crop irrigation and increased population create seasonal water use patterns that are regionally higher in summer months and lower in winter months.

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

1. Water Demand

1.3 Are crops grown in your region climate-sensitive? Would shifts in daily heat patterns, such as how long heat lingers before nighttime cooling, be prohibitive for some crops?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Some of the region's crops, mostly fruits and nuts, would be directly vulnerable to changes in daily heat patterns. Others, such as alfalfa, depend on pollinators that may be negatively impacted by increasing temperatures.

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

1. Water Demand

1.4 Do groundwater supplies in your region lack resiliency after drought events?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The Sierra Valley Aquifer took nearly 20 years to rebound from extreme drought conditions when paired with increased withdrawal conditions. In the last 10 years, all SVGMD monitored water levels in the Sierra Valley have dropped.

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

1. Water Demand

1.5 Are water use curtailment measures effective in your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Existing curtailments from the SWRCB have been met, indicating effectiveness. If drought conditions persist or worsen, it is unclear how additional curtailments can be achieved in communities with rapidly diminishing water supplies.

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

1. Water Demand

1.6 Are some instream flow requirements in your region either currently insufficient to support aquatic life or occasionally unmet?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Although environmental water laws protect required flows for aquatic life, reduced flow magnitudes can significantly reduce biological integrity of aquatic communities.

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Michael Baker INTERNATIONAL 20150901 - Regional Water Demand, Supply, and Resiliency Assessment

2. Water Supply

2.1 Does a portion of the water supply in your region come from snowmelt?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

A majority of water in the region originates as surface flows from the Sierra Nevada.

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Michael Baker INTERNATIONAL 2015 UFR Program/Task, Reg. Environmental Permitting

2. Water Supply

2.2 Does part of your region rely on water diverted from the Delta, imported from the Colorado River, or imported from other climate-sensitive systems outside your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

This region relies only on groundwater and surface water from the Upper Feather River.

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Michael Baker INTERNATIONAL 2015 UFR Program/Task, Reg. Environmental Permitting

2. Water Supply

2.3 Does part of your region rely on coastal aquifers? Has salt intrusion been a problem in the past?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The region is not located near the coast. Salt intrusion is not an issue for the region.

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Michael Baker INTERNATIONAL 2015 UFR Program/Task, Reg. Environmental Permitting

2. Water Supply

2.4 Would your region have difficulty in storing carryover supply surpluses from year to year?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Reservoirs in the UFR historically spill frequently during the spring when inflow exceeds both the available usable capacity of the seasonal reservoirs and the capacity of releasing inflow through outlets.

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Michael Baker INTERNATIONAL 2015 UFR Program/Task, Reg. Environmental Permitting

2. Water Supply

2.5 Has your region faced a drought in the past during which it failed to meet local water demands?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The project team would still like to know more about past droughts. Current curtailments aside, how has the watershed recovered from droughts in the past? Were local water demands left unmet?

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Michael Baker INTERNATIONAL 2015 UFR Program/Task, Reg. Environmental Permitting

2. Water Supply

2.6 Does your region have invasive species management issues at your facilities, along conveyance structures, or in habitat areas?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Several invasive and noxious weeds have been introduced to the UFR watershed. Certain invasive species are expected to increase in number as a result of warming and drying conditions.

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3. Water Quality

3.1 Are increased wildfires a threat in your region? If so, does your region include reservoirs with fire-susceptible vegetation nearby which could pose a water quality concern from increased erosion?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The region is at a high risk for uncharacteristically large and damaging wildfires. Reservoir water quality could be adversely affected by increased post-fire erosion.

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3. Water Quality

3.2 Does part of your region rely on surface waterbodies with current or recurrent water quality issues related to eutrophication, such as low dissolved oxygen or algal blooms?

Yes	No	Perhaps/Uncertain

Water quality in the UFR watershed in Plumas County is generally considered to be good; however, there are general concerns including temperature, dissolved oxygen, sediment, and bacteria. Several waterbodies are listed on the Clean Water Act's 303(d) list of impaired waters for mercury, copper, temperature, and toxicity.

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3. Water Quality

3.3 Are seasonal low flows decreasing for some waterbodies in your region? If so, are the reduced low flows limiting the waterbodies' assimilative capacity?

Yes	No	Perhaps/Uncertain

Analysis over a moving 30-year average shows reductions in flow on tributaries to the Feather River watershed at about 4.5%. This suggests that overall seasonal low flows are decreasing in the UFR watershed.

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3. Water Quality

3.4 Are there beneficial uses designated for some waterbodies in your region that cannot always be met due to water quality issues?

Yes	No	Perhaps/Uncertain

Beneficial uses in the UFR watershed include municipal and domestic water supply, hydropower generation, water contact recreation, water non-contact recreation, cold freshwater habitat, spawning habitat, and wildlife habitat.

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3. Water Quality

3.5 Does part of your region currently observe water quality shifts during rain events that impact treatment facility operation?

Yes	No	Perhaps/Uncertain

Overflows due to excessive inflow (from rainfall) have been observed at regional wastewater treatment plants. As storm intensity increases, these events may also become more common. Stronger storms also increase erosion, leading to higher turbidity in rivers and streams.

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**Do we need a break?
Reconvene in 10 minutes**

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4. Flooding

4.1 Does critical infrastructure in your region lie within the 200-year floodplain?

Yes	No	Perhaps/Uncertain

No known critical infrastructure lies within the 200-year floodplain.

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4. Flooding

4.2 Does part of your region lie within the Sacramento-San Joaquin Drainage District?

Yes	No	Perhaps/Uncertain

The UFR watershed is north of the Sacramento-San Joaquin Drainage District.

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4. Flooding

4.3 Does aging critical flood protection infrastructure exist in your region?

Yes	No	Perhaps/Uncertain

No aging critical flood protection infrastructure exists in the UFR region.

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4. Flooding

4.4 Have flood control facilities (such as impoundment structures) been insufficient in the past?

Yes	No	Perhaps/Uncertain

Flood control facilities, including the Big Ditch flood control channel in Chester, have historically provided adequate levels of flood protection.

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4. Flooding

4.5 Are wildfires a concern in parts of your region?

Yes	No	Perhaps/Uncertain

Rising temperatures and earlier snowmelt are shown to increase the frequency of wildfires, especially in Northern California. This increased risk of severe wildfires poses a significant risk to water quality in the Upper Feather River by increasing sedimentation and runoff that disrupt the river's normal and healthy function.

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5. Ecosystem and Habitat Vulnerability

5.1 Does your region include inland or coastal aquatic habitats vulnerable to erosion and sedimentation issues?

Yes	No	Perhaps/Uncertain

The region's complex topography, multiple waterways, and highly erodible granitic and sedimentary soils are susceptible to erosion and sedimentation issues. Grazing, timber production, and wildfires decrease vegetation and increase the amount of sediment running off into the watershed.

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5. Ecosystem and Habitat Vulnerability

5.2 Does your region include estuarine habitats which rely on seasonal freshwater flow patterns?

Yes	No	Perhaps/Uncertain

The region does not include any estuarine habitats.

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5. Ecosystem and Habitat Vulnerability

5.3 Do climate-sensitive fauna or flora populations live in your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The interconnectedness of the region's climate with all of the species means that shifts in normal temperature and precipitation closely impact many of the native species.

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5. Ecosystem and Habitat Vulnerability

5.4 Do endangered or threatened species exist in your region? Are changes in species distribution already being observed in parts of your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

A number of habitats and species of special concern exist in the watershed. Upslope migration into higher elevations of the Sierra Nevada and climate-driven changes in fire activity have already been observed.

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5. Ecosystem and Habitat Vulnerability

5.5 Does the region rely on aquatic or water-dependent habitats for recreation or other economic activities?

Yes	No	Perhaps/Uncertain
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Fishing, boating, kayaking, swimming, waterfowl hunting, bird-watching, and agriculture are all integral parts of the economic prosperity of the UFR watershed. Cross-country skiing, snowmobiling, and snowshoeing are winter attractions that may be negatively impacted by a reduction in snowpack.

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5. Ecosystem and Habitat Vulnerability

5.6 Are there rivers in your region with quantified environmental flow requirements or known water quality/quantity stressors to aquatic life?

Yes	No	Perhaps/Uncertain
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Hydropower and drought-related flow reduction can diminish both the quality and the quantity of habitat for aquatic species.

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5. Ecosystem and Habitat Vulnerability

5.7 Do estuaries, coastal dunes, wetlands, marshes, or exposed beaches exist in your region? If so, are coastal storms possible/frequent in your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

There are no estuaries, coastal dunes, wetlands, marshes, or exposed beaches in the region. Coastal storms are not a concern.

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5. Ecosystem and Habitat Vulnerability

5.8 Does your region include one or more of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change?

Yes	No	Perhaps/Uncertain
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The Upper Feather River is in California's Sierra Nevada range, identified by the Endangered Species Coalition as one of the top 10 most vulnerable habitats to climate change.

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5. Ecosystem and Habitat Vulnerability

5.9 Are there areas of fragmented estuarine, aquatic, or wetland wildlife habitat within your region? Are there movement corridors for species to naturally migrate?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

The chain of dams in the Upper Feather River region fragments aquatic habitat and prevents movement of fish and other aquatic wildlife to varying degrees. Additionally, extensive road systems and historic mining have damaged the watershed and disrupted natural movement corridors.

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6. Hydropower

6.1 Is hydropower a source of electricity in your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

PSREC generated 0.5% of its grid-wide energy from small hydroelectric and 33.2% from large hydroelectric. In 2012, PG&E procured 2% of its total electricity from small hydroelectric and 11% from large hydroelectric. This hydropower production may become vulnerable to decreased production capacity if flow volume decreases. The dams on the Upper Feather River produce 9%–30% of California’s power.

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6. Hydropower

6.2 Are energy needs in your region expected to increase in the future? If so, are there future plans for hydropower generation facilities or conditions for hydropower generation in your region?

Yes	No	Perhaps/Uncertain
-----	----	-------------------

Population growth and rising temperatures have the potential to increase demand for energy in the UFR region.

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Example Prioritization

Category	Vulnerability	Urgency	Risk	Priority
Water Demand	Seasonal demand variability	H	M	2
Water Demand	Climate-sensitive crops	H	L	3
Water Demand	Drought-sensitive groundwater supplies	M	M	4
Water Demand	Instream flow requirements	H	H	1
Water Demand	Water curtailments	M	M	4
Water Supply	Reduced snowpack and water availability	M	M	4
Water Quality	Water temperature and turbidity	L	L	6
Flooding	Wildfire	H	H	1
Ecosystem and Habitat	Erosion and sedimentation	H	H	1
Ecosystem and Habitat	Climate-sensitive fauna or flora	M	M	4
Ecosystem and Habitat	Endangered or threatened species	M	M	4
Ecosystem and Habitat	Aquatic habitats used for economic activities	H	H	1
Ecosystem and Habitat	Quantified environmental flow requirements	M	H	2
Ecosystem and Habitat	Climate-sensitive habitats	M	H	2
Hydropower	Hydropower facilities	H	H	1
Hydropower	Regional energy needs	M	L	5

Note: Urgency and risk are rated on a scale that includes High (H), Medium (M), and Low (L). Urgency is how soon a vulnerability may be impacted. Risk is the likelihood and severity of the impact.

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15-Minute Prioritization Activity

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Next Steps

- Incorporation of comments and prioritization scores into vulnerability assessment
- Project selection process
- Integration of climate change into RMS



Zake Lunder 2011

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Project Selection Process

- Did you consider climate change?
 - Does the project generate GHGs, reduce GHGs, or have no effect on GHGs?
 - Does the project make the watershed more resilient, less resilient, or have no effect on resilience?
- Developing draft tool to complete for project review



Source: Hank Hansen 2013

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Resource Management Strategies

- Add relevant RMS at the end of each climate change vulnerability section (Upper Sacramento sample does this)
- Develop materials for September work group meetings to consider climate change in the RMS



Source: Sacramento River Watershed Program 2006

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Questions and Comments?

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**Upper Feather River
Integrated Regional Water Management**

**RWMG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Summary of Step 2 Project Submittals
Date: September 15, 2015

INTRODUCTION

The second step of the implementation project solicitation closed on August 3, 2015 at 5:00pm. We received a total of 81 project submittals, which have been summarized and tentatively categorized (see table summary below).

Tentative Category	Number of projects
Agricultural Land Stewardship	13
Floodplains/Meadows/Waterbodies	15
Municipal Services	39
Tribal Advisory Committee	5
Uplands/Forest	9
Total	81

The attached spreadsheet provides a summary of the projects, including tentative category, project name, sponsor(s), brief description, and estimated total budget.

Nearly all projects submitted for the conceptual phase that met the minimum requirements were further developed and submitted for the Step 2 phase. There were a few exceptions; including a couple of projects that were combined with other submittals. One of the projects not submitted for Step 2 phase was the capacity building project proposal, originally a joint conceptual project by Plumas and Sierra Counties. Feedback from the RWMG during the June 15th Special Meeting was a recommendation to project proponents to build capacity into the proposals. However, that wasn't realized in the project applications and the issue remains a concern among all workgroups and project proponents.

To aid in discussing and considering the issue, the following describes "capacity" in the context of the IRWM implementation projects and grants. Capacity refers to the technical, managerial, and financial ability to pursue, implement and manage grants and projects (i.e. writing and managing grants, CEQA, permitting, engineering, staffing, etc.). "Building capacity" is terminology used to describe efforts to increase knowledge, abilities, contacts, referral resources, and funding opportunities. Many IRWMs

throughout California have similar concerns and issues with capacity, and it is an issue that the Department of Water Resources is considering for Proposition 1 programs. The RWVG will hear more about capacity building challenges, potential opportunities, and how other IRWM regions have addressed the issue in Item 8 of the agenda.

REQUEST

Informational.

Attachment: Summary of all projects received for Step 2

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
ALS-1	Taylorsville Mill Race Farmers Dam resurfacing	Taylorsville Mill Race Group sponsored by Feather River Resource Conservation District	Resurface the Mill Race Dam in Taylorsville, within the next 10 years, to repair damage and ensure its continued viability for irrigation, wildland fire suppression, flood control, etc. The dam was last resurfaced in 1986 when the Taylorsville Mill Race Group undertook the work of resurfacing the face of the dam with significant amounts of in-kind labor and donated expertise and equipment, but it still cost the participants \$34,400.	\$150,000
ALS-2	Improving water quality with upgrades to infrastructure on working lands	Feather River Resource Conservation District (FRRCD)	The project will identify opportunities to improve water quality, reduce erosion and sedimentation and increase water use efficiency in the region. The FRRCD will work in partnership with the SVRCD and other organizations in order to connect with landowners in the project area to install infrastructure to protect and enhance riparian areas, to monitor and improve water quality and to better utilize water supplies in the Upper Feather River watershed. *Reduce livestock impact on sensitive riparian areas **30 solar-powered off-stream stock watering systems. **30,000 feet of riparian fencing. **3000 acres of wetlands restored/enhanced. *Assess and improve water delivery infrastructure. **Irrigation efficiency, 30,000 feet of new pipe.	\$1,567,500
ALS-3	Technical assistance for livestock grazing	Feather River Resource Conservation District and Sierra Valley Resource Conservation	There is an ongoing need to provide technical assistance to working landscape managers and owners to ensure that their operations continue to stay viable, and that improvements to water quality and quantity management can continue to be made. This project would provide cost-sharing assistance for the following general stewardship practices: *Technical assistance and training workshops to develop soil and water quality/conservation plans. *Baseline documentation of existing conditions on working landscapes in the region to identify most critical practices. *Management practices to improve soil health. *Fencing to support specific grazing management plans . *Infrastructure to increase irrigation efficiency and water conservation.	\$1,500,000
ALS-4	Eradicate invasive weed species	Plumas-Sierra County Department of Agriculture	This multi-year project would support the cohesive strategy of the Plumas-Sierra Ag Department and the Sierra Valley RCD to protect waterways, croplands, timber lands, riparian and wetlands, and recreation areas from the spread of destructive and invasive noxious weeds. The Sierra Nevada Conservancy as well as both Plumas and Sierra RACs are past and current partners in this effort to enhance watershed health by controlling and eradicating invasive weed species. This project will ensure continuation of the successful weed management program in the UFR.	\$450,000
ALS-5	Sierra Co. agriculture stock well, fire storage, drought reduction project	County of Sierra – Road Department	Water source development and improvements - Retrofit existing water tanks, construct new tanks, develop sites for drought stock wells, fire water storage, continued ag/recreational uses for storage, development, distribution within Sierra Valley. *USFS, RCD and Sierra County to develop strategic plan for improvements. *Cooperative water resource development. *Mitigates additional groundwater development. *Alternate water supplies for limited community systems in wildland-urban interface.	\$467,000
ALS-6	Sierra Valley agricultural water diversion efficiency & improvement project	Sierra Valley Resource Conservation District	The Sierra Valley Water Company operates and maintains a diversion dam and conveyance channel allowing water from the Little Truckee River to be diverted under specific conditions and during a specific season into the Feather River watershed (Sierra Valley). The proposed project is to provide a mechanism for conduit to be installed from the diversion dam for approximately 2.5 miles to significantly increase agricultural water use efficiency and to restore the watercourse ecosystem from Little Truckee Summit to Onion Valley. The efficiencies in delivery of agricultural water to Sierra Valley under the 1870 water right will also be significantly improved.	\$150,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
ALS-7	Sierra Valley RCD – Resource management plan	Sierra Valley Resource Conservation District	Water source development and improvements - Retrofit existing water tanks, construct new tanks, develop sites for drought stock wells, fire water storage, continued ag/recreational uses for storage, development, distribution within Sierra Valley. *USFS, RCD and Sierra County to develop strategic plan for improvements. *Cooperative water resource development. *Mitigates additional groundwater development. *Alternate water supplies for limited community systems in wildland-urban interface.	\$155,000
ALS-8	Upper Feather River weather monitoring infrastructure	Feather River Resource Conservation District (FRRCD)	This project will establish a weather station in each of the main valley areas in the upper Feather River. These stations will provide real-time, internet accessible data on temperature, precipitation, humidity, soil moisture, wind speed, and solar radiation. This information will be available to residents of the region including ranchers, water managers and municipalities.	TBD
ALS-9	Soil health assessment	University of California Cooperative Extension	Further the understanding of the impacts of land, agriculture and livestock management practices on soil health and resultant soil-based ecosystem services, such as water regulation, sequestration of greenhouse gasses, vegetation productivity and other biogeochemical processes. *Establish baseline for soil health of ag lands / link with Soil Health Network. *Identify ecosystem processes to target for improvement. *Research effects of differing land management practices on targeted soil biogeochemical processes. *Region-wide outreach and education.	\$580,000-800,000
ALS-10	Sierra Valley groundwater basin sustainability plan	Sierra Valley Groundwater Management District	Preparation of a 20-year horizon Groundwater Sustainability Plan for Sierra Valley: *Basin characteristics, historical data (quality, quantity, levels, demands) & maps. *Groundwater-surface water interactions. *Projected water demands. *Recharge areas identified. *Measurable objectives to achieve sustainability within 20 years. *Monitoring protocols.	\$572,000
ALS-11	Coldstream agricultural and fire storage impoundment	Sierra Valley Resource Conservation District	The concept is consideration of an earthen dam located in a feasible location within the Coldstream drainage south of Sierraville to store agricultural water enabling better utilization and more efficient use of available supplies, provide flood control and water storage for fire suppression that is accessible, functional and reliable. Also included within the concept is a small hydro electric plant. Limited recreational opportunities may occur but the first phase of this undertaking is a technical feasibility study. This phase will identify engineering and geotechnical findings, mapping and soil/water conditions, biological conditions, and issues of concern to the consideration of future phasing of the project.	\$300,000
ALS-12	Feasibility study, pilot: Alternatives for alfalfa production to reduce water usage	Sierra Valley Resource Conservation District/UC Cooperative Extension	Investigate alternative production possibilities to existing alfalfa hay production and methods that maintain the agricultural heritage of the watershed without increasing risks to producer viability, community values and natural resources. Research of alternative appropriate crops and more efficient alfalfa irrigation methods. *Feasibility study. *Pilot testing, monitoring/measurement, reporting. The project will seek more water-efficient alfalfa hay production methods and/or alternatives to alfalfa production with lower water demands and minimal disruption to existing operations, as well as solid/equivalent returns.	\$130,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
ALS-13	Restoration of Little Last Chance Lake and surrounding meadow	Sierra Wildlife Habitat & Community Foundation (SWHCF) and Sierra Valley Resource Conservation District (SVRCD)	This project will restore and enhance 450 acres of wetland and sub-irrigated meadows back to how this land was before the creek was altered. General tasks that will be completed: *Assessment and evaluation of project concept with NRCS assistance. *Meet with DWR to apply for a supplemental right to divert water from Middle Fork Feather River. *Obtain signed agreements between all landowners involved in project. *Finalize design and budget. *Set project schedule and timeline. *Develop bid documents. *Select contractors.	\$140,500 (phase 1 only)
FMW-1	Restore creek to original path	Carl Felts	Restore creek that runs year round to original path that flows into Lake Almanor. Crew of 4-6 people to walk creek and clear debris to restore it to its former flow. Over the years debris has fallen across the creek which has diverted its flow and caused the creek to spread out across a larger area. This accounts for loss of water due to evaporation and absorption.	\$10,000
FMW-2	Promoting, expanding water quality monitoring in the Almanor Basin	Lake Almanor Watershed Group; Sierra Institute for Community and Environment	To expand and extend lake and streamflow monitoring program throughout the Feather River watershed, and provide central clearing house (s) where monitoring data can be assessed and maintained, and programs of interest and for educational purposes about the watershed can be developed. distributed, and maintained. To continue the sampling program at Lake Almanor.	\$100,000
FMW-4	Mountain Meadows Reservoir wildlife enhancement, water quality improvement	Mountain Meadows Conservancy (MMC)	The project will lead to the development of infrastructure that will protect the shoreline of the Mountain Meadows Reservoir (MMR) in an attempt to enhance wildlife habitat and improve water quality. It will also fund the development of an annual monitoring program to assess the impact that the infrastructure has on wildlife in and around the MMR and the downstream effects on water quality in partnership with the Lake Almanor Watershed Group.	\$318,516
FMW-5	Upper Feather River interpretive and education sites	Mountain Meadows Conservancy (MMC)	The project will facilitate the development of two interpretive and educational sites in the upper Feather River. There will be two sites; one will be located approximately 4 miles east of Westwood along the edge of the Mountain Meadows on Highway 36. The second site is located 1 mile east of Chester on Highway 36. The proposed project will increase awareness of the management of lands of the upper Feather River and how those management actions are related to the delivery of water from the watershed to downstream water users. The sites will showcase adaptive management techniques that are being implemented in the region to ensure that downstream water users have reliable, high quality water into the future. Management techniques include rangeland management, forest management, reservoir management, wastewater management, recreational management and wildlife management.	\$60,500
FMW-6	Watershed monitoring program	USDA Natural Resources Conservation Service (NRCS)	To expand and extend existing streamflow monitoring Program throughout watershed to include Lake Almanor basin and provide central clearing house where monitoring data can be assessed and maintained. Sharing of water quality and quantity data with stakeholders in watershed will allow local water users to make informed decisions and aid in collaboration on future projects.	\$44,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
FMW-8	Plumas County Spanish Creek restoration	Plumas County Department of Public Works – Engineering	During the past several years, the amount of gravel extracted has been curtailed due to permitting requirements by the California Department of Fish and Game. As a result, an increasing amount of gravel has deposited in American Valley, resulting in a re-initiation of bank erosion and land loss. As a result, the Spanish Creek landowners have approached Plumas County for assistance. The community and landowners recognize the need for a holistic and long-term approach to managing the problems.	\$1,296,000
FMW-9	Feather River Watercourse: Plumas to Pacific	Plumas Unified School District	The Watercourse: Plumas to Pacific is an integrated, year-long course of study that uses the Feather River and its tributaries to teach concepts in life science, earth science, social studies, and mathematics. Building upon established elements of the sixth grade curriculum, students examine the influences of mining, logging, ranching/farming in the region, as well as water uses for transportation, recreation, wildlife/fisheries, hydroelectric power, commerce, and municipal/domestic purposes. Plumas Corporation had successfully secured funding for the coordination of The Watercourse for the last ten years.	\$136,696
FMW-10	Advancing watershed stewardship: Outreach and education	Sierra Institute for Community and Environment/Lake Almanor Watershed Group	There is an imminent need for large-scale reductions in non-point sources of nutrient deposition into the Lake and widespread education on the role of residents and visitors in these issues. This project will build upon established community connections and previous research to engage the public in activities that increase understanding of human-mediate influences on water quality and invasive species in Lake Almanor, and develop action to reduce nutrient deposition into the Lake Almanor and the potential for invasive species introduction.	\$142,224
FMW-11	Runoff and nutrient deposition in the Almanor Basin watershed	Sierra Institute for Community and Environment/Lake Almanor Watershed Group	Goal: Protect, maintain and improve water quality in the Lake Almanor Basin, by 1) exploring current practices used in other lake side communities to minimize impact of activity, 2) develop recommendations to address modification of current practices, and 3) develop and engineer plans for addressing identified problems.	\$1,650,000
FMW-13	Sierra Valley meadow assessment	Sierra Valley Resource Conservation District	Sierra Valley RCD would like a study done based solely on the meadows in Sierra Valley. Over the years there have been studies done on meadows in our watershed, but many of those studies were done nearly 50 years ago. There are capable people who know Sierra Valley and have conducted studies in Sierra Valley, such as UC Cooperative Extension and University Nevada, Reno. The above-mentioned research facilities would be contacted as potential participants in conducting a meadow assessment study..	\$165,000
FMW-14	Folchi Meadow restoration	U.S. Forest Service	Restore the meadow, stream and riparian ecosystems in the Folchi Sub Watershed of Carman Creek Watershed. The project is to remove railroad grade on the north side of the valley to reconnect ephemeral and intermittent drainages that have been disconnected by the rail road grade construction. Obliterate the gully (existing channel) through approximately 1 mile of Folchi Valley using a combination of off-site material and locally generated (in channel) material to intermittently fill the existing channel. This will reconnect the stream with the historic channels on the meadow surface and the floodplain.	\$365,000
FMW-15	Priority projects of FRTU	Feather River chapter of Trout Unlimited (FRTU)	The chapter intends to work with the USFS to *expand the Interpretive Sign program that is currently being developed in the Storrie Fire area, *work with PCUSD to expand our regional Trout in the classroom program, *further investigate and plan for a total renovation of the Indian Jim School site in the Feather River Canyon, and *address fish passage on private lands by installing fish screens where willing landowners exist.	TBD

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
FMW-16	Climate change effects on Upper Feather River fisheries	Ecosystem Sciences Foundation/Upper Feather River Trout Unlimited	This project will develop distribution models from fish species and temperature data for separate time periods, then comparisons made between periods for locations of upstream and downstream distributional boundaries. The shift in fish species across boundaries will be evaluated using bioclimatic models.	\$183,150
FMW-18	Mountain Meadows fencing	W.M. Beaty & Associates	The proposed project includes the installation of approximately 10 miles of fence in order to exclude livestock from active stream channels. The riparian fencing would be one component of a larger effort by participating landowners to restore the historic creek channels, improve pasture management, increase irrigation efficiency and improve forage conditions on lands within the project area.	\$186,600
FMW-19	Debris dam survey, inventory and characterization	Trout Unlimited	This project will locate and characterize all existing dams within the Upper Feather River watershed allowing for prioritization for removal. Former dam sites will also be cataloged, where available, and characterized as potential remediation projects depending on prioritization levels and residual impacts. Samples will be taken from the dam sites for contamination testing. Once identified, the prioritization list of existing and failed dam sites will be utilized to guide the remediation of these sites.	\$97,000
MS-1	Portola wastewater system infrastructure upgrades	City of Portola	This proposed solution to correct the increased inflow/infiltration(I&I) to the City system is a discrete plan to reconstruct aged failing and failed sewer lines throughout the City as determined by existing video logs of the system. Maps on file at City Hall show where the reconstruction work is being proposed. Also on file are types of reconstruction with individual cost estimates, which includes; open trench, fold and form linings, and point repairs.	\$1,424,522
MS-2	Turner Springs improvement	City of Portola	The City owns a pre-1914 water source and approximately 25 acres at Turner Springs. It was used to supply water to town until Lake Davis was built. The project is to improve the spring, replace the old water lines and connect to existing lines along highway A-15. The property also has about 20 acres of second-growth timber land that is in desperate need of fire-hazard reduction/watershed enhancement work, as it is badly over-stocked with young growth.	\$403,000
MS-4	Water tank project	East Quincy Services District	The general tasks that will be completed for the 800,000 gallon tank are: 1) Preparation of a detailed site survey which would include a boundary determination of the existing parcel and topographic details to ensure accurate grading for the placement of the new tank. Cultural features, including on-site District infrastructure, would be shown/determined. 2) Plumas County Grading Permit will be obtained. 3) Plans, Specifications and Engineer's estimate will be prepared for both the site grading and the steel tank. 4) Project solicitation, bidding and administration would lead to a completed project.	\$1,410,310
MS-6	FRCCSD- Old Mill Ranch	FRCCSD- Old Mill Ranch	Provide a new and sustainable water source which may include primary and back-up wells or surface/spring water source. Included as needed would be water filtration and pipe replacement for small community of 29 existing service connections. The planning phase will compare construction, operation and maintenance cost of the alternatives.	\$500
MS-7	High elevation water tank & well	Gold Mountain Community Service District (GM CSD)	Phase 1: Construction of a new water storage tank at an elevation of 5670' to ensure a positive supply of domestic water distributed via gravity flow to all locations in the service area. Phase 2: Drilling a high altitude well to service the new tank.	\$2,137,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
MS-8	GM CSD water reclamation facility	Gold Mountain Community Service District (GM CSD)	The CSD needs to install a modern Water Reclamation treatment and pumping facility to reclaim wastewater for irrigation at a golf course within the Gold Mountain CSD service area. This project will significantly increase the quality of wastewater to the leach fields, as well as provide additional filtration of the treated wastewater effluent for reclaim to a golf course.	\$1,850,500
MS-9	Crocker water service meters	Grizzly Lake CSD	Project will consist of replacing all the illegal service laterals to meet UPC and install new water meters. Every lateral needs to be upgraded from property line to mainline and install approx. 120 radio read meters and computer software to monitor and read the system. Meters will be calibrated to accurately measure flow of water to meet mfg. specs. Additional fire hydrants will be added to meet NFPA standards to improve overall fire protection.	\$1,500,000
MS-10	Crocker Welch ground tank repair	Grizzly Lake CSD	Restore creek that runs year round to original path that flows into Lake Almanor. Crew of 4-6 people to walk creek and clear debris to restore it to its former flow. Over the years debris has fallen across the creek which has diverted its flow and caused the creek to spread out across a larger area. This accounts for loss of water due to evaporation and absorption.	\$200,000
MS-11	Delleker water meters	Grizzly Lake CSD	Project will consist of replacing approximately 1000 lineal feet mainline as needed. Replace several service laterals and install approximately 400 radio read meters and the computer software necessary to read the system. All related appurtenances (meter box, yoke, meters, misc. fittings) will also need to be replaced.	\$1,500,000
MS-12	Delleker water tank rehab	Grizzly Lake CSD	The Delleker Tank requires repairs to bring it up to meet OSHA, NFPA, AWWA and EPA codes. It is estimated that approximately 4,200,000 gallons of water will be saved annually by repairing the leaks and refurbishing this tank.	\$200,000
MS-13	Groundwater monitoring	Plumas County Environmental Health	This project will gather, tabulate and input existing groundwater monitoring data into GIS layer(s) that will be publicly available. Environmental Health would supply existing, available data, along with data point field locations (longitude and latitude of groundwater well locations) to a qualified consultant for creation of GIS water quality layer(s). The GIS data points would then link to tabular monitoring data by constituent, over time.	\$40,000
MS-15	Chandler Road bridge erosion	Plumas County Department of Public Works – Engineering	Significant bank erosion has occurred upstream from the Chandler Road bridge on Spanish Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.	\$50,000
MS-16	Humbug Valley Road bridge erosion	Plumas County Department of Public Works – Engineering	Seasonal flooding of Road 308 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.	\$25,000
MS-17	Road 311 culvert improvement	Plumas County Department of Public Works – Engineering	Seasonal flooding of Road 311 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.	\$25,000
MS-18	Road 318 culvert improvements	Plumas County Department of Public Works – Engineering	Seasonal flooding of Road 318 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.	\$25,000
MS-19	North Valley Road bridge erosion	Plumas County Department of Public Works – Engineering	Significant bank erosion has occurred upstream from the North Valley Road bridge on Indian Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.	\$50,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
MS-20	Mill Creek erosion	Plumas County Department of Public Works – Engineering	Eroded slopes on Mill Creek upstream from Highway 70 is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from excessive erosion. The erosion is caused by the water flow under the highway 70 bridge being inadequate and water backs up causing erosion.	\$50,000
MS-21	Smith Creek erosion	Plumas County Department of Public Works – Engineering	The buildup of gravel from erosion upstream is causing the creek to overflow over the Johnsville-Graeagle Road bridge. The project consists of gravel buildup removal.	\$40,000
MS-22	Wapaunsie Creek erosion	Plumas County Department of Public Works – Engineering	Eroded creek bank on Wapaunsie Creek and Snake Lake Road is in need of erosion protection by means of rip rap to reduce the turbidity of water flowing to Spanish Creek from excessive erosion.	\$50,000
MS-23	Stampfli Lane bridge erosion	Plumas County Department of Public Works – Engineering	Significant bank erosion has occurred upstream from the Stampfli Lane bridge on Indian Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.	\$50,000
MS-24	Walker Ranch CSD infrastructure improvements	Plumas County Department of Public Works – Engineering	Significant water loss from the Walker Ranch CSD system is occurring from the water supply system through an aging water system with significant leaks. The system needs an exfiltration water study to determine definitively the extent of water loss.	\$25,000
MS-25	Humbug Valley Road 307 culvert improvements	Plumas County Department of Public Works – Engineering	Seasonal flooding of Road 307 at three locations are in need of new culverts to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.	\$40,000
MS-26	Municipal well #3	Plumas Eureka Community Services District	The Plumas-Eureka CSD “Preliminary Engineering Report for the 2015 Water System Improvements” identifies the need to increase the water supply volume for future use. The new 500 gallon per minute well would also have an arsenic removal system.	\$2,100,000
MS-27	Treated wastewater reuse	Plumas Eureka Community Services District	When completed, the Plumas-Eureka CSD “Treated Wastewater Effluent Feasibility Study”, performed by Bastian Engineering, identifies the possibility of utilizing treated wastewater as an irrigation supplement to the Plumas Pines Golf Course. Plumas-Eureka has two wastewater treatment plants, only one that has the ability to supplement irrigation water on the front nine holes. The other wastewater treatment plant discharges its treated effluent to a community leachfield on a daily basis.	TBD
MS-28	Water meter installation	Plumas Eureka Community Services District	The Plumas-Eureka CSD “Preliminary Engineering Report for the 2015 Water System Improvements” recommends the installation of water meters throughout the Plumas-Eureka community. Approximately 645 radio read meters would be installed and new computer software to monitor/read the system.	\$1,319,000
MS-29	Water storage tank replacement	Plumas Eureka Community Services District	The Plumas-Eureka CSD “Preliminary Engineering Report for the 2015 Water System Improvements” recommended the replacement of an existing 190,000 gallon storage tank due to seismic concerns and existing steel construction. New tank = 400,00 gallons.	\$709,000
MS-30	Wastewater treatment plant #6 upgrade	Plumas Eureka Community Services District	Wastewater treatment plant #6 is approximately 35 years old. Current treatment methods may not be sufficient to meet unrestricted reuse of treated wastewater for irrigation purposes. An engineering report would need to be done to identify the possible upgrades needed and/or complete plant replacement.	None listed
MS-31	Wastewater treatment plant #7 lift station replacement	Plumas Eureka Community Services District	The replacement project would move the lift station to a more appropriate location and provide for 12,000 gallons of emergency storage of raw sewage.	\$1,000,000

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
MS-32	Water system improvements	Quincy Community Services District (QCSD)	The proposed project consists of four elements that can be implemented as one project or individually: 1) Spring UV Disinfection Project, 2) Wildland Fuel Reduction Project, 3) South Quincy Pressure Zone Feasibility Study, and 4) Central/Edwards/Summerfield Waterline Replacement Project.	\$884,000
MS-33	Sierra County road improvements	Sierra County – Road Dept.	Install culverts and drains, build detention basins, create drainage, reduce erosion, re-establish historic flows, drain storm water on select county roads.	\$506,500
MS-35	Alternative water source analysis and development	Sierraville Public Utility District	SPUD has been directed to research and develop an alternative water source. We know we have adjudicated rights to Webber Creek water, but no means to filter, pump and deliver the water. There may also be potential for development of a well somewhere in the vicinity. Phase 1. Hire a consultant to research options and requirements for development of each option. Phase 2. Implement the best option recommended by the consultant.	\$256,000
MS-36	Water storage project	Westwood CSD	Construct a one (1) million gallon water storage tank to bring the Westwood Community Services District (WWCSD) up to minimum state requirements. The District has one active water source and one 500,000 water storage tank, and therefore does not have a second source of supply or sufficient storage to meet the source/storage capacity criteria required by the State.	\$750,000
MS-37	Almanor Basin solid and wastewater treatment plant	LAWG/Maidu Summit Consortium/Sierra Institute	This project would be the first phase of a two phase project. This phase is to develop an integrated basin-wide solid waste and waste water management system for communities around Lake Almanor. The second phase will be the construction of the approved system.	\$135,000
MS-38	Leak detection and repair	Sierraville Public Utility District	Our water delivery system is aging and numerous leaks have been discovered and repaired during routine maintenance. We are certain that there are significant additional undiscovered leaks in the system and repair of those leaks would greatly contribute to our water conservation efforts.	\$152,250
MS-39	Meter replacement	Sierraville Public Utility District	SPUD has old meters of differing makes and models with unreliable accuracy. Reading becomes difficult due to snow accumulation and rodent damage. It has been difficult to hire and insure a meter reader. Remote read meters with smart technology will allow us to greatly increase water conservation with accurate and immediate leak detection ability.	\$90,000
MS-40	Pumphouse improvement	Sierraville Public Utility District	Upgrade pumphouse to adhere to OSHA standards, to house new pump and new secondary pump, to isolate chlorine storage, to adequately ventilate and heat, to secure from rodent intrusion, to install eye wash station and for electrical and control upgrades. Depending on results of alternative water source analysis it is possible that the pumphouse would be designed to house a filtration system.	\$228,400
MS-41	Tank replacement project	Sierraville Public Utility District	SPUD needs additional storage to meet the combination of maximum daily demand and fire protection requirements. SPUD has a storage tank that has been taken out of service due to its dilapidated condition leaving the district with a single 215,000 gallon tank to serve the entire system. The remaining tank is visibly leaking although it has a remaining life of 15 years.	\$653,550

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
MS-42	Automatic meter reading (ARM) project	East Quincy Services District	Replacing the service meter reading system with an automatic reading system would conserve groundwater and protect and improve the water supply reliability per the IRWM Plan Objectives by providing more accurate and timely usage data. With such data, EQSD could audit the water usage and more readily assess water system loss. The general tasks that will be completed are: 1. Replace the existing water meters with the proposed Sensus I-Perl meters. 2. Install meter reading equipment. 3. Project solicitation, bidding and administration would lead to a completed project.	\$762,404
MS-43	Replace copper service lines project	East Quincy Services District	Replace 450 copper water service lines from the corporation stop at the water main to the service meter with polyethylene pipe of the same size.	\$1,258,148
TAC-2	Big Springs Vegetation Management	Maidu Summit Consortium	This project will establish a weather station in each of the main valley areas in the upper Feather River. These stations will provide real-time, internet accessible data on temperature, precipitation, humidity, soil moisture, wind speed, and solar radiation. This information will be available to residents of the region including ranchers, water managers and municipalities.	\$400,000
TAC-3	Mud Creek habitat recovery	USDA Plumas National Forest	The site at Mud Creek is currently grossly undermanaged and the Maidu Summit wishes to restore and improve this site using Maidu Traditional ecological Knowledge (TEK). The Maidu Summit will be granted ownership of this area by PG&E within the next two years along with a comprehensive vegetation management program, critical to long-term recovery of the stressed species found there.	\$500,000
TAC-4	Humbug Valley Outdoor Research/Learning Center	Maidu Summit Consortium	Develop a research area in Humbug Valley featuring Traditional Ecological Knowledge (TEK) and western science in long term impacts of TEK implementation on ecological resources. Hydrology, soil analysis, botanical resources, sensitive species, invasive species, habitat inventory, wildlife resources, cultural resources, identifying needed restoration, cultural resources, fire management, boundaries and public use/access are all areas for further development and research. The area will be used as a long term outdoor research area and will serve as an outdoor learning center.	None listed
TAC-5	Indian Jim River Resource Center	Maidu Summit Consortium	We seek to complete the remediation of hazardous materials at the old Indian Jim School site and to recover the building, if possible, in order to establish a River Resource Center. If the building is unable to be saved, we would secondarily seek to construct a new building.	\$500,000
TAC-6	Traditional Ecological Knowledge	Maidu Summit Consortium	The Upper Feather River Tribal Review Project provides a mechanism for relevant Upper Feather River (UFR) Tribe(s), the Maidu Summit Consortium and/or Tribal Review Committee to evaluate and provide recommendations to each project submitted to the UFR RWMG to incorporate Traditional Ecological Knowledge (TEK). Project reviewers will be comprised of Tribal Environmental Directors, Tribal Elders, and other persons with knowledge of Traditional Practices and sustainability.	TBD

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
UF-1	Marian Meadow	Cal Poly - San Luis Obispo	Quantifying the response of meadow restoration assists forest, range, and agricultural land managers determine the effect of their investment in meadow restoration. This study is using a before after control intervention (BACI) study design to study the hydrologic change conifer removal from a historic meadow (Marian Meadow). We have been measuring soil moisture, groundwater levels, and soil hydric characteristics for two years prior to meadow restoration and currently have funding for study one year following meadow restoration. This application is requesting funding to increase the length of study by two years.	\$145,000
UF-2	Rock Creek Meadow restoration	Collins Pine Company	This study will use a before/after control intervention (BACI) study design to study the hydrologic change conifer removal from a historic meadow (Rock Creek Meadow). We will be measuring soil moisture, groundwater levels, and soil hydric characteristics for two years prior to meadow restoration and two years following meadow restoration.	\$220,000
UF-6	Round Valley/Keddie handthin	USDA Plumas National Forest	The project includes 375 acres of handthinning, piling and burning to reduce hazardous ladder and surface fuels in and around the Round Valley Reservoir and the Wildland urban interface east of the reservoir proximate to the community of Greenville. The areas proposed for treatment include NFS lands within the Greenville Municipal Water District (near Round Valley Reservoir) and within the lower Wolf Creek watershed which is a Plumas NF priority watershed classified as "Functioning at Risk" watershed.	\$350,000
UF-7	U.S. Forest Service road improvements	USDA Plumas National Forest	This project will reduce road-generated sediment delivery to streams in four priority watersheds on Plumas National Forest by improving drainage along roughly 80 miles of Forest roads or motorized trails. All of the 260 miles of road in the 4 watersheds will be field surveyed and treatments will target problem road segments.	\$1,120,000
UF-8	Goodrich Creek biomass	W.M. Beaty & Associates	The project would provide for biomass harvesting to be conducted on approximately 2,800 acres of private forestland that is adjacent to a recently funded pond and plug project on tributaries that flow into Goodrich Creek. The pond and plug project is designed to restore approximately 125 acres of upland meadow to its original hydrologic condition allowing for increased natural water storage.	\$715,600
UF-10	Greenville Creek biomass	W.M. Beaty & Associates	The project would provide for biomass harvesting to be conducted on approximately 1,350 acres of private forestland that is adjacent to a recently funded pond and plug project on Greenville Creek which flows into Mountain Meadows Reservoir. The project will also reduce fuel levels on the northern slopes of Keddie Ridge reducing the risk of catastrophic wildfire in that area protecting resources such as Deerheart and Homer Lakes.	\$345,630
UF-11	Mountain Meadows Creek biomass	W.M. Beaty & Associates	The project would provide for biomass harvesting to be conducted on approximately 1,700 acres of private forestland that is adjacent to Mountain Meadows Reservoir. This project will be designed to decrease the density of small understory trees reducing the amount of evapotranspiration and canopy interception.	\$435,230
UF-12	UFR Cooperative regional thinning	Soper Company	The purpose of the project is to: 1) Reduce catastrophic wildfire in overstocked forests through forest thinning, 2) Restore the forest hydrograph by reducing the rate of conifer evapotranspiration, and 3) Reduce conifer interception of rain and snow and enhance the infiltration of soil moisture by increasing spacing of dominant and codominant overstory trees. The phased, cooperative project will be designed and implemented at a broad, multi-ownership, landscape level.	TBD

All PROJECTS - UPPER FEATHER RIVER IRWM				
Project Number	Project Name	Sponsor/Agency	Summary of Project Description	Estimated Budget
UF-13	UFR cooperative LiDAR and GIS support program	Plumas County	This project will directly support mapping and project-design for a large number of other currently-proposed IRWM projects, and each project could potentially contribute a small portion of their budget to an overall mapping budget for the entire UFR Region. This project will be a collaborative effort between the US Forest Service, Plumas County, and other IRWM signatories to fund acquisition of LiDAR topography data for the remainder of the Upper Feather River Watershed.	\$2.05M- \$2.55M

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: IRWM Program Implementation
Date: September 15, 2015

INTRODUCTION

Elizabeth Betancourt, Watershed Science and Policy Analyst with Forsgren Associates, will speak with the group about the future of the Department of Water Resource's IRWM Program. She will also share her knowledge of various regions' post-plan adoption implementation and continuing RWVG roles and governance.

She has participated in and/or led a total of seven IRWM efforts, many of them in rural, source-water areas, making issues of planning and funding even more challenging. Elizabeth currently works with agencies and organizations to plan for the future, including climate change adaptation and mitigation, regulatory and policy projections, drought planning and alternative supply management, and, of course, IRWM.

REQUEST

Informational.

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Project Selection Process
Date: September 15, 2015

INTRODUCTION

The projects included in the IRWM Plan are the vehicles for implementation of the Plan. In order to select projects through a clear and consistent process, review factors must be evaluated for each project and compared for all projects in a systematic manner. While some review factors are developed by and specific to an IRWM region, there are also DWR minimum standards for project inclusion in an IRWM Plan.

At the June 15th meeting, the RWVG approved review factors for the Upper Feather River IRWMP project selection process, which correspond to factors A-L in the Prop 84 Guidelines. The next step is to decide how best to apply the review for selecting projects for inclusion in the Plan.

It is important to clarify that the process and specifics discussed below are for projects submitted for Department of Water Resources (DWR) IRWM funding to implement the IRWMP. Project submitted for other agencies grant funding will likely have different criteria and submittal requirements. However, it will be beneficial to identify consistency with the IRWMP, or inclusion in the IRWMP as an identified implementation project, regardless of granting agency.

BACKGROUND

To date, we have followed a process similar to that used by the Tahoe-Sierra, Lahontan Basins, and Northern Sacramento Valley IRWM regions. Those processes developed scoring criteria and ranked or categorized projects based primarily on total scores. Due to questions raised by the RWVG at the last meeting, staff reached out to staff involved in the Upper Pit, CABY and Yuba County IRWMs. The following question and answer format responds to the RWVG's questions and summarizes an alternative approach and process that has been successfully used in the Upper Pit and Yuba County IRWMs.

Staff is presenting the approach in this question and answer format first to respond to the RWMG's questions, and also because understanding the next steps in project submittals (after Plan completion) will help in developing the current project selection process.

Q: Once we have an adopted Plan complete with implementation projects, how are project applications submitted in response to Grant Requests for Proposals (RFPs)? Do individuals submit their own applications? Does the RWMG submit a suite of projects?

A: Typically, once an RFP is released by the state, the RWMG (not individuals) puts together a single application for submittal on behalf of the IRWM region. Each region may submit one application per RFP; the application may contain multiple projects. It is the responsibility of the RWMG to put forward those projects that best meet the RFP scoring criteria.

Each RFP has its own set of scoring criteria which is intended to tease out those types of projects that DWR wishes to fund in that particular funding cycle. For example, Prop 84 Round 3 is soliciting projects that address disadvantaged communities (DACs), drought, human right-to-water, and specifies that application must include a clear definition of the project's benefits. Regional implementation projects that score the highest according to the scoring criteria for that round of funding will be the projects that are packaged by RWMGs in an application and submitted to DWR. In this example, an RWMG will review the list of implementation projects in their IRWM Plan, pulling out all projects that meet the full RFP criteria. The list of potential projects will then be narrowed down to the projects that score the highest per the RFP scoring criteria (i.e., documentation of benefits and criteria, etc.), and further narrowed until only those projects that are the highest scoring are left. Thereby putting forward the region's best chance for winning DWR IRWM funding. For other state and federal grants, the process and rules vary.

Q: How does grant funding come down from DWR to the regions?

A: The next consideration is how much money is available in the funding region. For example, the Mountain Counties Overlay region has \$13 million in Prop 1 IRWM allocation. Two approaches for pursuing these funds are 1) gentlemen's agreement, or 2) go it alone. The gentlemen's agreement approach would consist of meeting with the other RWMGs in the funding region to discuss and agree upon an equitable division of the funds among the IRWM regions so all regions get some funding (e.g. approx. \$2 million each). The go-it-alone approach would be that each RWMG would submit its application for all projects that meet the RFP criteria and hope they win.

Regarding Proposition 1 funding: there is some talk that all of the IRWM funding may go through the Sierra Nevada Conservancy, otherwise, only approximately \$2 million will be available to each IRWM region. How that will all play out is yet to be determined.

AN ALTERNATIVE SELECTION PROCESS

IRWM regions that have gone through the project selection and ranking process for the Plan typically have to reassess and rescore projects multiple times, based on each RFP's selection and ranking criteria. Rather than assign weighting factors at this point, which may end up being irrelevant for future grant solicitations, the RWMG may choose to wait and go through the scoring process only in response to

individual RFPs. Instead, the project selection process can be used to facilitate inclusion of projects with all of the necessary attributes to implement the Plan. Regardless of our next steps, the process that has been developed to date, with approval of the selection/ranking factors, will be the basis of the selection process. The worksheet and methodology can be included in the Plan to be used in selecting projects for the individual grant RFPs, with weighting factors assigned based on the scoring criteria specified for each RFP. Essentially, it defers the scoring and ranking process until an RFP is released, which will have its own specific scoring criteria.

To determine projects for inclusion in the Plan, the RWMG could perform an evaluation of each project based on the components included in the Guidelines, and approved at the last RWMG meeting, as a means to determine how well a project meets the Guideline and Plan implementation needs. If the RWMG does its due diligence in encouraging and selecting the best implementation projects for the region, it will facilitate the process later on when it comes time to put together an application in response to an RFP (i.e., the better the projects are developed now, the easier it will be to select projects for RFPs). See attached example process from the Yuba County IRWM Plan.

The following table (**Table 1**) is a suggested matrix (factors A through L, followed by examples in the Note/Narrative column) to assist with reviewing each project for inclusion. Including the notes and narrative for each review factor at this stage will aid the RWMG in selecting projects for future RFPs. The Plan could also include several project lists to aid the RWMG in future selection efforts in response to RFPs:

- General list, by category, identifying all review factors met (see attached example)
- Projects benefiting disadvantaged communities (DACs)
- Regional projects
- Integrated projects

The IRWM Program encourages RWMGs to consider strategic considerations that may benefit multiple stakeholders and acknowledges that there may be benefit in integrating local projects or project goals in developing regional projects. DWR expects RWMGs to take advantage of regional planning and integrating projects where possible, while acknowledging that there is also value in examining projects for potential integration efforts even if ultimately deciding that a project is best implemented as submitted to achieve plan implementation. This effort was started during the Workgroup Integration Workshop and addresses the project review criteria “Strategic considerations for Plan implementation,” which is identified in the IRWM Guidelines. This criteria encourages using the regional perspective to leverage any efficiency that might be gained by combining or modifying local projects into regional projects. Strategic aspects of plan implementation (projects) include purposefully restructuring or integrating projects and implementing regional projects and/or projects with multi-benefits.

Individual grant solicitations will shape and identify the project selection process as well, which will assist the RWMG in selecting regional, integrated, and/or individual projects.

Table 1. Example Matrix

Criteria	Points			Narrative/ Notes
	Fair (1)	Good (2)	Excellent (3)	
Relevance to IRWM Plan (Goals/Objectives)	3-5 objectives	6-9 objectives	10 or more objectives	<i>List all objectives (e.g., 1, 6, 7, 8, 12)</i>
Resource Management Strategies	2 RMS addressed	3-5 RMS addressed	5 or more RMS addressed	<i>List all RMS (e.g., 3, 10, 14)</i>
Statewide Priorities	1 priority addressed	2 priorities addressed	3 or more priorities addressed	<i>List all Priorities</i>
Drought Preparedness (long-term)	1 category addressed	2 categories addressed	3 or more categories addressed	<i>List drought categories addressed</i>
Impact if not funded	1 benefit	2 benefits	3 or more benefits	<i>List impacts</i>
Community Benefits of Common Interest (water conservation, water supply/reliability, fire protection, consolidation/regionalization)	1 benefit	2 benefits	3 or more benefits	<i>List all benefits</i>
DAC or Tribal Communities	Projects that may hire workers from a DAC or that have some minimal improvement to a DAC or Tribal Community	Projects that will indirectly, but significantly benefit a DAC or Tribal Community	Projects that are located within or developed in collaboration with DAC or Tribal Communities	<i>Is there a <u>direct</u> benefit to a DAC? Yes/no</i>
The following factors have been considered in the project review process and whether or not the projects address the factor will be indicated with “yes” or “no”				
Technical feasibility of the project		<i>Is it new or unproven technology? If so, is there a feasibility study or engineering report to accompany the application?</i>		
Environmental justice considerations				
Project costs and financing		<i>Is there a solid basis for the cost estimate? Can be best educated estimate on cost (e.g. \$50,000, \$1.5 million).</i>		
Economic feasibility		<i>A brief narrative (e.g. the jurisdiction has not yet completed a cost/benefit analysis but will do so if project goes forward for implementation funds). Can punt to the next step.</i>		
Project status		<i>90%? Conceptual?</i>		
Contribution of project in adapting to the effects of climate change and reduction of greenhouse gas emissions		<i>General statement or brief narrative. Brief calculation – most are deferred to the future.</i>		

It would benefit the region to have a wide variety of implementation projects to pull from for future IRWM and other grant funding opportunities. Toward that end, the emphasis of project development is to facilitate and coordinate solid applications that meet the required criteria (factors A-L, etc.).

NEXT STEPS

If this approach is acceptable to the RWMG, it is recommended that the next step in the project development process be for the Workgroup Coordinators to work with the project sponsors in their workgroups to 1) refine the project submittals, and 2) complete the climate change/GHG emissions calculator. The following further describes the Coordinators efforts:

1. Workgroup Coordinators would work with project sponsors to further develop the project submittals (i.e., filling in all the blanks as much as possible, identifying resources such as studies and background materials, etc.) to give the RWMG more developed projects to select from during future grant solicitations. The purpose of this effort is to frontload the project development effort to facilitate project submittals later, post-Plan. This would address the capacity issue to some degree and work towards a more inclusive and collaborative process between stakeholders in the region.
2. GHG emission consideration/worksheet – as part of the project review process, climate change must be considered. To aid with this effort, staff is developing a climate change/GHG emission calculator for use with each project. The high-level calculator will provide estimated GHG emissions and an indication of impacts on climate change.
3. Overall review of the project submittals to refine the selections for consistency and accuracy.

Concurrently, the Coordinators will continue to identify and refine the project integration opportunities with input from the workgroups. Staff would then bring the results to the RWMG for consideration and approval.

FUTURE PROJECT UPDATE CONSIDERATIONS

As part of the Plan update, the RWMG must identify the process by which projects will be implemented and how the project list will be reviewed and updated. The following questions will help guide our discussion:

- How will the project list be updated?
- Who will be responsible for periodic review and “call for projects?”
- If projects are placed on a tracked list, how will those projects be updated and reviewed for consideration for the categorized list?
- Will updating of the list require re-adoption of the MOU/Plan?
- What is the process for responding to grant solicitations?

REQUEST

Discuss, consider for approval, and/or provide direction to staff regarding methodology for project selection.

Attachments: Example: Yuba County IRWM Plan Project Selection Process

Chapter 14 *Project Application, Development, and Review*

14.0 Introduction

This chapter describes the processes by which projects implementing this Plan are identified, developed, reviewed, and selected for Plan inclusion.

14.1 Project Application Process

The project application process followed the initial identification of regional issues and conflicts as well as goals and objectives and resource management strategies, as described in sections 12.4 Integration of Issues, Goals, and Objectives into Project Development Process and 13.5 Integrating Resource Management Strategies into Project Application, Development, and Review. This sequenced approach makes it possible for project sponsors to demonstrate through the application process how their proposed projects would implement key elements of the IRWMP, as well as avoid project impacts and maximize project benefits. It also allows for strategic considerations for Plan implementation (e.g., integrating projects, project alternatives).

The formal project application process for this update began following the establishment of the foundational components of the planning process listed above. The project applications (referred to as the Project Solicitation Form) were distributed by the project team via the stakeholder email distribution list and by posting on the Yuba County IRWMP website. A project development workshop was convened in early November 2013 to: 1) provide an overview of the project development timeline (see **Table 14-1**); 2) review the Project Solicitation Form (see **Appendix 14-2**); 3) allow project proponents the opportunity to briefly present the projects they intended to submit to be considered for Plan inclusion; and 4) discuss project integration opportunities.

Ultimately, 60 project applications were submitted to the Yuba County IRWM region by 15 project sponsors. Over the course of the IRWMP update, additional applications were submitted via email to the Yuba County IRWM group utilizing the application materials described in 14.1.1. In the future, the Yuba County IRWM group intends to issue a periodic call for projects to provide regional stakeholders the opportunity for newly identified projects to be included in the IRWMP. The project applications will be available online, and projects will be accepted for review as they are received.

Dates	Activities
October 2013	Project sponsors begin to hold independent conversations with other stakeholders in pursuit of forming project partnerships
November 1, 2013	Consulting project team distributes Project Solicitation Form materials to stakeholders via email distribution list and posts form to Yuba County IRWM website
November 7, 2013	Project development and integration workshop
December 13, 2013	Project applications due (for existing and new projects alike, to ensure consistent materials for all projects in the IRWMP)
November 2013 - January 2014	Consulting project team conducts extensive circuit-riding to assist in filling out forms; facilitate integration; brainstorm options for multi-stakeholder, multi-objective projects; gather input on review criteria; and assist in clarifying process for getting projects to 'ready to proceed' status.
January 2014	<ul style="list-style-type: none"> • Preliminary project list presented to RWMG at meeting • Process for project review identified • Draft project review criteria developed • Partnership confirmation and project integration occurs
April 2014	<ul style="list-style-type: none"> • Project list finalized • Process for project review criteria refined and approved • Final project descriptions distributed for RWMG review
May 2014	<ul style="list-style-type: none"> • Cost/benefit questionnaire and greenhouse gas (GHG) inventories completed for projects • Project sponsors make project presentations at RWMG meeting • Project review conducted and projects confirmed for IRWMP inclusion at RWMG meeting
June 2014	<ul style="list-style-type: none"> • Draft project chapter completed and distributed to RWMG for review
July 2014	<ul style="list-style-type: none"> • RWMG comments received for draft project development chapter • Project development chapter refined

14.1.1 Project Application Materials

14.1.1.1 The Project Solicitation Form

The Project Solicitation Form (see **Appendix 14-2**) serves as the primary project application for the Yuba IRWM region. The form was developed in accordance with DWR 2012 Guidelines, paying particular attention to A-L Review Factors as outlined in the Plan Standard for project application, review, and selection. Project applicants are required to demonstrate the following:

- how the project addresses the regionally identified issues;
- how the project contributes to the IRWMP goals and objectives;
- how the project measures its outcomes (additional information about project performance measures can be found in Chapter 17 *Plan Performance and Monitoring*);
- how the project is related to resource management strategies;
- how the project meets statewide priorities;
- technical and scientific feasibility of the project;
- specific benefits to critical DAC/Tribal water issues and environmental justice considerations;
- project costs and financing (additional information about project financing can be found in Chapter 15 *Finance*);
- project status and anticipated schedule for implementation;
- contribution of the project in adapting to the effects of climate change; and
- contribution of the project in reducing GHG emissions as compared to project alternatives.

Completed Project Solicitation Forms for all Yuba County IRWMP projects can be found in **Appendix 14-1**.

14.1.1.2 The Economic Feasibility Questionnaire

To demonstrate economic feasibility for projects as required by Review Factor H in the 2012 Guidelines, each project sponsor completed a questionnaire (developed by ECONorthwest, a professional consulting firm) as part of the application process. The Department of Water Resources (DWR) stipulates that as part of the project review process, the economic feasibility of a project should be considered.

According to ECONorthwest, conversations with DWR staff indicate that, under this review standard, the guidelines specify that economic feasibility “be a part of how the region evaluates projects.” However, DWR staff further indicated that the department doesn’t “want to dictate how regions choose to use the economic information.” Further, staff was clear that DWR “won’t hold [IRWMPs] to a specific methodology,” and specifically, a project-level cost/benefit or cost-effectiveness analysis is not required to satisfy Factor H.¹

IRWMP groups have had difficulty developing economic feasibility criteria for the early project review process used to bring projects into the IRWMP. These challenges include the following:

- lack of quantifiable information about the project’s benefits and costs at the early stage of development while being reviewed for acceptance into the IRWMP;
- lack of resources among project proponents to develop robust information at the level needed to conduct any kind of comprehensive economic analysis; and
- lack of technical sophistication among project proponents to complete a quantified assessment of the economic feasibility of their projects.

With this in mind, ECONorthwest developed a streamlined approach that is simpler than a full cost/benefit or cost-effectiveness analysis to be applied to project-level evaluations as part of the project selection process. Because other factors focus on project costs, the questions in the Project Solicitation Form focus on economic benefits.

The simplified set of criteria, firmly grounded in standard economic practice, is considered to satisfy the Factor H review standard. Specifically, the questions would do the following:

- rely on preliminary information that is readily available to project proponents at a conceptual project design phase;
- emphasize qualitative versus quantitative assessments; and
- help project proponents and IRWMP managers begin to think about strategies to address the more detailed economic analysis required for the Implementation Grant application.

Refer to **Appendix 14-3** for Economic Feasibility Questionnaires for Yuba County IRWMP projects.

14.1.1.3 GHG Emissions Quantification Inventory

In the Project Solicitation Form, project sponsors are asked to describe how each project mitigates for GHG emissions as well as the process by which the project proponents considered GHG emissions reduction among project alternatives. Yuba County IRWM region project sponsors are well aware of the need to reduce the emissions associated with their projects. Refer to the Chapter 11 *Climate Change*, section 11.6.2, for a more in-depth discussion of project alternatives and design considerations to reduce GHG emissions.

¹ ECONorthwest, “Questions to Support Future Evaluation of Cost Benefit of Projects for Project Review Process” (April 25, 2014).

In accordance with DWR guidelines, projects are required to calculate GHG emissions associated with project implementation/construction. All Yuba County IRWMP projects that progressed to a level of readiness that supports a viable GHG quantification completed inventories found in Appendix 14-4.

14.1.2 Updating Existing Projects from the 2008 Yuba County IRWMP

Several projects that had been included in the original Yuba County IRWMP (2008) remain active in the region. However, to assure that the RWMG received consistent information for all projects, the group determined that project sponsors were required to use the newly developed project solicitation materials for new *and* already identified 2008 projects. This requirement is of particular importance since the Project Solicitation Form and complementary documents were designed to be compliant with the DWR 2012 Guidelines. Additionally, in order for all projects to stand on an equal footing in the project review process, the RWMG needs consistent information when applying the project review criteria and when selecting projects for Plan inclusion as well as for emergent funding opportunities.

14.2 Project Review Process

As described in **Table 14-1**, the initial project submission deadline for the Yuba County IRWMP Update was December 13, 2013. Following the submission of projects, the consulting project team assembled the preliminary project list and distributed it to stakeholders in advance of the January 15, 2014, RWMG meeting. At that time, stakeholders had an opportunity to confirm the accuracy of the list and ask any questions pertaining to the identified projects.

Between the January and May RWMG meetings, the consulting team collaborated with individual stakeholders to refine and complete all project application materials and to discuss potential opportunities for project integration and coordination with other project proponents and stakeholders. In addition to individual conference calls and ongoing communication with project sponsors, the consulting team also convened a technical assistance workshop to aid project proponents in the completion of GHG quantification inventories and economic feasibility questionnaires.

Following this refinement process, all project solicitation forms were posted to the Yuba County IRWMP website in advance of the May RWMG meeting, where project sponsors made project presentations to the RWMG and confirmed the list of projects to be included in the Yuba County IRWMP. See **Table 14-2** for a complete list of approved Yuba County IRWMP projects and the project review criteria each project fulfills.

14.2.1 Establishment of a Revised Project Review Criteria

In January 2014, the RWMG studied the project review criteria that had been applied to the original 2008 IRWMP in addition to the project review factors found in the DWR 2012 IRWM Guidelines. Through this process, the region revised the project review criteria. The criteria were finalized and unanimously confirmed at the April 2014 RWMG meeting. The project review criteria were then applied to the project list which was confirmed at the May 2014 RWMG meeting.

14.2.2 A Revised Approach to Project Ranking

Through a consensus decision, the RWMG determined that they would not rank or prioritize projects. It is the view of the group that ranking projects sets up a de facto project selection process for funding purposes. The RWMG confirmed that the role of the IRWMP project review process is to collaboratively develop projects for Plan inclusion (not for funding) that as a complete suite would effectively implement the IRWMP. The RWMG further asserted that ranking would create unnecessary competition and conflict among project proponents. Instead, the RWMG decided that they would apply the project review criteria to all of the projects (including conceptual projects) and, in doing so, work to get as many projects as possible to an enhanced status of readiness. Therefore, an explicit objective of this approach aims to build regional capacity to advance water resources and watershed management projects toward effective implementation of the IRWMP.

Another factor affecting the RWMG's decision to forego project ranking is the region's ongoing interest in diversifying its funding of projects beyond DWR's Implementation Grant programs. By maintaining a list of unranked projects, the region is able to maximize its responsiveness to the specific priorities of different and varied funding programs. In other words, project selection would occur when an appropriate funding opportunity arises. Upon careful review of the requests for proposals or proposal solicitation packages, the projects most suited to the priorities and preferences of distinct funding sources would be selected.

14.2.2.1 Strategic Considerations and Project Integration

The Yuba County RWMG addressed project integration throughout the IRWMP Update project development process. While the projects on the current list have not been integrated, the region determined that project integration could occur when developing a suite of projects in response to a funding request and that the following measures of integration could be employed:

- projects meet multiple Yuba County IRWMP priorities (goals, issues, objectives) and provide multiple benefits;
- project integration within and across like projects employing key resource management strategies;
- geographic integration (within a hydrologic system and across watersheds);
- partnership integration (multiple partners for each project, collaborative in design and implementation, federal/state/local, and government/NGO/private sectors are all represented); and
- integration of outcomes or performance measures.

14.3 Project Selection for Yuba County IRWMP Inclusion

At the May 2014 meeting, Yuba County IRWM region project proponents made project presentations to the RWMG. At that time, stakeholders had an opportunity to ask clarifying questions about the presented projects and to voice any concerns or perceived conflicts associated with the proposed projects. Additionally, the RWMG confirmed each project's alignment with the Yuba County IRWMP's project review criteria to affirm each project's contribution toward the successful implementation of the Plan.

At the close of the project presentations, the RWMG unanimously approved all of the projects for inclusion in the Yuba County IRWMP without exception. The following **Table 14-2** includes the complete list of approved Yuba County IRWMP projects and the project review criteria each project fulfills. For detailed project descriptions, see **Appendix 14-1**. Per DWR Guidelines, prior to a project's inclusion in a grant application, the project sponsor must adopt the IRWMP.

14.4 Procedures for Communicating Selected Projects

Projects developed through the IRWM process are made available to interested parties via two venues: posting of selected projects and project materials on the Yuba County IRWMP website, and via email to the full distribution list that includes the RWMG and interested stakeholders.

Table 14-2. Yuba County IRWMP Project List and Project Review Criteria													
PROJECT OVERVIEW				PROJECT STATUS	PROJECT REVIEW CRITERIA								
Code	Title	Sponsor	Total Budget		Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
AR-01	Yuba Gold Fields Integrated Flood Management, Habitat, and Recreation Project	American Rivers	\$75M	Concept	X	X		X	X		X		
BYLT-01	Yuba Land Conservation Easements	Bear Yuba Land Trust	\$5M	Ready	X	X	X	X	X		X	25% match	X
BYLT-02	Yuba Watershed Forest and Fuels Project	Bear Yuba Land Trust	\$1,455,000	Ready	X	X	X	X	X	X	X	25% match	X
CCSD-01	Camptonville Water System Improvement Project (Phase II)	Camptonville Community Service District	\$664,300	Ready	X	X	X	X	X	X	X	DAC waiver	X
WTLD-01	Citywide Storm Drain Improvement Project	City of Wheatland	\$360,000	Ready	X	X	X	X	X		X	25% match	X
WTLD-02	Dry Creek Levee Improvement Project	City of Wheatland	\$6.8M - \$16.2M	Ready	X		Feasibility study pending	X			X	25% match	X
WTLD-03	North Stormwater Detention Basin Rehabilitation	City of Wheatland	\$300,000	Ready	X	X	X	X			X	25% match	X
WTLD-04	Reclaimed Water Feasibility Study	City of Wheatland	\$150,000	Ready	X	X	X	X	X		X	25% match	X
WTLD-05	Stormwater Program Mgmt - Equip Purchase	City of Wheatland	\$590,000	Ready	X		X	X	X		X	25% match	X

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
WTLD-06	Wastewater Treatment Plant Improvement	City of Wheatland	\$4M	Ready	X	X	X	X	X		X	25% match	X
WTLD-07	Wheatland Water Supply Reliability	City of Wheatland	\$425,000	Ready	X	X	X	X	X		X	25% match	X
WTLD-08	Well System Monitoring Rehabilitation	City of Wheatland	\$210,000	Ready	X	X	X	X	X		X	25% match	X
MLD—01	Marysville Ring Levee Project	Marysville Levee District	\$90.4M	Ready	X	X	X	X		X	X	65% federal 30% local	
NYWD-01	Challenge Water Storage Tank Replacement	North Yuba Water District	\$911,500	Ready	X	X	X	X	X	X	X	DAC waiver	
NYWD-02	Dobbins Oregon House Canal Improvement Project	North Yuba Water District	\$6,778,000	Ready	X	X	X	X		X	X	DAC waiver	
NYWD-03	Forbestown Ditch Improvement Project	North Yuba Water District	\$4,650,000	Ready	X	X	X	X	X	X	X	DAC waiver	X
NYWD-04	Forbestown Water Storage Tank and Pipeline Replacement	North Yuba Water District	\$1,269,100	Ready	X	X	X	X	X	X	X	DAC Waiver	
NYWD-05	New York Flat Road Water Transmission Main	North Yuba Water District	\$1,556,250	Ready	X	X	X	X	X	X	X	DAC Waiver	
NYWD-06	Rackerby Water Storage Tank Replacement	North Yuba Water District	\$911,500	Ready	X	X	X	X	X	X	X	DAC Waiver	X

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
OPUD-01	Recycled Water Distribution System	Olivehurst Public Utility District	\$3,352,987	Ready	X	X	X	X	X	X	X	DAC Waiver	
OPUD-02	Olivehurst Water Main Replacement	Olivehurst Public Utility District	\$2,388,166	Ready	X	X	X	X	X	X	X	DAC Waiver	
RD784-01	Acquisition of Landside Urban Levee Maintenance Corridors	RD 784	\$5.5M	Ready	X	X	X	X	X	X	X	DAC Waiver	X
RD784-02	Chestnut Pump Station Reconstruction	RD 784	\$2.5M	Ready	X	X	X	X	X	X	X	DAC Waiver	X
RD784-03	Edgewater Detention Basin and Pump Station 5 Improvements	RD 784	\$3.5M	Ready	X	X	X	X	X	X	X	DAC Waiver	X
RD784-04	Pump Station 1 Reconstruction	RD 784	\$500,000	Ready	X	X	X	X	X	X	X	25% Match	X
RD784-05	Pump Station 2 System Improvement	RD 784	\$525,000	Ready	X	X	X	X	X	X	X	DAC Waiver	X
RD784-06	Pump Station 10 Improvements	RD 784	\$3.7M	Ready	X	X	X	X	X	X	X	DAC Waiver	X
RD817-01	FSRP LAN29 Critical Repair Project - Right Bank Bear River Set-back Levee	RD 817	\$7.8M	Concept	X	X		X			X	Currently pursuing cost share partners	
RD817-02	Dry Creek Levee Feasibility Study	RD 817	\$797,000	Ready	X	X	X	X			X	TBD	

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
RD2103-01	Bear River and Dry Creek Levee Feasibility Study	RD 2103	\$1.2M	Ready	X	X	X	X			X	TBD	
SYRCL-01	Daguerre Point Dam Fish Passage Improvement	South Yuba River Citizens League	\$1M	Ready	X	X	X	X	X		X	30% Match	X
SYRCL-02	Water Conservation Education	South Yuba River Citizens League	\$40,000	Ready	X	X	X	X	X	X	X	DAC Waiver	X
SYRCL-03	Yuba River Recreation Projects	South Yuba River Citizens League	\$400,000	Ready	X	X	X	X	X		X	TBD	X
SYRCL-04	Yuba Salmon Education	South Yuba River Citizens League	\$75,000	Ready	X	X	X	X	X		X	27% Match	X
SYRCL-05	Yuba Salmon Habitat Restoration	South Yuba River Citizens League	\$1.5M	Ready	X	X	X	X	X		X	31% Match	X
SYRCL-06	Lower Yuba Environmental Flows	South Yuba River Citizens League	\$175,000	Ready	X	X	X	X	X		X	34% Match	X
SEI-01	Robust Decision Support for Yuba IRWMP	Stockholm Environmental Institute	\$480,000	Ready	X	X	X	X	X		X	50% Match	X
SCRCD-01	Hydrilla Eradication and Canal Lining	Sutter County RCD	\$308,200	Ready	X	X	X	X	X	X	X	25% Match	X

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
TRLIA-01	Gold Fields Levee	Three Rivers Levee Improvement Agency	\$69M	Ready	X	X	X	X		X	X	56.5% Match	X
YC-01	Yuba County Airport Drainage Improvements	Yuba County	\$3.6M	Ready	X	X	X	X	X	X	X	25% Match	X
YC-02	Linda Drainage Improvements	Yuba County	\$5,625,000	Ready	X	X	X	X	X	X	X	DAC Waiver or 25% Match	X
YC-03	Olivehurst Drainage Study	Yuba County	\$15M-\$20M	Ready	X	X	X	X	X	X	X	DAC Waiver or 25% Match	X
YC-04	Olivehurst Pump Station	Yuba County	\$25,000	Ready	X	X	X	X	X	X	X	DAC Waiver	X
YC-05	Comprehensive Water Sustainability Project	Yuba County	\$1,488,000	Ready	X	X	X	X	X	X	X	None identified	X
YC-06	Comprehensive Stormwater & Wastewater Sustainability Project	Yuba County	\$44,000	Ready	X	X	X	X	X	X	X	None identified	X
YCWA-01	Groundwater Model Project (Phase 2)	Yuba County Water Agency	\$750,000	Ready	X	X	X	X	X	X	X	25% Match	X
YCWA-02	Irrigation Water Measurement Implementation	Yuba County Water Agency	\$580,700	Ready	X	X	X	X	X		X	25% Match	X
YCWA-03	New Bullards Bar Outlet Capacity	Yuba County Water	\$37.23M	Ready	X	X	X	X	X	X	X	25% Match	X

	Increase	Agency											
YCWA-04	North Area Irrigation Water Reuse	Yuba County Water Agency	\$350,000	Ready	X	X	X	X	X		X	25% Match TBD	X
YCWA-05	South Yuba Canal Fish Screen	Yuba County Water Agency	\$10.83M	Ready	X	X	X	X	X		X	25% Match	X

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
YCWA-06	Agricultural Water Conservation Evaluation	Yuba County Water Agency	\$500,000	Concept	X		X	X			X	TBD	
YCWA-07	Forecast Coordinated Operations	Yuba County Water Agency	\$1.5M	Concept	X	X	X	X			X	TBD	
YCWA-08	Groundwater Monitoring Program	Yuba County Water Agency	\$250,000	Concept	X			X			X	TBD	
YCWA-09	Long-term Water Supply Sustainability Study	Yuba County Water Agency	\$500,000	Concept	X	X		X			X	TBD	
YCWA-10	Narrows II Powerhouse Intake Extension	Yuba County Water Agency	\$5M	Concept	X	X		X			X	TBD	
YCWA-11	New Bullards Bar Reservoir Reoperation Manual	Yuba County Water Agency	\$500,000	Concept	X	X	X	X			X	TBD	
YCWA-12	New Colgate Powerhouse Tailwater Depression	Yuba County Water Agency	\$6.2M	Concept	X	X	X	X			X	TBD	
YCWA-13	Regional Feather River Diversion Feasibility Study	Yuba County Water Agency	\$500,000	Concept	X	X	X	X			X	TBD	
YCWA-14	Regional Flood Management Agency	Yuba County Water Agency	\$500,000	Concept	X		X	X			X	TBD	
YCWA-15	Subsidence Monitoring	Yuba County Water Agency	TBD	Concept	X		X	X			X	TBD	

Code	Title	Sponsor	Total Budget	PROJECT STATUS	Criterion 1 Meets multiple objectives	Criterion 2 Supports integration/ multiple RMSs	Criterion 3 Technically and/or scientifically feasible	Criterion 4 Assists region in adapting to climate change	Criterion 5 Assists region in reducing GHG emissions	Criterion 6 Addresses specific benefits to DACs	Criterion 7 Regional/ Inter-regional benefit(s)	Criterion 8 Funding match/ DAC waiver	Criterion 9 Economic feasibility
YCWA-16	Surface Water Measurement Program	Yuba County Water Agency	\$500,000	Concept	X	X	X	X			X	TBD	
YCWA-17	Lower Yuba River Accord Implementation	Yuba County Water Agency	\$5M	Concept	X	X	X	X			X	TBD	
YCWA-18	Lower Yuba River Accord Implementation - Fisheries Actions	Yuba County Water Agency	TBD	Concept	X	X	X	X			X	TBD	
YCWA-19	Yuba County Levee Project	Yuba County Water Agency	\$750M	Concept	X			X			X	TBD	

**Upper Feather River
Integrated Regional Water Management**

**RWVG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Project Monitoring and Plan Performance
Date: September 15, 2015

INTRODUCTION

The IRWM Plan must contain performance measures and monitoring methods to ensure the objectives of the Plan are met. Therefore, the IRWM Plan must describe a method for evaluating and monitoring the RWVG's ability to meet the objectives and implement the projects in the IRWM Plan.

The intent of the Plan Performance and Monitoring Standard is to ensure:

- The RWVG is efficiently making progress towards meeting the objectives in the IRWM Plan.
- The RWVG is implementing projects listed in the IRWM Plan.
- Each project in the Plan is monitored to comply with all applicable rules, laws, and permit requirements.

Monitoring performance should be closely related to the implementation of projects. Details related to implementation of specific projects in the IRWM Plan are not necessary. Rather, the IRWM Plan needs to contain the criteria that will be used to evaluate the progress to meet Plan objectives and the process that will link project completion to IRWM Plan implementation.

To guide the RWVG in implementing IRWM projects, the IRWM Plan must:

- 1) Contain an explanation of whom or what group within the RWVG will be responsible for IRWM implementation evaluation.
- 2) List the frequency of evaluating the RWVG's performance at implementing projects in the IRWM Plan (monthly, semi-annual, yearly, etc.).
- 3) Explain how IRWM implementation will be tracked with a Data Management System (DMS), and who will be responsible for maintaining the DMS.
- 4) Discuss how findings or "lessons learned" from project-specific monitoring efforts will be used to improve the RWVG's ability to implement future projects in the IRWM Plan. For example, after review of the RWVG performance measures, the RWVG may need to amend the RMS or

the actual IRWM objectives to account for new scientific data, and regional changes in conditions that can alter baseline assumptions or understanding of water management issues discussed in the IRWM Plan. Any amendments to the RMS or objectives will need to adequately identify water demand, water supply, water quality protections, and environmental stewardship actions that provide long-term, reliable, and high-quality water supply; including water supply to DACs.

- 5) Identify who has the primary responsibility for development of the project-specific monitoring plans and who is responsible for project-specific monitoring activities.
- 6) Specify the stage of project development that a project-specific monitoring plan will be prepared.
- 7) Provide an explanation of typically required contents of a project-specific monitoring plan including, but not limited to, the following:
 - Clearly and concisely (in a table format) describe what is being monitored for each project. Examples include monitoring for water quality, water depth, flood frequency, and effects the project may have on habitat or particular species (before and after construction).
 - Measures to remedy or react to problems encountered during monitoring. An example would be to coordinate with the Department of Fish and Wildlife if a species or its habitat is adversely impacted during construction or after implementation of a project.
 - Location of monitoring.
 - Monitoring frequency.
 - Monitoring protocols/methodologies, including who will perform the monitoring.
 - DMS or procedures to keep track of what is monitored. Each project's monitoring plan will also need to address how the data collected will be or can be incorporated into statewide databases.
 - Procedures to ensure the monitoring schedule is maintained and that adequate resources (including funding) are available to maintain monitoring of the project throughout the scheduled monitoring timeframe.

DEVELOPING PROJECT-LEVEL PERFORMANCE MEASURES/MONITORING

Monitoring project performance is tied directly to project implementation; projects won't be evaluated unless they become either partially or wholly funded and implemented. The outcomes of project implementation then contribute to achieving the Plan objectives.

Sponsors of existing and future projects will be expected to provide measures and outcomes for their projects which provide specific quantitative measures, based on the general measures listed in item 7, above. Project sponsors will submit relevant information about projects and project performance to the RWMG's preferred data management system. During the last RWMG meeting, there was discussion about using the existing www.featherriver.org website as a repository for implementation project monitoring data, which will need to be formalized.

Project sponsors will be responsible for development of monitoring plans for their respective project when applying to a funding source and will specify both who will conduct the monitoring and how it will

be funded. Per RWMG policy approved at the last meeting, the project sponsor should identify a third party to perform the monitoring.

Either the RWMG, or a specific committee, such as a Project Review Committee, should evaluate the monitoring plans at a specified interval to inform Plan progress. Monitoring outcomes and plans likely will also be evaluated by the respective funding source. As findings and the resulting lessons learned from monitoring become available, they will be a valuable tool in improving project design in the future, amending resource management strategies, and altering objectives to be more responsive to watershed needs.

Both outputs (what the project consisted of, e.g., tank replaced) and outcomes (what the project accomplished in terms of Plan goals and objectives, e.g., water supply improved for a DAC for the life of the project) should be addressed where possible. In other words, monitoring needs to address not only that the project was achieved, but what it accomplished toward achieving Plan goals and objectives

Monitoring plans will be prepared to the specifications required by a funding source. The guidance for what DWR would expect in the typical contents of a project-specific monitoring plan is listed in item 7, above.

Questions for Discussion

1. What group within the RWMG will be responsible for IRWM implementation evaluation?
2. How often will the RWMG's performance at implementing projects in the Plan be evaluated?
3. How will Plan implementation be tracked with the data management system (DMS)?
4. How or should individual projects that have applied for and received non-IRWM grants be tracked and monitored? While they may not have been under the RWMG in applying for the grant if funded individually, there should be some recognition the project was funded individually and implements the plan through this individual funding. A suggestion is a non-binding request to provide information to the RWMG that the project is being implemented.
5. How will "lessons learned" from project-specific monitoring efforts be used to improve implementation of future projects?
6. Who is responsible for development of project-specific monitoring plans? Who is responsible for project specific monitoring activities?

RWMG Policy (6/15/15): Although project monitoring requirements will vary by grant solicitation, it is the position of the Upper Feather River Regional Water Management Group that project monitoring for IRWM-sanctioned projects should be objective, transparent, available to the public, required to be conducted by a third party, and science-based.

7. At what stage of project development should a project-specific monitoring plan be prepared?
8. What are the basic required contents of a project-specific monitoring plan?

Suggested:

- *Clearly and concisely (in a table format) describe what is being monitored for each project.*
- *Measures to remedy or react to problems encountered during monitoring.*
- *Location of monitoring.*
- *Monitoring frequency.*
- *Monitoring protocols/methodologies, including who will perform the monitoring.*

- *DMS or procedures to keep track of what is monitored. Each project's monitoring plan will also need to address how the data collected will be or can be incorporated into statewide databases.*
- *Procedures to ensure the monitoring schedule is maintained and that adequate resources (including funding) are available to maintain monitoring of the project throughout the scheduled monitoring timeframe.*

REQUEST

Discuss and provide direction to staff.

**Upper Feather River
Integrated Regional Water Management**

**RWMG Meeting No. 6
September 23, 2015**

To: Upper Feather River Regional Water Management Group
From: Uma Hinman, Uma Hinman Consulting
Subject: Next Meeting Date and Topics
Date: September 15, 2015

INTRODUCTION

Regular Meeting

Suggested schedule for the seventh regular RWMG meeting is Friday, October 23, 2015, at 1:00 p.m. in the Plumas County Planning Conference Room, 555 Main Street, Quincy.

Topics recommended for the October 2015 RWMG meeting:

1. Workgroup updates
2. Tribal Outreach update
3. Presentation of Floodplains, Meadows, Waterbodies Workgroup RMS recommendations
4. Presentation of Climate Change Technical Study
5. Draft Implementation Project lists

Future topics:

- Presentation of Agricultural Land Stewardship Workgroup RMS recommendations
- Presentation of Uplands/Forest Workgroup and Tribal Advisory Committee RMS recommendations
- Draft DAC Assessment
- Presentation on Community Vulnerability Study
- Presentation on Forest-Water Balance Study
- Draft chapter reviews

REQUEST

Discuss and approve the next meeting date, time and tentative content.