Final Grant Report

GRANTEE: River Network

PROJECT NAME: INCREASING LOCAL CAPACITY FOR INTEGRATED WATER MANAGEMENT PLANS

GRANT AMOUNT: $95,000

OBJECTIVES

Through the following tasks, River Network aims to:

- Enlarge the pipeline of local coalitions that are interested, ready and capable of undertaking stream management plans that reflect active engagement of the agricultural and water provider community during CWCB's next two grant cycles (2017 and 2018) by addressing their knowledge, skill and capacity limitations;
- Assist local coalitions in finding appropriate matching funds for their stream management plan grant requests to CWCB in the next two grant cycles (2017 and 2018).

TASKS

Task 1: Stream Management Planning Outreach and Education

1.1: Use assessment results and follow-up interviews to better understand the capacity needs, knowledge gaps and skills that are limiting coalitions' development of stream management plan funding requests

Progress: River Network launched an on-line assessment in January 2017 to seek information about coalitions' existing capacity and skill needs. The assessment was directly sent to over 100 coalition leaders, basin roundtable members, local government and water management officials and statewide NGO's with almost 70 responses received. After survey results (Attachment A) were compiled, River Network conducted follow-up interviews with a dozen respondents to better understand their needs.

Deliverables & June 2018 Status Update:

Deliverable	Status
White paper on assessment results, focusing primarily on how the results can inform Tasks 1.2, 2.1 and 3	Complete. See Attachment A.

1.2: Compile examples and best practices of stream management planning

Progress: River Network has begun to compile examples and best practices of stream management planning. All successful grant applications, overviews of relevant conservation planning tools and recommended technical approaches, and completed plans are available either on River Network's project web page, or upon request. Our 2018 proposal to CWCB would make this compiled information easier to access by centralizing it on the state's website.

River Network compiled simple profiles of each completed or on-going Stream Management Plan, and provides a monthly status update on on-going plans and those in the pipeline. We also completed a brochure focused on the outcomes of the Grand County SMP as a way to illustrate the benefits of the planning process. See Attachment B for these documents.

River Network has also begun understanding lessons learned from those currently undertaking the process. We have shared these in one-on-one meetings with the four coalitions to which we are providing direct support under Task 2, held a webinar Q&A session (recording available here), as well as on a tour of the Crystal River plan in August 2017 attended by 30 people.

Deliverables & June 2018 Status Update:

Deliverable	Status
Compilation of examples and best practices of stream management planning	Completed. See Attachment B as well as webinar recording.
Profiles of completed and on-going stream management planning efforts	Completed. See Attachment B.

1.3: Share information from Task 1.2 both on-line and in-person with people and entities, including the basin roundtables, that could be an institutional home for a stream management plan in their watershed

Progress: River Network created a page on it's website as a temporary on-line home for the information developed in Task 1.2. This page includes contact information for interested parties to learn more and be placed on an e-mail list. River Network's 2018 proposal would improve on this by expanding and centralizing it on the state's website.

River Network sends regular emails (every 2 months or so) to the e-mail list with information on upcoming learning events, technical tools and opportunities for assistance with SMP's. See Attachment C for examples. This email list is currently at ~125 people, and grows with every presentation conducted.

River Network developed a presentation on SMP's (Attachment D) and widely circulated an offer to present information on SMP's to possible coalition partners and lead a discussion of how stream management planning could be a useful tool. River Network met with over a dozen groups interested in stream mgt planning. They include coalitions in the Eagle, Little Thompson, Rio Grande, St. Vrain, Middle Colorado, Big Thompson, and Yampa/White river basins. In addition, we gave webinar and/or conference presentations through Audubon Rockies, CO Water Congress, Sustaining CO Watersheds conference, AWRA, Gunnison Water Workshop and Northwest CO Council of Governments.

Deliverables & June 2018 Status Update:

Deliverable	Status
On-line repository of information developed in Task 1.2	Completed. See River Network's project web page
Printed profiles of completed and on-going stream management planning efforts to circulate	Completed. See Attachment B.
Stock presentation to highlight examples of stream management planning and initiate a discussion of why/how they can be implemented locally	Completed. See Attachment D.
A minimum of eight presentations across Colorado to stakeholder groups, and meeting notes from each	Over a dozen presentations completed. See Attachment D for a list.

Periodic follow up via email communication with those indicating interest both on-line an in-person	Completed. See Attachment C for examples.

Task 2: In up to 3 watersheds, support and assist existing or new coalitions in their efforts to initiate a stream management plan

2.1: Select up to 3 coalitions for which River Network will coordinate support and assistance to initiate a stream management plan

Progress: River Network created a short application (Attachment E) that assessed interest and readiness in stream management planning in the next two years. Four coalitions applied: Eagle, Middle Colorado, Yampa and St. Vrain. River Network chose to support all four, however one of the four coalitions, the Yampa, decided after a few meetings to delay their grant application to 2018 to allow for additional stakeholder work.

Deliverables & June 2018 Status Update:

Deliverable	Status
Agreements with up to three coalitions outlining the expectations of both parties	Formal agreements/MOUs with the coalitions were not found to be necessary, as the application (Attachment E) outlined expectations adequately

2.2: Stakeholder identification and engagement

Progress:

River Network assisted the St. Vrain, Eagle and Middle Colorado coalitions with stakeholder engagement work to ensure inclusion of necessary stakeholders into the conversation and identify both the concerns and desires of high priority stakeholders. Plans for initial stakeholder meetings were created and implemented either by hired contractors (see Task 2.5) or by coalition staff. See Attachment F for stakeholder engagement scopes of work and stakeholder meeting summaries.

Deliverables & June 2018 Status Update:

Deliverable	Status
Stakeholder identification and engagement strategy for up to three coalitions	Completed. See Attachment F.
Documentation of the engagement activities completed, a summary of stakeholder discussions including concerns and expectations, and a clear set of next steps to continue engagement moving forward	Completed. See Attachment F for documentation, and the 3 coalitions' grant applications to CWCB for continued stakeholder engagement plans.
Discussion in the final report of how early stakeholder involvement affected the group's process, and recommendations for future groups to consider	Completed. See Appendix I.

2.3: Identify the goals of a stream management plan

Progress: River Network helped the 3 coalitions set goals, objectives and tasks for their stream management plans that responded to stakeholder concerns and expectations, identified specific problems the coalitions desire to solve, and outlined the geographical boundaries and benefits envisioned from a stream management plan.

Deliverables & June 2018 Status Update:

Deliverable	Status
Outline of desired boundaries, benefits and goals that will form the basis for a stream management plan grant application	Completed. See the 3 coalitions' grant applications to CWCB for goals and extent of planned SMP activities.
Discussion in the final report of the process used to identify goals, and recommendations for future groups to consider	Completed. See Appendix I.

2.4: Develop a fundraising plan in collaboration with each coalition to secure required matching funds for stream management plan grant applications

Progress: River Network helped each coalition's leadership team develop and procure matching funds for a stream management plan grant application. This involved assistance in writing and/or reviewing requests to the basin roundtables for Water Supply Reserve Fund grants, writing and/or reviewing requests for support to local water management agencies and local government, and soliciting support from philanthropic foundations.

Deliverables & June 2018 Status Update:

Deliverable	Status
Fundraising plan sufficient to raise matching funds for a stream management plan grant application	Completed. See the 3 coalitions' grant applications to CWCB for matching fund budgets.

2.5: Capacity-building assistance

Method/Procedure: Additional expertise and capacity was required for all 3 coalitions. It included hiring outside facilitation services, stakeholder engagement planning and interviews, compilations of existing information, grant writing and developing technical approaches and budgets for the scopes of work.

Deliverables & June 2018 Status Update:

Deliverable	Status
Service request profiles will be documented in the River Science Connection system	Support from local professionals was easily found, so there was no need to create requests in the River Science Connection.
Discussion in the final report of what types of assistance the groups most benefitted from and recommendations for future groups	Completed. See Appendix I.

Task 3: NGO/Academic Technical Support Group

Progress: River Network and The Nature Conservancy convened a 3-meeting series to align the resources, expertise and tools available within Colorado's water management, NGO, academic,

and research and science communities with the capacity and knowledge needs of local coalitions as they initiate stream management planning processes. The agendas, attendees and meeting notes of each of the 3 meetings are included in Attachment G.

Deliverables & June 2018 Status Update:

Deliverable	Status
Discussion in the final report of the resources and tools group members can contribute to meeting the identified capacity/knowledge needs of local coalitions and recommendations on how to leverage those resources and tools in the future	Completed. See Appendix I.

METRICS, REPORTING AND FINAL DELIVERABLE

This report serves as the final progress report due to CWCB. In addition to summarizing the tasks accomplished, it examines our success as evaluated by the following metrics:

Overall metrics:

The number of stream management plan grant applications received by CWCB in 2017, and the number of potential applications for 2018	CWCB received 3 grant applications in 2018 that River Network directly supported, as well as an additional 4 from coalitions that received at least one River Network presentation. There were 3 applications submitted that River Network was not involved in.
Surveys from the three selected coalitions to gauge how their organization directly benefitted from the assistance provided in Task 2	See letters of support from the coalitions for River Network's 2018 grant application in Appendix H
Where applicable, deployment of River Network's Organizational Assessment Tool, an online and interactive survey tool, to track a variety of organizational markers both before and after coalitions' participation. Due to the actions taken during the design of a stream management plan, the following metrics in the tool are specifically applicable: Number of engaged community members (attending events, on email list, etc.) Percentage of resources (time and money) going towards river health outcomes Number of strategic partnerships	River Network did not deploy the Organizational Assessment Tool, but instead relied on the organization's applications for direct assistance, provided in Appendix E

Total funding committed to river health outcomes	
Task 1 Metrics: Website metrics for on-line repository (site visits, sign-ups, etc.) Number of presentations/discussions requested and given	Between December 2017 and June 2018, River Network had XX unique visits to our SMP web pages. 104 people signed up for the SMP updates email list. River Network gave over a dozen presentations between March 2017 and June 2018. See Appendix D for a list.
Task 2 Metrics: Level of engagement over time by high priority stakeholders as evidenced by attendance at meetings, willingness to commit staff or financial resources to the process, and letters of support for initiating a stream management plan Successful commitment of the funds necessary to provide the required match for a stream management plan grant application	High priority stakeholders including ditch companies, environmental organizations, municipal water providers and conservation districts were well represented in the initial stakeholder meetings of the Middle Colorado, St. Vrain and Eagle SMPs. All applications had diverse budget commitments and broad letters of support. All submitted applications had required match amounts (or more).

ATTACHMENTS

Colorado Water Sustainability and Security Stakeholder Survey

Results and Analysis

May 2017

1. Background

This survey sought to identify knowledge gaps necessary for local coalitions and citizen-led river and watershed conservation efforts in Colorado to become more effective in protecting and restoring the health of their local waters, including replenishing flows to support ecological function and recreational opportunities. Specifically, it defined the knowledge gaps that exist today which limit local coalitions' ability to accomplish a stream management plan so that River Network can develop a responsive plan to meet these gaps. It also helped to identify possible participants for direct assistance in planning and scoping a stream management plan.

It was launched in December 2017 for two months and was circulated through direct invitation as well as the email lists of the Colorado Watershed Assembly and the Colorado Water Trust. River Network received 70 responses.

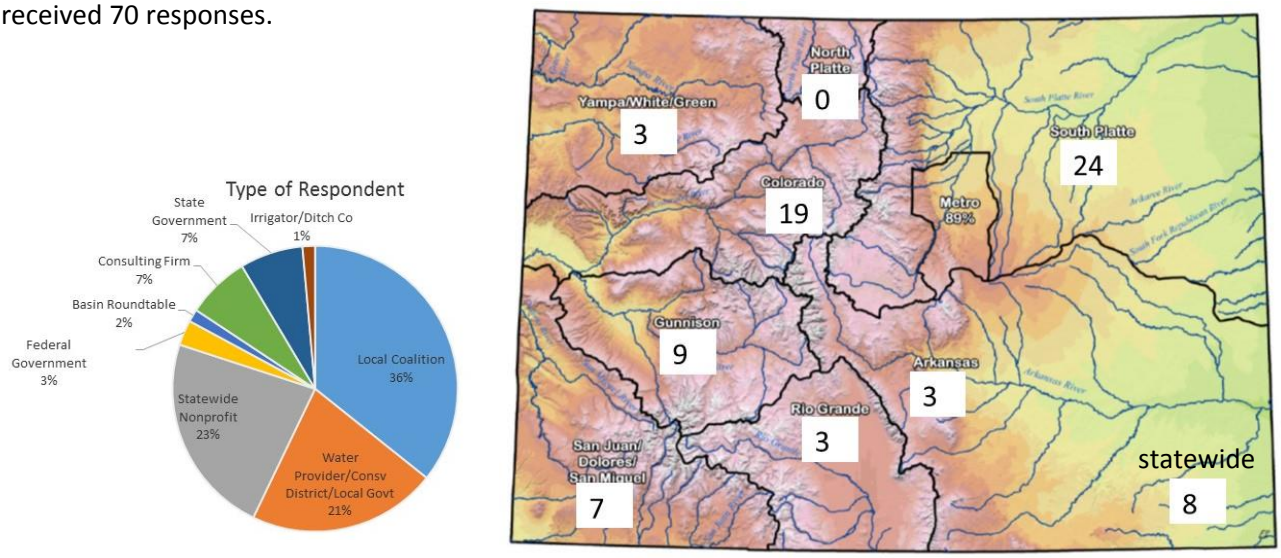


Figure 1: Survey Response Statistics

2. Results

2.1. Factors that limit a community's ability to identify, plan for and implement solutions that improve the health of their river

Respondents were asked to provide a list of the factors that are obstacles to achieving healthy waterways in their communities. Reponses from watershed groups/community coalitions (shown in blue) prioritized insufficient human capacity. Interestingly, responses from those working for statewide conservation groups (shown in orange) did not show a lack of capacity, but instead prioritized a basic understanding within the community regarding where their water comes from, the ecological patterns and processes it supports, and strategies for keeping

it healthy. Respondents from local government were less likely to identify almost any of these factors as obstacles.

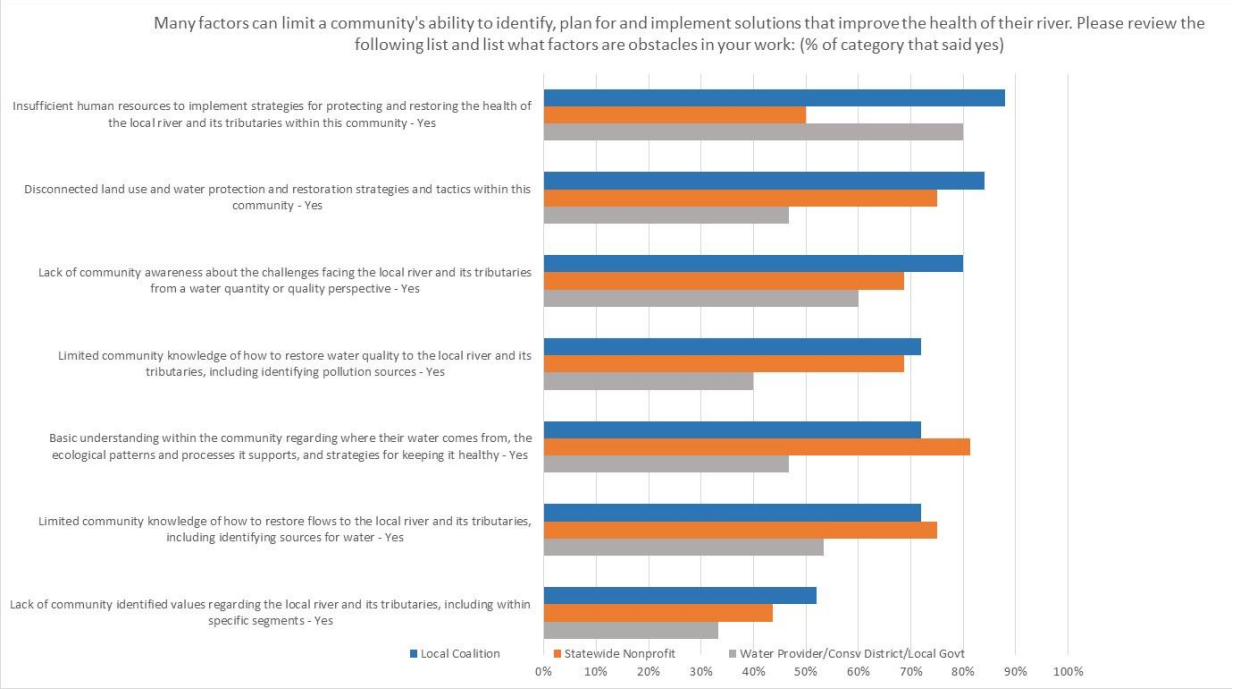


Figure 2 Obstacles to achieving healthy waterways

2.2. Resources that would be most helpful in protecting healthy rivers

Similar to the results on obstacles, when asked what resources would be most helpful, watershed groups/community coalitions (shown in blue) prioritized additional human and financial resources. Responses from those working for statewide conservation groups (shown in orange) prioritized data and information related to flow and pollution ahead of more financial or human resources. Resources related to flow restoration and water transactions were important to 60% of local coalition respondents, but resources related to water quality were rated as more important. Both statewide conservation organizations and local coalitions would find products or models that help envision an alternate future for their waterway as helpful.

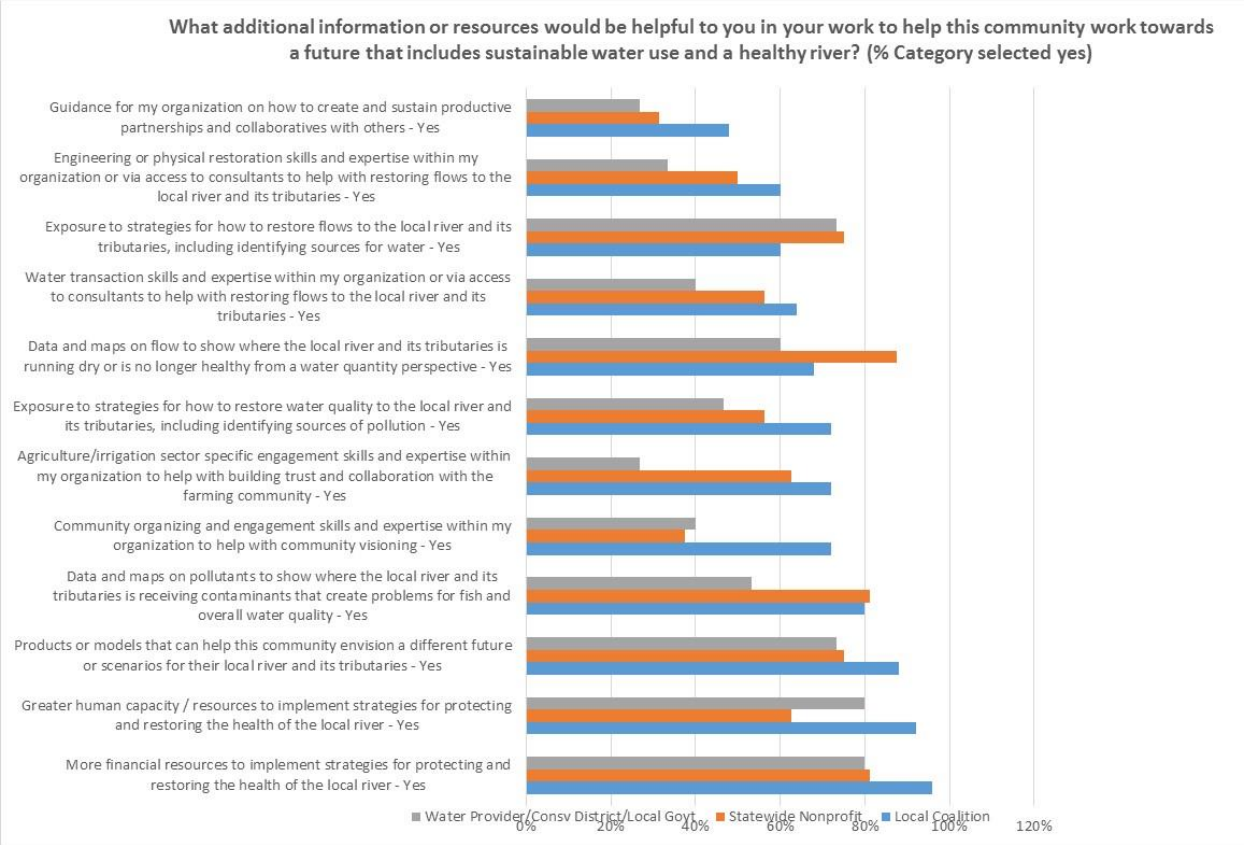


Figure 3 Helpful Resources

2.3. Desired topics

Topics related to water quality and organizational development (fundraising, community engagement, etc) were desired by more than twice as many local coalitions (shown in blue) as information related to flow. These results are flipped for statewide conservation groups, who saw topics related to flow as more desirable.

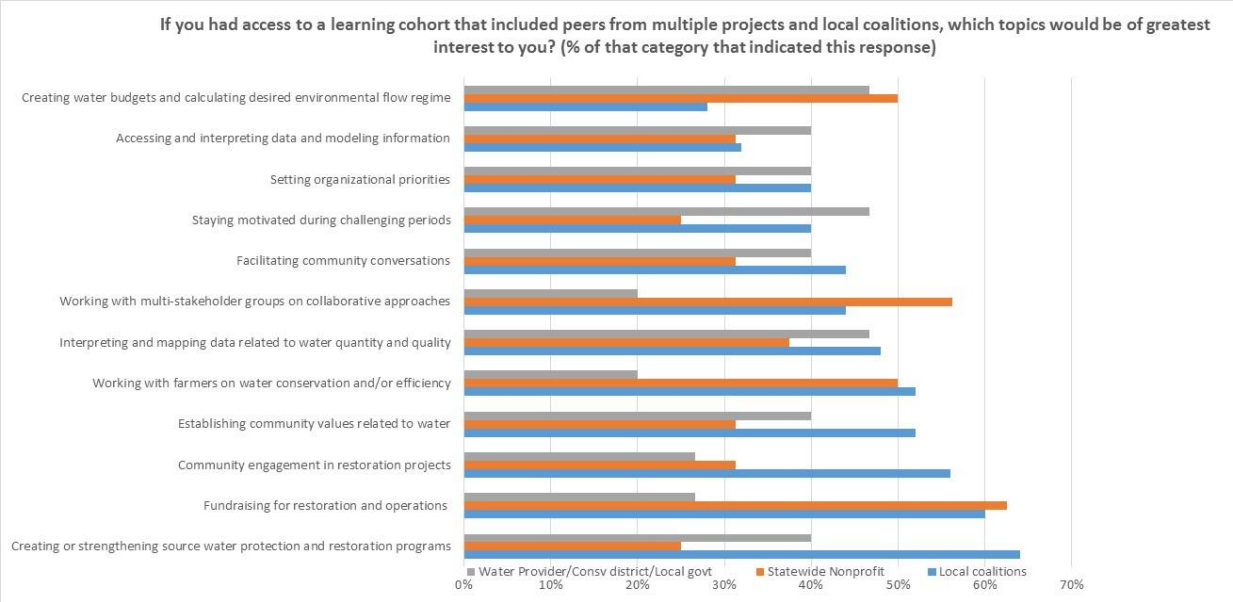


Figure 4 Cohort Topics

2.4. Desired format

When asked in what format respondents would prefer educational content, access to experts and one-on-one consulting was the most desired, followed by conferences and in-person training. On-line trainings and webinars was the least desired format. There was very little difference between local coalitions and statewide conservation groups.

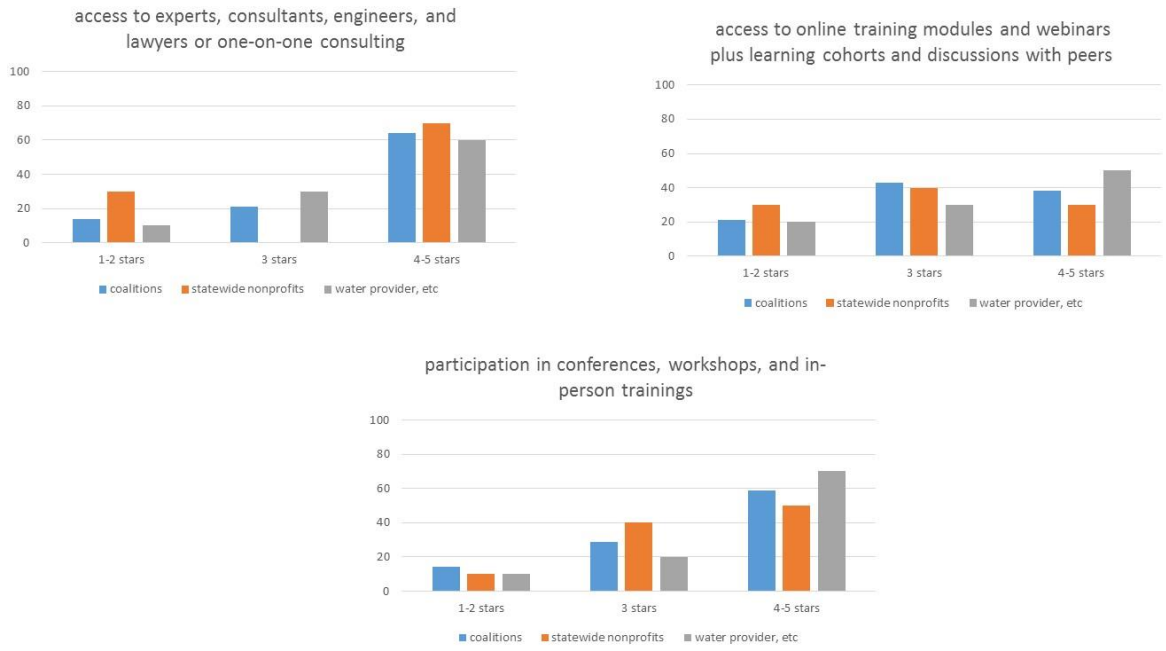
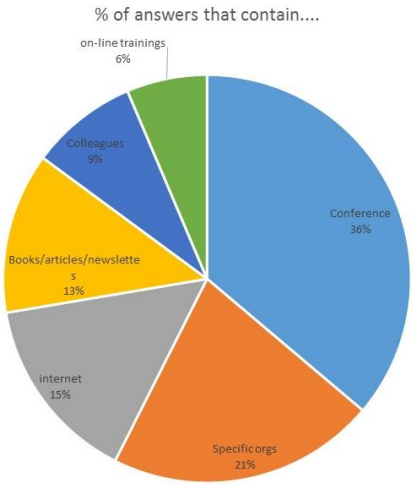


Figure 5 Desired Format

2.5. Locations to obtain information

When asked where respondents go today to gain exposure to new solutions, most go to conferences and partner organizations. The most frequently cited organizations include CWCB and consultants.



Entity	Number ID'd	Entity	Number ID'd
CWCB	10	CU	2
Consultants	9	WQCD	1
My peer network	5	Colorado Rural Water	1
NRCS	5	Riverwatch	1
USGS	5	CANPO	1
CFWE	5	CDOT	1
CSU/CO Water Inst	5	UDFCD	1
Internet	4	USACE	1
State of Colorado	4	Center for Watershed Protection	1
EPA	4	CO Water Congress	1
BOR	3	AWRA	1
CWA	3	Western Resource Advocates	1
CPW	3	Tamarisk Coalition/X-Watershed Network	1
CRWCD	3	Sustaining CO Watersheds Conference	1
NOAA/NIDIS/CBRFC	3	Roaring Fork Conservancy	1
TU	2	Pitkin County	1
TNC	2	Keep America Beautiful	1
Other watershed coalitions	2	American Rivers	1
CO Water Trust	2	Ocean Conservancy	1
River Network	2	CDSS	1
Science and reference journals	2	Univ of Utah	1
USFS	2	Grand Canyon Institute	1
CDPHE/NPS Program	2	Alliance for Water Efficiency	1
CMU Water Center	2	DOLA	1

3. Discussion and Take Aways

- Funding and human capacity is a top priority for local coalitions. Funding pays for the manpower necessary to accomplish the many goals of local coalitions. However, this is

less of an urgent need for statewide conservation organizations, who are likely larger and better funded to begin with, and have professional fundraising staff. If the goal is to help local coalitions become more involved in flow planning and management, addressing their capacity needs through funding for staff time and associated overhead expenses is important.

- Local coalitions have historically focused on water quality related issues within their watersheds, largely due to the funding available from the EPA for watershed plans and nonpoint source pollution control. This would explain their focus on topics related to water quality, and not water quantity in this survey. Conversely, statewide conservation organizations have been funded for the last ten years or so to focus on solutions related to water flow, and so see this topic as more important. Education on how and why local coalitions can meet their mission by focusing on flows, and the resources available to help them do this, would be an important first step to broadening their focus beyond water quality.
- Access to experts and in-person trainings are preferred over webinars. To accomplish increased understanding of flow planning and management, outreach could be funneled through the CWCB and the expert community (consultants, water managers, statewide NGOs), and could be delivered to local coalitions through small presentations, one on one trainings and regional workshops.

GRAND COUNTY'S STREAM MANAGEMENT PLAN

BENEFITING BOTH IRRIGATORS AND THE RIVER

"Each of us can think we know what we want—but what you want and what you need can be two different things," says Lurline Underbrink-Curran, former Grand County manager. Curran led Grand County, headwaters of the Colorado River, through a stream management plan process to help the county identify and communicate needs as it was confronting increased diversions from its rivers.

Grand County had a long relationship with Denver Water and Northern Water Conservancy District, as their existing projects divert nearly 70% of the Colorado River headwaters to the Front Range. Fish and their insect diet were already sparse, flows were lean and inconsistent, fishing had declined, and the river overall was impaired. At the same time, new proposed projects threatened even lower flows that could exacerbate an existing problem for area ranchers—the elevation of the river had fallen due to channelization and irrigators couldn't easily divert water from the river.

"It was a reckoning of times," says Paul Bruchez, of Reeder Creek Ranch, a cattle ranch and private fly fishing club near Kremmling. During the 2002 drought the Bruchez family and other area ranchers were unable to adequately divert water, limiting fly fishing opportunities and hay production, resulting in some to sell off their herds.

"The ranches were not sustainable," Bruchez says. "The health of the river certainly was doomed."

NEGOTIATING THE NEEDS OF WATER USERS AND THE RIVER

When Front Range water providers approached Grand County with plans for two new projects that would further increase diversions from Grand County's iconic rivers, managers like Curran faced the challenge of negotiating between the needs of the river and water users. Although residents knew they couldn't let their rivers run dry, the county didn't know what actions were needed to maintain a healthy river. The county undertook a $3 million stream management plan to discover the answers.

"We came at it from a scientific angle so we wouldn't be arguing ideas," Curran says of the county's plan. Grand County hired consulting firms to assess and develop the plan in three phases over three years, spanning 80 miles of river. The fact-based plan provided the technical steps the county needed to assess the problems, make clear decisions, and negotiate a fix.

WHAT IS A STREAM MANAGEMENT PLAN?

Colorado's 2015 Water Plan created a water management roadmap to achieve a vibrant, productive and sustainable future for the state. To protect and enhance streamflows, the plan calls for 80 percent of locally prioritized rivers to be covered by stream management plans by 2030, and provides funding for communities to undertake them.

A stream management plan is an assessment and action plan to diagnose the health of a river and identify and prioritize actions to maintain or improve it. These assessments evaluate multiple variables including hydrology, riparian corridor health, sediment load, water quality, fish and aquatic insect habitat and more to determine necessary conditions to support environmental and/or recreational needs while benefiting water users.

Rancher Paul Bruchez tending to the Reeder Creek Ranch herd

River improvements help Reeder Creek Ranch's private fishing club supplement farm income.

The plan identified base and flushing flows necessary to keep the rivers healthy, evaluated the amount of water needed to support fish, and targeted stream segments to determine where work was needed most. It also provided data to support negotiations about how additional water could be diverted to the Front Range without decimating the rivers. "[The stream management plan] brought a level of credibility to the discussions," says Mely Whiting, legal counsel for Trout Unlimited's Western Water Project. With the plan as a base, and many years of relationship building behind them, Grand County and other West Slope entities worked with Denver and Northern Water to develop the Colorado River Cooperative Agreement and Windy Gap Bypass. Both agreements were logically crafted, adhere to the recommendations in the stream management plan, and promote a healthier stream than would otherwise exist, Curran says.

AREA RANCHERS LEVERAGE THE PLAN TO RAISE MILLIONS FOR MULTI-PURPOSE PROJECTS

The plan helped landowners too. Recognizing the challenges that existed along the river, the Bruchez family and nearby landowners formed the Irrigators of Lands in the Vicinity of Kremmling (ILVK). With steps outlined to restore the county's waters, individuals and groups led by the ILVK are using the plan as a roadmap to leverage funding and implement projects. In December 2016, the Natural Resources Conservation Service selected the Colorado River Headwaters Project for a Regional Conservation Partnership Program, awarding over $2million for projects within the ILVK area. The Colorado Water Conservation Board also awarded $465,000 for ILVK irrigation diversion and stream enhancement projects, which landowners matched.

"I look at it today and neighbor ranchers who are fourth-generation producers are building infrastructure in the river that helps the health of the fishery, and they're excited to do it," Bruchez says.

The county's leadership in stream management planning has been popular with residents. "Agricultural users are happy with what we're doing," Curran says. "They're not only using the money to increase their ability to access water, but they're doing environmental work at the same time." With healthy rivers comes more sustainable agriculture but also additional opportunities for landowners who are interested in hosting hunting or fishing clubs—the projects increase their earning potential and boost the value of their properties.

Beyond the ILVK, implementation of Grand County's stream management plan is now in the hands of Learning by Doing, a group born out of the Colorado River Cooperative Agreement. In September 2017, the group completed its first stream restoration project, Fraser Flats, and is moving forward thoughtfully, reassessing, leveraging the plan, and using it to make informed decisions. The plan has proven a model for other communities to craft stream management plans to both meet water users' needs and improve the health of their river.

Partners

River Network envisions a future of clean and ample water for people and nature, where local caretakers are well-equipped, effective and courageous champions for our rivers. RN provides support and guidance to Colorado communities seeking to improve the condition of their local streams through a management plan.

Trout Unlimited's Western Water Project restores healthy stream flows and habitat in some of the West's best places. Trout Unlimited partners with ranchers and farmers on pragmatic on-the-ground restoration projects to help working landscapes and fish coexist.

American Rivers' Colorado River Basin programs drive innovative solutions to conserve water in the urban, agricultural, and energy sectors to ensure that the region's rivers and streams are healthy for local and regional economies, sustainable agriculture, and world-class recreation.

All photos credit: Joshua Duplechian, TU

WANT TO LEARN MORE? Watch A River's Reckoning at ***americanrivers.org/rivers/films*** to learn more about protecting the upper Colorado River. Visit ***rivernetwork.org/resource/stream-management-planning-in-colorado*** for resources, or contact Nicole Seltzer, Science & Policy Manager, at ***nseltzer@rivernetwork.org***.

Goal			Oct 2017 Status	Future Discussion Items
1. Enlarge the pipeline of local coalitions that are interested, ready and capable of undertaking stream management plans that reflect active engagement of the agricultural and water provider community during CWCB's next two grant cycles (2017 and 2018) (70%)				
Outcomes	Increase knowledge among watershed coalitions regarding how to plan, finance and develop stream management plans to cause stream management planning to become more consistent across the state;	*Tasks*	*Collect and widely share best practices in stream management planning through online compilation of grant guidelines, planning tools, recommended technical approaches, community engagement advice and lessons learned from those currently undertaking the process.*	March: Audubon webinar; June: Initial presentations to/meetings with Eagle River Watershed Council, Little Thompson Coalition, Rio Grande Basin Roundtable; St. Vrain Creek Coalition; Gunnison Water Workshop; Middle CO Watershed Council July: Initial presentations to/meetings with Big Thompson Coalition, Yampa/White Basin Roundtable Aug: Eagle River MOU group; CO Water Congress convention Sept: Big Thompson Coalition board October: Pre-Conference workshop at Sustaining CO Watersheds conference November: article in November AWRA Impact Journal; NWCCOG QQ Committee	--Share Additional Opps to present SMP basics/status (BRTs, other interested parties) to Nicole --WFF is funding outreach (Film, blogs, print piece) related to upper CO/ILVK. Due Oct. --Working on getting a general session panel presentation at January CWC.
	Improve the quantity and quality of applications for CWCB's Stream Management Plan grant program in the next two grant cycles		*Help up to three coalitions initiate a stream management plan process by providing capacity-building support and assistance to engage stakeholders and identify and prioritize the problems they want to solve through a stream management plan.*	On-going list of SMP efforts and candidates Application for coalition support distributed Held webinar on 9/18 to share advice between those undertaking smp's now and the 4 selected coalitions. Recording available here. 4 selected: Eagle, St. Vrain, Middle CO, Yampa Eagle: Hired Peak Facilitation and a researcher to 1) do stakeholder meetings in Sept/Oct to set objectives (mtg next week), and 2) Research existing info/reports/permitting processes to ID recommendations that already exist, and 3) inform scope of work to be written by Lotic Hydrological. St. Vrain: Peak Facilitation conducted stakeholder interviews and one large meeting. Interview Summary and Meeting notes available. Drafting goals/objectives for the plan now. SGM will be hired to write the scope of work. Middle CO: Lotic Hydrological writing scope of work based on stakeholder interviews conducted by Middle CO Watershed Council staff. Currently envisioned approach here. Yampa: The subcommittee of the basin roundtable has decided that a 2018 grant application is a better target, to give them time to do more stakeholder work and draft a complete technical scope. Funds are available through the brt and TNC to pay for this planning work. I will continue to be involved and help them through 2018's grant cycle.	--Schedule this work differently in 2018 so it is less rushed. Application out in Jan, groups picked in April. --Providing on-going support and coaching to coalitions once they receive the grant. How can/should we keep helping them?

2. Emergence of a more effective, capable and connected network of coalitions across Colorado (20%)

Outcomes	Build a strong community of practice made of local watershed coalitions, statewide NGOs and the academic community focused on meeting key knowledge gaps of coalition leaders and their communities	*Tasks*	*Conduct a knowledge gap assessment to better understand the current capacity and learning needs of local coalitions*	Completed in February 2017 w/ 70 responses. Follow-up Interviews conducted with ~15 coalition members to understand needs in more detail.	--Complete.
			Convene Colorado's water management, NGO, academic, and research and science communities to align their resources, expertise and tools with the capacity and knowledge needs of local coalitions as they initiate stream management planning processes.	Three meeting series will run from April-Oct 2017. First meeting completed and attended by 40 professionals (notes here). 2nd mtg Aug 3, with tour of Crystal/RF on Aug 4 (notes here). 3rd mtg at SCW conference (final agenda and attendee list here).	--CWCB indicated interest in helping develop info in this area in 2018.

3. Expand access to funding for watershed health and coalition longevity (10%)

Outcomes	Assist coalitions with identifying, connecting with and requesting funding from local, statewide and national partners that may be able to provide financial investment in river health	*Tasks*	*Help the selected coalitions' leadership team procure matching funds for a stream management plan grant application.*	Supported the Eagle and Middle CO groups in their initial requests to the CO Basin Roundtable for matching funds. St. Vrain requesting funds at Oct brt meeting.	

Gunnison Basin

Status: Grant awarded 2017. Underway. https://www.hccacb.org/water/stream_management/?mc_cid=d966553d68&mc_eid=63da4c0714

Who: Upper Gunnison Water Conservancy District, fiscal agent and oversight. Implementation partners are Trout Unlimited (Ohio Creek), High Country Conservation Advocates (East River), and the Lake Fork Valley Conservancy (Lake Fork). Technical Lead: Wilson Water Group.

Where: This 2017 grant is for the first phase of the planning process, initially focusing on Ohio Creek, East River, and the Lake Fork of the Gunnison. Once these assessments are complete, similar assessments will be performed for the other major tributaries to the Upper Gunnison Basin (contingent on future funding sources).

Objectives:
The Upper Gunnison Watershed Assessment and Stream Management Plan is intended to improve water security for all water uses in the Upper Gunnison Basin, by protecting existing uses, meeting user shortages, and maintaining healthy riverine ecosystems in the face of increased future demand and climate uncertainty. Specific objectives for Phase I (2017 2020) in the initial sub basins of Ohio Creek, East River, and the Lake Fork include:

1) Identify key stakeholders and their values and uses of watershed resources.
2) Working with stakeholders, identify data gaps to determine assessment needs for these sub basins, including stakeholder ideas for water use efficiencies and other watershed bmps.
3) Address information gaps through consumptive and non consumptive assessments.
4) Demonstrate water use efficiency or other watershed best management practices with on the ground pilot sites in all three sub basins.
5) Provide a comprehensive range of watershed bmp's based on assessment, demonstrations, and stakeholder input, to be used for subsequent sub basin and basinwide planning.

Approach:
Task 1: Stakeholder outreach

1) identify different stakeholders' perception of personal and sub basin assessment and implementation needs under current conditions;
2) identify needs they perceive based upon projected changes for the future, including ideas on how to achieve this.

Task 2: Initial Sub Basin Mapping and Data Compilation

1) Collect and synthesize existing information on water supply; irrigation, municipal and industrial users and infrastructure; recreational uses; and significant environmental concerns.
2) Identify needs for additional information.

Task 3: Address Informational Gaps in Non consumptive and Consumptive Use

1) *Consumptive Use Inventory:* The primary objective of the consumptive use inventory is to protect existing consumptive uses. In addition to this overarching objective, the inventory may

*Note: these summaries have not yet been reviewed by the plan authors

help address shortage concerns, identify infrastructure needs, and identify areas where improved infrastructure could improve water management or riparian habitat and forage. A consumptive use inventory should include these elements:

a. Historic diversion records and projected future diversion needs
b. New undocumented areas that experience shortages.
c. Infrastructure that is in need of improvement.
d. Ditch locations that need to be corrected in the state records.
e. Legal framework.
f. Consumptive uses for riparian areas in need of restoration or improvement.

2) *Non-Consumptive Use Inventory:* During the non consumptive use assessment process, the objective is to identify and quantify environmental and recreational needs. Elements for consideration include: how climate impacts may influence water availability, low flow concerns for stream ecosystems, stream morphology issues, water quality issues, recreational needs, and riparian habitat degradation. This inventory should include these elements:
    a. Assessing existing physical conditions of stream reaches, including geomorphic and riparian conditions.
    b. Quantifying current flows for river ecosystems, boating, or other needs in the watershed.
    c. Quantifying specific numeric flow recommendations (or ranges of flow) and physical conditions and assessing the potential for channel reconfiguration to support environmental and recreational values (CWP) under future climate change scenarios. A range of flow modeling tools will be assessed to determine most appropriate model for our basin conditions.
    d. Assessing water quality impairment issues.

Task 4: Implement projects that demonstrate water use efficiencies or other watershed best management practices in each sub basin.

Potential demonstration projects will be identified during Tasks 1 and 2, projects deemed viable by assessment results and supported by landowners. These projects will demonstrate multiple objectives to meet consumptive and non consumptive needs. Project might include ditch repair, stream channel reconfiguration, wetland enhancements, coordinated irrigation, or other conservation practices, depending on identified need.

Task 5: Identify a range of options for improved water use efficiency and other watershed best management practices.

Compile and present all potential innovations that were identified during the assessment phase, resulting in a comprehensive list of options for each sub basin to use in developing their multi objective plans.

Budget:
Total: $572,800
Watershed Restoration Grant Award: $175k
Other Cash Match: $60k WSRF; $300k Upper Gunnison WCD
In Kind Match: $37,800
Schedule: 2017 2020

*Note: these summaries have not yet been reviewed by the plan authors

Crystal River

Status: Complete in 2016. http://www.roaringfork.org/your_watershed/crystal_river/stream_management_plan/

Who: Roaring Fork Conservancy, Public Council of the Rockies. Technical Lead: Lotic Hydrological

Where: The Crystal River from its headwaters to the confluence with the Roaring Fork. 35 miles were broken down into 36 separate reaches for analysis.

Objectives:

Identifying, prioritizing and guiding management actions that honor local agricultural production, preserve existing water uses, and enhance the ecological integrity of the river.

Approach:

1) Stakeholder outreach

A series of group and individual meetings held throughout the planning process served to clarify outstanding questions, summarize results from previous studies, refine planning goals and objectives, and evaluate the feasibility of various management alternatives.

2) Characterization of riverine resources at the watershed, channel and reach scale

Experts in geomorphology, riparian ecology, fisheries, and hydrology completed evaluations of ten variables' current condition. These included flow, sediment transport, water quality, riparian vegetation, channel morphology, fish and macroinvertebrate health, among others.

A variety of assessment methodologies were used including coarse reconnaissance level, rapid assessments and field surveys to focus on specific areas of concern, and intensive quantitative analysis where evidence of impairment existed. Variables were given a score showing the degree of departure from an unimpacted reference state based on indices developed for the FACStream methodology.

3) Water use

A lack of historical and current flow information required development of an Ecological Decision Support System (EcoDSS). The EcoDSS is a collection of loosely coupled hydrological, hydraulic, and ecosystem response models that jointly simulate and predict the impact of water use and channel structure on stream hydrology and ecology. The team used EcoDSS to investigate unmet irrigation and ecological needs.

4) Alternative management strategies

Several management strategies (market based incentives for water conservation or bypass flows; infrastructure improvements and efficiency upgrades; reservoir construction; habitat enhancements and channel modification projects) were evaluated using two criteria: 1) the magnitude, frequency, and duration of ecological lift brought about by a given change in management, and 2) the severity and frequency of water use shortages that result from strategies that support or enhance ecosystem function.

5) Management strategy prioritization

A facilitated stakeholder process considered the relative effectiveness and feasibility of various management alternatives and a subset were recommended as high priority.

Budget:

Total: $684,000

Watershed Restoration Grant Award: unknown

Other Cash Match: unknown

In Kind Match: unknown

Schedule: 2014 2016

NOTE: A second Watershed Restoration grant was given in 2016 for implementation in the amount of $31,000.

*Note: these summaries have not yet been reviewed by the plan authors

Roaring Fork River

Status: In process. http://www.aspencommunityvoice.com/upper_roaring_fork_river_management_plan

Who: City of Aspen. Technical lead: Lotic Hydrological
Where: The entire watershed above Brush Creek to near the town of Woody Creek is being looked at in the study. That includes the main stem of the Roaring Fork River and its primary tributaries, Hunter, Maroon, Castle, Difficult, Lincoln, and Lost Man creeks. 8 Focus Reaches were selected for in depth study.
Objective: Develop a River Management Plan that seeks to restore and maintain the health of the Roaring Fork River as it flows through Aspen. Specifically, to:

- Understand current conditions of the Upper Roaring Fork, from its headwaters to a point just above the confluence with Brush Creek
- Understand the needs and priorities of water users and other stakeholders on the River, both consumptive and non consumptive
- Study and evaluate potential operational, management and physical options for improving the health of the river while ensuring existing rights, interests, and legal and administrative realities are respected and protected

Approach:

1. Identify stream management goals for various sections of the River with stakeholder input

   A three step process to: 1) organize the body of research and studies that previously assessed the functional conditions of streams using a modified version of FACStream (note no new data was collected due to the volume of information that already exists), and 2) identify the primary reaches (the "Focus Reaches") of the Roaring Fork River for consideration using a streamflow model and application of the Indicators of Hydrological Alteration (IHA) methodology 3) engage a Technical Advisory Group and the public to identify the stream management goals for each reach.

2. Identify stream flow targets or structural changes that will help meet the identified management goals

   Identify statistically based ecological risk thresholds for various low flow indicator variables evaluated in the IHA assessment completed in Task 1. Using the Watershed Flow Evaluation Tool and/or HECRAS, a fuzzy logic based aquatic habitat model will be developed to assess changes in habitat quality and extent as a function of changing streamflow.

3. Identify water resource management techniques or projects that will achieve flow targets or structural objectives

   Identify where operational changes to stakeholders' water rights diversion can be made to improve the percent of the time the goal targets are met during average and 1 in 5 year and 1 in 10 year drought conditions.

Budget:
Total: $184,000
Watershed Restoration Grant Award: $0
Other Cash Match: $184,000
In Kind Match: unknown
Schedule: 2017 2018

*Note: these summaries have not yet been reviewed by the plan authors

Poudre River

Status: Complete in 2017 http://www.fcgov.com/poudrereportcard/

Who: City of Ft. Collins. Technical Lead: EcoMetrics

Where: The study area extends from the City's water supply intake near Gateway Natural Area in the lower Poudre Canyon to Interstate 25. The study area was divided into four zones: Canyon, Rural, Urban, and Plains. These four zones were further subdivided into a total of 18 reaches.

Objectives:
To create an ecological assessment of current day river health to help meet Ft. Collins' strategic goal to work towards "...sustaining a healthy and resilient Cache la Poudre River". The City, across its many departments and divisions, is involved in a variety of projects and planning efforts that affect the river in many ways. Historically, there has not been a centralized or structured way to measure the collective impact of the City's efforts on the overall health of the river. This ecological assessment will provide the City with a comprehensive reflection of ecosystem health, enabling the City to benchmark progress towards achieving and sustaining river health.

Approach:

1) Assessment framework

A framework, adapted from FACStream, was developed that consists of nine indicators and 25 metrics including flow, sediment transport, water quality, riparian vegetation, channel morphology, fish and macroinvertebrate health, among others. A combination of existing data, remote survey data, and field assessments was used to score each metric.

2) Scoring

At the finest scale, metric scores were assigned to each assessment unit (a reach, sub reach, or habitat patch) and then combined to produce indicator scores. Indicator scores were then combined into a river health grade for each reach and zone using a weighted average, and finally zone grades were combined to provide an overall health grade for the Poudre within the study area.

Health indicator grades for each zone are compared to the ranges recommended by river experts and resource managers to highlight the best and the most impaired aspects of river health.

3) Management opportunities

A high level discussion of where the City may be able to most effectively improve river health and resilience by strategically applying its resources.

Budget:
Total: unknown
Watershed Restoration Grant Award: $0
Other Cash Match: unknown
In Kind Match: unknown

Schedule: 2014 2017

*Note: these summaries have not yet been reviewed by the plan authors

Grand County

Status: Complete in 2010 http://co.grand.co.us/412/Stream_Management_Plan

Who: Grand County. Technical Lead: TetraTech
Where: 80 miles of river in the Upper Colorado River basin, spanning the length of Grand County from Winter Park to the Grand Eagle County Line. This study focuses on the Colorado and Fraser Rivers, and ten tributaries. These tributaries include Williams Fork, Blue River, Muddy Creek, Reeder Creek, Troublesome Creek and Willow Creek along the Colorado River and Jim Creek, Vasquez, Saint Louis and Ranch Creeks along the Fraser River. The study area is divided into 30 reaches

Objectives: Provide the frame work for maintaining a healthy stream system in Grand County, Colorado through the protection and enhancement of aquatic habitat, while at the same time protecting local water uses, and retaining flexibility for future water operations. The ultimate measure of success will be the presence of a self sustaining aquatic ecosystem and fishery resource while meeting water user's needs.

Approach:
Three phases were required. Phase 1 included inventory and review of existing data and information. Phase 2 included scientifically based recommendations of environmental streamflow and flushing flows for 11 study sites as well as a description of flows to support non consumptive water uses including recreational, municipal, industrial, and agricultural. Phase 3 develops environmental target flows for 8 more sites. The Phase 3 report includes stream assessments, spawning surveys, restoration concepts, a suggested priority list for implementation, and general monitoring guidelines.

To set environmental target flows, the group: 1) acquired, analyzed, and evaluated hydrologic data describing streamflow regimes of the study reaches using the IHA analysis; and 2) acquired, analyzed, and evaluated channel morphology, hydraulic geometry, and aquatic habitat information to describe habitat flow relations for target fish species and life stages using PHABSIM; and 3) recommended target flows that will likely protect environmental values. Stream assessments were completed to evaluate the general, existing morphological and biological conditions using: 1) the Stream Reach Inventory and Channel Stability Evaluation (SRI/CSE), 2) the Riffle Stability Index, and 3) the EPA's Rapid Stream Habitat Assessment protocol.

Recommendations for environmental flows also include review of existing temperature and water quality data relative to current standards and biological limitations for the fish species of concern. In addition to determining environmental flows, flow conditions for other water users are considered such as irrigators, municipalities and industries, and recreational users. To determine recreational targets, rafting and angling commercial outfits were contacted, and recommendations by American Whitewater are included.

Schedule: 2007 2010

Budget
Total: unknown
Watershed Restoration Grant Award: $0
Other Cash Match:
In kind Match: unknown

*Note: these summaries have not yet been reviewed by the plan authors

Yampa River Through Steamboat

Status: In process. http://steamboatsprings.net/index.aspx?NID=587

Who: City of Steamboat Springs. Technical Lead: Lotic Hydrological

Where: Yampa River through Steamboat Springs to include the reach from the Chuck Lewis State Wildlife Area to the Steamboat Springs Waste Water Treatment Plant.

Objectives: Develop a long term strategy for improving health and resiliency of the Yampa River in the face of changing future climatic conditions and water use demands.

Iden fy target flows to support river health and community needs
Priori ze ac ons and projects to achieve measurable progress toward targets

Approach:

Coming soon

Schedule: 2016 2018

Budget:

Total: $109,875
Watershed Restoration Grant Award: $51,875
Other Cash Match: $46,000
In Kind Match: $12,000

*Note: these summaries have not yet been reviewed by the plan authors

Nicole Seltzer

From: Nicole Seltzer <nseltzer@rivernetwork.org>
Sent: Thursday, August 31, 2017 12:00 AM
To: Nicole Seltzer
Subject: SMP Updates - August

Hi Nicole,

As tools/announcements related to stream mgt plan work come through my email, I will combine them into a monthly update. If this gets annoying, feel free to let me know. And if you have things to add for next month, send them along.

1) TNC Healthy River Assessment

The Nature Conservancy in Colorado is excited to announced the completion of its Healthy Rivers Assessment, which offers important scientific analysis and baseline data on freshwater ecosystem resiliency and conservation opportunities in Colorado. This work is designed to help inform project design and prioritization as Colorado's Water Plan and Basin Implementation Plans are implemented. The full report can be found here:

Below is a summary of the work:

With the completion of Colorado's Water Plan, practitioners, managers, and decision makers need baseline information and frameworks to help assess current conditions and plan projects that will maximize freshwater conservation outcomes. To meet these needs, The Nature Conservancy in Colorado has conducted a scientific analysis, called the Healthy Rivers Assessment, to estimate the resilience of freshwater ecosystems in Colorado based on physical, biological, and social conditions - and stressors to those conditions. The

Conservancy examined 22 variables across five different indicator categories to provide a comprehensive assessment of freshwater conditions in Colorado. The Healthy Rivers Assessment is designed to serve as a resource and guidance document that offers critical baseline data for maintaining, protecting, and restoring rivers and streams throughout Colorado and informs project design and prioritization.

2) CMU Hutchins Water Center IWMP Dashboards and RFP
CMU has posted the notes and posted the slides, including live links to the Tableau-based data dashboards, from its recent meeting to showcase recent work on its Integrated Water Management Plan framework. They also released an RFP (due 9/7) for the final task to complete the framework document.

3) SMP Planning Workshop at Watershed Conference
River Network and TNC will hold a 3-hour workshop previewing the process and tools that coalitions can use to develop a stream mgt plan in their basin. It's from 8-11:30 on October 10th in Avon, and is limited to 30 people. Learn more and sign up here.

4) SMP Grants due Nov 3rd
CWCB has posted the 2017 grant guidance for its Watershed Restoration Grant Program. There is $5million in the grant program for FY2018. Program guidance and the application can be found here.

Nicole Seltzer
Science & Policy Manager
Oak Creek, CO

720-930-4567

Nicole Seltzer

From: Nicole Seltzer <nseltzer@rivernetwork.org>
Sent: Monday, November 06, 2017 10:56 AM
To: Nicole Seltzer
Subject: Stream Mgt Plan Updates - November Edition

Hello Nicole!

Congrats to everyone who worked hard to submit their stream mgt plan and watershed restoration grants to CWCB last Friday! I look forward to seeing many of them move ahead.

There have been a lot of developments related to stream management plans since my last update in August. I am providing this regular update to anyone who has indicated interest in SMP's in Colorado, or has attended a training. If you'd prefer not to get them, feel free to let me know. And if you have things to add for the next one, send them along.

1) CAWA Annual Summit
The Colorado Ag Water Alliance is holding its annual summit on Dec 5th in Loveland. They are doing something different this year: farmers and ranchers will be the presenters and the agenda is tailored for people outside of agriculture, including the conservation community. This will be a great chance for all of us to hear from and engage with our state's primary water rights owners, farmers and ranchers. I'll be there, and hope you will too.

2) TNC Receives WaterSmart grant for SMP tool development
The Nature Conservancy received a USBR WaterSmart grant this fall to develop the Freshwater Implementation Network & Decision Support Tool ("FIN" for short). FIN will be an on-line tool that synthesizes and integrates freshwater datasets to enhance understanding of baseline information about the condition of river

ecosystems. Together with Lotic Hydrological and the Open Water Foundation, they will build the tool with a focus on southwestern Colorado, with the intention of expanding it statewide over time. For those familiar with Colorado Mesa University's SMP database and framework project for the Colorado Basin Roundtable, this will complement and build upon that effort, not duplicate it.

3) e-RAMS Tools
CSU's One Water Solutions Institute has a plethora of dashboards and GIS tools relevant to watershed planning. They are building accessible and scalable analytical tools and simulation models that can be used to help your planning efforts. Reach out to them if you would like training on how to use their tools.

2) SMP Planning Workshop at Watershed Conference
We had great attendance at the half-day SMP workshop at the watersheds conference in Avon. The presentations and materials from that workshop can be viewed here, and presentations from the entire conference are also now posted.

4) River Network Water Project Bank
RN and Business for Water Stewardship have launched their Water Project Bank, which seeks to connect corporate funders with water stewardship projects across America. RN will hold a webinar **tomorrow** for those planning and implementing on-the ground projects that restore flow or recharge groundwater and are interested in finding corporate funding partners. Register here.

Thanks for all you do, and feel free to pass this along to anyone with an interest in river restoration planning.

Nicole Seltzer
Science & Policy Manager
Oak Creek, CO

720-930-4567

Appendix D
SMP Presentations/Outreach conducted

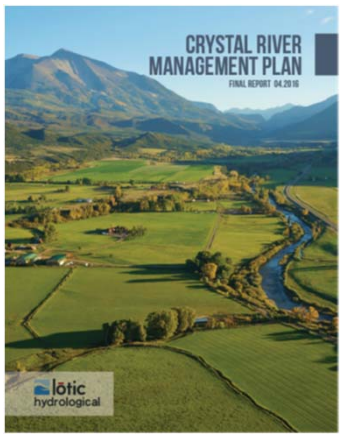
2017
March: Audubon webinar;
June: Initial presentations to/meetings with Eagle River Watershed Council, Little Thompson Coalition, Rio Grande Basin Roundtable; St. Vrain Creek Coalition; Gunnison Water Workshop; Middle CO Watershed Council
July: Initial presentations to/meetings with Big Thompson Coalition, Yampa/White Basin Roundtable
Aug: Eagle River MOU group; CO Water Congress convention
Sept: Big Thompson Coalition board
October: Pre-Conference workshop at Sustaining CO Watersheds conference
November: article in November AWRA Impact Journal; NWCCOG QQ Committee

2018
January: CO Water Congress annual symposium; Grand County SMP film/overview/blog posts with American Rivers and TU
February: Tamarisk Coalition annual conference, SMP Workshop with the Southwest Basin Roundtable in Durango
March: CAWA SMP workshop in Rifle
April: Arkansas River Basin Water Forum in La Junta; Trout Unlimited Regional River Rendezvous in Keystone
May: Yampa State of the River meeting

A History of Stream Mgt Plans

- **2004: SWSI 1** *explored concepts to define environmental and recreational flow goals*
- **2005: HB 05-1177** *Develop a basin-wide consumptive and non-consumptive water supply needs assessment and propose projects or methods for meeting those needs*
- **2007: SWSI Phase 2** *catalogued non-consumptive attributes and recommended developing a common technical platform*
- **2009: Watershed Flow Evaluation Tool** *piloted in Roaring Fork and Fountain Creek areas to relate flow conditions to important environmental or recreational attributes and characterize the ecological or recreational risk that a given attribute may or may not be degraded based on flow conditions*
- **2010: Non-Consumptive Needs Assessment Focus Area Mapping** *completed for all 9 Basin Roundtables*
- **2010: SWSI Update** *id'd where planned and existing non-consumptive projects and methods are in relation to the focus areas maps*
- **2010: Grand County** *completes first stream management plan in response to NEPA permitting for transbasin diversion firming projects*
- **2013: Non-Consumptive Toolbox** *developed to serve as a guide for basin roundtables to develop the non-consumptive portions of their basin implementation plans*
- **2013: Governor Hickenlooper issued Executive Order D 2013-05** *to create the Colorado Water Plan*
- **2014: Basin Implementation Plans** *created by all 9 Basin Roundtables to examine future consumptive and non-consumptive water needs and provide strategies for addressing those needs*
- **2015: Colorado's Water Plan** *sets a measurable objective to cover 80 percent of the locally prioritized lists of rivers with stream management plans*
- **2015: CWCB's Watershed Restoration Grant Program** *boosted to $1m and includes Stream Management Plans as a grant type*
- **2015:** *4 grants for stream management plans approved*
- **2016:** *3 grants for stream management plans approved*
- **2017: CWCB's Watershed Restoration Grant Program** *boosted to $5m*

What is a stream management plan?



CWCB 2016 Guidance: A stream management plan should:

(1) Involve **stakeholders** to **identify nonconsumptive values/objectives** that are **locally important** and in a **basin roundtable's BIP**

(2) Assess existing **biological, hydrological, and geomorphological** conditions at a reach scale;

(3) Identify **flows, other physical conditions or projects** needed to support environmental and recreational values;

(4) Prioritize **alternative management actions or projects** to achieve measureable progress toward maintaining or improving flow regimes and other physical conditions.

Why pursue one?

Ecology
- Address seasonal dry up points in a stretch of river
- Support healthy fish habitat
- Prioritize stream reaches to invest time/financial resources to monitor/repair

Recreation
- Improve recreational boating experiences/opportunities
- Improve fishing experiences/opportunities
- Increase economic development potential and quality of life by increasing/ improving access

Regulatory
- Address specific water quality challenges tied to flow (temperature, storm water)
- Identify target ecosystem flows in anticipation of future reduced flows (climate change, new projects, population growth, etc)
- Protect habitat for potentially threatened or endangered species
- Develop a community driven response to a Wild & Scenic Rivers process

Infrastructure
- Build/modify infrastructure to operate efficiently and minimize waste at a range of flows
- Identify in river infrastructure that could be improved/modified to enhance ecosystem function or create safer/better recreational experiences
- Identify joint consumptive/non consumptive projects to benefit both classes of water use

Technical Approaches Used So Far

1) Identify Env/Rec Values of Importance
- Stakeholder input / surveys
- Consumptive use (ag/muni/ind) inventories/gaps/models
- Basin Roundtable Basin Implementation Plans
- Other existing initiatives/research

2) Assessment
- Inventory existing information/data and ID gaps
- Develop flow/hydrology models at the necessary scale/resolution
- Rapid Assessments, Field Surveys, In depth data collection to fill gaps
- Identify flow impacted reaches by combining a streamflow model and Indicators of Hydrological Alteration (IHA) methodology
- FACStream to develop a score showing the degree of departure from an unimpacted reference state
- Develop Ecological Decision Support System (EcoDSS), a collection of loosely coupled hydrological, hydraulic, and ecosystem response models that jointly simulate and predict the impact of water use and channel structure on stream hydrology and ecology

3) Management Actions
- Set flow targets for habitat quality using Watershed Flow Evaluation Tool, HECRAS, R2Cross
- Describe habitat flow relations for target fish species and life stages using PHABSIM

Grand County 2010

Objective: Provide the frame work for maintaining a healthy stream system in Grand County, Colorado through the protection and enhancement of aquatic habitat, while at the same time protecting local water uses, and retaining flexibility for future water operations. The ultimate measure of success will be the presence of a self sustaining aquatic ecosystem and fishery resource.

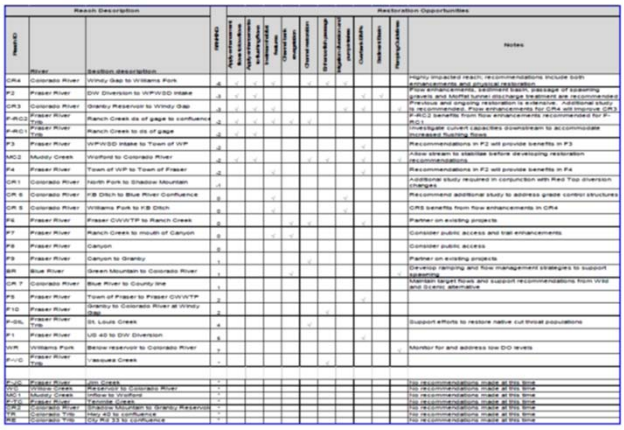
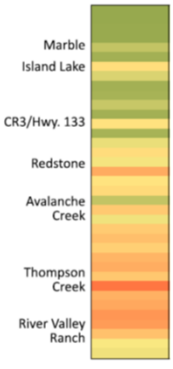


Table ES 4 presents a summary of restoration recommendations including environmental flow recommendations, stream assessments, water temperature and water quality reviews, organized in order of ranking from the highest to lowest priority.

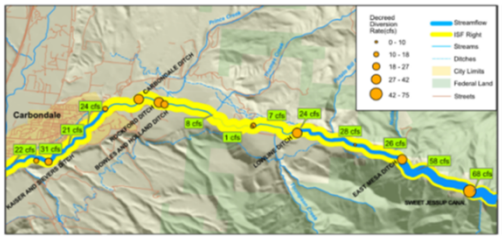
Crystal 2016

- **Objective:** Identifying, prioritizing and guiding management actions that honor local agricultural production, preserve existing water uses, and enhance the ecological integrity of the river.



Grade	Score	Level of Impairment
A	90-100	Negligable
B	80-90	Mild
C	70-80	Significant
D	60-70	Severe
F	50-60	Profound/Unsustainable

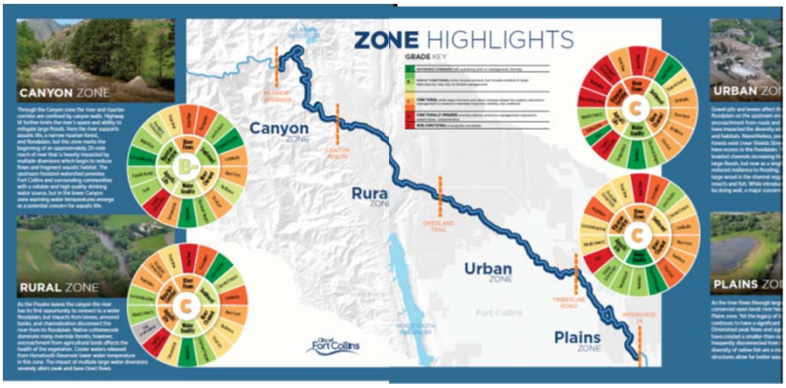
FACStream scoring criteria and associated color maps describing longitudinal patterns in functional condition for each state variable discussed in the report including flow, sediment transport, water quality, riparian vegetation, channel morphology, fish and macroinvertebrate health, among others.



Late season stream flows observed on the Crystal River. The thickness of the blue and yellow lines indicate the relative magnitudes of observed flows and the CWCB Instream Flow Right

Poudre 2017

Objectives: To create an ecological assessment of current day river health to help meet Ft. Collins' strategic goal to work towards "...sustaining a healthy and resilient Cache la Poudre River". The City, across its many departments and divisions, is involved in a variety of projects and planning efforts that affect the river in many ways. Historically, there has not been a centralized or structured way to measure the collective impact of the City's efforts on the overall health of the river. This ecological assessment will provide the City with a comprehensive reflection of ecosystem health, enabling the City to benchmark progress towards achieving and sustaining river health.



Possible End Results

From Crystal River and Grand County smps

Market Based Strategies

- Non Diversion Agreements
- Short Term Water Leasing
- In Stream Flow water right filing/donation/purchase
- Conservation easements

Water Conservation Strategies

- Ditch Lining
- Sprinkler Irrigation
- Irrigation Scheduling

Infrastructure Strategies

- Off Channel Reservoir
- Fish and boater passage modifications
- Construct sediment basin
- Improve access/trails

Channel Modification Strategies

- Grade Control Structures
- Inset (Low Flow) Channel
- Fish Habitat Enhancements
- Riparian revegetation

About River Network

River Network empowers and unites people and communities to protect and restore rivers and other waters that sustain all life. We envision a future of clean and ample water for people and nature, where local caretakers are well-equipped, effective and courageous champions for our rivers.

Supporting Stream Management Planning in Colorado

River Network, with support from the Gates Family Foundation, the Nature Conservancy and the Colorado Water Conservation Board, is launching a two year project to **enlarge the pipeline of local coalitions that are interested, ready and capable of undertaking stream management plans** during CWCB's next two grant cycles (2017 and 2018).

Our work will:	By:
Enlarge the pipeline of local coalitions that are interested, ready and capable of undertaking stream management plans during CWCB's next two grant cycles (2017 and 2018)	• Collecting and sharing best practices • Helping up to 3 coalitions initiate a stream management plan process with capacity building support and assistance
Create a more effective, capable and connected network of coalitions across Colorado	• Convening Colorado's water management, NGO, academic, and research and science communities to align their resources, expertise and tools with the capacity and knowledge needs of local coalitions
Expand access to funding for watershed health and coalition longevity	• Helping the selected coalitions' leadership team procure matching funds for a stream management plan grant application

Discussion Questions

- What are the basin's unmet env/rec needs, and can a smp help meet them?
- What work has the BRT or others already done to lay the groundwork for a smp?
- Are there consumptive needs that can/should be considered alongside a smp?
- Who is the right entity to lead this effort?
- Would phasing the work be the right approach?

With support from the Colorado Water Conservation Board, Gates Family Foundation and the Nature Conservancy, River Network is launching a two-year project to enlarge the pipeline of local coalitions that are interested, ready and capable of planning and initiating stream management plans during CWCB's next two grant cycles (2017 and 2018). More detailed information on the project can be found here.

As part of this effort, River Network will provide capacity support and up to $5,000 in financial support for time and travel expenses for expert assistance to up to three Colorado coalitions intending to pursue a grant application in 2017. For these purposes, a coalition is defined as an organized group of stakeholders willing to undertake a collaborative project. It does not necessarily have to be a formal group with staff and a board of directors (ie a water district or a nonprofit) but should have adequate capacity and history to demonstrate their ability to undertake a project of this magnitude.

This assistance is intended to help the coalitions:

- Identify and engage stakeholders whose initial support for a grant application are critical
- Identify and prioritize the desired goals of a stream management plan
- Write a scope of work that includes the appropriate methodologies and budget to meet the identified goals
- Raise the required matching funds
- Write the grant application

Coalitions are asked to submit an Application of Interest online by **5:00pm Friday, July 21, 2017**. The application is available here.

Program Expectations

The coalition is expected to take a leadership role in organizing, scoping and raising matching funds for the grant application. River Network will provide support to the coalition in the form of advice, direction, an agreed upon amount of hands-on work, and access to hired expertise. This is meant to supplement the coalition's leadership and capacity, not replace it.

The resources needed to scope, plan and implement a stream management plan are not insubstantial. It is a strategic, multi-year undertaking that will influence the goals and activities of the coalition. It is difficult to pinpoint needed resources because they will vary depending upon how quickly the planning process unfolds, the geographic extent to be studied, the number of stakeholders involved, and the amount of prior data collection and planning accomplished, among other factors. To be conservative, a coalition should have at least .25FTE dedicated to the process for at least two years and some dedicated resources in the budget for stakeholder meetings, communication materials, a review of data needs, etc.

Participating coalitions are expected to have:

- Interest in developing a stream management plan and a stated intent to submit a grant application to CWCB's Watershed Restoration Grant program in November, 2017.
- The internal capacity (staff time and financial resources) to plan and pursue funding for a stream management plan within the next two years.
- Existed for at least 3 years, and have positive relationships with the appropriate stakeholder base to plan and pursue funding for a stream management plan.
- A positive track record related to stream health planning, protection and restoration projects (ie: you've done work in this realm before).

Application Process

Coalitions are asked to submit an Application of Interest online by **5:00pm Friday, July 21, 2017**. The application is available here.

Organizations will be selected based on:

- How well they conform to the above outlined expectations
- The degree to which River Network's support would make a difference in their ability to submit a quality grant application in 2017
- Geographic diversity as compared to other applicants (ie we will not pick coalitions that are all from the same corner of the state)

River Network is excited to offer this opportunity for capacity support to plan and procure funds for a stream management plan for up to three coalitions in 2017 and 2018. Please fill out the below application by 5:00pm Friday, July 21, 2017.

1. Coalition Name

2. Primary Contact

First Name

Last Name

Email Address

Phone Number

3. Where do you operate?

City in which the coalition is based

River(s) you are concerned with

4. Your coalition's mission

5. Please describe your coalition's main activities within the last 3 years related to stream health planning, protection and restoration projects.

6. Regarding stream management planning, your coalition...

- ◯ Has discussed it and will pursue a grant application in 2017
- ◯ Has discussed it and may pursue a grant application in 2017
- ◯ Has discussed it and may pursue a grant application in 2018
- ◯ Has discussed it and is currently unsure if we will pursue a grant application in 2017 or 2018 (we'd like more information)
- ◯ Has not yet discussed it, but there is interest in learning more
- ◯ Other (please explain)

7. What do you hope to accomplish by undertaking a stream management plan?

8. Briefly describe the type of support that you feel River Network can provide your coaltion that will be most beneficial to undertaking a stream management plan.

9. Briefly describe the coalitions' internal capacity (staff time and financial resources) that is available to plan and pursue a stream management plan.

10. Please describe the status of your coalitions' relationships with the key stakeholders you will need to engage to plan and pursue funding for a stream management plan

11. Why do you believe your coalition is a good candidate for River Network's capacity support?

Eagle River Integrated Water Management Plan (IWMP)
Focus Group Discussion Themes
October 4, 2017

DESIRED OUTCOMES FROM AN IWMP ON THE EAGLE RIVER

- Protection of existing water rights and consideration of private property
- Maintain and improve flows
- Not foreclosing future uses and activities on the river and in the watershed
- Increased understanding about how flows fit into a larger context of uses and needs in the watershed; decisions based on consideration of the big picture of uses and needs
- Consensus about the values that the community has for water and understanding how the different water uses in the basin can be balanced
- Better public and stakeholder understanding about the needs and desires on the river, including pinch points and opportunities to manage the river for the mutual benefit of all
- A plan that meets the needs of all water users, including recreation and agricultural interests
- Planning for variations in flows within a given year and across different years
- Improved recreational access to the river, particularly at Gilman Gorge
- Improved water quality and river experience (clean-up of the river itself and greater attention to addressing water quality impacts from both point and nonpoint sources in the watershed)
- Identification of minimum flows, planning for/ensuring flushing flows and flooding
- Strategies to manage flows and releases to facilitate recreation and associated economic benefits
- Land management consistency between towns, counties, and federal public land agencies (i.e., Bureau of Land Management and US Forest Service)
- Shared vision that incorporates a variety of interests and directions that can meet a common goal with a common understanding
- Improved recreation management on the river to ensure it is not "loved to death"
- A guide to water management to protect the natural environment while still protecting users of water (agricultural, recreation, etc.)
- Identification of issues and impacts that need to be addressed, points of friction, and critical decision points
- Improved attention to and/or projects for impaired sections of the river

FLOW-RELATED OPPORTUNITES AND CHALLENGES ON THE EAGLE RIVER

- ***Challenges***
    - Documenting the current hydrology
    - Identifying where there may need to be tradeoffs rather than win-win solutions
    - Maintaining adequate flows and temperatures to support fish, fishing, rafting, and agriculture in the late summer in particular—in the mainstem and the tributaries
    - Lost return flows due to diminished agricultural production; loss of scouring flows to clean out the river
    - Water quality (mines, sedimentation; point and non-point sources); lower flows make dilution more difficult
    - Instream barriers to fish migration
    - Increased development the valley in general and along the river corridor specifically; associated impacts to flows, water quality, and the riparian area
    - Not enough water to support development; increasing fights over water rights

  - Climate change and associated impacts
  - Drought management through storage, use management, irrigation efficiency, etc.
  - Addressing conservation proactively rather than as an afterthought
- ***Opportunities***
  - Restoration at Camp Hale (wetland creation and riparian and stream health improvements)
  - Identifying and prioritizing environmental improvements
  - Developing an approachable document that "regular people" can understand
  - Finding win-win solutions
  - Identifying needs and uses on the river (including existing water rights) to improve community understanding of the river
  - Getting a plan in place to have management strategies for extremely low-flow years to get the valley working as a team to manage the river (e.g., triggers for specific actions, signs telling people when not to float or fish, etc.)
  - Developing a voluntary flow management regime on the river (like the system on the Arkansas River)
- ***Challenges and Opportunities***
  - Eagle River Memorandum of Understanding (MOU)
  - Coordinating different river uses/needs (e.g., instream flows, snowmaking, water rights development)
  - Storage in and releases from Homestake and Union Reservoirs
  - Future water supply projects (positive and negative impacts to flows and timing of releases)

POTENTIAL CONTRIBUTIONS OF AN EAGLE RIVER IWMP

- Could help identify areas of consensus and good projects that people agree on
- Could identify opportunities for mitigation at a later date
- Could identify all the issues around an ecosystem and understand the resource system
- Could coordinate or integrate the various watershed plans and studies that are being proposed or are underway in the Eagle River watershed
- Could explain how changes to stream flows will affect a variety of users and interests in the watershed
- Could improve coordination and integration of land management plans and efforts at local, state, and federal levels
- Could result in a voluntary flow management regime on the Eagle River
- Could create improved communications and notification of flows and associated behavioral changes needed in light of those flows
- Could inform future 1041 permit discussions to help identify restoration opportunities
- Could drive or suggest needed changes to other agency plans in the area
- Could use it to inform decision making and justify projects and investments
- Could create more energy and consistency around work in the watershed
- Could help plan for address future problems from anticipated growth in recreation on the river
- Could identify possible priority areas for specific land use and management strategies
- Could help protect water rights and associated interests

CONCERNS ABOUT UNDERTAKING AN IWMP FOR THE EAGLE RIVER

- Getting too focused on flows rather than seeing the whole picture of uses and needs on the river
- Overstepping or undermining existing laws and management system
- Ensuring we have sufficient, recent data as a basis for the plan
- Developing a common understanding of the issues and developing a common goal before we get too far into the plan
- Undue or unwelcome influence from "leaders" who may try to influence how we use the river
- An outcome or project recommendation that would be difficult for some to support
- Clarifying the goal and focus of the plan
- Whether/how to address storage
- Ensuring that the agricultural community has a voice
- Ensuring that the recreation community has a voice
- Potential impacts on existing water rights
- Ensuring the plan has teeth and is more than a plan on a shelf
- Getting long-term buy-in and support from a diversity of stakeholders
- Ensuring that economic factors are included in the plan
- Maintaining the right amount of specificity in the plan without dictating actions or projects

ROLE OF THE IWMP IN FUTURE WATER DEVELOPMENT PROJECTS

- Could help create a common understanding of the resource in a positive way
- Could help connect projects with existing plans and efforts of other agencies and entities
- Could help educate people about the relationship of water projects to other values, as part of future NEPA efforts and in local efforts with towns, counties, and elected officials
- Could help integrate water projects with other types of projects
- Could be the source of future planning to address extremely low flow days
- Could push federal agencies to be more engaged in managing the river
- Could help begin a conversation about where future water supplies will come from (i.e., the aquifer?)
- Could help save local properties from development
- Could help examine the relationship and impacts between the Eagle River and water rights augmented by exchange from Wolford and Green Mountain Reservoirs
- Could support or contradict existing water development plans
- Could influence whether and how future development projects occur on the river
- Could influence 1041 processes in the future
- Could create collaboration to support flows

INTEGRATING THE IWMP INTO EXISTING PLANNING PROCESSES

- The IWMP should not foreclose future options or uses.
- All planned water supply and other projects on the river should be included in the plan.
- All existing and underway plans should be examined to ensure this one does not contradict them.

- There might be a chapter from the Colorado Basin Implementtaion Plan that could be useful.
- Outreach to other stakeholder groups, the Colorado Roundtable, and collaborative efforts is critical.
- All stakeholders need to be at the table, especially recreation and agriculture, who have been less involved in previous efforts.
- The stakeholders need to develop a consensus around the needs and values around the river.
- Stakeholders need to identify how to put the conditions together for an operational approach.
- The IWMP could be an educational document that helps people understand the current water system, the availability of water, and what the community's needs are going to be.
- It is not clear how an IWMP would intersect with the Colorado Water Plan and the Colorado Basin Implementation Plan.
- This plan could motivate changes to other agency plans.
- This plan could parallel or fit into the watershed plan and help inform projects. It could help identify opportunities for restoration grants and Section 319 grants.

BEST SCALE FOR AN EAGLE RIVER IWMP

- Most people said the IWMP should focus on the whole watershed first, and then drill down reach by reach or on specific focal areas for more specific assessments and/or project identification. Each section has different impacts, influences, and stakeholders.
- A few indicated that it may be best to avoid the reaches involved in the Eagle River MOU due to the complexities and time delays that could be involved with the ERMOU.
- A small number of people stated that focused on a few reaches might be most efficient, as otherwise the plan would be too big and unwieldy.
- A few people noted that the scale of the plan should be related to or driven by the timeframe for the plan. A longer timeframe could allow more to be included; a shorter timeframe would suggest a need to focus.
- A few people suggested specifying the timeframe of the plan, specifically stated that perhaps the plan should be for 5 years and then be assessed.

WAYS TO FIND THE 50% MATCH

- Many stakeholders indicated that they could provide cash match, pending review of the final proposal for consistency with organizational goals. Some may need to go back to governing bodies for budget requests after fiscal years and budget processes are closed.
- Several organizations indicated that they could provide in-kind match in terms of expertise, data, and modeling, but not cash.
- Several people noted that it will be important for a diversity of stakeholders to contribute money, even if some contribute more than others.
- Careful scoping of the plan can help contain the project costs.
- It might be helpful to have an iterative process as the group works the scope and the budget and back again.
- Staff capacity at many organizations may limit the ability to contribute in-kind assistance.
- Some entities may have more money to contribute to implementation projects that are consistent with their respective goals than they do money for writing the plan.
- There may be funds available through the Colorado Roundtable.

STAKEHOLDERS WHO ARE CRITICAL TO THE PROCESS

- Eagle River MOU partners
- Eagle County
- Municipalities
- National Forest Foundation
- US Forest Service
- Bureau of Land Management
- Colorado Parks and Wildlife
- Local property owners
- Water providers, those managing reservoirs and water releases (Front Range and West Slope)
- Mines (Climax, Eagle)
- Recreation businesses (outfitters, guides, rafting, fishing)
- Other businesses
- Elected officials
- Agricultural community
- Conservation/environmental advocates
- Vail Resorts
- The general public
- Colorado Department of Transportation

ROLES STAKEHOLDERS WANT TO PLAY IN THE PLAN

- Drafting (just a few volunteered)
- Contributing modeling and data (several can provide this, mostly water providers and state and federal agencies)
- Reviewing (most want or need to review themselves or run it by governing boards)
- Setting side boards for resource management (land management agencies)

ASPECTS OF OTHER PLANS TO CONSIDER HERE

- Someone should catalog the stream management plans (SMPs) and IWMPs that are out there. We can learn from them in terms of the technical brackets and approaches they used, as well as the public engagement brackets and approaches they used.
- The Middle Colorado River watershed plan did a good job creating a document that was citizen friendly, was not full of jargon, was attractive with lots of drawings and artwork, and invited people to pick it up and learn about the river.
- The Grand County plan focused on impacts of Moffat and other projects. That group did a reach-by-reach assessment, but that may not be right for this group.
- What has worked well is when all stakeholders are included. The diversion improvement on Abrams Creek is outlined in an SMP and is designed to meet multiple objectives.
- The Crystal River approach was understandable for the general public, and the process engaged the various users and water rights holders through the watershed. They were not alienated. They rallied around ways to address the issues.
- Plans should not go beyond the powers of the group to implement them.

OTHER ISSUES

- Riparian areas and weed encroachment and control should be addressed.
- Eagle River Watershed Council assessment could be used and enhanced.
- The agricultural community and conservation districts need to be involved.
- Stakeholders need to understand who's behind this effort and how all of the plans and efforts fit together.
- Management of the watershed as a whole relies heavily on the implementation of water rights. If water rights holders are not engaged in the process, poor decisions may be made in this process or outside of this process because they do not know what is going on here.

Eagle River Integrated Water Management Plan (IWMP) Discussion
Agenda
October 13, 2017

Colorado Mountain College Vail Valley, Room 204
Miller Ranch Road in Edwards

Lunch will be available in the meeting room at 12 pm for those who RSVP'd online.

12:00 PM **Welcome and Introductions**

12:15 PM **Review of How We Got Here (Holly Loff)**

12:20 PM **Considerations in Developing an Integrated Water Management Plan (Nicole Seltzer)**

12:30 PM **Summary of Interviews – Key Themes (Heather Bergman)**

1:00 PM **Resolving Outstanding Issues**

- How an IWMP would intersect with or build on or contradict the Colorado Water Plan and/or the Colorado Basin Implementation Plan
- How to protect existing water rights
- Geographic scale for the plan
- Timeframe for the plan
- Stakeholders to be engaged; what it means to "be engaged"
- Who's writing and who's reviewing the IWMP proposal
- Match funds

4:00 PM **Next Steps for the Integrated Water Management Plan**

- Approach to the proposal
- Writing and reviewing the proposal
- When and how to engage on the plan itself
- Other?

4:30 PM **Adjourn**

Eagle River Integrated Water Mgmt Plan Meeting Notes

October 13, 2017; Colorado Mtn College, Edwards

Facilitating: Heather Bergman, Peak Facilitation

Attending: Holly Loff, Eagle River Watershed Council; Seth Mason, Lotic Hydrological; Nicole Seltzer, River Network; Tim Thompson, consulting engineer; Hannah Holm, Hutchins Water Center @ CMU; Richard VanGytenbeek, Trout Unlimited; Justin Hildreth, Town of Avon; Linn Brooks, ERWSD/UERWA/EPR; Pete Wadden, Town of Vail; Fritz Bratschie, Vail Resorts; Chad Mickschl, BLM; Patrick Perry, Vail Valley Anglers; John Packer, Fly Fishing Outfitters; Brett Gracely, Colo Springs Utilities/Homestake Partners; Kathy Kitzmann, Aurora Water/Homestake Partners; Darryl Bangert, Sage Outdoor Adventures; Hunter Causey, Colorado River District; Aaron Mayville, US Forest Service; Ray Merry, Eagle County Enviro. Health; Bill Andree, Colo. Parks & Wildlife; Craig Wescoatt, Colo. Parks & Wildlife; Chris Estes, Ag.; Jim Hancock, Town of Gypsum; Jeff Kingston, Town of Gypsum; Janet Hawkinson, Town of Minturn; Rick Bumgardner, Water Commissioner 52/53

1) **Introductions and why you are here**
2) **Holly: why we are here and history**

The terms Stream Mgmt Plan (SMP) and Integrated Water Mgmt Plan (IWMP) will be used interchangeably. Seems the West Slope likes the IWMP term better because "stream management" makes some people uncomfortable. This is semantics, but we should talk about it if it's a sticking point for you.

The 2013 Eagle River Watershed Plan called for "crafting and implementation of a streamflow management plan to address economic, domestic, recreational and agricultural water needs." State water plan also called for smp's throughout the state. Watershed Council is applying for funding through CWCB, due Nov 3, so the timeline is tight. We could have developed the goals and tasks beforehand, but we wanted stakeholder input on the goals and activities.

Goals we heard from the initial phone calls with the 6 groups: build consensus about needs/desires, assess current impairments and shortages, increase community understanding of river health and operations

3) **Nicole gave an overview of the CWCB grant requirements:**

4 points. Two areas communities are tackling above and beyond: needs and values of water rights owners and infrastructure owners, and future conditions due to climate change or conditional water rights development, growth.

This fits nicely into the basin roundtable's plans. They have a goal to support these plans, have already given a letter of support to ERWC and are considering a grant application for WSRF funds soon.

4) **Heather reviewed the key interview themes from the six 6 focus groups**
   - Knowing what is going on in the river
   - figuring out what we want it to look like in the future
   - prioritization of projects and coordinated management between land management agencies/towns
   - Major concerns include:

- messing with existing laws or rights
- how/if future 1041 permits would be influenced
- not involving ag users or rec users fully
- making me do something that I don't really want to do

5) Outstanding Issues

- There was concern in the calls about whether the IWMP would conflict with the State Water Plan and Basin Implementation Plan. Rather it will compliment them and achieve some of the goals for each.
- Protecting existing water rights:
  This could lead to a change in the water rights regime in the watershed, or people to tell me what to do with my rights. Nothing we do with this plan can change Colorado water law. You are still in the first in time, first in right regime. We can include a statement in the goals and objectives of the plan that clarifies that it is not intended to nor has the power to impact people's water rights unless they want to do it. Is this good enough? What can we do to make you more comfortable? A concern for an IWMP affecting the permitability of future projects was expressed, but it is seen as positive for future permitting projects as outreach will be required for this process and 1041 anyway. This IWMP process is a positive in that. Sideboards like this should be included in the guiding principles. Some felt that stating it in the plan is a start, but this will still be looked at by some with suspicion. It will always be in the back of their minds that this is a problem. It's another government entity trying to regulate water rights. The perception is that it's a government body trying to regulate. A sideboard in the plan might not do much to protect agricultural water rights, people don't understand the role of ag in water. It was suggested that perhaps we need to spend time understanding and pointing out the values of agriculture to the valley (like recharge and base flows). Can we help the community understand this as part of this process? There is a lot of information about ag diversions, benefits of recharge water. Lotic can do simulation modeling on the hydrology that also shows how ag return flows can help the system. Ag may like to see this kind of modeling and how it benefits the system. We should also include modeling that predicts what happens if we lose ag in the valley. Helping the public understand this would be good. It's the same as having them understand how development impacts runoff patterns and temperature impacts. When we are discussing low water times, make sure to highlight how ag return flows help this. Can we get more ag representation? We invited 4 or 5 more people, but they didn't show today. We need to be more clear about why they are coming and come to them. SGM did a report on ag infrastructure for the Eagle County Conservation District. They tried to be very respectful of privacy and its not shareable, but the Colorado Basin Roundtable had a presentation we can share. Is there any information from that effort that can be brought into this process? Don't the water commissioners do this? No, they look at diversions at the head gate and quantify it. The point of doing a ditch inventory was to identify opportunities to improve the efficiency of the ditches. But ditch efficiencies can have unintended consequences. Seth: these kinds of questions are exactly the ones that this process is designed to answer in a way that balances trade-offs. Nicole: it has an impact on scoping and tasks. If you want to do a hydrology model that shows ditch level return flows, you need to know you want to

include this and put it into the grant. Otherwise, you run the risk of having a budget that is too small to do what you want to do. You can improve the efficiency of an ag system ad infinitum. How do we model this level of detail and also make this document publicly accessible? Water rights owners are very well aware of their rights. They just want to make sure their rights are not impacted, and they should not be because those kinds of changes have to go through a court case. Ag users are also aware that the value of their water rights is in the change/development process and if there are any plans that would limit or make more difficult the future use/change of their water this would be harmful to them. The process should not foreclose options going forward.

- What about urban landscaping? If we are going to look at ag water use in detail, we should also take a look at the percentage of water in the stream that is going to urban landscape.

  Initially, this planning effort was meant to focus on the ERMOU projects and doing assessments/modeling of the impacts and benefits of the various alternatives they may put forward. This is a very easy project to scope. What we have heard in the interview summary and in the conversation so far is much bigger and looser than the original intent. How did this process go from a plan focused on the ERMOU alternatives, to an integrated water management plan. There are other grant types that focus on muni or ag needs (water plan implementation grants) and maybe we should think about how to leverage those grant types for this process.

- Regulations. Do these plans usually result in regulatory changes? Nicole: it depends on who leads it and what your goals are. The group has an ability to set their own agenda. If the group wants to recommend some changes to county land use code, then it could but that is part of the collaborative process in terms of what the group wants to accomplish. The ERWC's plans are usually used by the county as a guiding document. The towns already have to enforce things like setbacks and there isn't universal acceptance that these are ok as is. These affect recreational access and water quality/runoff. There have been other plans that have resulted in non-regulatory actions too. The Steamboat plan responds to temp exceedances and so planning outcomes will focus on how reservoir releases can be coordinated to alleviate temperature exceedances. The reason you plan is to have an outcome that is different than the path you are on. We can go through a prioritization process of different strategies, regulatory may be the last one we go to.

- Geographic Scale
  Heather heard consensus in interviews for a larger watershed scale assessment that includes the tribs first, then do a deeper dive reach by reach, as needed. There are future changes to the river (development, climate change) that we know are coming. Is there a loud and clear issue coming down the road that we need to respond to? Yes, what is going to happen with Homestake? What is the quantity of water that will come down the Eagle River given the conditional water rights that exist? If we are talking about flow, and we have other plans that address water quality, then the biggest players are growth, climate change and MOU projects. Eagle Park Reservoir has been constructed and the partners are meeting

regularly talking about potential alternatives. A model has been built and can be made available to this group. It has started to give a handle on future water needs. If this group wants to be proactive, understanding the impact of development of conditional water rights should be a strong focus.

What is going on in Gore Creek (wq and aquatic life) will have ramifications for the entire valley. Seth: ERWC has water quality monitoring and planning well covered already. It's got its own box and maybe we should focus on other issues.
Milk Creek is the 2nd worst water quality issue in the valley and no one is focused on it. The nonpoint source pollution on Arrowhead Creek is destroying the fishery. Seth: the ERWC continues to work with the towns and county to address these issues. Holly: ERWC is starting upstream and working their way downstream with Water Quality Action Plans so they have not gotten to these stretches yet.

ER MOU background: In the 1950s Front Range entities looked for more water on the West Slope and identified the Eagle River. Aurora and Colorado Springs built Homestake in the 1960s and they got a pass from the feds to expand it into the wilderness area, which was just being established at that time. They came back in the early 1980s to expand Homestake. They got all permits and approval to build it in the wilderness area. Their last stop was 1041 with Eagle County. 1041 was denied, appealed, went to supreme court. At that point, Front Range entities had spent millions on something that will never be built. Once denial was firm, the Front Range diverters came to ERWSD to talk about how to move forward. A report was done by the Eagle River Assembly to look at what were the valley entities' in-basin needs. There was a sense that ~30k af could be developed and still be permittable, so an MOU was developed between all of the entities. Eagle Park Reservoir was built as the first MOU project. Right now, the group is looking at alternatives and doing modeling.

Heather: this comes up because this group could use the MOU projects as an organizing principle.
This plan could proactively help us identify the environmental/recreational needs and how they should be protected. We should think about future flows due to climate change. Other stakeholders expressed a need for an assessment of a series of different issues. Obviously the MOU projects will impact the flows, but there are a lot of other issues that need to be addressed. Our goal should be to make the Eagle River better tomorrow than it is today. What does the river really need to be healthy? Is the only thing that is going to cure these problems stored water? We should look at storage and how it can be helpful. Looking at the role that storage can play is great, but we have to exhaust some other options such as conservation first in the public's eye.

Heather: we have two options in front of us. Using the Eagle River MOU as an organizing principle and analyzing how they impact various uses/values. Or "Make the River Better" and look at all of them in that way.

Most felt that the ER MOU was important to understand and model its impacts on the various users and values in the system. While building those projects is 10+ years out, there are decisions being made today on developments and water permits that reduce our options for the future. We want to see an overall assessment on functional river health on the mainstem and above Homestake Creek. We want to understand current problems and future effects from both short-term issues (like additional development) and long-term like MOU projects. A watershed wide "make the river better" plan that captures the community's values, recognizes the existing efforts that are ongoing and how their recommendations impact streamflow, functional health, with a component of it being informative to the ER MOU partners that can inform their decision-making, as well as the decision-making of other towns on the river.

- Timeframe: 2-3 years. Aim for two, but the community dynamics and discussion part can be necessary. This matches well with the ERMOU project timeline.

- Do you really want a community education process around this? This will be a technical water management document, so doing community education around it will be a separate effort.
  The decision makers in the community are not technical water managers so you need to create things that speak to them. There is an important role for the ERWC to do the education piece. Yes, and the grading system on functional health used in the Crystal was useful. We can do both! Colo Springs Utilities finished an IWRP in Feb. Its an 80 page plan, with a 3 page summary. The technical appendices were 1,000 pages. The MOU partners are also doing some community education work in the future on the history of the effort, how the system works now, how we manage streamflows, the water needs of the Front Range providers and their conservation efforts.
  Let's help this group as well as the entire community understand how water works in the valley. We should make sure to put a budget item in there for both a stakeholder process as well as a community education process.
  Let's also diffuse the us against them posturing with the Front Range as we have a lot of the same values.
  Also, are there other people who could represent the ag interests in the valley such as the Ag Water Alliance or DARCA? There are not very many ag water users on the Eagle River mainstream, and very few make ag their primary living.

- Writing and reviewing
  Seth will get the scope of work proposal writing done by next Friday. Nicole and Holly can get goals and objectives at the same time. It will be sent out for all to review (high level, not word-smithing).

- Matching funds
  Please talk to Holly about how much you can contribute. The overall goal is around $300k [since the meeting more final budget numbers have been pulled together and $400k is more realistic], with a basin roundtable grant for 25%, so it would be around $75k. Please send

this to Holly by Wednesday, along with in-kind match too. The group would like a funding model (fee schedule): here is the overall budget, here is the expectation from towns, the county, etc. Nicole can provide some guidance on in-kind match.

- Letters of Support
  Holly would like one of these from every entity. These should be individualized, but Holly can provide some ideas for talking points. She'll provide these on Monday, and letters must be on letterhead with signatures by 10/27.

- Review
  Scope goals, objectives by 10/20
  Financial commitments by 10/20
  Comments by 10/27, points for major ones early
  Letters of support by 10/27

St. Vrain and Left Hand Creeks
Stream Management Plan Discussion
Agenda
September 25, 2017

Location: St. Vrain and Left Hand Water Conservancy District Offices
Downstairs in the Large Conference Room of the Natural Resources Building at the Boulder County Fairgrounds

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9:00 AM **Welcome and Introductions**

9:15 AM **Review of How We Got Here (Sean Cronin)**

9:20 AM **Summary of Interviews – Key Themes (Heather Bergman)**

9:30 AM **Discussion of Interview Themes**

- Any surprises?
- Any takeaways to share?
- Any disagreements or concerns about the conclusions?

10:00 AM **Resolving Outstanding Issues: Ways to Protect against Impacts to Existing Water Rights**

10:45 AM **Resolving Outstanding Issues: Ensuring No One Is Obligated to Support an Outcome They Don't Support**

11:30 AM **Resolving Outstanding Issues: Agreeing on the Scale of the Stream Management Plan**

12:30 PM **Next Steps for the Stream Management Plan**

1:00 PM **Adjourn**

St. Vrain Stream Mgt Plan Stakeholder Meeting

9/25/2017

I. Attendees:

- Sean Cronin, SVLH WCD
- Barbara Luneau, TU St. Vrain Anglers
- Julie McKay, Boulder County
- Ken Huson, Longmont
- Keith Stagg, Longmont
- Darrell Beck, St Vrain Creek Coalition
- Carl Chambers, USFS
- Jessie Olsen, LWOG
- Jason Whitmore, Left Hand Water District
- Ernst Strenge, Boulder County Open Space
- Heather Bergman, Peak Facilitation
- Nicole Seltzer, River Network
- Jim Blankenship, Town of Lyons
- Karla Brown, St. Vrain Creek Coalition

II. Background and Interview Summary

Sean gave background on what has been done so far. Feedback from many informal conversations over the last few months pointed towards the Conservancy District taking a leadership role in convening people to talk about whether and how to pursue a stream management plan grant. River Network is providing some assistance and money, with which we hired Peak Facilitation. We are shooting for an 11/3 grant deadline. Sean reminded everyone that he must have his board approve the project plan and grant if we decide to go forward. That Board meeting is 10/9, and it's on the agenda, but it will be difficult to present a complete grant application at that time, so a special meeting in late Oct will happen. But that depends on whether we decide to move forward today.

Our goal today: do we want to pursue this and if so how?

Heather reviewed the overall results of the interviews she conducted.

1) The group is diverse in terms of its expertise and is happy to help write the scope or grant (or at least review it) or participate in the process as it comes together. If a grant is awarded, many people want to get involved and add expertise.
2) There are a lot of opportunities on both creeks that the group sees. Dry up points, in-Stream Flows (ISF), rec access, etc.
3) Desire for collaboration and working together
4) Clear desire for cataloging of needs and a prioritization of projects. Some people are unclear as to why we would pursue this and if there are ulterior motives.
5) Scope is an unanswered question. "go big or go home" vs. "one bite at a time"
6) Phases/steps could be one approach to help us accomplish this

7) There are several concerns, including having a plan that is not completed or implementable, or one that will have recommendations that I/my org cannot support, or that the process/timeline will be rushed or not inclusive
8) Existing plans had some elements people liked ("grading" methodology) and some that were missing (clear implementation plan)
9) Some partners have resources to contribute, both cash and in-kind
10) The group generally felt that a proposal could get done by 11/3, but there was a subset who thought that there was more conversation/planning needed and we should shoot for 2018.
11) Heather's summary was yes, let's do it if: protect existing rights/no obligations to support outcomes/agreement on scale

The group generally felt that the work that Heather did was useful and captured the major issues we need to address to move forward. Julie would like to spend some time on goals and objectives today.

Nicole discussed the things that need to get done by 11/3. Goals and objectives and task development is needed asap.

Karla: we can use some of the language and thought processes that other users have already created. Let's plagiarize! But resiliency should be mentioned.

III. Protecting against impacts to existing water rights

What do we need to do to make people comfortable that we are not working towards impacting existing water rights? Language in a goals statement to the effect of "working within the prior appropriate system" might help. There is a gut reaction sometimes by water rights owners that ISF's are a taking. We may need to do some education around how this works. The district has tried to educate people on ISF's and they get discouraged early on and lose interest. Water security, living within the rules. Some don't like the phrase "water security" because it sounds too federal. Protecting existing water rights. How do we make this a safe thing to participate in? People will bail quickly if they think their yields or rights will be infringed upon. Having an objective that speaks to the needs of the water rights owners. What would this be?

Sean: the flood recovery work has been done, and so working with the irrigators to improve infrastructure with env benefits has been done. Others: no, there are gaps! The EWP money purposefully stayed away from some of these. Ken likes the way Julie put it: we are moving from flood recovery to stream health, and we have to educate all stakeholders that stream health is in their interest. Heather: what is stream health and how is it beneficial for different water interests? Jim: and there is a gap between what the permits and feds require and what is actual stream health. What is the value proposition? We have the ability to look beyond the lenses of just a permitting process or one regulatory hammer. We get to define stream health and what it means in this watershed. Karla: and while there is not a regulatory hammer currently in play, working together on voluntary stream health can mitigate the need for regulations in the future.

Ernst: the water users must be involved early and often. Show in the scope of work that they are an important part of this process. Any plan must clearly state the role of water users. Jessie: emphasize that this group holds meetings when water users can come, perhaps by being on their regular meeting agendas. How can this group do outreach and create enough incentive for them to participate? Sean: if

we are awarded a grant, we need a whole separate process/strategy to decide how to meet water users on their terms most effectively.

IV. Scope development

Sean gave an update on the talks he's had to date regarding drafting the scope. He has talked with SGM from Glenwood Springs, Deere & Ault and EcoMetrics. Do others have contractors they have worked with that they want to include in scope development? To move forward, we must ID the goals and objectives and tasks. Nicole will write up a draft based on this conversation to propose to the group and get reactions.

While there are no formal policies around consultants helping draft the scope being also eligible to bid on the work, there are optics to consider.

Budget: SVLHWCD has $50k to contribute. TU chapters will look into it. Lefthand Water District and Boulder County and Longmont will pursue cash contributions. LWOG and St. Vrain Creek coalition will look at in-kind. The optics of having every key partner contribute at some level that is comfortable is important.

V. Obligation to support the plan

Organizations are concerned that they not be seen as supporting any outcome of this process. How can we ensure that we are providing a process that avoids boxing anyone into solutions that are uncomfortable for them? Ken: we can come up with an operations policy that any plan elements would have to align with private property rights and prior appropriations. We have to ensure that any smp would not be co-opted by an advocacy group or any one special interest. How we do this is by making sure that everyone needs to be at the table and participates and having rules that keep people from co-opting the process.

Heather: and by participating, you have the ability to guide the process so that it does not cross any lines or gets into any areas that make you uncomfortable.

Julie: as long as there is an articulation of what it means to participate and what the goal is as far as the outcome of a plan. Like we only operate by consensus, or that those groups who want to move on one specific kind of project can work together. Through committed participation and process management we can avoid most of this.

Barbara: I would like to see that we make the concept of buy-in part of our project prioritization process. We can agree on the problems, and have a full range of variables to assess them, which includes group agreement.

Sean: his board may not understand its specific role. Is it fiscal agency, do we have veto power? Sean is required to outline the role of each of the entities and what they are committed to. Nicole: make sure to be clear about who has what role in what parts of the process, because the entity that leads plan development may not be the entity that leads implementation. Work a focus on who does what into the process up front.

Heather: how can we make this a safe process? Can we agree on the criteria by which we evaluate the problems and the universe of solutions? How can the process be fair? Develop a procedural methodology that does this. All agree that this is the right approach. Julie: we just need to make sure that the right people participate appropriately. We need to be resourced to the correct extent – what level of "staffing" do we need to get this done? Barbara: I would not advocate that we take anything off the table, but we should include a metric of supportability or feasibility. Ken: We've all been through processes like this, such as the St. vrain Creek corridor committee, so we have a model for how to do it right.

Heather: we need an operating protocols guidance document as well as agreement on roles and responsibilities. We can develop this as a group. Once we agree to the rules, you can hold people accountable. We can also think about a decision making process/model that we agree to up front.

Carl: how do you actually implement this? Anyone can write a plan that everyone agrees to, especially that is voluntary. Who is in charge? A deep focus on implementation of projects and how to do it right should be included in our tasks. And if you do not have a regulatory reason to act, why are we acting?

VI. Geographic Scale

The St. Vrain is about 35 miles from headwaters to confluence.
Karla: we already have a lot of existing data. We should use our planning dollars to bring together existing data.
Ken: Do not include Boulder Creek, but we should look at all 3 branches of the St. Vrain and Lefthand. Let's write a scope of work that starts with the whole watershed and the first task is to ID specific subreaches that we want to go deeper on. There are very different management issues on different reaches and we cannot tackle it all. There are issues in the headwaters that we need to include. A lot of the aquatic ecosytstem issues and rec issues are up there.

Nicole: the Poudre focused on ~25 miles of stream, broken down into 18 reaches. It seems that an assessment at this scale is fairly doable.

Sean: I would like to see Task 1 be pulling together existing information for the reaches we are interested in. We need to have a firm handle on what already exists to make our grant application stronger. Can we begin to pull some of this together soon?

Ken: Can any of the work we do on this now be used as in-kind match in the grant? Nicole: yes, but she needs to look into the specifics of timeframe and if it's from grant approval or notice to proceed.

Ken: we need to do a full accounting of the entire watershed so we know what the management issues are, and then go from there.

Carl: The level of detail that one can do is inversely proportional to the scale you choose. If the intent is to do field-level work on the whole thing, it becomes a huge project. At the scale we are considering, the question you want to ask are influences of flow conditions, and not geomorphology, for example. It

may be iterative: we ask a question at one scale, and then ask another question for another set of reaches at a different scale.

Ernst: the number of stakeholders also increases when you increase the scale.

Nicole: what work has been done that feeds into this? LWOG and SV have the flood master plans which id's infrastructure, geomorph. LH has some existing water quality data efforts. SV has a lot of existing data/reports but none of that has been pulled together in one place. CPW has a focus on native minnow species and they harvest them to repopulate other areas. City of Longmont has done benthic surveys every years for 30 years. RMNP sections has tons of data, there is a CSU hydraulics lab up there. A lot has been done, but it's never been brought together. The importance of this creek cannot be understated.

Nicole: FACStream is one way to take all existing info and put it through the lens of stream health functions, and ID missing info and data gaps that you would need to have a better understanding of what's missing to fully characterize it.

Sean: if we don't have the science or full participation to ID our primary stream reaches now, we should figure this out as part of the first step. We should make prioritization of which reaches we want to dive into (focal areas) an outcome of the first step. We thought about the universe of things, and then used a decision tree to narrow it down. Julie: almost a screening process and using a specific set of criteria to focus on reaches/locations that have made it to the second round of focus.

Sean: one concern on this approach is that we are limiting the first step of this process to the "technocrats" which is a common criticism of how things gets done in this basin. Heather: we need to bring along some other stakeholders too. For example, ask the community what questions they want answered, and what things they want to have focused on. Nicole: the two coalitions are very well positioned to do this part of the process.

Sean: the "grading" approach may over simplify things in his opinion. He would like to think about the right technical approach.

The group's decision is to do a coarse analysis of the 3 branches and LH and James creeks to evaluate functional health. Then use those results to narrow down to reaches that we want to focus on.

Keith: I am willing to spend some time to pull together existing info. Michael J. Baker did a "plan roll up" in the master plan. Start there first.

VII. Goals and Objectives

Julie: A goal: from flood recovery to watershed health. She is also interested in seeking alignment with the ag community and she likes the idea of using this process to understand their needs.

Sean: what can we achieve with this grant? What are the "acute" problems? Jessie agrees that focusing on overall watershed health might not be the best use of time. LWOG is already doing some larger

watershed planning and we don't need to duplicate that. She'd like to see a focus on the stream corridor and flows.

Darrell: Is it premature to ask for the grant now because we are still doing flood recovery work? Jessie: LWOG is basically done with our planned projects. St. Vrain's are also almost there. It's going to be mostly done by this winter due to when the money needs to be spent. Jessie: the implementation of the plan itself is probably a year out since we have a lot of other work to do. Barbara: part of this process's goal is to ID the projects of the future that the coalitions can figure out how to fund. We must start this process now so we tee them up and to avoid a gap in collaboration. Nicole reviewed the grant guidelines and timeline, which Sean will distribute to everyone.

Sean: as for 50% match, he is on the south platte basin roundtable agenda on Oct 12 to present this as a heads up grant request. Both grant requests would be considered at the Jan CWCB meeting.

Phased versus "soup to nuts": most plans to date have taken a soup to nuts approach. This has a downside of guessing at your later tasks and budget. The group would like to submit a one-year grant request that sets the stage for a larger ask that is more comprehensive.

Nicole shared a compilation of Heather's interview results lumped into possible goals.
Karla: can we overlay this with the grant requirements?
There is sensitivity over managing for fish flows in the stretch between Lyons and Longmont. There has been historic work to establish ISF's in that stretch but they were abandoned due to conflict. But that isn't a good reason to not characterize existing conditions and set goals towards improving them.

The Gunnison model might be a good approach in terms of objectives.

VIII. Next steps

- Nicole will distribute meeting minutes
- Nicole will pull together a draft set of goals and objectives for the group to edit and find agreement on
- Keith will begin a review of existing plans/info to make sure we all have a high level understanding of work done so far
- Sean will send out a scheduler for a 2nd in-person meeting
- Based upon the agreed upon goals/objectives, Nicole and Sean will work with some consultants to draft a scope of work and budget
- If anyone has consultants they think would work well in this process, please send them to Sean or Nicole

St. Vrain and Left Hand Creeks – Stream Management Plan Discussion
Stakeholder Interview Summary
September 22, 2017

Expertise in the group includes the following technical skills:

- Water resources management, hydrology
- Water treatment, water quality
- Engineering, excavation
- Watershed science, environmental science, ecology, stream restoration
- Environmental planning
- Collaboration, coalition building, community outreach
- Politics, policy, and experience navigating the water system in Colorado
- Proposal writing

Reasons people are involved in this discussion about a stream management plan include:

- Inventorying issues and opportunities on St. Vrain and/or Left Hand Creek
- Ensuring sufficient flows to achieve interests (ag, recreation, environmental, etc.)
- Ensuring that any new projects or efforts are consistent with existing water rights, existing management plans, etc.
- Being responsive to and leveraging an apparent interest at CWCB in seeing something happen on these creeks

Flow-related challenges or opportunities on St. Vrain and Left Hand Creeks include:

- Getting constructive communication to occur between those who want to see more water in the river and those who want to see more water on crops
- Bringing together consumptive and nonconsumptive uses and users
- Requests for instream flows in a water-short environment
- Addressing segments of Left Hand and St. Vrain Creeks that dry up in the winter
- Restoring or mimicking the natural hydrology as much as/where possible
- Working with and within existing water availability, decrees, and water law
- Identifying and prioritizing projects
- Finding projects to help with flood recovery while also meeting other goals
- Maintaining aquatic habitat, agriculture, and other water users by helping ensure that the water that people want and need is available when and where it is needed
- Promoting stewardship and ecology practices
- Developing trails and other recreational opportunities in the area
- Developing alternative strategies to go beyond what we have already tried
- Clarifying what flows (types, amounts) we want to manage toward
- Taking advantage of the fact that there are fewer water rights battles on these creeks than there are on surrounding rivers; now is a good time to work on this

The potential value that people see of having a stream management plan includes:

- Establishing some long-term goals that various stakeholders can work on together
- Prioritizing where we can make the biggest impact
- Building rapport and collaborative working relationships among stakeholder groups
- Identifying projects to improve water quality, decrease sediment loading, and manage flows
- Balancing historic agricultural water uses with proposals for instream flows to support ecological and recreational values
- Increasing efficiency of water use to achieve multiple goals
- Cataloging conditions on the creeks
- Identifying the critical issues in the watershed

- Identifying needs for water and options for how to meet those needs
- Improving collaboration in the watershed
- Quantifying nonconsumptive uses on these creeks
- Developing long-term strategies to protect water quality and flows
- Examining lots of options and tradeoffs
- Creating a legacy document that anchors other efforts going forward
- *Note: A small number of respondents said they did not know what the value of having stream management plan would be. One person wondered if the plan was a step in achieving another, unstated goal.*

Thoughts on the best scale for a stream management plan:

- ***The whole watershed or both creeks***
  - The group should look at St. Vrain and Left Hand Creeks as an integrated system; strategies may not overlap, but if/where there are commonalities, the group should take advantage of those.
  - A comprehensive approach is the only way to understand the whole system and find the best places to make the biggest impact. The study should be the whole watershed, followed by a priorization of projects.
  - The group should do the largest scale possible but be realistic based on funding and impact.
- ***Some reaches, one or the other creek***
  - St. Vrain and Left Hand Creeks are very different and have different issues; including them in the same plan would make the plan too large and make stakeholder engagement unwieldy.
  - The group could focus on St. Vrain Creek from Lyons to I-25; this would help the streams and also support the state park.
  - The group should separate the headwaters from the lower reaches, since there are more uses and more challenges in the lower reaches than in the headwaters.
  - The group could focus on the stretch of Left Hand between Lyons and Longmont.
  - The group could do different reaches with different land ownership—focus on one reach with predominantly public ownership and one reach with predominantly private ownership.
- ***Phasing***
  - The group should pursue a phased approach. First, look at the entire watershed. Then, based on the data, identify 3 or 4 focus area where there is the opportunity to be most effective and have the biggest impact.
  - Start with a focus on gathering and analyzing data that is already available and assess where there are data gaps, then focus on whichever reach has the *least costly and time consuming gaps to fill and apply a framework for planning and analysis (like grading, or other tool).*
- ***Other***
  - Focusing where consumptive and nonconsumptive uses overlap will bring the most benefit.
  - The group should either go really small and focus on a reach of Left Hand Creek, or go big and do a watershed-level plan that gives the full picture.
  - This should maybe be an open question at the front end until there is more data and information.

Concerns about pursuing a stream management plan include:

- Raising expectations and then having the effort peter out because it is too much work or because some stakeholders were not really bought in
- Getting everyone to agree on what we want to manage toward, on the extent and scope of the plan
- Getting to an outcome that some in the group decide they can't support, even if they were ok with the process to get there
- Getting to strategies that affect current water rights (e.g., new instream flow filings)
- Staffing and energy concerns—folks are still working on flood recovery through 2018
- Creating or exacerbating contentiousness among stakeholders or with the public
- Being blocked by State regulations and FEMA rules
- Focusing only on instream flows without exploring other management options like gates, storage, structures, water banking, efficiency, ditch lining, etc.
- Having some stakeholders dominate the discussion and leaving others out
- Working hard on a plan so it can sit on a shelf
- Investing time at the front end and then having the focus shift to something that is not relevant to some stakeholders, who would then lose the time and energy they invested
- Overlooking some important part of the scope or underestimating the cost and failing to set the plan up for success
- Relying too heavily on one person or one entity to complete the plan; failing to make it truly a collaborative effort

Things people liked in the Crystal River Steam Management Plan:

- The variety of strategies (market-based incentives, leasing relationships, conservation, legal options, structural improvements, etc.)
- Habitat enhancements and modifications
- Identification of management priorities
- Short-term and long-term strategies
- Assessments and data collection to get to alternatives
- Combination of science and public/stakeholder input
- The focus areas—started broad then funneled down
- That pie chart with the strategy categories
- Inclusion of both consumptive and nonconsumptive uses
- The GIS analysis and different kind of mapping, showing issue areas
- The assessment of the effectiveness of the strategy options

Things people thought were missing from the Crystal River Stream Management Plan:

- How to pull it all together. That's a lot of strategies that will require a lot of partner engagement to achieve.
- Details on funding: how much did that plan cost? How much was compromised to complete it within budget?
- The Gunnison plan specified their partners and their role in implementation.
- The Poudre plan grades (A, B, C, etc.) different stream reaches. That could be useful.

Perspectives on how to achieve the 50% match included:

- Some partners may have money to contribute. No one indicated they could or would cover all of the match, but many indicated an ability to contribute something.

- A few stated that cash contributions may be more difficult for entities whose financial resources come from assessments on private individuals.
- Some thought that the larger water users on the creeks should contribute something.
- Several people indicated that their organizations could contribute in-kind assistance through education, outreach, analysis, project management, etc.
- Other ideas included holding fundraising events and pursuing other grants for the match

How people want to contribute to the proposal writing:

- Several people indicated a willing to help write the proposal.
- Others indicated that they would like to review it to ensure that it addresses key issues: water quality, impacts to existing water rights, an ongoing role for partners in the plan, etc.
- A few said they don't know enough to be able to say whether/how they could help.
- A few said they would need to see a final version before it is submitted to ensure that their organization/agency could support it.

How people want to contribute if the grant is awarded:

- Some can help with analysis and data gathering.
- Some offered to help with education and outreach to the public, to their members, and/or to other stakeholders.
- Some said that they have experience writing these types of plans and could help that way.
- Some said they would focus on project implementation once the plan is complete.
- Some said they are not yet sure what their role would or could be in the development of the plan.

Thought on whether getting the proposal done by November 3rd is achievable:

- Most people said yes, either because they personally have experience doing this type of work on a short timeframe or because they believe others have the motivation and energy to get it done.
- A few expressed skepticism that it could be done in the time available. They indicated that there is not enough information at this time to write a competitive proposal and/or that everyone has full-time jobs and cannot dedicate enough time to get it done.
- One person noted that if the group cannot get a proposal together for 2017, it would be wise to start working now to prepare a proposal for 2018.

Additional things on people's minds about this included:

- It would be good for the group to have a better view of what a stream management plan could potentially include and then address this whole idea of collaboration and cooperation vs. the fear of committing an organization to something they cannot support.
- A major concern is the protection of water rights and making sure there is the highest quality water possible available.
- Ditch companies and water rights holders may not currently have a strong incentive to participate. Perhaps the group should explore ways to make this meaningful to them.
- People have been working together since the flood, so there's some collaborative history there.
- The development of the scope of work must be a collaborative process.

- It's an exciting time. Several people are coalescing around this. CWCB wants to see something happen in this watershed, and there is great leadership and lots of stakeholder interest.
- It is imperative that the group discuss and commit to addressing the "hard issues," otherwise the plan will be meaningless.

Interview Conclusions: Yes IF

1. ***There is interest among partners to pursue a stream management plan, IF:***
   a. Concerns about potential impacts to existing water rights can be addressed prior to developing a proposal.
   b. There are some protections to ensure that no person, agency, or organization is obligated to support the outcome if it undermines their interests.
   c. The group can reach an agreement on the scale of the stream management plan.

2. ***There are sufficient partners willing to help write and review the proposal. If the group can find agreement on the issues above, it is likely the proposal can be prepared and submitted on time.***

3. ***There are enough partners willing to contribute both cash and in-kind match that the 50% match requirement can likely be met.***

About Integrated Water Management Planning

The Colorado Basin Roundtable (CBRT) identified basin-wide integrated water management planning (IWMP) as a top priority in its Basin Implementation Plan. Planning is a vital part of providing sufficient water for environmental and recreational needs in addition to satisfying the many other uses and demands for water. The CBRT planning goal articulates restoring and protecting ecological processes that connect land and water while ensuring that our rivers also serve the needs of human populations. Implementation of plan recommendations is intended to be voluntary and will only be successful with collaboration and cooperation among affected stakeholders and water rights holders.

Why is planning important in the Middle Colorado?

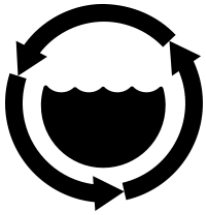
The middle Colorado River, extending from the top of Glenwood Canyon downstream to the head of De Beque Canyon, is a critical section to consider as part of the CBRT's comprehensive strategy. This 75-mile stretch of the mainstem of the Colorado River supports the communities of Glenwood Springs, New Castle, Silt, Rifle, Parachute/ Battlement Mesa, and De Beque, that each rely on Colorado River water in a variety of ways. Integrated planning offers the opportunity for our communities and their various economic sectors to come together to identify the collective water needs necessary to continue to improve and grow our communities.

What questions are we trying to answer?

The overarching questions are how much water is needed in the river to support environmental and recreational (non-consumptive) uses, both now and into the future, and how can those needs be met. In considering these questions, it is critical to look at consumptive use needs for drinking water, agriculture, and industry and any gaps that may exist now or in the future, in order to develop creative solutions for meeting the needs of all. Any solutions that emerge from the planning effort will be voluntary based.

MIDDLE COLORADO WATERSHED COUNCIL

Key Questions/Issues



Environmental

What can be done to remove and control invasive riparian species (e.g., tamarisk and Russian olive) and ultimately restore and manage for the long-term success of native riparian ecosystems? Are there flow related considerations?

Are the currently identified water quality impairments related to flow? Are there any flow-related water quality impairments that may be foreseen in the future? What flows are needed to offset current impairments or to protect against future impairment?

Are there current or future foreseeable flow impairments that have or may in the future trigger regulatory action, and are these mitigatable (e.g., threatened and endangered (T&E) warm water fish, three fish species of special concern)? Are there other habitat-related improvements that can be undertaken to further recovery of the species or avoid future listing?

Recreation

Are river flows sufficient to support current and future contemplated recreational development? What are the optimal flows?

Are there opportunities for improving river health while supporting sustainable and environmentally sensitive recreational development?

Are there ways to reconnect the tributaries and provide sufficient flows to support robust and natural reproduction of trout populations to improve recreational fishing opportunities?

Social and Economic

Who owns the water that can help fill gaps in environmental and recreational needs? Where does the water come from – within and/or outside of the watershed?

Are there current and/or future anticipated consumptive use gaps in the study area? Are consumptive use stakeholders interested in locating and quantifying those gaps? Are there ways to satisfy consumptive use gaps while also meeting recreational and/or environmental needs?

Are both non-consumptive and consumptive-use stakeholders and water rights owners interested and willing to participating in problem solving that will ultimately benefit our local communities? Are there creative solutions that can be crafted together?

MIDDLE COLORADO WATERSHED COUNCIL

Who will be involved?

Development of the plan will be stakeholder driven and fully inclusive. Representatives and interested parties from agriculture, the environment, recreation and tourism, water management, and government related to land use planning and management, utilities, and public health will be encouraged to participate. Early and consistent participation from everyone involved with water will be crucial to the future success of planning and implementing solutions that support our local economies.

As an entity whose work encompasses the Middle Colorado River, the Middle Colorado Watershed Council (MCWC), a local nonprofit organization, is offering to manage the effort on behalf of the region's stakeholders.

How will the planning effort be funded?

The Colorado Water Plan of 2012 discusses the need for integrated Water Management Plans (called Stream Management Plans) on priority waters in the state. Accordingly, the 2017 legislature has allocated monies to support these efforts through a Colorado Water Conservation Board granting program. The MCWC will be applying for a CWCB grant in November of 2017. Matching funds from the local community are required to demonstrate a show of local support.

The planning work will span many years and be conducted in phases to meet the needs and desires of local stakeholders.

How you can engage.

- Provide early feedback that can inform project scoping.
- Share this information with others who may be interested in participating.
- Support the effort with a pledge of cash or in-kind support.
- Provide a letter of support for the grant application.
- Plan to participate in the stakeholder process and offer your opinions and ideas.

MIDDLE COLORADO WATERSHED COUNCIL

MIDDLE COLORADO IWMP

Stakeholder Engagement Plan

Last update 8-18-17

	Contact	Method	Target Date	Notes
• Agriculture				
o Mount Sopris Conservation District	Dennis Davidson			If Dennis advises, meet with Board Nov 14
o Southside Conservation District	Dennis Davidson			If Dennis advises, meet with Board Oct 3
o Bookcliff Conservation District	Dennis Davidson			If Dennis advises, meet with Board Oct 17
o NRCS	Steven Jaouen	1 on 1	Sept 11 week	Combine with Dennis meeting
o Aspen Valley Land Trust (in role of conservation easement holder)	Suzanne Stephens			Call after sending to RRAG sept 4. Set up follow up phone meeting.
o Private landowners				Ask Dennis, Jim P., others for ideas here
• Aquatic/Riparian Health				
o CPW	David Graf	1 on 1	Sept 11 week	Call after sending to TAC sept 4, maybe ask to include Lori Martin, Kendall, etc.
o USFWS	?			
o Audubon	Abby Burk			Call after sending to RRAG sept 4. Set up follow up phone meeting.
o TU	Richard Van Gytenbeek			Already in the loop and helping!!
• Government: Land Use Planning and Management/Utilities/Public Health				
o Garfield County Community Development	Sheryl Bower	Set up group meeting at Commissi on mtg	Week of August 21st 6 Sep	Invite to meeting with Commissioners See about funding ask. Who to present to at City?
o Garfield County Environmental Health	Morgan Hill/Josh Williams			
o Glenwood River Commission/Community Development	Trent Hyatt			
o Glenwood Public Works	?			Ask Trent who to contact at City
o New Castle planning/utilities	Lyle Layton	1 on 1	Week of August 21st	See if they recommend Board presentations
o Silt planning/utilities	Jack Castle	1 on 1	Week of Sept 11	See if they recommend Board presentations
o Rifle planning/utilities	Kimberly Bullen	1 on 1	Week of August 21st	See if they recommend Board presentations
o Parachute planning/utilities	Stuart McArthur	1 on 1	Week of Sept 11	See if they recommend Board presentations
o DeBeque planning/utilities	Lance Stewart	1 on 1	Week of Sept 11	See if they recommend Board presentations
o BLM	Chad Mickschl/Carmia Woolley			Call after sending to TAC sept 4. Set up meeting,
o USFS				
o County Commissioners	Kevin Batchelder	1 on 1	week of Sept 4	Maybe invite Morgan. Ask for audience with Commissioners before budget finalized.
o Other Elected officials	Sarah Andrews (Bennet)	1 0n 1	Aug 28?	
• Recreation and Tourism				
o Colorado Outdoor Recreational Association/Local Boat Outfitters	ask Ken/Ken			
o Upper Colorado River Private Boaters Association	ask Ken/Ken			
o American Rivers	Ken Neubecker			inform through Next Steps mtg Aug 28. Set up meeting afterward to get ideas on other recreation contacts. Invite Ken Ransford.
o Flyfishing Guides/Private Outfitters	ask Ken/Ken			
• Water Management				
o Division Water Resources	Alan Martellaro	in person	week of Sept 4	Invite Richard V. to attend
o Colorado River District	Chris Treese/Jim Pokrandt	in person	Week of August 21st	
o West Divide Water Conservancy District	Sam Potter	1 on 1	Week of Sept 11	Ask for Board audience Oct 19
o Silt Water Conservancy District	? new president			
o Bluestone Water Conservancy District	?			
o USFWS Colorado River Recovery Program	Tom Chart	1 on 1	week of Oct 2	
o Bureau of Reclamation	Brent Uilenberg	1 on 1	week of Oct 2	
o Xcel Energy (Shoshone)	Dan Birch CRD		week of Oct 2	
• Other				
o Roaring Fork Outdoor Volunteers	David Hamilton	1 on 1	week of sept 4	
o Community Builders	Clark Anderson	1 on 1	week of sept 4	
o RRAG	Full RRAG	email	week of sept 4	Send proposal to RRAG to solict input/partnerships
o TAC	Full TAC	email	week of sept 4	Send proposal to TAC to solict input/partnerships
o Gates Foundation	Russ	email	week of sept 4	Send Proposal to Russ to solict feedback

A three meeting series to align the resources, expertise and tools available within Colorado's water management, NGO, academic, and research and science communities with the capacity and knowledge needs of local coalitions as they initiate stream management planning processes.

Goals include:

1) Articulate the knowledge and capacity needs of local coalitions that want to initiate a stream management plan
2) Identify the resources and tools that are either currently available or could be created by Colorado's experts to fill these needs
3) Create pathways to connect needs at the local level with expertise on an on-going basis

AGENDA Meeting #1: Tuesday, April 18, 2017 12:30-4:30pm

Keystone Policy Center, 1628 Sts. John Road Keystone, CO and via recorded webinar

Goal: Create a common understanding of the tools and resources that would be most helpful to local coalitions initiating a stream management planning process

12:30 Introductions and overview of the day

12:45 Status and challenges of stream mgt plans in CO today – the state perspective and Q&A

Chris Sturm, CWCB

1:15 Status and challenges of stream mgt plans in CO today – the practitioners' perspective and Q&A

Poudre River: Jennifer Shanahan, City of Ft. Collins

Gunnison River: Frank Kugel, Upper Gunnison Water Conservancy District

Crystal and Yampa Rivers: Seth Mason, Lotic Hydrological

North Fork Gunnison River: Cary Denison, Trout Unlimited

San Miguel River: Mely Whiting, Trout Unlimited and Jenny Russell, San Miguel Watershed Coalition

2:30 Break

2:45 What's Next: How to successfully implement the Water Plan's goal of developing Stream Management Plans for 80 percent of locally prioritized rivers

Overview of River Network's work in Colorado: Nicole Seltzer, River Network:

Facilitated group discussion of the key technical, stakeholder engagement and financial needs at three phases of the stream mgt planning process

1) Gathering the troops
2) Setting goals and writing the proposal
3) Successful plan creation

4:00 Action items, planning for the next meeting and closing thoughts

4:30 Meeting ends

Next Meetings

#2: July 2017 in Summit County

Goal: Catalogue and align the resources, expertise and tools available within Colorado's water and land management, NGO, academic, and research and science communities with the capacity and knowledge needs identified in the first meeting.

Agenda: Interactive workshop to identify the tools that group members could make available to assist local coalitions and the resources required to support their development and implementation

#3: October 2017 in Avon at the Sustaining Colorado Watersheds conference (subject to approval by conference planning team)

Goals:1) Outline ways to provide on-going support for the initiation of stream management planning efforts across the state, and 2) Share the tools and resources available with those seeking to initiate a stream management plan in their community.

Agenda: 1) Facilitated discussion to identify group members' commitments that could provide on-going support to coalitions in 2018, and 2) General conference presentation followed by small meetings with coalitions interested in initiating stream management plans.

For more details, please contact Nicole Seltzer, River Network's Science & Policy Manager at nseltzer@rivernetwork.org or 720-930-4567

Attendees

Can you join us for the meeting on 4/18 at 12:30pm in Keystone?	Name	Organization	Email	Phone
Yes, I will attend in person	Abby Burk	Audubon Rockies	aburk@audubon.org	3036566496
Yes, I will attend in person	Brandy Logan	CWCB	brandy.logan@state.co.us	17204702925
Yes, I will attend in person	Brendon Langenhuizen	SGM	brendonl@sgm-inc.com	970.384.9012
Yes, I will attend on the phone	Brian Murphy	CDM Smith	murphybm@cdmsmith.com	3033457595
Yes, I will attend in person	Carol Ekarius	Coalitions & Collaboratives	carol.ekarius@co-co.org	719-748-0033
Yes, I will attend in person	Cary Denison	Trout Unlimited	cdenison@tu.org	970-596-3291
Yes, I will attend in person	Casey Davenhill	Colorado Watershed Assemby	casey@coloradowater.org	303-345-1675
Yes, I will attend in person	Chris Sturm	CWCB	chris.sturm@state.co.us	7202194384
Yes, I will attend in person	Claudia Browne	Biohabitats	cbrowne@biohabitats.com	720-907-6556
Yes, I will attend in person	Dan Omasta	Colorado Trout Unlimited	domasta@tu.org	720-354-2647
Yes, I will attend in person	David Graf	CO Parks and Wildlife	david.graf@state.co.us	970-640-8343
Yes, I will attend in person	David Nickum	Colorado Trout Unlimited	dnickum@tu.org	303-440-2937
Yes, I will attend on the phone	Drew Peternell	Trout Unlimited	dpeternell@tu.org	303-204-3057
Yes, I will attend in person	Erin Wilson	Wilson Water Group	erin.wilson@wilsonwatergroup.com	3039531923
Yes, I will attend in person	Frank Kugel	UGRWCD	fkugel@ugrwcd.org	970 641-6065
Yes, I will attend in person	Greg Hardy	Trout Unlimited	greghhardy@hotmail.com	7202190785
Yes, I will attend in person	Greg Peterson	Colorado Ag Water Alliance	petersongap@comcast.net	7202444629
Yes, I will attend in person	Jay Skinner	CPW	jay.skinner@state.co.us	3032917260
Yes, I will attend in person	Jeff Sickles	Enginuity	jsickles@enginuity-es.com	3035704609
Yes, I will attend in person	Jen Shanahan	City of Fort collins	jshanahan@fcgov.com	970-221-6281
Yes, I will attend on the phone	Jenny Russell	San Miguel Watershed Coalition	jenny.russell@lawtelluride.com	970-239-1972
Yes, I will attend in person	Julie Baxter	Acclivity	jbaxter@acclivityassociates.com	303-335-6472
Yes, I will attend in person	Karen Wogsland	Colorado Water Trust	kwogsland@coloradowatertrust.org	303-720-204-5879
Yes, I will attend in person	Katie Jagt	Watershed Science and Design	katiejagt@watershedscienceanddesign.com	7203085505
Yes, I will attend on the phone	Kelly Romero-Heaney	City of Steamboat Springs	kheaney@steamboatsprings.net	970-871-8205
Yes, I will attend in person	Ken Neubecker	American Rivers	Kneubecker@americanrivers.org	970-230-9300
Yes, I will attend on the phone	Laurie Rink	Middle Colorado Watershed Council	laurie@midcowatershed.org	303-204-4164
Yes, I will attend in person	Lindsay Murdoch	Cross-Watershed Network	lmurdoch@crosswatershed.net	Cell: (412)477-5616
Yes, I will attend in person	Mark Beardsley	EcoMetrics	mark.ecometrics@gmail.com	7198391497
Yes, I will attend on the phone	Mely Whiting	Trout Unlimited	mwhiting@tu.org	720.470.4758
Yes, I will attend in person	Mickey O'Hara	Colorado Water Trust	mohara@coloradowatertrust.org	7202391861
Yes, I will attend in person	Nancy A. Smith	The Nature Conservancy-Colorado	nsmith@tnc.org	303-859-9082
Yes, I will attend in person	Nicole Seltzer	River Network	nseltzer@rivernetwork.org	720-930-4567
Yes, I will attend in person	Nicole Silk	River Network	nsilk@rivernetwork.org	720-930-4703
Yes, I will attend in person	Peggy Bailey	Tetra Tech	peggy.bailey@tetratech.com	970-389-4701
Yes, I will attend in person	Sarah Marshall	Colorado Natural Heritage Program	sarah.marshall@colostate.edu	5417297275
Yes, I will attend on the phone	SeEtta Moss	Arkansas Valley Audubon Society	seettam@gmail.com	719.529.3821
Yes, I will attend in person	Shannon Hatch	Tamarisk Coalition	shatch@tamariskcoalition.org	19702567400
Yes, I will attend on the phone	Stacy K Beaugh	Tamarisk Coalition	sbeaugh@tamariskcoalition.org	9702567400
Yes, I will attend in person	Tammy Allen	CDPHE Water Quality Control Division	tamara.allen@state.co.us	303-692-3554

River Network Steam Management Planning Tech Cooperation Meeting Series
Meeting 1
April 18, 2017, Keystone Policy Center

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1) Status & Challenges of SMPs in CO – the State Perspective – Chris Sturm

Stream Management Plans are a new funding area within the Watershed Restoration Program grant program. There is no "Stream Management Plan" program, and there are no specific funds earmarked for SMPs within the larger grant program.

There are currently 9 SMPs completed or in process. Not all have applied for state funding:

- Grand County (upper Co)
- San Miguel
- Yampa thru Steamboat
- Chatfield section of South Platte
- Upper Gunnison 3 sub-watersheds
- North Fork Gunnison
- Poudre through Ft. Collins
- Crystal River
- Roaring Fork through Aspen

Most grant requests are currently in the $50-$60k range. The water plan calls for 80% of locally prioritized streams to have a SMP by 2015. CWCB has not yet developed a method to prioritize streams. SWSI process may develop this methodology.

2) Status & Challenges of SMPs in CO – Practitioner's Perspective

The following presented on the current status and approaches used for the SMPs they've been involved in. Please see full notes for specifics.

Seth Mason – Lotic – Crystal, Yampa, others
Frank Kugel – Upper Gunnison Conservancy District
Mely Whiting - -TU – San Miguel
Cary Denison – TU – North Fork Gunnison
Jennifer Shanahan - -City of Fort Collins – Poudre River

3) What's Next? – How to Successfully Implement the WP Goal of SMPs for 80% of Prioritized Rivers

River Network's goal is to explore how we can work together to create better enabling conditions for high quality, implementable SMPs. The group discussed how the "Gathering the Troops" and "Setting goals and writing the proposal" phases could be supported. The following are key points that were made in the discussion. Please see full notes for a more complete record.

- It isn't always obvious to communities that SMPs can work to address problems they are concerned about. We must better express the opportunities offered by SMPs and the problems they can address.
- Clearly identify the problem you are trying to solve, and then ask people how the process will benefit them. Don't assume you know.
- The local community must identify a problem to bring people together, and then experts do the assessment and design solutions. Not having a common cause is a big impediment. A physical issue you are trying to address creates an enabling condition for SMPs.
- There is a need for more clarity on group norms and structures. Governance and decision-making rules are really important for SMP groups.

- We could expand the strategic use of low-hanging stream projects (diversion upgrades, reveg, etc) and use them to bring ag users or other skeptics on board by showing success in concert with planning.
- Often a 2 phased approach is best: 1) Core group that agrees on process that thinks through what different interest groups need and structures the messaging appropriately. 2) Then write the proposal, get money, and then gather a broader group to create and write the plan.
- When selecting an organizational home for a SMP, credibility with local stakeholders and being viewed as unbiased is important.
- Broaden the conversation beyond the env/rec groups. Today's meeting needs more ag presence. CO Ag Water Alliance is continuing a series of workshops for producers to discuss tools for maintaining irrigated agriculture through SMPs.
- Starting with compiling all of the info available brings people together and creates an opportunity to get to know one another and build trust.
- There is an argument for a SMP grant application to take a phased approach, focused first on identifying the problem and doing the homework upfront. A lot people think that the SMP process can start from nothing. But there is a lot initial homework that has to be done to even describe what is needed for the SMP. The planning comes later after identifying the basic problems and baseline conditions.

4) <u>Ideas for further exploration at next meetings</u>

To create enabling conditions, education about what SMPs require may be helpful. A group needs to use a bottom-up process to define its own goals. But then, education to help choose between various approaches/tasks to reach the desired goals would be useful. Coalitions currently lack the knowledge and experience to design and bid their assessments.

The technical community could develop a menu of objectives or problems/drivers and the related technical approaches (and their pros and cons) and tasks that include a range of costs/budgets that will provide more consistency. River Network could create a compendium of tasks required to reach various goals, help the groups create budgets, and advise groups on which methodologies will be most helpful given the goals of each given group. Hold workshops with groups to orient them to the goals, approaches and budgets, such as at the 2017 Sustaining Colorado Watersheds conference.

5) <u>Next Steps</u>

River Network and TNC will hold a second meeting in July to identify tools and resources that we should catalogue or develop, and a third meeting at the watersheds conference in October to share this work with the wider community. This will feed into the development of a best practices/information repository on stream management plans.

In addition, River Network will be selecting up to three coalitions across Colorado in 2017 to provide capacity building support in their development of a grant application to CWCB in either 2017 or 2018. There will be more information on this in a few weeks, but in the meantime please direct any interested coalitions to Nicole Seltzer.

A three meeting series to align the resources, expertise and tools available within Colorado's water management, NGO, academic, and research and science communities with the capacity and knowledge needs of local coalitions as they initiate stream management planning processes.

Goals include:

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3) Create pathways to connect needs at the local level with expertise on an on-going basis

AGENDA Meeting #2:

RSVP here

Thursday, August 3, 2017 12:30-5pm

Carbondale Public Library Large Meeting Room. (320 Sopris Avenue, Carbondale)

Co-hosted with The Nature Conservancy.

Goal: Identify and catalogue the tools and resources that local coalitions would use in a stream management planning process

12:30 Introductions, review of last meeting and overview of the day

1:15 SMP objectives and technical approaches
The group will discuss a variety of goals and objectives that communities pursue through stream management planning - and brainstorm the various technical approaches (models, analyses, assessments, etc) that can help achieve those goals. For each technical approach and/or tool, we will identify appropriate scale, data requirements, and range of effort and cost. This information will be captured in a format that can be used by local coalitions as they scope/budget a stream mgt plan.

1:15-2:15: breakout discussion on technical approaches
2:15-2:30: quick report out
2:30-3:00: pre-planning questions and process suggestions

3:00 Break

3:15 Gaps and Contributions World Café (4 groups)

The group will discuss what stream management planning technical data and knowledge gaps exist and how the technical community can work together to address those needs.

4:15 Scalability
The group will discuss how stream management plans can be implemented and/or scaled up to provide meaningful and lasting protections to environmental and recreational values statewide.

4:45 Action items, planning for the next meeting and closing thoughts

5:00 Meeting ends

5:30 Happy hour at Carbondale Beer Works (647 Main St.)

Next Meeting – Save the Date

#3: Tuesday, October 10, 2017 in Avon at the Sustaining Colorado Watersheds conference

Goals:1) Outline ways to provide on-going support for the initiation of stream management planning efforts across the state, and 2) Share the tools and resources available with those seeking to initiate a stream management plan in their community.

Agenda: 1) Facilitated discussion to identify group members' commitments that could provide on-going support to coalitions in 2018, and 2) Pre-conference workshop followed by small meetings with coalitions interested in initiating stream management plans.

For more details, please contact Nicole Seltzer, River Network's Science & Policy Manager at nseltzer@rivernetwork.org or 720-930-4567

AGENDA Field Trip:

Friday, August 4, 2017 8:00-noon

25 person max capacity, $20 fee to cover transportation and breakfast

8-8:45am: Meet at Carbondale's Sopris Park (7th & Euclid) for coffee, light breakfast and history of the Crystal River stream management plan by Chelsea Congdon Brundige, Public Counsel of the Rockies. (bring your travel coffee mug!)

9:00-10:00am: Visit Thompson Creek Open Space on the Crystal River for a discussion of the assessments and modeling used in the Crystal River smp with Seth Mason, Lotic Hydrological.

10:15-11:00am: Visit riparian restoration project at River Valley Ranch and discussion of the recommendations in the Crystal River smp with Heather Lewin, Roaring Fork Conservancy

11:15-noon: Return to Sopris Park for discussion of Town of Carbondale ditch lining project and Q&A with all speakers

Next Meeting – Save the Date

#3: Tuesday, October 10, 2017 in Avon at the Sustaining Colorado Watersheds conference

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Agenda: 1) Facilitated discussion to identify group members' commitments that could provide on-going support to coalitions in 2018, and 2) Pre-conference workshop followed by small meetings with coalitions interested in initiating stream management plans.

For more details, please contact Nicole Seltzer, River Network's Science & Policy Manager at nseltzer@rivernetwork.org or 720-930-4567

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AJ Keith	Stillwater Sciences	aj@stillwatersci.com
Angie Fowler	SGM	angief@sgm-inc.com
April Long	City of Aspen	april.long@cityofaspen.com
Bill Hoblitzell	Lotic Hydrological	bill@lotichydrological.com
Cary Denison	Trout Unlimited	cdenison@tu.org
Casey Davenhill	Colorado Watershed Assembly	casey@coloradowater.org
Chelsea Brundige	Public Counsel of the Rockies	chels@capitolcreek.com
Chris Sturm	CWCB	chris.sturm@state.co.us
Claudia Browne	Biohabitats	cbrowne@biohabitats.com
Dan Birch	Colorado River District	dbirch@crwcd.org
Dan Omasta	Colorado Trout Unlimited	domasta@tu.org
David Graf	CPW	David.graf@state.co.us
Don Hijar	Pawnee Buttes Seed Inc.	info@pawneebuttesseed.com
Greg Kernohan	Ducks Unlimited	gkernohan@ducks.org
Hannah Holm	Colorado Mesa Univ. Water Center	hholm@coloradomesa.edu
Heather Lewin	Roaring Fork Conservancy	heather@roaringfork.org
Jared Heath	City of Ft. Collins	jheath@fcgov.com
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Jessie Olson	Lefthand Watershed Oversight Group	jolson@lwog.org
Julie Ash	Otak	julie.ash@otak.com
Julie Baxter	Acclivity Associates	jbaxter@acclivityassociates.com
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Larry MacDonnell	Getches-Wilkinson Center	l.macdonnell@comcast.net
Laurie Rink	Middle Colorado Watershed Council	laurie@midcowatershed.org
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Liza Mitchell	Roaring Fork Conservancy	liza@roaringfork.org
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Peter Skidmore	Walton Family Foundation	pskidmore@wffmail.com
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River Network Steam Management Planning Technical Cooperation Meeting Series
Meeting #2
Location: Carbondale Library
Attendees: ~45 statewide environment and recreation and stream restoration practitioners

A. KEY MEETING TAKE-AWAYS

- Organizing the resource guidance around goals and approaches is a good way to go: many new additions to the draft table were provided (see Discussion Group Notes, Section D).
- A decision-tree or flow chart for the SMP process should be included to assist potential grant applicants with scoping and budget estimates
- The importance of water rights owners' being involved and providing buy-in from the start was emphasized multiple times as critical to success
- Technical tools and CWCB funding should support multiple entry points into stream management planning – 1) planning for acute, known problems at a small reach scale, and/or 2) broader baseline assessments and plans that identify problem areas to tackle in future focused planning efforts. Funding should allow for an iterative approach where groups that complete baseline plans are encouraged to seek additional funding for subsequent detailed implementation plans
- Electronic format with portals to more specific information (like a wiki) with shorter Executive Summary-type handout were recommended
- Pre-planning questions to enhance understanding state of existing information, issues, and key owners' needs are important first steps
- Overarching goal is that SMPs will result in better outcomes for projects because they will be based on community-driven process that is rooted in system-wide understanding and integrated strategies for stacked benefits
- A similar focus on stakeholder involvement and creating support would be helpful

B. INTRODUCTIONS & REVIEW OF LAST MEETING

Nicole Seltzer, River Network, gave an update on work since the last meeting in April. An outcome of that meeting was the desire to compile a resource guide to help watershed coalitions understand the goals and methodologies that can be pursued in a stream management plan (SMP). Nicole has done a lot of general outreach on SMPs to groups across Colorado. River Network has selected four coalitions to work with to complete grant applications to CWCB in November, though others will also pursue grants. They include: Eagle River Watershed Council; Yampa/White BRT; Middle Colorado Watershed Council; St Vrain & Left Hand Water Conservancy District. Chris Sturm notes that he would like to see more sophistication in applications, and would like them to have better and tighter scopes of work that clearly delineate goals and tasks.

Nancy Smith, TNC, laid out the goals for this meeting. Her hope is that this group is helping translate the technical approaches to facilitate high quality engagement by non-technical stakeholders. We want to lower the barriers to entry for diverse groups within diverse geographies. She invites the technical attendees to participate in conversation through the lens of laymen – "How is this going to be good for

my community?" and the non-technical attendees to help the technical attendees communicate better, so we can get applications that are more sophisticated and actionable.

Meeting Goals

1. Identify the technical tools and approaches that can best help communities reach their stream management planning goals.
2. Determine the content, format, and approach for a technical "handbook" or guidance document.
3. Explore how the technical community can show "shared leadership" and help the state achieve the lofty goals of the Water Plan.

C. PRE-PLANNING QUESTIONS FOR COALITIONS CONSIDERING A STREAM MANAGEMENT PLAN:

The group was asked to brainstorm the pre-planning questions that they would recommend to groups scoping a stream management plan.

1. Do you understand the current state of knowledge about the river's health and water management/use?
    a. Have you obtained and read the existing body of knowledge related to your goals?
    b. Do you understand the hydrology of the river?
    c. What is the geographic scope you are interested in?
    d. What are the primary environmental/agricultural/social/political conditions that will need to be considered by this project?
    e. What data are available to help you understand existing environmental conditions and water administration/management? Is this data refined enough for you to be comfortable with its use? How does the amount of existing information affect the SMP approach?
    f. Can you identify the major water users?
    g. Have you read others' stream mgmt. plans and the CWCB grant guidance?

2. What is the motivation for your plan?
    a. Have you identified acute and chronic problems?
    b. What services do you want your river to provide?
    c. How does this planning effort relate to the BIP and the IPPs identified therein?
    d. What do you imagine the primary/secondary goals of the project are?
    e. Have you done some prioritization of the problems/services to help you focus?
    f. What is functioning well that you want to protect from future changes or risks?
    g. How do your prioritized goals affect the scale at which you need to work (i.e. watershed versus reach scale)?

3. Have you talked to key stakeholders?
    a. Who are the primary stakeholders you think should be involved in this process? What do you envision their specific role(s) being?
    b. Do you know who does and doesn't want this process and why?
    c. Have you gone through a process to understand possible goals with key stakeholders?

d. Have you given thought to the organizational home for the plan and subsequent implementation?

D. DISCUSSION GROUP NOTES – GOAL TABLE REVIEW

The attendees were split into four discussion groups. Each group was asked to provide feedback on the structure and content of a draft table that compiled the goals, objectives and technical approaches that are possible with a stream management plan.

1. Gaps: Additional Goals to Include/Refine in the table

Recreation

- Improve riparian and wetland areas for birders and sportsmen
- Improve flat-water/lake fishing
- Improve river-front aesthetics and trails for public health
- Protect private property rights

Ecology

- Develop strategies for climate change adaptation to reduce eco-vulnerability (see TU cold water storage strategy)
- Change/expand "Evaluate channel stability…" to e.g., "Promote and enhance dynamic and resilient/natural river functions" Inspire applicants to evaluate ecosystem drivers and key physical/geomorphic processes, such as floodplain connectivity, groundwater recharge/storage, and interrelationships e.g. water/sediment/wood & vegetation.
- Broaden "Address seasonal dry-ups…" to include identify options for improving flows and increasing system sustainability.
- Improve habitat for aquatic birds and other water-dependent bird species
- Ensure long-term stewardship/maintenance of habitat and river resources

Regulatory

- Secure water flows for future shortages/impacts.
- More regularly manage junior water rights
- Encourage programs such as water conservation incentives
- Protect and reduce risk to existing water rights
- Clarify/understand water management system of exchanges, diversions, augmentation plans and absolute and conditional water rights

Infrastructure

- Address water users' needs as part of other ecological/recreation solutions
- Upgrade diversion structures
- Promote alluvial groundwater storage: use off-channel storage for multiple benefits (rec/hab etc.)

Community

- Establish and improve partnerships between water users, water managers and conservation stakeholders
- Improve community knowledge about holistic river function

2. **Edits to Costs and Methods Columns**
    - Water rights costs need to be included in the other methods and shouldn't be separate item
    - Use unit costs xx$/ft.
    - Tie approaches to costs and color code intervention.
    - Include/develop information on acceptable water valuation cost methods.
    - Need approach and costs for social engagement and managing the process (i.e. organizational capacity)
    - Need to establish agreement on quantification methods, e.g. ET methods without getting bogged down

3. **Other Recommendations/Questions**
    - OK to keep goals and approaches broad and allow refinement to come through the process. Specific technical methods can be included in resource guidance as it evolves.
    - Who owns the river and what do they need? First…satisfy their interests to get trusted members of community engaged…
    - For every goal, a key question is: *What flows are needed to support the key goals*? Threshold flows needed to support existing conditions and also consider climate change in future.
    - Do folks have enough to even know what they are doing? Provide 2 entry points 1) specific problem scale; 2) watershed assessment & prioritization process.
    - How can this group help assess tradeoffs (analytic prioritization (AHP) process) especially when goals may conflict with each other?
    - How to capture what are the pros and cons of various approaches? What are expected outcomes when you walk away?
    - Add more on economic benefits.
    - Provide clarification of water efficiency and conservation in terms of SMPs.

E. WORLD CAFÉ TABLES

The attendees rotated in a "world café" style discussion to three different tables, where they were asked to discuss and write down comments related to these questions:

1. What are the gaps in data/knowledge that are impeding the creation of high quality stream management plans?

    - Biggest challenges are around qualified interpretation of the data. Turning data into information. Interpretations need to be linked to specific problems and alternatives for fixing them.
    - Need more gauge data and consistent daily flow data (availability, analysis, and reporting)
    - Need good valuation tool to better describe benefits. Also need more information on funding sources.
    - Need better groundwater return flow data and ground-truth of state data.
    - Uncertainty in data and lack of trust limits sharing of information.

2. How can we fill those gaps - -either with existing resources or with new resources that we can create together?

- Use SMP process to build trust in community. Choose trusted local water rights owners as champions to help introduce ideas/process.
- Pilot projects to show successful multi-use projects build safety and trust
- Translate the data into informative maps that protect data holders and those impacted
- See also openwaterfoundation.org Resources/presentations for slides on decision triangle.
- Improve accessibility of data and provide updated inventory of information sources.
- Develop information on floodplain storage potential
- Empower communities to understand why holistic approach benefits all

3. What should the resource guide look like in terms of content, format, and where it "lives?"
    - Dynamic, online, wiki type format (with print supplemental)
    - User focused, graphic and photo rich with practical examples
    - Like Peter Skidmore's restoration flow chart with clickable links to detailed methods and common data sets
    - Should have live person to maintain it into the future
    - Searchable
    - Possible outline:
        - Process description (decision tree)
        - ID stakeholders
        - Funding sources—contacts, eligibility, details
        - Existing information – links to studies
        - Toolkit – worksheets
        - Resource people and orgs
    - Appendix heavy
    - Ongoing "coaching" and lessons learned meetings/events is also very valuable

F. NEXT STEPS

Between now and the October 10th workshop at the Sustaining Colorado Watersheds conference, River Network and The Nature Conservancy will work on a preliminary guidance resource that builds upon the table of goals and approaches. It's clear there are many additional resources and types of guidance that this group feels are needed, and those can be refined and implemented over the course of the next year, assuming funding is made available. We also heard that we need to involve other interests, including the agricultural community. Your input and assistance in finalizing this preliminary resource will be needed, so please step up if you can!

At the October 10th workshop at the watersheds conference, the goal is to present this guidance resource, along with other tools, to an audience of coalition leaders from across the state that are interested in pursuing a stream management plan. If you have tools or resources you want to present, make sure to let Nicole Seltzer know.

River Network will commit to keeping this group up to speed on SMP developments, and if you have questions feel free to reach out.

Learn how to conduct Stream Management Planning in your watershed

Tuesday, October 10th 8:00 AM - 11:30 AM
Avon, CO @ Sustaining CO Watersheds Conference

Agenda:

SMP basics and status – Nicole Seltzer, River Network (8:00-8:20)

The Convening Process: Building Trust and Understanding Stakeholder Needs (8:20-9:20)
- Ryan Golten, Consensus Building Institute
  - Opportunities, Strategies, and Lessons Learned
  - Case Study: Roaring Fork
  - Exercise: Identifying stakeholders and understanding their interests

Know your data (9:20-10:00)
- Seth Mason, Lotic Hydrological and Steve Malers, Open Water Foundation

Break (10:00-10:15)

Using Stakeholder Input and Data to Set Goals (10:15-11:15)
- Meg White,The Nature Conservancy and Erin Wilson, Wilson Water Group
  - Overview on goal setting
  - Case Study: Upper Gunnison
  - Exercise: Selecting goals and scoping tasks

Q&A, Your Next Steps – Nicole Seltzer, River Network (11:15-11:30)

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Location: Avon, Colorado Sustaining Colorado Watersheds Workshop
Attendees: ~40 statewide environment and recreation and stream restoration practitioners

Learn How to Conduct Stream Management Planning in your Watershed.
This meeting presented resources and tools for groups and practitioners interested in SMPs, with a focus on considerations for engaging stakeholders and data use.

A. KEY MEETING TAKE-AWAYS

- Start the planning process by meeting with water commissioners. It is an important first step for identifying water rights owners and getting stakeholders on board.
- Develop key, initial questions carefully based on needs of the process and sideboards about what isn't going to be discussed.
- Initiate stakeholder engagement process by going out to agricultural water rights holders (meet them where they are as they are busy and unpaid for their time participating). Listen to their needs, concerns, common themes to identify catalysts for the planning process such as increasing demands and shortages.
- Translate water data into information that connects to the priority issues. Keep data accessible, standardized, and don't make it overcomplicated.
- Use data visualization tools to link data to spatial framework and show most important information for decision making.
- Round tables have a role in data sharing, building stakeholder connections, and in helping make the next round of environmental and recreation projects in the Basin Implementation Plans to be more
- Use system scale thinking to look at what success looks like *first*, and work backwards to identify adaptable, actionable strategies.

B. SMP BASICS AND STATUS: Nicole Seltzer

Nicole Seltzer, River Network, gave an update on their work since the last meeting in August. An outcome of that meeting was a compilation of goals and methodologies that can be pursued in a stream management plan (SMP) provided to the workshop attendees and attached here.

Status of River Network's work with four coalitions on grant applications to CWCB was also discussed. The groups include: Eagle River Watershed Council; Yampa/White BRT; Middle Colorado Watershed Council; St Vrain & Left Hand Water Conservancy District.

C. THE CONVENING PROCESS: BUILDING TRUST AND UNDERSTANDING STAKEHOLDER NEEDS: Ryan Golten, Consensus Building Institute

Opportunities, strategies, and lessons Learned from experiences with Roaring Fork (City of Aspen); post flood St Vrain; Ft Collins processes;

- Considerations and Challenges
    - Building capacity for future water interests

        - People have expressed a lot of value in sitting down with people from different sectors
        - Participants have natural "positions" and education is a key benefit
        - How do you combine key stakeholders (vetting, process) with more public process that provides useful information.
    - Consider creating a discrete stakeholder group, *interspersed with* broader public engagement. Allows for information to be digested and reported back (we heard you and here's how we used it…)
    - Catalysts…how to engage stakeholders without clear catalysts? Common predicament to find the motivator, but don't need to be obvious, regulatory…Think creatively and start by listening…INTERVIEW PEOPLE…How do we get more remote stakeholders... (e.g., Ft Range diverters…desire for relationships) Also concerns about risk noted.
    - Timing:
        - Is it the right time? What are the risks to the process?
        - Don't always know what negotiations are going on and can influence options. Some things need to be off the table…
        - Conflict between participants – ID what's off the table
        - Consider phasing process—
    - How do you know you have the right stakeholders?
        - Non obvious participants (Residents)
        - Ask everyone—who else needs to be at the table?
            - (e.g. bridge builders Doug Lyle on Ditch board, excavator)
            - Marginal folks Sometimes folks who we think need to be at the table are ones who are shutting it down. So be wary about how much you are putting on them. But if not in, may SABATOGE…e.g., through social media. Still better to have them.
        - Gives credibility to process (Ag community in LH ex.)
        - Sets sideboards to projects—and how to work more slowly to build trust in phases
- Strategies
    - Survey of interests and opportunities, constraints, dynamics—that can lead to recommendations to phasing and strategies
    - Convene to begin interviews
    - Don't skip the relationship building part (Sean—relationship building is time consuming in short and long term…getting into era of results…but need to educate on processes e.g. instream flows
    - Framing it up front is one of most important issues. (Chris we can plan for it – whether we get it or not…ags been doing it for years…plan for flow needs around objectives…tricky part is implementation…) Ryan—not as much effort as one thinks…start with interviews and listening…and feeling heard…themes can be highlighted. Get the concerns out there at start of meeting…set sideboards (e.g. half of first meeting) …can set a different tone

  - St Vrain example (Sean C.) – interviews can be a good tool…feedback can be tough to deal with, so don't ask questions you can't answer. Bring back tough questions to group and begin to "group think solutions"
  - Think carefully about the questions…What do you need from the process? (where or when); sideboards (we're not going to talk about legitimacy of my water use);
  - Plan ahead for how you are going to share the information. Upfront! so
  - Who has information?
  - What about online surveys use? Once you know purpose… (about 1/3rd way though process, high level 30k level) …Seth – 1) can use for refinement of scoping, or 2) to reflect back to community to show them how they think of options
  - Steamboat example—lots of engagement, new ideas, so finding the balance important so don't get scope creep. Ryan Be strategic about outreach tool and building it into the final plan—here is the interest around certain topics for future implementation
- Lessons Learned
  - Don't overlook what else is going on in watershed and state (macro)
  - Constantly probing and making some contingency plans and phases
  - Think about internal alignment within one stakeholder

  Breakout 1
  - What was most effective stakeholder experience?
    - Describe what the process is not.
    - Focus on what the process benefits
    - Target hardest stakeholders first. Ask about interests and values first (tailored approach)
    - Ask who can be a champion? Using champions for building trust. (i.e. build trust in one of the stakeholders such as converted naysayer, which can be helpful for building trust in community to help spread message).
  - What would you do differently?
    - Spend more time listening to folks that are not supporters (pull out what the interests and needs are)
  - What other questions do you think should have been asked? What do you wish you'd been asked?

  Breakout 2
  - Who are stakeholders?
    - Anyone unusual? Bring water rights owners – ag users along with the process. How do you do that? Find organizations that work with them (Conservancy district, consultant with ditch company) already have a basis for trust. Doesn't' mean they need to lead it….
    - Water rights owners help provide nuanced and informed questions.

Ryan's wrap up—Think about how can you go get the $ to start the engagement process.

D. PART 1 -- KNOW YOUR DATA: Steve Malers, Open Water Foundation

Data is meaningless without context; Info (models); Knowledge (visualizations); wisdom (workflow); decisions…

Data Infrastructure

- https://data.colorado.gov/ A lot of data sets (308) of which 20 core data sets…which is relevant…may be too much there to know what you need.
- https://data.colorado.gov/Water/Source_Water_Route_Framework/pecy_k56n (SWRF) Uses GNIF for connecting data sets and water rights
- Water District ID (WDIDs) used for a Instream Flow reaches. WDIDs also used in Github.

Model –

- Visualizing network nodes Yampa model

Key data questions

- Are the right data available, connectable, machine readable? Usable? Should illustrate problem and SOLUTIONS!

Tips and What's next

- Standard segmenting to link to useful information such as presence
- Keep data simple
- Use repeatable workflow
- Understand data sets
- Identify tools and viz
- Collaborate
- Leverage
- Connect the dots
- Come up with data products early or ASK what do you need from data?
- Don't make it too complicated for maintenance
- Where will data live? Work with Round tables.
- Noted other resources at Water Institute site e.g., CSU GRAD 592, http://www.cwi.colostate.edu/grad592.asp

D. Part 2 -- ENHANCING THE CONTENT OF SHARED DATA: Seth Mason, Lotic Hydrological

- Key is converting data to information, data by themselves not helpful for decisions or road map
- Translating data to story – building narratives
- Rationale model for City of Steamboat example—where are data and info critically important
- StateMOd for simulations for hydroregime (disadvantages are old Fortran clumsy, output files, requires training)
- Visualizations of characteristics of hydrologic conditions and understanding limitations of data sets (using business analytics tools like those in Tableau)

- Water Use characterization (consider e.g. How do return flows effect flows? Where in a plan are you most constrained?)
- Where to from here—what are the take aways?
    - Important role for the round tables to play for promoting translation of data to information and making it more relevant and useful to communities
    - Benefits of organizational frameworks
    - Scale able software tools
    - Planning for preserving it and make it useful to future self or others'
    - Bi directional exchange of info—memorializes info that is useful for future info users.

Questions

Brandi Logan (CWCB) Tableau only. R also useful for developing some custom tools (CMU) Does it require license – developer yes…dashboards are publicly available and website to host them.

David Graf CMU helps in CO Water Basin but what about other places—Round Tables have role to play for this…spatial frameworks that are standardized and make scale able for local info.

Challenges of working with other state data sets was noted –and issues with finding commonality and combining data because of who is maintaining it…b/c other sets not using your lens…

Mentioned group in Bay area in CA does good job of translating information to public e.g.: The San Francisco Estuary Institute, www.sfei.org

E. USING STAKEHOLDER INPUT AND DATA TO SET GOALS

PART 1—MEETING CONSERVATION NEEDS: Meg White, The Nature Conservancy

Background: Noted that TNC has been developing Instream Analysis Tool (spreadsheet based). Also, TNC evaluated environmental and recreation projects in the existing Basin Implementation Plans (BIPs). Found that only 34% of projects in the portfolios had enough information to be costed, and only 8% acknowledged flow issues.

Environmental and recreation advocates need to do a better job of developing projects to be ready for next round of BIPs.

Elements of project planning framework to work on:

- Select scale: needs to be "directional" –related to goals, and recognizing that goal setting is iterative
- Overall framework should be:
    1. System based – including social systems of stakeholders
    2. Adaptive—will be revisited as additional information emerges
    3. Actionable
- Establish Measurable goals, by phases
- Generate specific recommendations/actions:

Flip the process…Decide what successful results looks like and working backwards

Systems approach

TNC's approach is based on Open Standards and Conservation by Design 2.0: https://www.conservationgateway.org/ConservationPlanning/cbd/Pages/default.aspx
It is based on systems thinking, which can be defined *as the ability to understand interconnections* (Donella Meadows, *Limits to Growth* author). It embraces certainty and uncertainty.

Systems can be characterized as Simple, Complicated, Complex, Chaotic. Conservation planning and SMPs operate in the "Complex" category.

Acknowledges that there may not be any right answer, and fosters the emergence of instructive patterns and collaborations

PART 2--STAKEHOLDER DATA: Erin Wilson, Wilson Water

Although most of workshop group is focused on Recreation and Environment, need to think about all users. Ag users need to be included early and need to understand their needs –not paid to attend meetings like most of attendees at group.

Get ag users involved by understanding their water rights and implications to their current ag practices. We need to go out and interview ag users and help them participate.

The state has never been in better position to be develop integrated solutions, because there are more alternatives available. But need to let irrigators and other non env. stakeholders know we want their participation and that we understand implications.

Upper Gunnison Case Study

- Discussed Gunnison example (of diversion at Field Farm reach?) Gunnison community voiced "We need to understand implications of any changes" on how they irrigate and how it impacts fields and downstream users… so negative changes can be mitigated.
- Tasks in Gunnison—Start by using CO Decision Support (DSS) data. When they get to tributary level, irrigated acreages may not be right or tied to right fields…So need to verify irrigated acreage, return flows, consumptive use, water rights (State Mod).
- Conservation pilot program – if water commissioners not on board, ag users won't be on board. Start with water commissioners…ID'd who can derail, who is most involved with other organizations….Get agreement for open communication (e.g. if I say something wrong)

Steve example – For Alternative Transfer Method project—Discussed timing of shut downs and cost of water management on top of operations (which were ongoing and can't be shut down). Five day run for moving water Mon F, but rec folks are out on weekend. So, daily data from modeling important.
And, if we understand that, we can figure out tradeoffs, monetary incentives etc.

Q&A, YOUR NEXT STEPS – NICOLE SELTZER, RIVER NETWORK

Nancy Smith – what are challenges bringing ag. water users to participate?

Erin – GO TO THEM…e.g., *"We think we understand this. We know you hold all the cards/water…but we'd love to get your input."*

Water Commissioners/Ditch companies…can't just ask one ag user...they are reps…need to bring in boards….VS Ranch owners…

They don't always get a full supply. "You have shortages how can that be part of process"

Bringing people to table—who is getting paid except ag users…they are busy…

Ryan—nuanced question, what's enough info.…we're only looking for win wins…

Chris Sturm noted: There are also different types of water users including municipal entities. First big info after stakeholders…is flows…don't know answer yet…may not be obvious…Munis get super creative and management operations. Muni data is difficult to get …also "language" problem…e.g. returns from wastewater.

Erin – consumptive use versus what do they need to get to the field? M&I conservation for indoor use…

Nicole When Upper Gunnison started how did you think about stakeholders needs to help defining objectives?

Erin—Still working on it wanted someone running the process that understands ag Struggled to find catalyst to bring into process. You need to be prepared for increasing demand..(whatever is at headgate is adaptive management) Conversations with Greg, reducing losses (from evap)..downriver issues…projection of less water…

Comment Upper Gunnison project – is using existing projects. Sage grouse (wet meadows restoration) as example and build on existing partnerships…

Rep from Corps of Engineers State's role for ISFs? (Bill Trampy's farm ex. if you get agreements and then they sell.) Need to be senior rights.

Linda Bassi on a lot of rivers not available –so getting more creative with split seasons (McKinley ditch)...contractual arrangements…

Nicole What are data sets? What are methods for answering the questions?

Chris Sturm. Noted that SMP is a grant opportunity *within* the Watershed program…But could go for watershed grant for restoration…and certainly have opportunity for phasing. Most distinguishing factors between the two are that SMP includes flows married with geomorphic/chemical/biologic…CWCB funded ditch lining project for cross basin transfer, and TU is agreeing that rather than sue they'll put water in river…What's happening already? What's the scale? Look at How can we get to best scale for particular SMP and that impacts questions and methods?

Goals and Objectives	*Key Questions*	*Notes/Example Approach*
GENERAL SCOPING -- FOR ALL GOALS	Who are water rights owners and what are their rights? Who owns the property and infrastructure along the river? What are owners' priorities and needs?	Water rights evaluation/surveys (e.g., State DSS Hydrobase tools and StateMod); 1:1 interviews with Water Commissioners and individual owners; Consensus/community building
1. RECREATION—Includes fishing, boating, hunting, birding, aesthetics		
General recreation scoping	*What type of recreation is a priority?*	
1.1 Improve fishing experiences & opportunities for trout or flat-water/lake fishing	How do we improve angler satisfaction? What is current fish population? *(See also Ecological goals for fish habitat enhancement)*	Recreational user survey (e.g. CREEL) Fish survey (e.g. electroshock)
1.2 Improve recreational boating experiences & opportunities	What types of boating experiences do people want and how are flows potentially limiting opportunities? Are flows appropriate for wading or drift boat fishing or both?	Recreation survey (e.g. American Whitewater user and recreational flow surveys)
1.3 Increase economic development potential and quality of life by increasing/improving access	What are current and potential economic benefits? What do existing community master plans or rec. plans identify as priorities? How can landowner participation in planning be increased/improved? What is current access situation? Is better riparian vegetation needed for shade and aesthetics?	Angler/boater expenditures and economic impact assessment (intercept; intercept-based mail follow-up; license mail survey) Inventory of existing access locations, conditions, user groups
1.4 Improve riparian and wetland areas for birding and hunting	Where are existing or potential priority wetland areas that could be expanded and improved? *(See Ecological goals for habitat enhancement)*	Inventory of existing locations and conditions; habitat suitability analysis
1.5 Improve riverfront aesthetics and trails for public health	What type of riverfront aesthetic is preferred—e.g. natural, low impact, developed?	Landowner interviews; community engagement process
1.6 Protect private property rights	What types of conflicts have occurred or are property owners concerned may occur? and what are options?	Assessment and evaluation of recreation impacts, challenges and opportunities
1.7 Inspire cooperative stewardship along river	What stewardship activities are needed and what resources are available to address gaps and sustain for the long-term?	Landowner/manager interviews; community engagement process

Goals and Objectives	*Key Questions*	*Notes/Example Approach*
2. ECOLOGY—Instream flows; wetland, riparian, native plant communities; watershed health; wildlife—fish, birds, amphibian, reptiles, mammals		
2.1 Promote and enhance dynamic and resilient/natural river functions	What are key ecosystem drivers and physical/geomorphic processes, such as floodplain connectivity, groundwater recharge/storage, and interrelationships e.g. water/sediment/wood & vegetation? How have channel dynamics been altered? And, what are main issues and their causes, e.g., sediment transport, channel stability, flow regime alterations?	Geomorphic Assessments Rapid Assessments (Rapid bioassessments and stream function assessments) Hydrologic and hydraulic studies (Flow analyses, Indicators of Hydrologic Alteration (IHA); Sediment transport study
2. 2 Address problematic seasonal dry-up points and low flows in the river to identify options for improving flows and increasing system sustainability	Where are the dry-up points in the river and how often do they occur? How much water is there where/when? What are biggest changes in the hydrologic regime? How can low flows be increased to improve fish habitat and boating?	Hydrologic Study (e.g., statistical analysis of flow records; Indicators of Hydrologic Alteration (IHA)) Habitat Surveys (e.g., Rapid assessments, Macroinvertebrate and aquatic habitat surveys; R2 Cross; PHABSIM, Instream Flow Incremental Flow; River2D)
2.3 Support healthy native and compatible sport fish habitat in river	What are priority fish species and what are their habitat needs? What are current aquatic habitat conditions and opportunities for improvement?	Habitat Surveys (e.g., Rapid assessments, Macroinvertebrate and aquatic habitat surveys; R2 Cross; PHABSIM, Instream Flow Incremental Flow; River2D *See also related Regulatory Goals below for federally protected species*)
2.4 Protect or restore important wetland and riparian habitat, such as cottonwood galleries	Where are priority wetland and riparian habitat areas and what are current conditions and risks? How are wetland and riparian areas supported by surface water/ groundwater interactions? How often is water on the floodplain in priority areas and to what extent?	Vegetation inventory & assessments; Groundwater data analysis (e.g., hydrogeologic study of existing groundwater data, water budget estimate) Geomorphic survey; Floodplain analysis (2D hydraulic modeling)
2.5 Develop strategies for climate change adaptation to reduce eco-vulnerability	What ecosystem functions and or elements are at risk from climate change and why?	See Trout Unlimited's cold water storage strategy
Improve habitat for aquatic birds and other water-dependent bird species	Where are existing or potential priority habitat areas that could be expanded and improved?	Inventory of existing locations and conditions; habitat suitability analysis

Goals and Objectives	*Key Questions*	*Notes/Example Approach*
3. REGULATORY—water rights, permitting, federally protected species, water quality		
3.1 Address specific water quality challenges tied to flow (temperature, stormwater)	Are there segments of river on the state's M&E or 303d lists? Where are the primary point and non-point sources of pollution located? Are there water quality issues potentially affecting trout or other wildlife populations? What are the opportunities to improve water quality?	WQ sampling & analysis program (e.g., field testing of water temperature and/or laboratory analysis for other pollutants; Macroinvertebrate surveys)
3.2 Clarify/understand water management system of exchanges, diversions, augmentation plans	How is water managed in the river? What are key locations where altered management practice could provide stream flow benefits?	Infrastructure assessment and water rights evaluation); 1:1 interviews with Water Commissioners and individual owners
3.3 Protect habitat for listed and/or potentially threatened or endangered species	Is there an existing agreement with USFWS to protect the species, and are they adequate? What improvement activities in the action plan are applicable for the study area?	*See 2.1 above depending on if habitat or flow focused.*
3.4 Identify target ecosystem flows in anticipation of future reduced flows (climate change, new projects, population growth, etc.)	Have future conditions been modeled? Can scenarios be developed to capture range of future conditions?	Scenario development process
3.5 Develop a community-driven response to a Wild & Scenic Rivers process	What is the status of agency information on the river? Is there an existing river management plan? Has there been a review of eligibility? Who are the key stakeholders?	Existing document review; Stakeholder inventory and survey
3.6 Identify methods to more regularly meet junior in-stream flow water right volumes	Has an analysis of existing instream flow rights been conducted?	Water Rights Assessment (e.g., State DSS Hydrobase tools and StateMod)
3.7 Improve understanding of absolute and conditional water rights affecting the stream Protect existing water rights	How could conditional rights affect future flows, priority ecosystems, and existing water rights?	Water rights evaluation/surveys (e.g., State DSS Hydrobase tools and StateMod); 1:1 interviews with Water Commissioners and individual owners
3.8 Agricultural & water rights owners are included in the SMP process	Who are key owners who are critical for success of implementation of plan?	1:1 interviews with Water Commissioners and individual owners; team building
3.9 Encourage innovative programs such as water conservation incentives	What are benefits and challenges of incentive/regulatory program and which are most applicable in the system?	Feasibility study; interviews/surveys

Goals and Objectives	*Key Questions*	*Notes/Example Approach*
4. INFRASTRUCTURE—reservoirs, dams, diversion structures and operations		
4.1 Address water users' needs as part of other ecological/recreation solutions	Where is intersection of water users with ecosystem/recreational resources and what are owners' priorities?	Water rights evaluation/surveys; Infrastructure inventory; Geospatial modelling/suitability analysis
4.1 Upgrade infrastructure to operate efficiently and minimize waste at a range of flows	Are diversion records for all major structures compiled and available for review? Where are opportunities for upgrades to benefit stream ecosystem and/or recreation?	Water rights evaluation/surveys; Infrastructure inventory; (e.g., State DSS Hydrobase tools and StateMod)
4.2 Identify in-river infrastructure that could be improved/modified to enhance ecosystem function or create safer/better recreational experiences	Has an inventory of structures been compiled? Which structures could be upgraded to achieve most benefit for river?	Water rights evaluation/surveys; Infrastructure inventory
4.3 Address head-cutting and/or bank erosion causing headgate operational issues	How stable are channel dynamics (sediment supply and transport)? Have landowners along the river begun meeting and discussing the problems?	Water rights evaluation/surveys; Infrastructure inventory; Geomorphic Assessments Rapid Assessments (Rapid bioassessments and stream function assessments) Hydrologic and hydraulic studies (Flow analyses, Indicators of Hydrologic Alteration (IHA); Sediment transport study
4.4 Reduce risk of flood damage to priority areas	Has a flood study and/or management plan been prepared?	Hydrologic and hydraulic studies (Flow analyses, Indicators of Hydrologic Alteration (IHA); Sediment transport study; Geomorphic Assessments Rapid Assessments (Rapid bioassessments and stream function assessments)

October 30, 2017

Colorado Water Conservation Board
ATTN: Chris Sturm
1313 Sherman St., Room 721
Denver, CO 80203

Dear Chris Sturm:

Eagle River Watershed Council was selected as a recipient of River Network's assistance in preparing to undertake a stream management planning process in 2017. As a recipient of that support, Eagle River Watershed Council would like to encourage CWCB's grant support for the continuation of River Network's assistance program.

To be quite honest, Eagle River Watershed Council would not have elected to undertake this process without River Network's urging. River Network and more specifically, Nicole Seltzer, not only brought this opportunity to our attention, but also provided valuable fact sheets, FAQs and examples of SMPs from other watersheds in Colorado. This information was just what was needed to provide information to our board of directors in vetting this large project. In addition, Nicole Seltzer met with the Watershed Council and a few key stakeholders to explain the importance of having an SMP, as well as the intricacies of the project we were considering.

In addition, River Network was instrumental, and I would go so far as to say critical, in our development of a project team, approach, and key stakeholder list. These are all stronger thanks to River Network's support. Nicole helped me to think through the implications of each of these and talked through the multiple perspectives of those who will later utilize the SMP. I now have confidence in our team, stakeholders, tasks and approach to the project.

The most valuable aspect of River Network's program, however, was the one-on-one support. Nicole was very responsive to my questions and talked me through concerns and potential roadblocks. I feel that our plan for launching the project is strong and that our

SMP/IWMP will develop proactive recommendations that anticipate changes to the Eagle River hydrology and that the stakeholder process and community education aspects of our project will help to build consensus within the community. River Network made that possible.

I strongly encourage CWCB to support River Networks' coalition support program. In our view, this program will be critical in meeting your goal of having SMPs on 80% of Colorado's streams.

Sincerely,

Holly Loff
Executive Director

ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

9595 Nelson Road, Suite 203 • Longmont, CO 80501 • 303-772-4060 • www.svlhwcd.org

October 31, 2017

Chris Sturm
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203

RE: Letter of Support for River Network – CWCB Grant Application

Dear Chris,

The St. Vrain and Left Hand Water Conservancy District ("District") is writing in support of a grant application submitted by the River Network. As the District has been a beneficiary of previous funding provided to the River Network by the Colorado Water Conservation Board ("CWCB") it's a unique position to share the benefits of this funding.

Since the completion of Colorado's Water Plan the water community has increased its interest in Stream Management Plans. I personally attended many workshops in the early days and often felt the messengers were still collectively figuring out what a Stream Management Plan is and how it could be best applied. Fast forward to the River Network's recent online webinars and a workshop in Avon, and I believe the message, content and exchange of ideas is much clearer and far more effective. This could be attributed to time and continued dialogue, though I believe it's also partly due to the River Network collaborative approach and mission to ensure "local caretakers are well-equipped and effective".

The River Network also envisions a future where these same local caretakers are "courageous champions for our rivers". Not surprisingly the River Network has its own champions and Nicole Seltzer is a great example. Using CWCB funding Nicole championed the Stream Management Plan, though it was her relationships, specialized water knowledge, and integrity that drew me in for the initial discussion. Without Nicole the District may not have pursued a Stream Management Plan grant.

Lastly, the CWCB funding provided one on one support from Nicole and an additional consultant both to help with the initial stakeholder conversations around pursuing a Stream Management Plan grant. Without Nicole the stakeholders would still be just conversing and the District would have likely been too overworked to draft goals and objectives, creating a comprehensive scope of work and budget, and getting stakeholders supportive of the idea. It was Nicole's efforts that changed that outcome.

If the CWCB wants to cover 80 percent of the locally prioritized lists of rivers with stream management plans by 2030, I believe a third party champion helping the water community be better equipped and effective, and doing some of the heavy lifting is an invaluable tool in reaching this goal.

Sincerely,

Sean T. Cronin
Executive Director

MIDDLE COLORADO WATERSHED COUNCIL

200 Lion Park Circle
Rifle, CO 81650
Phone: 970-625-1829

October 30, 2017

Colorado Water Conservation Board
ATTN: Chris Sturm
1313 Sherman St., Room 721
Denver, CO 80203

Dear Mr. Sturm:

I am writing this letter on behalf of the Middle Colorado Watershed Council in support of River Network's grant proposal to provide statewide assistance for stream management planning (SMP).

The mission of the Middle Colorado Watershed Council (MCWC) is to evaluate, protect and enhance the health of the middle Colorado River watershed through the cooperative effort of watershed stakeholders. Our organization was a beneficiary of River Network's 2017 efforts which has positioned us to undertake an SMP effort in 2018, pending acquisition of adequate funding.

Some of the outreach and education that River Network provided, through Nicole Seltzer's efforts, that was particularly beneficial to us included:

- Having access to the SMP workshops. We were able to attend one remotely and two in person. Hearing directly from entities that have undertaken SMPs or similar planning studies was invaluable in helping anticipate what we may encounter in our local planning efforts. Having access at those meeting to other technical professionals and the opportunity to brainstorm approaches and methods was useful.
- Smaller format phone presentation. We found it very informative to have a more focused opportunity for Q&A with the current SMP practitioners. Again, the lessons learned portion of the discussion helped us formulate our approach for a 2018 effort.
- Nicole's one on one support. Nicole has been present for us each step of the way as we've conducted pre-project outreach with our stakeholders, prepared a scope of work, and crafted a funding package. She was able to provide educated suggestions, templates for consideration, connections to other professionals, and peer review on the applications.
- Scope and budget assistance. River Network provided funding for a technical professional to assist with scoping and budgeting for the technical aspects of our SMP. This was a critically needed service that gives us confidence that the application and funding request we've developed is sufficient to address the issues.

As the MCWC has benefitted from River Networks assistance, we expect that other organizations around the state could benefit in similar ways. The MCWC urges the Colorado Water Conservation Board to give River Network's funding proposal its highest consideration.

Sincerely,

Laurie Rink

Laurie Rink
Executive Director

River Network Stream Management Plan Support

Appendix I: Best Practices White Paper, 2017-2018

From March 2017-June 2018, River Network provided direct assistance to 4 coalitions in Colorado. They included coalitions in the Middle Colorado, St. Vrain, Eagle and Yampa. River Network's assistance consisted of initial outreach and brainstorming, collecting existing data, stakeholder interviews and facilitation to define goals and scope of SMP projects.

Below are initial lessons learned from these four coalitions. A more complete assessment of the best practices and lessons learned from all in-process and completed SMPs will be done in 2018-19 under a separate grant contract.

Stakeholder Involvement

Early involvement with key stakeholders in the basin is critical to completing a grant application for a Stream Mgt Plan. Before any stakeholder work starts, however, conducting basic education on SMPs (what are they used for, how are they done, what kinds of projects result, etc) will smooth the road ahead.

River Network used a fairly consistent approach for three of the coalitions (all but the Middle Colorado). It involved hiring a neutral facilitator, who then conducted individual or small group interviews with key stakeholders. Key stakeholders were defined as individuals or organizations that had a direct stake in the outcomes of a SMP through owning land or water rights, or that had been involved in environmental restoration or advocacy in the relevant river reaches.

Once all interviews were completed, the facilitator lead a series of meetings to answer key questions such as "What are the flow-related challenges or opportunities?" and "What is the potential value that you see of having a stream management plan?" and "Is this organization the right entity to convene and lead a SMP?" The meetings gave those present a say in the goals and scope of the project, which contributed to grant applications that were fully supported by the group members.

In the one basin where the coalition staff lead its own initial stakeholder process (Middle Colorado), there was backlash by the farming and ranching community that they were left out of the process. While this was eventually resolved successfully with the conservation districts taking the lead on an irrigation needs assessment, using a neutral facilitator to convene a broad set of stakeholders might have smoothed the path.

Initial recommendations on stakeholder involvement include:

- Before you begin a stakeholder process, basic education on SMPs and what they can accomplish will result in better feedback from stakeholders.
- Use a neutral facilitator (not paid staff of the organization leading the SMP development) to initially convene key stakeholders.
- Include a broad cross-section of the water user and land management and conservation community in individual or small group interviews.

- Include questions that uncover whether the lead organization is the right organization to be doing this work.
- Structure the initial stakeholder meetings in a way that allows for participants to shape the scope and sideboards of the planning process.

Goal and Scope Development

After initial stakeholder work, and after agreement on the broad goals and sideboards of a SMP, the group must develop a technical scope of work and budget for their process. Generally, this was undertaken by a smaller group of volunteers and drafts of the scope and budget were shared with the larger group at certain milestones.

In all cases, involving a technical consultant to advise on task and budget development will produce a much stronger scope of work. We found that the key stakeholders that were convened are generally not well trained on ecological assessments, and have a limited understanding of the methods available and how much they cost. In all coalitions, we enlisted technical consultants (sometimes paid, sometimes volunteer) to advise in scope development and associated budgets.

Initial recommendations on goal and scope development include:

- Enlist a smaller group to write the scope and budget
- Hire or enlist a technical consultant to advise on scope and budget development

Most Helpful Assistance

Developing a SMP project that reflects the desires of a broad cross-section of needs is a resource intensive process. The help that a coalition needs will depend on the strength of their existing relationships, how many paid staff members can be deployed to help, and their history working in ecological assessment and restoration.

Providing support to them from inception to scope development requires having a big-picture view of what is needed to be successful, and then providing resources/skills that the group may lack. Having a budget ($5,000 in this case) to hire help with facilitation, grant writing or technical scoping was hugely helpful and resulted in much better grant applications.

Initial recommendations on how to be most helpful include:

- Have access to a variety of skill sets for assistance, either through the stakeholder group or through outside experts
- Have a budget available to hire help where needed

Leveraging existing expertise to meet knowledge & capacity needs

River Network organized three meetings with statewide NGOs, consultants and the academic community to identify the technical tools and approaches that can best help communities reach their stream management planning goals.

The following are a series of key takeaways from those meetings:

- Creating an on-line resource guide around goals and approaches is what is needed to house examples and best practices. It can start with technical methods and goals, but should eventually wrap in resources related to stakeholder involvement and creating support for projects.
- A decision-tree or flow chart for the SMP process should be included to assist potential grant applicants with scoping and budget estimates
- The importance of water rights owners' being involved and providing buy-in from the start was emphasized multiple times as critical to success
- Technical tools and CWCB funding should support multiple entry points into stream management planning – 1) planning for acute, known problems at a small reach scale, and/or 2) broader baseline assessments and plans that identify problem areas to tackle in future focused planning efforts. Funding should allow for an iterative approach where groups that complete baseline plans are encouraged to seek additional funding for subsequent detailed implementation plans.
- Pre-planning questions to enhance understanding state of existing information, issues, and key owners' needs are important first steps