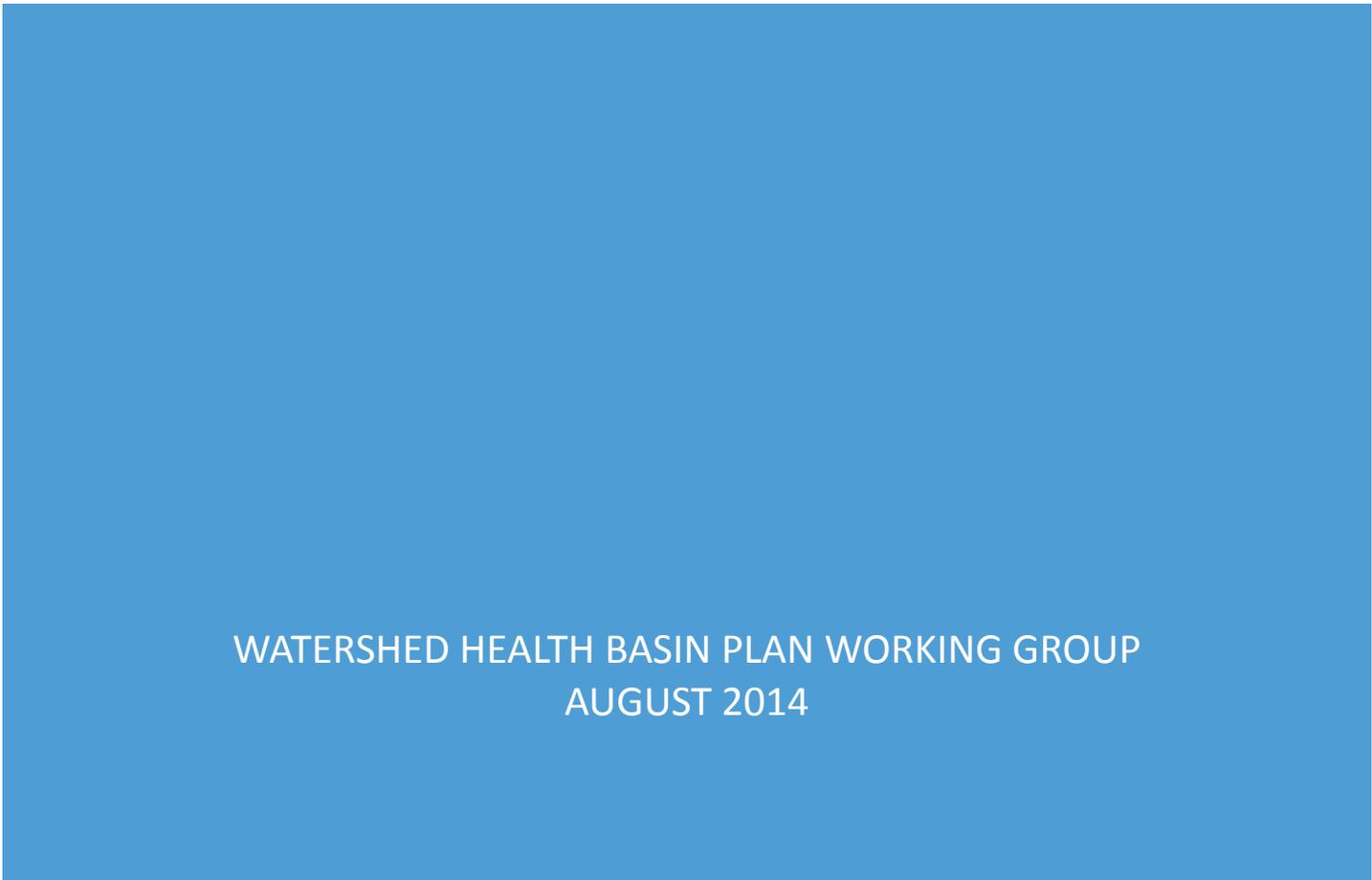




WATERSHED HEALTH TOOLKIT



WATERSHED HEALTH BASIN PLAN WORKING GROUP
AUGUST 2014

BACKGROUND

The Watershed Health Basin Plan Working Group was formed by the Arkansas Basin Roundtable as part of its efforts to prepare an implementation plan to meet municipal, agricultural, and nonconsumptive water needs throughout southeastern Colorado. Improving watershed health—specifically forest health above water supply resources—has been identified as a key issue in preventing and recovering from wildfires and post-fire flooding. The Watershed Health Working Group brought together local stakeholders with state resource managers and federal agencies like the US Forest Service, the Bureau of Land Management, and the US Army Corps of Engineers (among many others) to build a new foundation of common interests and shared strategies to improve planning, response, and recovery related to wildland fire and subsequent flooding.

CONCLUSIONS

The Watershed Health Basin Plan Working Group set out to bring agencies and entities together to explore watershed health issues, develop value maps, create an action plan for the Arkansas Basin, and outline what they learned so other roundtables or community groups could start farther ahead in the process. Based on its experience, the Working Group identified several key conclusions that are relevant statewide; these are listed below. A complete outline of the Watershed Working Basin Plan Working Group process and associated documentation is available in Chapter 4.2 of the Draft Arkansas Basin Implementation Plan (arkansasbasin.com).

- **Collaboration:** Every watershed or sub-watershed should have a collaborative stakeholder group in place to build relationships among entities and individuals in the watershed, to plan for events, respond to events, and to facilitate restoration and recovery after an event.
- **Planning:** Planning before an event occurs is critical. Many tools exist at the state and federal levels to assist communities in planning and preparing for an event.
- **Data:** Having recent and accurate data at the right scale, in the right format, and in the same place is the bedrock of watershed health planning.

TOOLKIT

To facilitate watershed health learning, planning, response, and recovery statewide as much as possible, the Working Group has developed several “how-to” documents that are included in this toolkit. The Working Group is aware that the toolkit is incomplete and that there is much more to watershed health planning than what is described and provided here. However, the group believes that the steps and tools that are

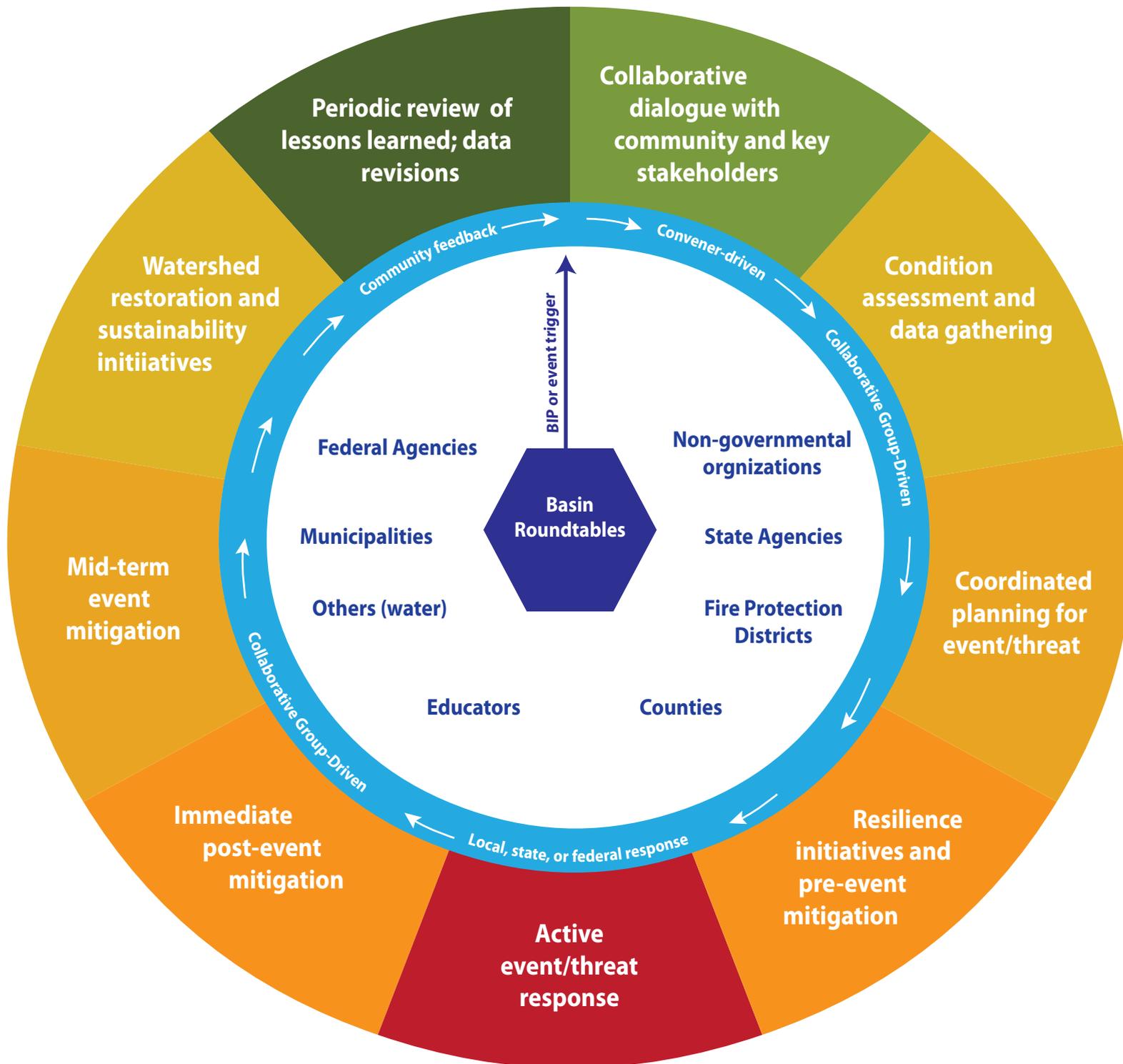
included here are a good place to start. In order to continue its work on watershed health for the Arkansas Basin, the Working Group is helping create a standing watershed health coalition in the Arkansas Basin and strongly encourages the creation of similar entities in other basins and/or sub-basins. Individual watershed collaborative groups can further refine and develop the tools provided here to meet the unique needs and challenges of their region.

CONTENTS

The following documents are included in this toolkit to assist other roundtables, watersheds, and communities in starting down the path toward improved watershed health:

BIG PICTURE TOOLS	
“Circle of Fire” Diagram Illustrating the Planning, Response, and Recovery Life Cycle of a Watershed Health Threat or Event	
Watershed Health Life Cycle Tools to Assist in Each Stage of the “Circle of Fire”	
Progression of Authority in a Wildfire	
PLANNING TOOLS	
Working Group Steps	Resources in Toolkit
Convening a diverse group	List of entities that participated in the Working Group
Identification values and threats	Preliminary list of values and threats in Arkansas Basin
Mapping of values and threats	Mapping methodology
Development of action plan to address threats	<ul style="list-style-type: none"> • Preliminary watershed health action plan for the Arkansas Basin • Blank action plan template • Resources for creating a collaborative stakeholder group

Circle of Fire: Planning, Response, and Recovery Life Cycle of a Watershed Health Threat or Event



DRAFT WATERSHED HEALTH LIFE CYCLE TOOLS AND PROCESSES

Collaborative dialogue with community and key stakeholders		
Tools	Entity or Entities	Outputs
Watershed Groups	Various	Collaborative risk assessment, prioritization of mitigation projects and funding, joint permitting and funding strategies
Existing watershed group bylaws and formation documents	Coalition for Upper South Platte (CUSP)	Information for the creation of new watershed groups
Fire Management Officer Outreach	Colorado Division of Fire Protection and Control	Education, outreach about wildfire risks and mitigation tools
Firewise Program	Colorado State Forest Service	Education, outreach about wildfire risks and mitigation tools
Outreach Publications	Colorado State Forest Service	Education, outreach about wildfire risks and mitigation tools
Outreach Videos (Part 1 , Part 2 , Part 3 , Part 4)	Colorado State Forest Service	Education, outreach about wildfire risks and mitigation tools
Guide to Fire Adapted Communities	Fire Adapted Communities Learning Network	Education, outreach about wildfire risks, mitigation approaches, regulatory considerations, and collaborative strategies

DRAFT WATERSHED HEALTH LIFE CYCLE TOOLS AND PROCESSES

Collaborative dialogue with community and key stakeholders (continued)		
Examples	Entity or Entities	Outputs
CBT Headwaters Partnership	Bureau of Reclamation, Colorado State Forest Service, Northern Colorado Water Conservancy District, private landowners, US Forest Service	Collaborative prioritization of mitigation projects and funding, joint permitting and funding strategies
Fry-Ark Partnership	Bureau of Reclamation, private landowners, Southeastern Colorado Water Conservancy District, Upper Arkansas Water Conservancy District, US Forest Service,	Collaborative prioritization of mitigation projects and funding, joint permitting and funding strategies
Upper Monument Creek Collaboration	Boulder County, Coalition for the Upper South Platte , Colorado Forest Restoration Institute, Colorado Parks and Wildlife, Colorado Springs Utilities, Colorado State Forest Service, Colorado State University, Natural Resources Conservation Service, The Nature Conservancy,, Rocky Mountain Tree Ring Research, US Air Force Academy, US Forest Service, West Range Reclamation , The Wilderness Society	Collaborative prioritization of mitigation projects and funding, joint permitting and funding strategies

Condition assessment and data gathering		
Tools	Entity or Entities	Outputs
Wildfire Risk Assessment and Prioritization Process	US Forest Service	Value identification, risk assessment, partnerships
Colorado Wildfire Risk Assessment Portal (CO-WRAP)	Colorado State Forest Service	Risk assessment, prioritization of fuels treatment projects and funding
Community Wildfire Protection Plans (CWPPs)	Colorado State Forest Service	Education, value identification, risk assessment, prioritization of fuels treatment projects and funding
Guide to Fire Adapted Communities	Fire Adapted Communities Learning Network	Education, outreach about wildfire risks, mitigation approaches, regulatory considerations, and collaborative strategies

DRAFT WATERSHED HEALTH LIFE CYCLE TOOLS AND PROCESSES

Coordinated planning for event/threat		
Tools	Entity or Entities	Outputs
Wildfire Risk Assessment and Prioritization Process	US Forest Service	Value identification, risk assessment, partnerships
Guide to Fire Adapted Communities	Fire Adapted Communities Learning Network	Education, outreach about wildfire risks, mitigation approaches, regulatory considerations, and collaborative strategies
Wildland Fire Decision Support System (WFDSS)	US Forest Service	Value identification, risk assessment, wildfire management planning
Funding Assistance	Colorado State Forest Service	Funding source identification
Colorado Wildland Fire Management Annual Operating Plan	Bureau of Indian Affairs, Bureau of Land Management, Colorado Division of Fire Prevention and Control, Colorado State Forest Service, National Park Service, US Fish & Wildlife Service, US Forest Service	Coordinated interagency planning for wildfire

Resilience initiatives and pre-event mitigation		
Tools	Entity or Entities	Outputs
Funding Assistance	Colorado State Forest Service	Funding source identification
Community Wildfire Protection Plans (CWPPs)	Colorado State Forest Service	Risk assessment, prioritization of fuels treatment projects and funding
Publications	Colorado State Forest Service	Education and outreach
Guide to Fire Adapted Communities	Fire Adapted Communities Learning Network	Education, outreach about wildfire risks, mitigation approaches, regulatory considerations, and collaborative strategies

DRAFT WATERSHED HEALTH LIFE CYCLE TOOLS AND PROCESSES

Active event/threat response		
Tools	Entity or Entities	Outputs
Wildland Fire Decision Support System (WFDSS)	US Forest Service	Value identification, risk assessment, wildfire management planning
Colorado Wildland Fire Management Annual Operating Plan	Bureau of Indian Affairs, Bureau of Land Management, Colorado Division of Fire Prevention and Control, Colorado State Forest Service, National Park Service, US Fish & Wildlife Service, US Forest Service	Coordinated interagency plan for wildfire
Emergency Response Teams	Entity or Entities	Outputs
Local Fire Departments	Local Fire Protection Districts	Coordinated response to wildfire on private land; shared authority on fires that exceed local capacity
County Sheriffs	Counties	Coordinated response to wildfire on county land; shared authority on fires that exceed county capacity
Fire Management Officers	Colorado Department of Fire Prevention and Control	Coordinated response and shared authority for wildfire on private, county, and state land that exceeds local and/or county capacity
Interagency Management Teams	Various federal agencies	Coordinated response to wildfire on federal land; shared authority on fires that exceed local capacity

Immediate post-event assessment and mitigation		
Tool or Process	Entity or Entities	Outputs
Burned Area Emergency Response (BAER)	US Forest Service	Coordinated post-fire strategies and treatments
Watershed Assessment of River Stability and Sediment Supply (WARSSS)	Environmental Protection Agency	Assessment of post-fire risks and prioritization of mitigation projects and funding

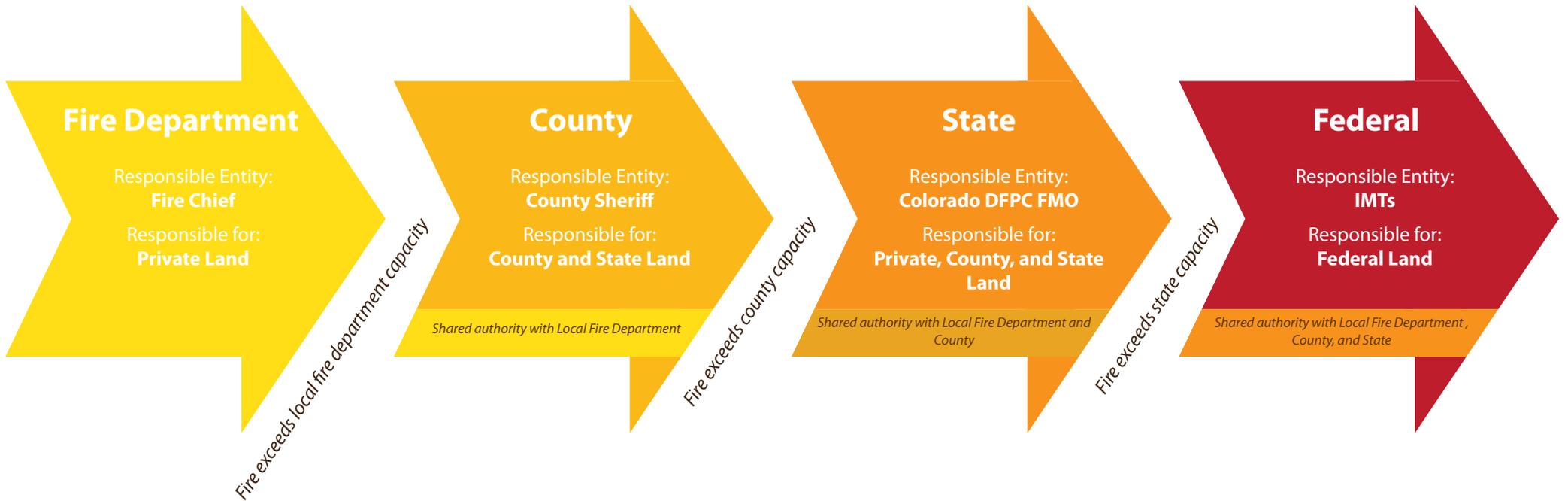
DRAFT WATERSHED HEALTH LIFE CYCLE TOOLS AND PROCESSES

Mid-term event mitigation		
Tool or Process	Entity or Entities	Outputs
Publications	Colorado State Forest Service	Education and outreach about post-fire treatments and strategies

Watershed restoration and sustainability initiatives		
Tool or Process	Entity or Entities	Outputs

Periodic review of lessons learned; data revisions		
Tool or Process	Entity or Entities	Outputs

Progression of Authority for a Wildfire Suppression Response on Private Land*



Contacts

Contacts

Contacts

Contacts

*For wildfires that begin on county, state, or federal land, the process will begin at the county, state, or federal level, respectively

Watershed Health Working Group Participating Agencies and Entities

Basin Roundtables

Arkansas Basin Roundtable
Colorado Basin Roundtable
Metro Basin Roundtable
Rio Grande Basin Roundtable
South Platte Basin Roundtable
Southwest Basin Roundtable
Yampa/White Basin Roundtable

Federal Agencies

Bureau of Land Management
Bureau of Reclamation
Natural Resources Conservation Service
US Army Corps of Engineers
US Forest Service
US Geological Survey

Water Providers

Aurora Water
Central Water Conservancy District
Colorado Springs Utilities
Denver Water
Eagle River Water and Sanitation District
Northern Water Conservancy District
Pikes Peak Regional Water Authority
Ruedi Water and Power Authority

NGOs

Clear Creek Watershed Foundation
Coalition for the Upper South Platte
Colorado Audubon
Colorado Environmental Health Association
Colorado Rural Water Association
Colorado Watershed Assembly
National Audubon
National Forest Foundation
Rio Grande Headwaters Restoration Project
Rocky Mountain Land Library
Sierra Club
Trout Unlimited
Western Rivers Conservancy

Local Government

Gilpin County
Jefferson County
Fort Collins Natural Areas

State Agencies

Colorado Department of Natural Resources
Colorado Parks and Wildlife
Colorado State Forest Service
Colorado Water Conservation Board
Senator Gail Schwartz

Consultants

Applegate Group, Inc.
DiNatale Water Consultants
HDR
JW Associates
OTAK, Inc.
Quantum Water Consulting

Other

Colorado Mountain College
Land Water USA

Watershed Health Basin Implementation Plan

Preliminary List of Watershed Values, Threats, Barriers, and Partners

At a one-hour session on watershed health during the March 6, 2014, Basin Roundtable Summit and at a subsequent Watershed Health Basin Plan Working Group meeting, participants identified key values and threats affected by watershed health, as well as barriers to the protection of these key values. They also identified key partners in future watershed health discussions. The values, threats, barriers, and partners identified are summarized below.

Values

- Diversion structures
- Human safety, human health, and property
- Human egress routes for evacuation
- Infrastructure for water supplies and energy production
- Prime agricultural land
- Wildlife habitat (natural, social, and economic values)
- Native riparian vegetation
- Natural infrastructure
- Recreation (developed and undeveloped)
- Water quality (for drinking water and ecosystems)
- Special use permits on federal land (oil and gas development, grazing, timber, communication towers, power lines, etc.)
- Oil and gas wells (both a value and a threat)
- Terrestrial and aquatic recreation (economic and social values)
- Ecosystem processes, including fire and floods
- Resilience of ecosystems and human communities
- Surface and groundwater intakes
- Water rights
- Transportation infrastructure leading to water supply infrastructure

Threats

- Fire
- Floods
- Failing septic systems
- Leaking aboveground and underground storage tanks
- High wind leading to widespread tree damage
- Insect outbreaks
- Invasive vegetation
- Mines and mine tailings
- Invasive and native riparian tree species exacerbating flood problems
- Land use changes leading to changes in hydrology
- Water infrastructure and transportation infrastructure as threats
- Treatment plants unable to handle sediment loads
- Debris flows after fires

Barriers

- Communication between players, either because key players have not been identified or because joint advance planning has not occurred
- Time
- Money
- Deciding about whose time and money should be used
- Laws
- Deciding what and where to protect
- Willingness of key players to participate
- Gap between strategic planning and budgeting in some federal agencies
- Lack of information about how to permit a project, how to get money for a project, and whom to contact in an emergency
- Boundaries of authority among and between parties, especially federal agencies
- Public acceptance of measures that improve forest health (e.g., forest thinning, prescribed fire); without public acceptance, lawsuits often occur
- Lack of trust and lack of understanding between parties
- Insufficient information and inventories about places and values to protect
- Deciding on scales of measurement and types of boundaries
- Data sets that are incompatible, out-of-date, and/or at different scales

Potential Partners

- US Forest Service
- Bureau of Land Management
- Natural Resources Conservation Service
- US Army Corps of Engineers
- US Bureau of Reclamation
- Colorado State Forest Service
- Water Quality Control Division
- Colorado Parks and Wildlife
- Local fire protection districts
- Non-profits (e.g., Coalition for the Upper South Platte, National Forest Foundation, Trout Unlimited)
- County, state, and federal highway departments
- Water conservancy districts
- Fire district representatives
- Community foundations
- Watershed groups
- Industry (Coke, Coors, Vail, etc.)
- County offices, especially emergency response
- Water providers
- Private landowners

Watershed Health Value and Threat Mapping Methodology

Mapping Values

Through several stakeholder meetings, watershed health concerns and water supply values were identified. Several state, federal and local GIS datasets were also compiled as potential sources to assess current conditions in the Arkansas basin regarding watershed health values. Not all values documented during the stakeholder meetings had a direct relation to the Arkansas BIP. Furthermore, not all datasets were needed to display the relationships between water supply values, watershed health and threats.

The following outlines the steps taken to show the geographic relationship between watershed health values and threats. Figure 1 is a graphic representation of the work flow.

Step 1

For the purpose of the mapping process, a definition was established to better clarify the underlying purpose for watershed health planning, which is:

Protect the functional integrity of the hydrologic, biologic, physical and built environment depended on for water supply and quality.

Step 2

This step involved developing the “research” question that data would help answer. Three questions guided the filtering of data and information.

- What are the important values across water supply categories?
- What are the top risks to the functional integrity of watersheds?
- How are the threats and values juxtaposed on the landscape?

Watershed values and data identified on maps first had to have a relationship to water supply and water quality. Water Supply values were determined from Agriculture, Environment, Recreation, Municipal and Industrial user groups. Water Quality concerns included stream impairment, degradation and potential sources of contamination. There is consensus between all water supply categories that reservoirs, rivers, water quality and infrastructure, whether built or green, are the top priorities to protect.

Step 3

Threats to the functional integrity of watersheds include catastrophic fire, flooding (pre/post-fire), contamination and insects and disease. Multiple agencies have models for representing wildfire threats and risks. In general these models are constructed by using a combination of data on fuel loading, vegetation type, fire behavior, topography and location of life and property values, among others. The map documents provide a basis for understanding the proximity between threats and values. Maps were then presented to stakeholders to facilitate discussion on data accuracy and prioritizing values throughout the Arkansas basin.

Map Documents

Agriculture

Values identified in the Agriculture water supply category included reservoirs, rivers, diversions, irrigated cropland, non-irrigated farmland and rangelands. Data for cropland is sourced from the USDA National Agricultural Statistics Service and irrigated cropland is available through the Colorado Division of Water Resources (DWR). DWR also tracks diversion points. However data does not indicate a

designated use, quantity or precise location for diversions. The category for “Active” diversions is used to provide perspective on number and general location of valuable infrastructure.

M & I

Values identified in the Municipal and Industrial water supply category included reservoirs, rivers designated for drinking water supply, water provider diversions and infrastructure. Data is sourced from State databases such as Colorado Department of Public Health and Environment Source Water Program and DWR. Better data on groundwater aquifers, such as Upper Black Squirrel, could inform decisions concerning protection for aquifers depended on for drinking water and/or agriculture.

Environment

Values identified in the Environment water supply category included reservoirs, rivers, riparian and wetland vegetation, potential conservation areas, T&E critical habitat, impaired streams and significant birding areas. Base data is from the National Wetland Inventory, Colorado Parks and Wildlife (CPW) riparian and species data, Colorado Natural Heritage Program and data generated during the Arkansas Basin Non Consumptive Needs Toolbox planning process. Other areas of concern for the Environment category include wildlife conservation areas, for example, important migratory corridors and winter range. This data is available through CPW data sets. It should be used for more detailed planning to help identify potential partners for mitigation projects.

Recreation

Values identified in the Recreation water supply category included reservoirs, outstanding waters, fishing reservoirs, gold medal waters, stream fishing, flat and white water boating, recreation in-channel diversions (RICD), birding areas as well as waterfowl hunting areas. Important recreation areas include state parks, state wildlife areas, Upper Arkansas Recreation Area and the RICDs. Data was compiled from the Arkansas Basin Non Consumptive Needs Toolbox which used resources from Colorado Parks and Wildlife, National Hydrology Data Set, Audubon Society, Trout Unlimited and stakeholder input. Some raw data layers were combined to create common symbology across recreation categories.

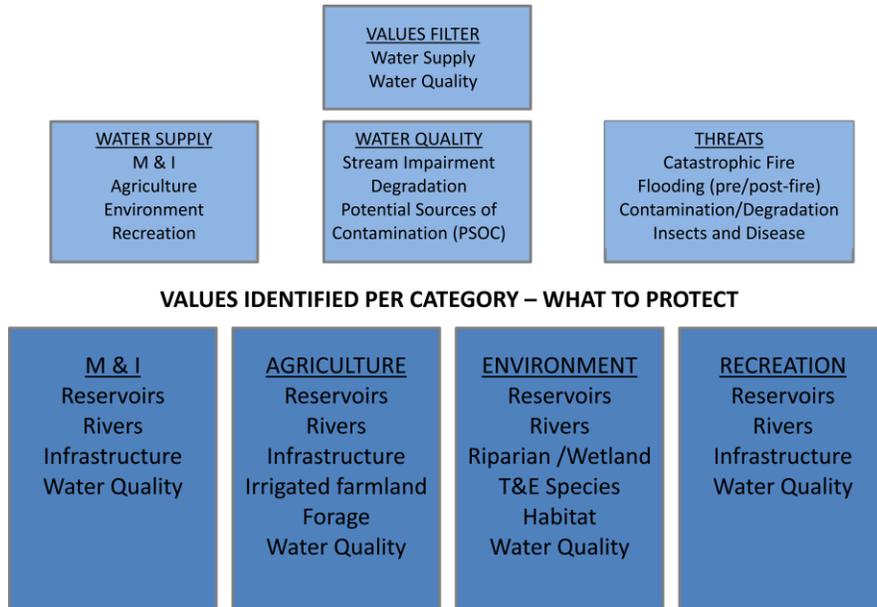
Watershed Threats

The threats identified include catastrophic wildfire, flooding (pre or post fire), contamination or degradation of water bodies, insects and disease (I&D). The Colorado State Forest Service (CSFS) created the Colorado Wildfire Risk Assessment Portal (CO-WRAP) as an online mapping tool to assist decision makers, community leaders, planners and citizens in determining wildfire risk and forest management actions. CSFS provided base data on wildfire risk and threat to overlay with water supply values. The data is presented in a broad spatial nature and is applicable throughout the entire state, in all vegetation types. For the Arkansas Basin maps the Medium, High and Very High Risk layers are displayed only. Risk is determined off of threat and has added values associated to life, property and water supply and quality. Threat represented a probability that a representative pixel would burn. Simplifying the maps to only display Wildfire Risk allows for planners to disseminate priority areas quickly. CO-WRAP offers consistency and a common platform for all basins across the state to consider while building collaborations around forest management. Historic fire perimeter data was used to show how past fires and threat have correlated.

The 100 year flood plain represents the zone of concern in regards to potential flooding impacts. The 100 year flood plain does not change between pre or post fire conditions however; the frequency of the 100 year flood plain being inundated does increase post fire. FEMA Flood Hazard Layer is only complete for Fremont, Teller, Elbert and Park counties. These layers are used to classify hazard zones. Lastly, I&D

invasions can result in large areas with high tree mortality which consequently can alter fire behavior and hydrologic function. Several agencies monitor I&D infestations, such as the USDA Forest Service and CSFS. The data set managed by CSFS is used for this project.

Figure 1- Outline of value filters and the values per water supply use category.



Watershed Health Action Plan – Arkansas Basin Implementation Plan

Collaborative Dialogue with Community and Key Stakeholders				
Action	Responsible Party	Available Resources	Timing	
1	Convene a small group via phone to strategize about invitations to a larger group to participate in a meeting to plan and frame a new watershed health coalition for the Upper Arkansas Basin (above Pueblo Reservoir) and to strategize about appropriate outreach	Kyle Hamilton	Heather Bergman; Watershed Health Working Group and documents	By August 12, 2014
2	Reach out to Arkansas Basin Roundtable, its nonconsumptive subcommittee, conservancy districts, and the Arkansas River Basin Water Forum to gather input regarding watershed health coalition	Gary Barber, Kyle Hamilton	Watershed Health Working Group and documents	Through August 2014
3	Convene a meeting of interested parties to help scope and frame a new watershed health coalition for the Upper Arkansas Basin (above Pueblo Reservoir); focus of new group is to address and improve management activities that affect watershed health (habitat, forest health, wildfire planning, mine stability, etc.)	Heather Bergman	Watershed Health Working Group and documents, DOLA, AWRA, NFF, Arkansas Basin Roundtable, Front Range Roundtable, others	Mid-September 2014
4	Convene the Upper Arkansas Watershed Coalition	TBD/volunteer entity from first meeting (above)	Watershed Health Working Group and documents, Arkansas Basin Implementation Plan	Fall 2014
5	Develop a strategic plan for the Upper Arkansas Watershed Coalition to include: <ul style="list-style-type: none"> • Function, mission, and scope • A funding strategy with multiple options identified • Identification of potential partner or participating entities • Approaches to inter-agency collaboration at state and local levels • Clarification of roles and responsibilities of different agencies, groups, and other stakeholders • How to build on the work that is already underway in the Basin • Rapid identification of areas in the Arkansas Basin that are most at-risk from fire or flood • Exploration of flooding and other watershed health issues in addition to fire • A plan for annual operating review to assess progress, inclusiveness, effectiveness, and relevance • A plan for how to include education and outreach in operations 	Upper Arkansas Watershed Coalition*	Watershed Health Working Group and documents, Arkansas Basin Implementation Plan ; Brad Piehl’s work; Watershed Condition Framework; Colorado Watershed Assembly directory	Initial organizational description, purpose, and strategy by third quarter 2015; others as ready and appropriate
6	Interface with Arkansas Basin Roundtable’s Nonconsumptive Subcommittee and other nonconsumptive groups to identify overlaps in values/interests and consequences from wildfire	Upper Arkansas Watershed Coalition*; Kyle Hamilton	Colorado Watershed Assembly; Colorado Parks and Wildlife	Ongoing

** All actions suggested for completion by the Upper Arkansas Watershed Coalition are also recommended for completion by any additional Watershed Coalitions that are created in Arkansas Basin or elsewhere in Colorado.*

Watershed Health Action Plan – Arkansas Basin Implementation Plan

Collaborative Dialogue with Community and Key Stakeholders				
Action		Responsible Party	Available Resources	Timing
7	Explore the creation of additional watershed coalitions in the Middle Arkansas, Lower Arkansas, etc.	Arkansas Basin Roundtable / Conservancy Districts	Upper Arkansas Watershed Coalition, Watershed Health Working Group and documents; Colorado Watershed Assembly	2015
8	Develop a summary PowerPoint presentation and associated handouts to capture key outputs and themes from Watershed Health Working Group	Heather Bergman	Watershed Health Working Group and documents	August 12, 2014
9	Share Watershed Health Working Group outputs, tools, and information with others in Colorado	Watershed Health Working Group	Summary PowerPoint and handouts	December 31, 2014
Condition Assessment and Data Gathering				
Action		Responsible Party	Available Resources	Timing
1	Summarize and map categories of watershed resources to protect (land, animals, habitat, fish, water infrastructure, etc.)	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, CWCB, Arkansas Basin Roundtable, others	Year 1
2	Summarize and map risks and threats (fire, flood, water quality, stream stability, land use, etc.)	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, CWCB, Arkansas Basin Roundtable, others	Year 1
3	Compile existing federal, state, and local projects and processes related to pre-fire assessment and mitigation; review Fire Management Unit maps with USFS to understand fire management options on USFS lands, including wilderness and roadless areas	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, CWCB, Brad Piehl's work, Arkansas Basin Roundtable, others	Year 1
4	Compile existing federal, state, and local plans, processes, and projects related to post-event assessment and mitigation	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, CWCB, USEPA, Arkansas Basin Roundtable, WARSSS, Brad Piehl's work	Year 1
5	Develop and assess baseline data: <ul style="list-style-type: none"> • Compile all existing GIS layers of relevant data (including nonconsumptive values, water infrastructure, and specific data from Snotel, DWR, NRCS, USGS, etc.) • Prepare a database that identifies the location and ownership of the data • Prepare maps of relevant data • Identify data gaps and develop a strategy to gather and integrate missing data (e.g., GIS layers for past forest management projects, FEMA flood mapping in counties where it is not yet developed) 	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, CWCB, Arkansas Basin Roundtable, others	Year 1

* All actions suggested for completion by the Upper Arkansas Watershed Coalition are also recommended for completion by any additional Watershed Coalitions that are created in Arkansas Basin or elsewhere in Colorado.

Watershed Health Action Plan – Arkansas Basin Implementation Plan

Condition Assessment and Data Gathering				
Action		Responsible Party	Available Resources	Timing
6	Conduct a basin-wide water quality assessment, building on 305b report	Upper Arkansas Watershed Coalition*	Colorado River Watch; 305b report	Year 1
7	Assess local, state, and federal policies that impact watershed health; if needed and appropriate, pursue changes to those policies (e.g., emergency NEPA processes, legislation for aerial fire suppression)	Upper Arkansas Watershed Coalition*	Arkansas Basin Roundtable	Year 1
8	Compile statewide preparedness data on the following components: <ul style="list-style-type: none"> • Oil and gas: pipelines • Utilities (electric): lines and substations • Communications: radio, TV, police, EMC, cell phone • Mines and industrial facilities • Geologic hazards • Water intakes • Water treatment facilities • Threatened & endangered species 	USFS, CDPHE, utilities, Arkansas Basin Roundtable, others	Upper Arkansas Watershed Coalition*	Year 1
Coordinated Planning for Event/Threat ¹				
Action		Responsible Party	Available Resources	Timing
1	Prepare a strategic plan for Upper Arkansas Basin (see detailed list of components on Page 1 of this Action Plan)	Upper Arkansas Watershed Coalition*	Watershed Health Working Group and documents, Arkansas Basin Implementation Plan, Brad Piehl’s work, Watershed Condition Framework; Colorado Watershed Assembly	Year 1
2	Prepare a tactical preparedness plan for high-priority assets (e.g., water supply infrastructure, endangered species protection); coordinate with local, state, and federal agencies to identify additional assets (e.g., work with CDOT to identify critical roads to keep open in an emergency); develop a fire response emergency action plan	Upper Arkansas Watershed Coalition*	Watershed Health Working Group and documents, counties, CSFS, CDFPC, USFS, Arkansas Basin Roundtable, others	Year 1
3	Distribute tactical plan to agencies who will respond to fires, floods, and other threats; identify how and where Arkansas Basin data/GIS information fits into fire-related models and tools; enter existing local watershed health GIS data into WFDSS, CO-WRAP, and other applicable databases; push toward shared technology and mapping platforms and	Upper Arkansas Watershed Coalition*	USFS, CSFS, CDFPC, others	Year 1

¹ Appendix 4.2.J is a list of relevant tools to assist in the creation of the plans suggested in this section.

* All actions suggested for completion by the Upper Arkansas Watershed Coalition are also recommended for completion by any additional Watershed Coalitions that are created in Arkansas Basin or elsewhere in Colorado.

Watershed Health Action Plan – Arkansas Basin Implementation Plan

Coordinated Planning for Event/Threat ¹				
Action		Responsible Party	Available Resources	Timing
	approaches across efforts, regions, and agencies; identify obstacles, opportunities, and related resource needs			
4	Prepare a mitigation plan to protect high-priority assets (e.g., hazardous fuels reduction); develop improved planning for post-fire sediment and water quality problems due to erosion and floods; assess and identify where to pre-position post-fire flooding mitigation; investigate pre-permitting for post-fire improvements	Upper Arkansas Watershed Coalition*	USFS, USACE, USBOR, USEPA, CDPHE, BAER Response Guide, Arkansas Basin Roundtable, others	Year 1-2
5	Update strategic plan to integrate and/or reflect tactical and mitigation plans and cross-reference with other planning documents in the area	Upper Arkansas Watershed Coalition*	USFS, USACE, USBOR, USEPA, CDPHE, county emergency action plans, Arkansas Basin Roundtable, others	Year 1-2
6	Identify IPPs related to watershed health in addition to those listed in the BIP, including by working with other stakeholders and agencies to summarize their planned projects and identifying multi-purpose projects that fill water supply gaps and improve habitat, recreation, wetlands, and water quality	Upper Arkansas Watershed Coalition*	Arkansas Basin Implementation Plan, Arkansas Basin Roundtable	Year 1-2
7	Identify new watershed health funding sources to target desired outcomes (e.g., CWCB, NRCS, USDS, EPA, FEMA, etc.)	Upper Arkansas Watershed Coalition*	Watershed Health Working Group, Arkansas Basin Roundtable	Year 1-2
Resilience Initiatives and Pre-Event Mitigation				
Action		Responsible Party	Available Resources	Timing
1	Develop a process for filling the GIS and mapping data gaps; integrate new data with existing local, state, and federal databases; complete GIS mapping for all key values, including water infrastructure	Upper Arkansas Watershed Coalition*	USFS, CDPHE, CSFS, others	As possible, and ongoing
2	Complete the mitigation treatments outlined in the mitigation plan	Upper Arkansas Watershed Coalition*	Mitigation plan developed by Upper Arkansas Watershed Coalition	As possible, and ongoing
3	Continually update watershed health project lists, datasets, and maps	Upper Arkansas Watershed Coalition*	Arkansas Basin Roundtable, USFS, CDPHE, CSFS, others	As possible, and ongoing
4	Request that CDPHE extend a WFDSS-like resource throughout the state and better define how it will be used by different agencies (e.g., DFPC) in fire suppression.	Upper Arkansas Watershed Coalition*	USFS	Year 1-2

* All actions suggested for completion by the Upper Arkansas Watershed Coalition are also recommended for completion by any additional Watershed Coalitions that are created in Arkansas Basin or elsewhere in Colorado.

Watershed Health Action Plan – TEMPLATE

Collaborative Dialogue with Community and Key Stakeholders			
Action	Responsible Party	Available Resources	Timing
1			
2			
3			
Condition Assessment and Data Gathering			
Action	Responsible Party	Available Resources	Timing
1			
2			
3			
Coordinated Planning for Event/Threat ¹			
Action	Responsible Party	Available Resources	Timing
1			
2			
3			
Resilience Initiatives and Pre-Event Mitigation			
Action	Responsible Party	Available Resources	Timing
1			
2			
3			

¹ Appendix 4.2.J is a list of relevant tools to assist in the creation of the plans suggested in this section.

Bylaws

Of

Coalition for the Upper South Platte

Article 1 Offices

Section 1. Principal Office

The principal address of the corporation is located in Park County, State of Colorado.

Section 2. Change of Address

The designation of the county or state of the corporation's principal office may be changed by amendment to the Bylaws.

The Board of Directors may change the principal office from one location to another within the named county by noting the changed address and effective date below, and such changes of address shall not be deemed, nor require, an amendment to these Bylaws.

Section 3. Other Offices

The corporation may also have offices at such other places, within or without its state of incorporation, where it is qualified to do business, as its business and activities may require, and as the Board of Directors may, from time to time designate.

Article 2 Nonprofit Purposes

Section 1. IRS Section 501(c)3 Purposes

This corporation is organized exclusively for one or more of the purposes as specified in Section 501(C)3 of the Internal Revenue Code, including the making of distributions to organizations that qualify as exempt organizations under Section 501(c)3 of the Internal Revenue Code.

Section 2. Specific Objectives and Purposes

The specific objectives and purposes of this corporation shall be:

To protect the ecological health and water quality of the Upper South Platte Watershed through the cooperative efforts of watershed stakeholders, with emphasis on community values and economic sustainability.

The members of the corporation are watershed stakeholders who have identified the following preliminary list of goals:

- a.) Protect water quality in the Upper South Platte River and its tributaries to support beneficial uses, including, but not limited to, drinking water supply and cold water fisheries.
- b.) Sustain the productivity and diversity of the ecological systems within the watershed.
- c.) Address water quality impacts related to water quantity management.

- d.) Identify and recommend management practices for nonpoint pollution sources that may include, but are not limited to, grazing, forestry, transportation corridors, mining, erosion, development, and septic systems.
- e.) Minimize the impacts from catastrophic events through preventive planning and activities.
- f.) Provide a vehicle for citizens, other nonprofit entities, and local government entities to address local concerns with local solutions.

Section 3. Boundaries

The boundaries of the Upper South Platte Watershed are defined as the areas draining to the South Platte River and its tributaries above Strontia Springs Reservoir to the headwaters. CUSP may undertake work outside the watershed boundaries when said work is deemed by the Executive Director and/or the Executive Committee or full Board to help CUSP fulfill its mission.

Article 3 Organization

Section 1. Member Entities

The Coalition for the Upper South Platte (CUSP) is made up of stakeholders that support the mission and the specific objectives and purposes as outlined in Article 2, Section 2. It is the goal of the CUSP Board of Directors to encourage wide participation and membership in CUSP. All stakeholders, including members of the public, are welcome to join. New members may be invited to join the Board in the future on an affirmative vote of the Board of Directors, pursuant to Section 9, below.

A list of current Board members is posted on CUSP's website.

Section 2. Board of Directors

The Board of Directors shall consist of at least eleven members, and no more than twenty-five members. The Board consists of members from the following classes of stakeholders:

1. **The Counties** within the watershed (up to four seats).
2. **Other local governments** within the watershed (up to two seats).
3. **Front Range water providers** (up to four seats).
4. **Conservation districts** (up to two seats).
5. **Conservancy districts** (up to two seats).
6. **State agencies** (up to two seats).
7. **Business community** (up to three seats).
8. **Environmental community** (up to three seats).
9. **Recreation community** (up to three seats).
10. **Interested individuals** (up to seven seats).

The Board will take reasonable steps to assure that there is at least one member representing each class of membership. The Executive Committee (or a committee appointed by them) and Executive Director will serve as the search committee to identify potential directors.

Federal agencies may have up to two seats on the Board of Directors in an ex-officio advisory capacity, but federal agency personnel may not hold full voting privileges.

Members of the Board of Directors (or their Board-recognized alternates) who are unable to attend a meeting in person may vote by telephone, fax, or e-mail. Members must contact the Secretary, or such person as the Secretary designates (designee), at least two days prior to a scheduled meeting, to make arrangements to use alternate voting privileges. The Secretary, or designee, will provide forms, as necessary, to enable members to vote through alternative means.

The Board of Directors votes to approve new Board members.

Section 3. Officers of the Board of Directors

The Board of Directors will elect officers from among themselves. Officers of the Board will include Chair, Vice-Chair, and Secretary/Treasurer. The Board may, at its discretion, opt to elect separate individuals to fill the positions of Secretary and Treasurer.

Officers will serve for a term of two years. Officer terms will be staggered so that the entire slate of officers does not turn over in any given year. To help provide continuity, the Vice-Chair will serve one term as Vice-Chair, and then become Chair for the next term. Officers will be nominated through a nominating committee, which will be appointed during the last official business meeting of each even year, and confirmed by a majority vote of the Board of Directors. Elections will then take place during the first official meeting of each calendar year.

The officers of the Board will constitute the Executive Committee. The Board of Directors may, at its option, delegate any or all of its powers and duties to the Executive Committee by majority vote.

Each officer of the Board shall serve until his or her successor is elected and qualifies. Officers may resign before completion of their term, by providing sixty (60) days written notice to the Secretary or designee.

Section 4. Termination of Board Participation

Any Board member, or entity with a representative on the Board of Directors, may terminate participation at any time, by giving sixty (60) days written notice of termination to the Board of Directors. Written notice expressing intent to terminate participation should be accompanied with a written explanation of why the member or entity is terminating its participation in the Board of Directors.

The Board may take action against any Board member who regularly fails to attend meetings and has three unexcused absences in a year, or who fails to participate in necessary activities of the Board, up to and including forced termination from the Board.

Section 7. Membership Fee

Each member of the Board of Directors, or the entities they represent, shall contribute an annual membership fee in such amount as may be determined by the Board of Directors. The Board of Directors may, at their discretion, establish sliding fees for different classes of membership. CUSP will accept general memberships and donations from the public and other supporters.

Section 8. Committees

Committees and subcommittees may be formed as needed to perform tasks identified by the Board of Directors. Each committee shall serve at the pleasure of the Board, and may be longstanding, or short-term. Meetings and actions of all committees shall be governed by all provisions of these Bylaws concerning meetings of the Board of Directors, with such changes as

are necessary to substitute the committee and its members for the Board of Directors and its members, except that the time for regular and special meetings of committees may be fixed by resolution by the Board of Directors or by the committee.

Section 9. Decision Making

It is the intent of the Board of Directors to achieve consensus on all action items. In the event that consensus is not achieved, and in a quorum vote (see Section 16, below), if 27% or more members vote negatively on an issue, the item under consideration will be tabled until consensus can be achieved.

As some issues that come before the Board of Directors may have a time sensitive nature, and as members may need to clearly understand the intent of the Board with regard to said issues, a vote may be called for to establish if consensus has been reached. Any member wishing to call for a vote on an issue shall notify the Secretary or designee at least seven (7) days prior to said vote.

Section 10. Compensation

No compensation will be authorized or paid to the Board of Directors. Reimbursement for certain expenses (such as travel to a meeting deemed to be for the benefit of CUSP) may be made, if authorization for said expense is approved by the Executive Committee. Members wishing to be reimbursed should request authorization prior to incurring expenditures.

Section 11. Conflict of Interest

CUSP has a formal Conflict of Interest Policy. All members of the Board of Directors, staff, and key volunteers or consultants shall review this policy annually and shall always conform to this policy.

Section 12. Powers

Subject to the provisions of the laws of this state, and any limitations in the Articles of Incorporation or these Bylaws, the activities and affairs of this corporation shall be conducted and all corporate powers shall be exercised by or under the direction of the Board of Directors.

Section 13. Duties

The Board of Directors will have primary oversight for setting the strategic course of CUSP, and for the review and approval of major programs and plans. The Board of Directors will review and approve other policies developed by the Executive Director or the Executive Committee (including but not limited to financial, conflict of interest, personnel, safety, and/or operational policies). Other duties include, but are not limited to:

- a.) Perform any and all duties imposed on them collectively or individually by law, by the Articles of Incorporation, or by these Bylaws.
- b.) Appoint and remove, employ and discharge, and except as otherwise provided in these Bylaws, prescribe the duties and fix compensation, if any, of all officers, agents, and the Executive Director of this corporation.
- c.) The Executive Director, with direction from the Executive Committee, has oversight to hire or fire additional employees as deemed necessary to meet obligations under grants, agreements, and other funding sources, and to fulfill its mission.

- d.) Supervise all officers, agents and the Executive Director of the corporation to assure that their duties are performed properly.

Section 14: Meet at such times and places as required by these Bylaws and to adequately fulfill the responsibilities as defined below:

- a.) Provide leadership to guide and implement the Mission Statement and identified goals of CUSP.
- b.) Help to integrate stakeholders' interests in the watershed into programs and projects.
- c.) Oversee business affairs of CUSP.
- d.) Help develop funding.
- e.) Other responsibilities as identified by the Board of Directors.

Section 15. Place of Meetings

Regular meetings shall be held at rotating places of business throughout the watershed and the Front Range in order to accommodate the large geographical area covered by the interests of the members, or at such other places as may be designated from time to time by resolution of the Board of Directors. The Board may opt to schedule special meetings via telephone conference call or web-based electronic meeting systems.

Section 16. Meetings

- a.) Meetings of the Board of Directors will be held at least quarterly, and monthly meetings may be held, as business requires.
- b.) Written notice of meetings shall be given to each member, and others as appropriate, at least fourteen days before all regular scheduled meetings.
- c.) All meetings are open to the public, and notice shall be given on the CUSP website.
- d.) Special meetings may be called by any member upon receipt of written request submitted to the Secretary or designee, at least three days before said meeting is scheduled to be held.
- e.) Fifty-one percent of the members must be present to constitute a quorum. No vote may be taken in the absence of a quorum.
- f.) Special meetings held via telephone conference call must address a specific issue, or issues, which cannot wait until a regular meeting.

Section 17. Conduct of Meetings

Meetings of the Board of Directors shall be presided over by the Chair. If no such person has been designated, or in his or her absence, than the Vice-Chair shall preside. In the absence of both the Chair and the Vice-Chair, than a temporary Chair shall be chosen by a majority of those present at the meeting.

The Treasurer must be a member of the Board of Directors.

The Board shall elect a Secretary. The Secretary shall oversee the taking and preservation of the minutes of all meetings of the Board, shall assure that the records of the corporation are responsibly maintained and safeguarded, shall attest to all certified copies of official records, shall assure that documents of the corporation as may be required by law are appropriately filed, and shall perform such other duties as prescribed by the Board of Directors

or by law. The Secretary may designate the Executive Director to perform any or all secretarial functions as described by these Bylaws.

If the Secretary is temporarily unavailable to fulfill his or her duties, the Board may appoint another qualified person to perform secretarial functions until the Secretary becomes available once again. Each committee shall appoint a person to perform secretarial functions for their committee, and said person shall file a copy of all documentation regarding committee work with the Secretary.

Section 18. Vacancies

Vacancies on the Board of Directors shall exist 1.) on the death, resignation, or removal of any director, and 2.) whenever the number of authorized directors is increased.

Any director may resign by providing written notice to the Chair, the Secretary, or the Board of Directors. No director may resign if the Board would then be left without sufficient directors to carry out its affairs, except upon notice to the Office of the Attorney General or other appropriate agency.

Directors may be removed from office, with or without cause, as permitted by these Bylaws and laws of this State.

Section 19. Nonliability of Directors

The Directors shall not be personally liable for the debts, liabilities, or other obligations of the corporation, except as provided for by the laws of this State.

Section 20. Indemnification

The Directors of the corporation shall be indemnified by the corporation to the fullest extent permissible under the laws of this State.

Section 21. Insurance of Corporate Officers

Except as otherwise noted under the provision of law, the Board of Directors may adopt a resolution authorizing the purchase and maintenance of insurance on behalf of any agent of the corporation (including a director, officer, employee, or other agent) against liability asserted against, and incurred by the agent in such capacity and arising out of the agent's status as such, whether or not the corporation would have the power to indemnify the agent against such liability under the Articles of Incorporation, these Bylaws, or the provision of law.

Article 4

Execution of Instruments, Deposits and Funds

Section 1. Execution of Instruments

The Board of Directors, except as otherwise provided in these Bylaw, may by resolution, authorize the Executive Director to enter into contracts, and execute and deliver instruments in the name of the corporation, and on behalf of the corporation, and such authority may be general or confined to specific instances.

Section 2. Checks and Notes

Except as otherwise specifically determined by resolution of the Board of Directors, or as otherwise required by law, checks, drafts, promissory notes, orders for payment of money, and

other evidence of indebtedness of the corporation shall be signed by the Treasurer and countersigned by the Chair. The Treasurer and Chair may designate other signatories, as they deem necessary for specific purposes.

Section 3. Deposits

All funds of the corporation shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositories as the Board may select.

Section 4. Gifts

The Board may accept on behalf of the corporation any contribution, gift, bequest, or devise for the nonprofit purposes of this corporation.

Section 5. Financial Policies

The Board may adopt by resolution written Financial Policies that supersede any or all sections of this Article, without having to revise these Bylaws.

Article 5 Corporate Records, Reports and Seal

Section 1. Maintenance of Corporate Records

CUSP shall keep at its principal office or at such place as the Secretary designates:

- a.) Minutes of all meetings of the Board of Directors, of committees, and of all members, indicating the time and place such meeting was held, whether a regular meeting or special meeting, how called, notice given, and names of those present and the proceedings thereof.
- b.) Adequate and correct books and record of accounts, including accounts of its properties and business transactions, and accounts of its assets, liabilities, receipts disbursements, gains and losses.
- c.) A record of its members, if any, indicating their names, addresses, and if applicable, class of membership.
- d.) A copy of the Articles of Incorporation and Bylaws as amended to date, which shall be open to inspection by the members at all reasonable times during office hours.

Section 2. Corporate Seal

The Board may adopt, use, and at will, alter a corporate seal. Such seal shall be kept by the Secretary. Failure to affix the seal to corporate instruments, however, shall not affect the validity of such instrument.

Section 3. Inspection Rights

Every Director shall have the absolute right, at any reasonable time, to inspect and copy all books, records, and documents of every kind, and to inspect the physical properties of the corporation.

Each and every member, including special classes, and members of the general public, shall have the following rights, for a purpose reasonably related to such person's interests:

- a.) To inspect and obtain copies of records of all voting Directors' names and addresses, and voting rights, at such reasonable times upon written demand to the Secretary.

b.) To inspect and obtain copies of, at any reasonable time, records of minutes, upon written demand to the Secretary.

The Board may establish reasonable fees to charge for copying requested records. Any inspection under these provisions may be made by the person, an agent or attorney, for the person making the request.

Section 4. Periodic Report

The Board shall cause any annual or periodic report required under law to be prepared and delivered to an office of this State or to the members, if any, of this corporation, to be so prepared and delivered within the time limits set by law.

Article 6 IRS 501(c)3 Tax Exempt Provisions

Section 1. Limitation on Activities

No substantial part of the activities of this corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation (except as otherwise provided for by Section 501 (h) of the Internal Revenue Code), and this corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of, or in opposition to, any candidate for public office.

Notwithstanding any other provision of these Bylaws, this corporation shall not carry on any activities not permitted to be carried on a.) by a corporation exempt from Federal income tax under Section 501 (c) 3 of the Internal Revenue Code, or b.) by a corporation, contributions to which are deductible under Section 170 (c) 2 of the Internal Revenue Code.

Section 2. Prohibition Against Private Inurement

No part of the net earnings of this corporation shall inure to the benefit of, or be distributable to, its members, Directors, officers, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for service rendered by employees and agents, and to make payments and distributions in furtherance of the purposes of this corporation.

Section 3. Distribution of Assets

No part of the net earnings of this corporation, all assets remaining after payment of all its debts and liabilities shall be distributed for one or more exempt purposes within the meaning of Section 501(c)3 of the Internal Revenue Code, or shall be distributed to the Federal government, or a state or local government for public purposes. Such distribution shall be made in accordance with all applicable provisions of the laws of this State.

Article 7 Amendment of Bylaws

Section 1. Amendment

These Bylaws may be amended by a vote of the Board of Directors at any regular meeting, or any special meeting of the Board, provided that the amendment has been submitted in writing to the Board at the previous meeting and included in the minutes of that meeting.

Article 8
Construction and Terms

If there is any conflict between the provisions of these Bylaws and the Articles of Incorporation, the provisions of the Articles of Incorporation shall govern.

Should any of the provisions or portions of these Bylaws be held unenforceable or invalid for any reason, the remaining provisions and portions of the Bylaws shall be unaffected by such holding.

All references in the Bylaws to the Articles of Incorporation shall by to the Articles of Incorporation and Articles of Amendments to the Articles of Incorporation of this corporation, as filed with the Secretary of State and used to establish the legal existence of the corporation.

All references in these Bylaws to a section, or sections, of the Internal Revenue Code shall be to such sections of the Internal Revenue Code of 1986 as amended from time to time, or to corresponding provisions of future Federal tax codes.

Adoption of Bylaws

Adopted by a vote of the Board of Directors on this # day of month , 2010.

Chair

Attest: Secretary

COALITION FOR THE UPPER SOUTH PLATTE

A Healthy Watershed ~ Now and in the Future

WORKING TO PROTECT THE UPPER SOUTH PLATTE WATERSHED



Our mission: *to protect the water quality and ecological health of the Upper South Platte Watershed, through the cooperative efforts of watershed stakeholders, with emphasis placed on community values and economic sustainability.*

The Upper South Platte Watershed, supplemented by water from the western slope, provides water to 75% of Colorado's front-range population.

Nothing great in the world has ever been accomplished without passion. - Hebbel

Our organization was formed in August 1998, as the *Upper South Platte Watershed Protection Association*. The organization was created with an oversight board comprised of diverse groups concerned about the South Platte River water quality and is voluntary, not regulatory in nature. Goals and objectives for protecting the 2,600 square mile watershed were agreed upon and the Strategic Plan was adopted in February 2001.

CUSP does almost nothing alone, yet with our partners, we have

accomplished so much: we have helped heal the scars — both physical and metaphorical — the Hayman fire left on our land and our hearts. We help homeowners and government agencies in the effort to protect us all from the next conflagration. We restore rivers to improve fish habitat and reduce erosion. We build and restore trails to enhance recreational opportunities (something our communities value dearly), while reducing negative impacts on the environment. We fight noxious weeds, educate children and their teachers, encourage volunteers, and answer the call whenever we can make a difference.



We would love to hear from you!

Coalition for the Upper South Platte
Lake George, Colorado 80827
Office: 719.748.0033
Fax: 719.302.2852
www.upperriverplatte.org
cusp@upperriverplatte.org



How to get involved

CUSP receives its funding from tax-deductible donations and grants by stakeholders, foundations, businesses and interested individuals. If you are interested in clean water and vibrant communities consider making a tax deductible donation to CUSP today.

Groups or individuals interested in volunteering are invited to call our office today!

Where we focus our energy

Water resources and quality, Forest health, Fire rehabilitation, Noxious weeds, Stream/River restoration, Erosion and flood control, Environmental education, Riparian corridor enhancement, Sustainable recreation, Local green economies, Volunteer outreach, Community preparedness, Alternative energy, Community involvement, and Mine hazards assessments.

Water

In an age when man has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference - Rachel Carson

Water, the life blood of the West, is our passion. We strive to restore rivers and streams and protect them for the next generation. Since inception, CUSP has restored miles of streams. In 2011 we continue to enhance water quality, increase recreational activities, and protect our most valuable resource. In 2011 we will gather baseline water quality data near proposed natural gas wells within South Park.

Habitat

In all things of nature there is something of the marvelous. - Aristotle

From restoring rivers, to controlling invasive weeds, and creating better haunts for the wild things, CUSP works to protect the marvels of nature. We continue to understand the impacts of abandoned mine drainage on aquatic habitat and have undertaken several mine assessment and reclamation projects.

Volunteers

No act of kindness, no matter how small, is ever wasted. - Aesop

Hundreds of people log thousands of hours each year, helping us protect our forests, wildlife, rivers, and human values.

Fire & Forest Health

People who will not sustain trees will soon live in a world which cannot sustain people. - Bryce Nelson

As Home to the Hayman, we know forests are one of our most valuable and vulnerable assets. We work to protect and restore them.

Environmental Education

Healing the broken bond between our young and nature is in our self interest. - Richard Louv

We help restore the bond between kids and nature by actively working with hundreds of teachers and students each year. CUSP views education as a life long endeavor - we provided learning opportunities to students of all ages.

Alternative Energy

Energy is eternal delight.- William Blake

We find ourselves in one of the most abundant sunny locals. Woodland Parks name sake “the city above the clouds” draws your attention to the great solar exposure we may once harness. CUSP is impassioned to save our community’s limited dollars by creating local alternative energy initiatives.

CUSP operates with a true sense of purpose, rooted in our mission. The staff works with partners and stakeholders, ranging from federal and state agencies to area landowners, local governments, residents, school kids, other nonprofits, businesses, and any individuals who want to do something on the ground to make our little corner of the world a better place.



Coalition for the Upper South Platte

Revised Watershed Plan

The Planning Process

Members of the general public and representatives from:

Alma
Aurora Water Resources
Buena Vista Correctional Facility (BVCF)
Bureau of Land Management (BLM)
Centennial Water & Sanitation District
Center of Colorado Water Conservancy District (CCWCD)
Colorado Department of Public Health & Environment
Colorado Department of Transportation (CDOT)
Colorado Division of Water Resources
Colorado Division of Wildlife (CDOW)
Colorado State Forest Service (CSFS)
Colorado State Trust Land Board
Colorado Trout Unlimited (CTU)
Denver Regional Council of Governments
Denver Water Department (DWD)
Douglas County
Environmental Protection Agency (EPA)
Fairplay
Forest Service (USFS)
Front Range Fuels Treatment Partnership Roundtable (FRFTPR)
Jefferson County
Jefferson County Soil Conservation District
Mosquito Range Heritage Initiative
National Forest Foundation (NFF)
Park County
Park County Advisory Board on the Environment
Pikes Peak Area Council of Governments
Pikes Peak Wildfire Prevention Partners (PPWPP)
South Park Forestry Association (SPFA)
South Platte Enhancement Board (SPEB)
Teller County Community Wildfire Assistance Center (TCCWAC)
Teller Park Soil Conservation District
United States Geological Survey (USGS)
Upper Arkansas and South Platte Project (UASPP)
Upper South Platte Water Conservancy District (USPWCD)
USDA Natural Resources Conservation Service (NRCS)
Wilderness Society

Documents and articles examined:

USPWPA By-laws
Upper South Platte River Watershed Data Inventory and Assessment
CUSP Employee Handbook
Job descriptions
CUSP web site and annual reports
Staff and Board meeting minutes
South Park National Heritage Area Feasibility Study
The Mosquito Range Heritage Initiative Strategic Plan
Assessment for Sustainability (Conservation Impact)

Vision and Mission

A Health Watershed—Now and in the Future

The Mission of the Coalition for the Upper South Platte is to protect the water quality and environmental health of the Upper South Platte Watershed, through the cooperative efforts of watershed stakeholders, with emphasis on community values and economic sustainability.

History

During the 1990s, there was a watershed movement around the US, with groups forming in various areas of the country. These watershed organizations shared two fundamental beliefs:

- 1.) Environmental problems don't stay within jurisdictional boundaries; therefore solving them can't happen as long as we confine ourselves to lines drawn on maps, and;
- 2.) We need everyone who depends on a resource, who has a stake in the outcome, to come to the table and work cooperatively in order to succeed in addressing the most pressing environmental problems.

At the time that watershed groups were beginning to gain recognition as an effective approach for addressing many environmental problems, three things happened that brought stakeholders with an interest in the Upper South Platte Watershed together:

- 1.) In 1994/95, the USFS did a study of segments of the South Platte within Forest Service boundaries to assess whether any river segments within the boundaries might qualify for designation under the Wild and Scenic Rivers Act, based on Outstandingly Remarkable Values (ORVs). The Denver Water Board and other Front Range water providers were concerned that designation would require the abandonment of some senior water rights, and that designation would give the USFS operational control of the river, negatively impacting their ability to operate their water rights.

- 2.) EPA guidelines on Source Water Assessment Programs (SWAP) require water providers to look at areas that impact their water quality. As this watershed is a major source of municipal water for Colorado's Front Range municipalities, SWAP would require water providers to actively study this watershed.

- 3.) The Buffalo Creek fire burned 11,700 acres within the watershed in 1996, and subsequent flooding resulted in the loss of life and serious impacts on municipal water systems. This fire was, at that time, the biggest fire in Colorado history, and served as a wake-up call for agencies and entities dealing with forest health and fire issues, that worse could come.

With these three issues looming large, the Denver Water Department and the City of Aurora Water Resources Department pooled some funds to Brown and Caldwell, an environmental engineering firm headquartered in Walnut Creek California, to facilitate a series of stakeholder meetings for the Upper South

Platte Watershed. By early 1998, attendees to these meetings began working on a Memorandum of Understanding (MOU) and Bylaws establishing a watershed group. Under the MOU, everyone agreed that whatever came out of the newly created Upper South Platte Watershed Management Program should be looked at as voluntary, not regulatory. By August of 1998, Park, Jefferson, Teller and Douglas Counties, the City of Aurora, Denver Water, the State Trust Land Board, the Soil and Water Conservation Districts, and the Center of Colorado and the Upper South Platte Water Conservancy Districts signed the MOU, and began working on incorporating as a nonprofit entity.

Under the MOU, the parties agreed to the following preliminary list of water quality goals: 1.) Protect water quality in the Upper South Platte River and its tributaries to support beneficial uses, which could include drinking water supply and cold-water fisheries. 2.) Sustain the productivity and diversity of the ecological systems within the watershed. 3.) Address water quality impacts related to water quantity management. 4.) Manage nonpoint pollutant sources including grazing, forestry, transportation corridors, mining, erosion, and septic systems. 5.) Minimize impacts of disastrous events, such as the Buffalo Creek Fire.

The list of preliminary objectives the group agreed on to attain these goals included: 1.) Develop a Coordinated Watershed Management Program to coordinate planning and development, optimize data collection, involve the public in planning, and give first priority in planning to cooperative projects among members. 2.) Understand the watershed by identifying current and future contamination trends that jeopardize water quality, use the best scientific information for resource allocation and land management discussion, incorporate the effects of growth and development in the basin, and protect historic and cultural resources. 3.) Prioritize watershed issues to incorporate diverse community values, incorporate desired ecosystem conditions based on historic and current considerations, and prioritize contamination concerns using water quality standards as preliminary objectives. Implement effective management strategies and practice adaptive management to bridge the gap between science and management, and to blend the objectives of the Clean Water Act and Safe Drinking Water Acts. 4.) Maintain and improve water quality and related resources to achieve of streams, and sustain or improve habitat for valuable renewable resources.

In August 1998, Lisa McVicker, an attorney and Board member of the Center of Colorado Water Conservancy District, prepared Articles of Incorporation for the Upper South Platte Watershed Protection Association to submit to the Secretary of State's Office. In September, Lisa prepared an application for determination of nonprofit, exempt status by the Internal Revenue Service, which the group received in October, 1998. Once the Association received determination from the IRS, it began applying for grants.

The first grant to the Association was a Regional Geographic Initiative Grant from the EPA for development of a DATA INVENTORY AND ASSESSMENT (DIA). The Association hired Brown and Caldwell again, this time to perform the inventory and assessment. The DIA was designed to: 1.) Identify

and document available data and responsible entities related to watershed land use activities, water quality, environmental quality, and Geographic Information System (GIS) information. 2.) Identify and rank existing and potential sources that can affect water quality and ecological health within the watershed. 3.) Assess water quality and stream health conditions in the watershed. 4.) Prioritize areas for potential protection or restoration activity and areas requiring further study.

The DIA was completed by reviewing existing studies and information, and by making contact with a variety of entities and agencies. Brown and Caldwell found that only one stream segment, Craig Creek in the Lost Park Wilderness, in the entire 2600-square-mile watershed is *not impaired*.

In late 1999, the Association applied for and received a Sustainable Development Challenge Grant from EPA. This grant provided funding to hire a coordinator and undertake a major watershed protection and monitoring planning process. A hiring committee advertised for the position in October 1999, and interviewed five applicants in November. Based on the committee's recommendation, the Association's Board approved a one-year contract with Carol Ekarius, effective January 1, 2000.

The Association completed its strategic plan in February of 2001. The plan identified the following overall goals: 1.) Create a water literate culture that understands where water comes from, what the water quality concerns are, and how water relates to the greater ecological good. 2.) Develop watershed education programs for students so they will go on to be water literate as adults. 3.) Act as a clearing house for information, and a trustworthy link between citizens, government entities, environmental organizations and others who wish to participate in a dialog about watershed issues. 4.) Provide expertise to other groups that need technical information (for example, BMP's, SWAP, etc.). 5.) Develop and implement restoration projects that will begin restoring the water quality and ecological health of the watershed. 6.) Coordinate monitoring and maintenance of data developed by the Association or other entities and organizations.

These goals would help address problems related to four contaminants of concern: 1.) Sediment-Both natural conditions and human activities contribute to sediment loadings. Natural conditions that contribute to this problem include the results of wildfire, steep terrain and geological characteristics. Sediment from human activities is primarily impacted by land use and development, transportation, and agriculture. 2.) Nutrients, in particular phosphorous-Phosphorous is a concern because the Colorado Water Quality Control Commission's Chatfield Reservoir Control Regulation places an annual allocation on the upper watershed. The allocation is flow adjusted, but base allocation is 17,930 pounds per year. Nitrogen compounds are also a concern because many of the watershed's residents utilize septic systems, and these systems are often old, usually un-maintained, and frequently located in close proximity to flowing streams. 3.) Metals/acid mine drainage-Traditionally a great deal of mining took place in the watershed. Several mines, such as the London Mine, are still licensed

and have NPDES permits. The Association is also aware of 84 abandoned mines within the watershed (though more may exist that are undocumented). 4.) Microorganisms-Though less of an issue than the others, coliform bacteria and other microorganisms may be a concern. These may come from natural sources (wildlife), livestock, septic systems, and/or wastewater treatment plants.

The plan identified dozens of strategies to work on that stakeholders supported as helping to reduce impacts from key areas, such as agriculture, fire, recreation, transportation, land use and development, or water system operations.

Between 2000 and 2002, the Association received several grants, such as a 319 Information and Outreach grant, which enabled it to develop a newsletter, sponsor environmental education efforts, and host a series of meetings for watershed stakeholders, and Rural Community Assistance Grant, which enabled it to help coordinate monitoring information sharing meetings. In 2001, the Association added Theresa Springer as a part-time environmental education coordinator to the staff.

On June 8th 2002, the Hayman Fire started southwest of Denver, near Lake George. It was contained on July 3rd, and during its 25-day reign, it burned a 137,000-acre area within the watershed. As the Hayman was burning, the USFS and other partners called on the Association to help deal with the aftermath of the fire. The Association had been considering a name change, and decided that this was time to make the change if it was ever going to be made. The Board approved the change of name, and taking an active role in Hayman Fire recovery at its August, 2002 meeting. The Upper South Platte Watershed Protection Association was rechristened as the Coalition for the Upper South Platte, or CUSP.

At the same time, the CUSP Board began working on another important change to our bylaws: We increased the potential size of our Board from 11 members up to a maximum of 23, and increased the diversity of Board members by establishing positions for state and local governmental officials, environmental and business community representatives, and for interested individuals.

CUSP grew quickly in the months following the fire, as it took over operations of the Hayman Recovery Assistance Center. By October of 2002, two more full-time employees were added to the payroll, and CUSP opened an office on Highway 24 in Lake George. CUSP staff and partners helped coordinate 23,000 volunteer hours on fire recovery between August, 2002, and November, 2002, when weather shot down recovery operations for the winter. Staff also answered thousands of phone calls from fire victims, bureaucrats, academics, the media, donors, and volunteers seeking information after the fire, as well as coordinating distribution of supplies and donations for victims. CUSP continued its fire related efforts throughout 2003, with funds from a National Forest Foundation (NFF) grant, a Rural Community Assistance Grant (RCAG), and donations from various sources. Although the RCAG grant was to be used exclusively for fire rehab, the NFF grant also provided funds for green forest restoration, and organizational capacity building. This grant allowed CUSP to

hire several more positions in 2003, including Aimee Rathburn, as Development Director.

In late 2003, CUSP was chosen as one of 20 watershed groups nationwide (of 176 applications submitted to EPA Headquarters by governors and tribal leaders) to receive a \$600,000 grant under EPA's Targeted Watershed Initiative Grant. This was a three year grant that included funds for continuing fire rehab, as well as to undertake a variety of projects outlined in the Strategic Plan that was completed in 2001 such as river restoration, trail restoration, and environmental education. During 2003, CUSP received tremendous recognition for its work, including numerous awards, like the National Fire Plan Award for Excellence in Rehabilitation, and a NFF Partners in Stewardship Award. The Toyota Corporation donated a new Tundra pickup truck to CUSP.

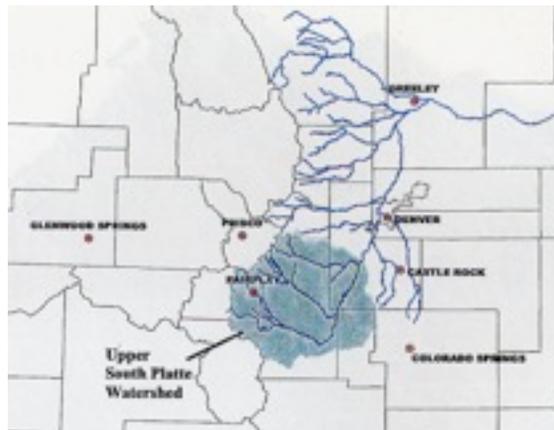
Today, CUSP has grown to a staff of ten (including part-time and seasonal employees). We purchased a home and garage in Lake George to provide an office complex. We operate a slash-mulch program with a chipper purchased with funds from a CSFS grant. We are actively working on forest health, fire rehabilitation, river restoration, and other objectives.

Our development efforts are beginning to pay off with increases in general memberships, and more grants coming from non-governmental sources. Our work has been recognized with a number of awards, and we are recognized as a model for successful watershed groups.

Since inception CUSP has coordinated thousands of volunteers, totaling over 65,000 volunteer hours. The Neighborhood Fuels Reduction program has treated over 1,500 acres since fall of 2003. CUSP has planted or provided for planting over 50,000 trees and shrubs. CUSP has helped to restore fire impacted lands, totaling over 2000 acres of restoration, which includes tree plantings, check dam installation, raking, seeding and mulching, trail restoration and riparian enhancements. Through the unique Trees for Trout Program CUSP and partners have treated over 15 miles of stream and provide over 500 trees for restoration projects around the watershed. The watershed education program has reached over 5,000 students of all ages and has been incorporated into several Denver area and within the watershed schools. We have helped to create the Teller County Community Wildfire Protection Plan and are currently drafting Park County's plan. The Noxious Weed Cost-Share program has helped land owners treat invasive species on over 500 acres, and we have provided over XXX dollars for restoration and conservation efforts within the watershed.

Watershed Description

The Upper South Platte Watershed is located southwest of the Metro Denver region in Colorado and covers approximately 2,600 square miles (Hydrologic unit 10190001 and most of unit 10190002). It represents approximately 26% of the entire South Platte Watershed within Colorado. Over 75% of Colorado's residents count wholly or in part on water that comes from this watershed (either native or transmountain diversion waters) for drinking, industrial, and agricultural use. The watershed begins at Strontia Springs Reservoir and reaches the Continental Divide. It varies in elevation from about 6,000 feet to over 14,000 feet above sea level. There are five major municipal reservoirs within the watershed and several smaller reservoirs.



Residential Land uses are primarily rural residential; the communities of Fairplay, Bailey and Woodland Park are the largest urban areas within the watershed.

Land ownership within the watershed is mostly public. The USDA Forest Service is the largest landowner within the basin, owning approximately 50 percent of the land.

The Forest Service manages the Pike National Forest which covers roughly a 1,400 square-mile area of the watershed. National Forest lands are managed in accordance with the Land and Resource Management Plan for the Pike and San Isabel National Forests, Comanche and Cimarron National



Grasslands, approved in November 1985, and which is currently under revision. The second largest public landowner is the State of Colorado, managing approximately 155 square-miles. The Bureau of Land Management (BLM) operates 98 square-miles. Other significant public land owners include the

National Park Service (NPS), Denver Water, and the City of Aurora. Private landholdings make up the remainder of land ownership within the basin.

The majority of the watershed is sparsely populated with several small towns located near historic mining, recreation, and agricultural areas. There are approximately 25,000 platted, vacant building sites in Park County. Bailey, Alma, Woodland Park, Fairplay, and three sanitation districts operate wastewater facilities. The remainder of homes are on septic systems. Commercial lands are primarily located adjacent to major transportation arteries. There are increasing commercial areas in the basin, mostly confined to the towns of Fairplay, Woodland Park, Aspen Park, and Bailey.

In the eastern portion of the watershed, agricultural land consists primarily of riparian and mountain grasslands situated on private lands along the rivers. These areas are used primarily for livestock grazing and a minor amount of hay production. The USFS has 25 grazing permits for approximately 3,000 head of cattle on over 1 million acres. Grazing primarily occurs during a four month period from mid-June through the beginning of November. According to the Colorado Department of Agriculture, Park County has 132 ranches with approximately 13,000 head of cattle. Small scale livestock husbandry of private properties less than 35 acres has steadily increased over the past five years.



The Forest Service manages timber harvest lands within the Pike National Forest. Logging in the eastern part of the watershed peaked around 1880, with nearly all of the forest from Elevenmile to Strontia Springs Reservoir having been forested at one time. However, in the past 50 years there have been no large commercial timber sales. Harvesting at this time is limited to cutting dead and/or down timber for firewood, several Stewardship contracts, and small scale salvage logging operations. Minor timber sales have occurred on several private lands within the watershed to minimize accumulation of forest fuels.

Mining played an important part in the history of the basin and occurred throughout the entire basin. Numerous mining operations in the watershed have been worked and later abandoned. Mining has included the extraction of silver, lode and placer gold, aggregate/sand, coal, gemstones, and peat. Heavy mining has occurred in three major locations in the Upper South Platte Watershed. First, the Mosquito and South Mosquito Creek subbasins of the Middle Fork have had heavy mining in the past. The London Mine is one of the major mines in this area. Placer mining has occurred farther downstream near Fairplay. Mining was also prevalent in the upper reaches of the North Fork, especially in the Geneva

Creek, Handcart Gulch, and Hall Valley areas. Current Mining operations are primarily for sand/gravel, with small scale mining for gemstones, gold, silver, on the rise.█

Wildlife areas within the watershed located in the Pike National Forest include elk calving areas, elk winter ranges, deer winter ranges, critical elk and deer winter ranges, bighorn sheep areas, bighorn sheep lambing areas, and turkey winter ranges. The DOW has developed overview maps for approximately 107 sensitive vertebrate species in Park County.

Under Colorado's "Unified Assessment" the watershed is considered a high priority watershed in need of restoration. It is currently targeted under Colorado's Total Maximum Daily Loads (TMDL) process, with the first TMDL just completed for metals in Mosquito Creek (segments COSPUS02B & 2C). Other segments targeted for future TMDLs are the main stem of the South Platte from Eleven Mile to Cheesman (COSPUS01A) and Tarryall to the North Fork of the South Platte, including Trout and West Creeks and tributaries (segment COSPUS03) for sediment; the North Fork in Hall Valley and Geneva Creek areas (COSPUS04); and Geneva Creek (COSPUS05B) for metals. Numerous segments are also listed on the State's Monitoring and Evaluation list for further study. (Additional maps in appendices)

Potential Contaminants

A literature and data survey was conducted by Brown and Caldwell to identify existing and potential contaminants and potential sources of contamination to surface and groundwater. Sources of contaminants and specific constituents of concern, listed below, can alter aesthetic acceptability of the water or pose a threat to human health, aquatic life, and habitat. Contaminate sources are generally from either point or nonpoint sources.

1. **Sediment**—Both natural conditions and human activities contribute to sediment loads. Natural conditions that contribute to this problem include the results of wildfire, steep terrain, and geological characteristics. Sediment from human activities is impacted by:

- Land use and development
- Transportation
- Agriculture
- Recreation

2. **Nutrients, in particular phosphorous**—Phosphorous is a concern because the Colorado Water Quality Control Commission's Chatfield Reservoir Control Regulation places an annual allocation on the upper watershed. The allocation is flow adjusted, but base allocation is 17,930 pounds per year. Nitrogen compounds are also a concern because many of the watershed's residents utilize septic systems, and these systems are often old, usually not maintained, and frequently located in close proximity to flowing streams.

3. **Metals/acid mine drainage**—Traditionally, a great deal of mining took place in the watershed. Several mines, such as the London Mine, are still licensed and

have NPDES permits. The Coalition is also aware of 84 abandoned mines within the watershed (though more may exist that are undocumented).

4. Microorganisms—Though less of an issue than the others, coliform bacteria and other microorganisms may be of concern. These may come from natural sources (wildlife), livestock, septic systems, and/or wastewater treatment plants.

Strategies for the Future

In 2004 CUSP contracted with Conservation Impact (CI) to conduct an organizational assessment. The purpose of the assessment was to help CUSP with future sustainability and effectiveness. To complete the assessment CI used a management audit framework that interviewed all board, staff, partners, volunteers, and Hayman fire victims. The group investigated internal, external and market forces most likely to affect CUSP at present and into the future. CI also began the process of unifying the board through strategic planning sessions in late 2004. In this section the Board of Directors, CUSP staff, and watershed stakeholders first, identified values, then the group identified major internal and external driving forces that would/may have a direct impact on CUSP's ability to achieve our organizational objectives, and finally, based upon CUSP's mission, provides strategic imperatives that help to guide the organizations future activities.

Organizational Values

Protection of ecological health and water quality. We believe that ecological health and water quality are essential to society and we are dedicated to their protection and enhancement. We must ensure the sustainability of the natural resources within the watershed. We strive to maintain options for future generations.

The power of coalition. We believe in bringing together many interests.

Community. We respect the values of the people who we are dealing with (wordsmith). We recognize the unique values of different communities and interest groups. We believe in grassroots action.

Voluntary action. We believe in a voluntary, non-regulatory, non-mandated approach

Economic sustainability. We recognize the economic needs of the local communities and the dependence upon the natural resources and will support local businesses in our purchasing to the extent practical.

People are our most important resource. The Board of Directors, staff, and stakeholders are the most valuable asset the organization.

Driving Forces

Driving Forces are those that pull or push CUSP. These forces can at times be beneficial and at other times detrimental to the organization's ability to follow its mission.

- **Social**--Rapid growth in residential development, bigger recreational demand, have a volunteer cadre that wants to stay engaged, aftermath of the Hayman Fire (people recognize Hayman)
- **Technological**--Biomass technology, carbon sequestration tech, Impacts
- **Economic**--Availability of project funds; need for matching funds, future federal funds for projects, fire and flood insurance costs and availability, state of the economy and its effects on fundraising, stewardship and state of agricultural industry.
- **Ecological**--Aftermath of the Hayman Fire, continuing drought and its effects on forest health, watershed condition in non-burned areas, invasive species
- **Political**--Regulatory environment e.g. phosphorus loads downstream, regulations about project permitting, local political forces looking for guidance and information-we're on their screen.
- **Sustainability**— fluctuations within staffing
- **Market Forces**--CUSP fills a niche nobody else does (personnel on the ground), and came at the right time, federal agencies are increasing fuels management treatments, which may increase interest in private property owners doing treatments, downstream residential development and water demands-will probably increase in future water projects.

Strategic Imperatives

These are the overarching strategies and methods that will direct our work in coming years.

1. Identify problem areas of degraded water quality or ecological health and strategic targets for on-the-ground projects.
2. Identify actions to protect and restore water quality and ecological health that can be implemented with local stakeholders. Improve forest health across the watershed.
3. Facilitate or perform successful on-the-ground projects.
4. Coordinate monitoring and maintenance of data developed a one by CUSP or other entities and organizations.
5. Educate and engage residents, upstream and downstream stakeholders.
6. Ensure the viability of the organization.

Five Year Goals and Objectives

While much has changed within the watershed the following goals should act as a solid foundation for which to identify, rank, and implement future watershed projects. In 1998 CUSP Board of Directors agreed upon the following goals:

- 1.) Protect water quality in the Upper South Platte River and its tributaries to support beneficial uses, which could include drinking water supply and

cold-water fisheries.

2.) Sustain the productivity and diversity of the ecological systems within the watershed.

3.) Address water quality impacts related to water quantity management.

4.) Manage nonpoint pollutant sources including grazing, forestry, transportation corridors, mining, erosion, and septic systems.

5.) Minimize impacts of disastrous events, such as the Buffalo Creek Fire.

In addition to the goals listed above, in 2004 CUSP Board of Directors agreed upon the following goals:

6.) Effect a measurable improvement in ecosystem health against available baseline conditions in targeted areas

7.) Improve forest and watershed health through fire rehabilitation of moderately and severely burned areas, fuel reduction, flood mitigation, and trail and stream rehabilitation

8.) Educate and engage residents, upstream and downstream stakeholders creating a more water literate culture.

9.) Generate adequate levels of funds through budgetary and fundraising plans and activities to carry out programs and meet expenses while working toward a permanent funding base.

The list of objectives the group agreed on to attain these goals included:

1.) Develop a Coordinated Watershed Management Program to coordinate planning and development, optimize data collection, involve the public in planning, and give first priority in planning to cooperative projects among members.

2.) Understand the watershed by identifying current and future contamination trends that jeopardize water quality, use the best scientific information for resource allocation and land management discussion, incorporate the effects of growth and development in the basin, and protect historic and cultural resources.

3.) Prioritize watershed issues to incorporate diverse community values, incorporate desired ecosystem conditions based on historic and current considerations, and prioritize contamination concerns using water quality standards as preliminary objectives. Implement effective management strategies and practice adaptive management to bridge the gap between science and management, and to blend the objectives of the Clean Water Act and Safe Drinking Water Acts.

4.) Maintain and improve water quality and related resources to achieve of streams, and sustain or improve habitat for valuable

Five Year Watershed Work Plan

Based upon CUSP's 2001 Strategic Plan the current five year work plan will continue to address High Priority Issues as identified in the 2001 plan .

These issues are:

High Priority:

Agriculture
Wildfire
Land Use and Development
Mining
Recreation
Transportation
Water Rights
Water Systems Operations
Invasive Species

Low Priority:

Natural Pollution Sources
Solid and hazardous Waste
Spills/Illegal Dumping
Stormwater Runoff
Underground Storage Tanks
Wastewater Treatment Plants / Septic Systems
Small Scale Mining Operations

In 2005 CUSP staff and Board of Directors were asked to interview stakeholders, speak with partner agencies, and create a list of possible projects that would further CUSP's mission to "protect water quality and ecological health of the Upper South Platte Watershed, through the cooperative efforts of watershed stakeholders, with emphasis placed on community values and economic sustainability." This portion of the plan identifies goals, strategies and objectives to address High Priority Issues.

High Priority Issue: Agriculture

There are two distinct audiences for agriculture: the larger-scale ranchers, and the small-scale “ranchettes”. Both of these types of agriculture contribute to sediment loading within the watershed. To a lesser extent, agriculture brings up concerns relating to fertilizers, herbicides and pesticides. At the same time, the Coalition supports ranching as a way to protect large tracts of land.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Educational program for both commercial agriculture and ranchette interests. 	<ul style="list-style-type: none"> • Ranch tours/grazing net-work. Work with Extension Service in hosting educational meetings for ranchette owners. 	<ul style="list-style-type: none"> • Host at least one ranch tour per year at ranches that are practicing managed grazing/ holistic management.
<ul style="list-style-type: none"> • Work with ranch community to develop sustainable practices planning and implementation, including developing exclusionary fencing for riparian areas and Range management Plans for managed grazing. 	<ul style="list-style-type: none"> • Work with ag groups to prepare newsletters for the ag community that discusses holistic management, conservation easements, etc. • Work with USFS and others to help ranchers create Range Management Plans. 	<ul style="list-style-type: none"> • Have at least two “demo” fencing projects (within 2 yrs) and a program in place so other ranchers can become involved. • Create “demo” hardened watering site (2 yrs). • Have at least three demo willow plantings. (within 2 yrs).
<ul style="list-style-type: none"> • Restoration in ag areas. 	<ul style="list-style-type: none"> • Identify areas impacting watershed and work to restore areas. 	<ul style="list-style-type: none"> • Repair Link ditch to minimize impacts on adjacent CDOW wetland (within 2 yrs). • Fence USFS identified Rishaberger Wetland (within 1 yr).
<ul style="list-style-type: none"> • Support conservation easements for ag lands. 	<ul style="list-style-type: none"> • Work with various interests on conservation easement education and development. 	<ul style="list-style-type: none"> • Provide conservation easement information to property owners (within 1 yr). • Have one article in the <i>Watershed Watch</i> regarding Cons. Easements (within 1 yr)
<ul style="list-style-type: none"> • Provide information exchange with regards to funding, sustainable practices, and other activities. 	<ul style="list-style-type: none"> • Identify funding sources for the ag community, like EQUIP, and provide technical support in obtaining funds for restoration and fencing. 	<ul style="list-style-type: none"> • Develop and distribute a funding info packet for ranchers. • Publish, within each <i>Watershed Watch</i>, a specific segment for the ag community (within 1 yr).

High Priority Issue: Fire

Lower Montane forests are at the highest risk to intense and catastrophic wildfire events. The FRFTPR estimates that on the Front Range of Colorado there are currently 1.5 million acres at high risk to catastrophic fire. Of that figure, 190,524 acres fall within Douglas, Clear Creek, Jefferson, Teller, and Park Counties. The Coalition is actively working with our members, through the Upper South Platte Restoration Project, the Teller County Community Wildfire Assistance Center, the Front Range Fuels Treatment Partnership Roundtable, Pikes Peak Wildfire Prevention Partners, Community Wildfire Protection Plan steering committees, South Park Forestry Association, volunteer fire departments and others to create realistic goals and timelines for fuels reduction and restoration projects.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Reduce risk of large catastrophic fire. • Reduce the risks to human life and property. • Protect water quality and ecological health. • Create a sustainable forest. 	<ul style="list-style-type: none"> • Continue Fuels Reduction Initiative. 	<ul style="list-style-type: none"> • Create watershed wide CWPP (within 2 yrs). • Complete Park County CWPP (within 1 yr). • Mitigate fire hazard on 500 acres per year. • Attend FRFTPR meetings. • Hold at least one <i>BeAware & Prepare</i> wildfire fair (within 1 year). • Provide assistance to South Park Forestry Association (within 2 yrs). • Continue forest health education.
<ul style="list-style-type: none"> • Integrate research, monitoring and management. 	<ul style="list-style-type: none"> • Use best available data to make management and treatment decisions. 	<ul style="list-style-type: none"> • Host one conference within watershed to better disperse findings to broad audience (within 2 yrs). • Collaborate with stakeholders (ongoing). • Create annual project maps and reports to better identify needs (within 1 yr). • Publish specific segment for forest community in each newsletter (within 1yr).
<ul style="list-style-type: none"> • Create forest information network and collaborative projects with stakeholders regarding Stewardship contracts, forest worker coops, BMPs, SDT utilization, markets, trainings, etc... 	<ul style="list-style-type: none"> • Partner with SPFA to create a forest worker group that will ensure local forest workers utilize a holistic approach, BMPs, etc. • Partner with stakeholders. • Create markets for SDT. 	<ul style="list-style-type: none"> • Seek at least one grant or other major funding source designed to help create markets for SDT (within 2 yrs). • Partner with USFS Forest Products Lab to increase possibility of biogasification unit.

Fire Continued

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Create county and watershed wide CWPPs. 	<ul style="list-style-type: none"> • Partnering with stakeholders. • Finish Park County's CWPP. • Update Teller County's CWPP. • Create a watershed wide CWPP with ecological and water resources as values of importance. 	<ul style="list-style-type: none"> • Finish Park County CWPP (within 1 yr). • Update Teller County's CWPP; begin implementing on private land (within 2 yrs). • Create watershed wide CWPP (within 3 yrs).
<ul style="list-style-type: none"> • Be active participants in forest health discussions. 	<ul style="list-style-type: none"> • Keep up-to-date on all developments, ensuring quick and ecologically suitable actions are taken. 	<ul style="list-style-type: none"> • CUSP staff will attend PPWPP, SPFA, FRFTPR, and other forest health associated meetings (ongoing).
<ul style="list-style-type: none"> • Work with stakeholders to expand funding, increasing area of treatment. 	<ul style="list-style-type: none"> • Seek additional funding for forest work in coordination with priorities identified by stakeholders. 	<ul style="list-style-type: none"> • Seek at least one grant or other major funding source in the next three years designed to treat high priority areas.
<ul style="list-style-type: none"> • Work with local fire districts to educate public about defensible space. • Continue to provide CUSP staff assistance for TCCWAC 	<ul style="list-style-type: none"> • Partner with stakeholders to distribute FireWise, D-space materials, etc. 	<ul style="list-style-type: none"> • Distribute over 18,000 pieces of information to area residents (within 2 yrs). • Provide CUSP staff to present at 10 Home Owners Association meetings, or other similar events (within 2 yrs). • Provide CUSP part-time employee for TCCWAC.
<ul style="list-style-type: none"> • Educate students/adults about forest health and fire ecology. 	<ul style="list-style-type: none"> • Create curriculum about the watershed and water cycle. • Provide supplemental programs within state standard guidelines. • Utilize field trips, guest speakers, and hands-on programs to teach students/adults. 	<ul style="list-style-type: none"> • Continue ongoing forest health programs for students, including field trips to burn areas and restoration areas. • Hold at least one <i>BeAware & Prepare</i> wildfire fair (within 1 yr).

High Priority Issue: Land Use and Development

High growth will continue to create problems, and local governments may not always have the best information for addressing water and ecological issues within their regulations (Douglas County has seen a 191% change in population since 1990). CUSP supports good land use regulations and will work with local governments to address growth-related problems.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Land use planning that protects watersheds through use of setbacks, Best Management Practice (BMP) techniques for construction, etc. 	<ul style="list-style-type: none"> • Research BMPs, model ordinances, etc, and provide information on these topics to all local governments within watershed. 	<ul style="list-style-type: none"> • Provide conservation easement information to property owners (within 1 yr). • Have one article in the <i>Watershed Watch</i> regarding Cons. Easements (within 1 yr). • Develop and distribute info packet to local governments (within 2 yrs).
<ul style="list-style-type: none"> • Create dialog with public lands managers/elected officials about requiring conservation easements on public lands transferred to private hands. 	<ul style="list-style-type: none"> • Attend meetings with elected officials and/or public land managers to discuss the use of conservation easements on transfers. • Participate in public process for land transfers. 	<ul style="list-style-type: none"> • Complete research on BMPs and model ordinances (within 1 yr).
<ul style="list-style-type: none"> • Partner with stakeholders to identify possible lands for protection or preservation 	<ul style="list-style-type: none"> • Prioritize projects on private lands based on willingness to enter into easement agreements. 	<ul style="list-style-type: none"> • Attend meetings with stakeholders to discuss future land management/forest management plans.

High Priority Issue: Mining

Our watershed is impacted by 84 identified abandoned mines as well as some mines that are still permitted. Ongoing small-scale mineral extraction could become a larger problem in the future.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Work with Mosquito Range Heritage Initiative committee to identify abandoned mines that have potential to impact aquatic life/human health/ecological health. • Develop restoration plans for mines that have potential impacts on aquatic life/human health. 	<ul style="list-style-type: none"> • Participate in the Army Corp of Engineers Restoration of Abandoned Mines Program. • Encourage work by the Colorado Office of Abandoned Mines to perform restoration on mines in the watershed. 	<ul style="list-style-type: none"> • Invite stakeholders and mine reclamation experts to meetings (within 2 yrs). • Partner with MRHI to prioritize mine reclamation activities. • Partner with Colorado Division of Minerals and Geology, NPS Forum to obtain funding (within 2 yrs).
<ul style="list-style-type: none"> • Educate small scale miners of reclamation techniques and BMPs. 	<ul style="list-style-type: none"> • Work with USFS to identify areas of high mineral extraction. 	<ul style="list-style-type: none"> • Have one article in the <i>Watershed Watch</i> regarding mine reclamation, laws, etc. (within 2 yrs). • Partner with USFS to create signage.

High Priority Issue: Recreation

The watershed is an intensively used recreation area. The impacts from recreation are growing as Colorado's population grows. The USFS and BLM manage almost 70% of the land area within the watershed. Over 3-million visitors per year come to the watershed to take advantage of recreational opportunities. CDOW estimates that the South Platte Watershed hosts 25% of all angler days in Colorado.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Trails—The watershed is a major recreational area. Trails require good design and adequate maintenance once constructed. Recreational uses should be compatible with the geology and landscape of the area in use. Several sections of trail have been identified to date as in need of restoration: Three Mile Creek Trail and Ben Tyler Gulch trail: Three Mile Creek trail runs along the river for about a mile, and has severe erosion taking place. Ben Tyler Gulch trail has severe gullies (up to two feet) which carry water from several seeps and springs. Rampart Range OHV trails are adversely impacted due to close proximity to large populations of users. Gill Trail, which provides entry into Cheesman Canyon, is also in need of rerouting and maintenance. Complete building of Burning Bear Creek Trail. • Campgrounds—There are dozens of publicly owned campgrounds within the watershed. These facilities need adequate redesign and maintained sewage facilities. • Fisheries—Continue partnering with CDOW to increase over-wintering, spawning, and diverse habitat for native fish populations. 	<ul style="list-style-type: none"> • Work with our partners to obtain funds for trail projects. Work with land owning partners (USFS, BLM, STLB, DWD, CSParks...) to develop a complete trail assessment which identifies and prioritizes all trails within the watershed for repairs & maintenance. • Repair Three Mile, Burning Bear Creek, Gill Trail, Rampart Range OHV system, 717 and Ben Tyler Gulch Trails • Campground assessment—Work with our partners to assess their campground facilities. Work with USFS staff to identify partners and priorities within the recreation area. • Work with partners to identify next stream priority segments considering water quality, ecological resources and visitor experience. 	<ul style="list-style-type: none"> • Raise 15,000 per year for general trail maintenance and repairs (within 4 yrs). • Trail assessment complete (within 5 yrs). • Finish Burning Bear (within 2 yrs). • Repair Ben Tyler Gulch or Three Mile Trail (within 4 yrs). • Campground assessment complete (within 3 yrs). • Outreach to recreational groups through newsletter, pamphlets, etc... • Partner with USFS, SPEB... to complete Happy Meadows restoration and recreation enhancement project (within 5 yrs).
<ul style="list-style-type: none"> • Educate recreational user groups. 	<ul style="list-style-type: none"> • Work with off highway user groups, "Stay the Trail" program, etc... 	<ul style="list-style-type: none"> • Have one article in the <i>Watershed Watch</i> regarding recreation, etc (within 2 yrs).
<ul style="list-style-type: none"> • Continue to identify / restore high priority recreational impacts with stakeholders. 	<ul style="list-style-type: none"> • Partner with USFS, CSFS, DWD, CTU, etc... 	<ul style="list-style-type: none"> • Work with USFS South Platte RD on OHV trails, also PPRD with 717 trails and Gill Trail.

High Priority Issue: Transportation

Erosion from poorly constructed and poorly maintained roads and driveways is a major cause of sediment loading within the watershed. Eleven Mile Canyon, Sugar Creek, Happy Meadows, and several others have been identified as major contributors of sediment to adjacent stream/creek segments.

Goals	Strategies	Objectives
<ul style="list-style-type: none">• Education program for road maintenance personnel, contractors, etc. on BMPs for road construction and maintenance.• Restoration on worst offending roads.	<ul style="list-style-type: none">• Make BMP's information available to the public, road crews, contractors.• Identify list of worst offending roads and work with Colorado Department of Transportation to acquire funding for restoration of these.	<ul style="list-style-type: none">• Demonstration project on proper road BMPs, in partnership with Colorado NPS on identified road corridor (within 3 yrs).• Collect and distribute BMP information (within 3 yrs).• Update list of worst offending roads (ongoing).• Use list to seek funding through highway funding pools for restoration.

High Priority Issue: Water Rights

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Identify water rights issues that CUSP can do something about, ie. water rights interfering with ranchers abilities to fence out riparian areas. • Create a dialog about water rights issues and their connection to ecological health. • Educate public about Colorado water law. 	<ul style="list-style-type: none"> • Work with partners and general public to identify the full gamut of water rights issues through a series of public meetings, press releases, etc. • Literature review for how water issues are being handled in other states. • Use our newsletter to create dialog and educate public. • Attend meetings of state level elected officials , Colorado Water Congress, etc. 	<ul style="list-style-type: none"> • Have staff member participate in water advisory committees. • Perform literature review (within 3 yrs). • Provide flumes @ every restoration project where private owner has a water right (ongoing). • Have one article in the <i>Watershed Watch</i> regarding water rights, etc. (within 2 yrs).

High Priority Issue: Water System Operations

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Manage flows for multiple uses. • Determine impacts of transmountain diversions. • Restore stream-banks in areas where bank integrity has been compromised by water system operations. • Minimize the impacts of transfers that do occur from agriculture to municipal use. • Partner with Water providers, CDOW, Nat'l Fish & Wildlife Foundation, etc... to ensure water delivery is inline with habitat, and restoration projects. 	<ul style="list-style-type: none"> • Literature review on water system operations for multiple use. • Work with our partners to develop flow management plans for multiple use if plans don't currently exist or do not adequately address multiple use. • Establish a demonstration site where flows have been operated to protect multiple uses—The area between Spinney and Eleven Mile is highly visible and has been managed to protect fish & wildlife, recreation, etc. This would be a good site for interpretive programs, signage, etc. • Work with various parties to assure good revegetation when ag water transferred. 	<ul style="list-style-type: none"> • Complete literature review (within 2 yrs). • Ensure all partners are aware of ongoing restoration projects.

High Priority Issue: Invasive Species

Noxious weeds are reducing the vitality of natural ground covers, and are often dealt with through the use of herbicides. New Zealand Mud Snails have been found in the South Platte at Eleven Mile Canyon. This invasive species can impact fisheries.

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Establish revegetation standards and define “weed”, “native”, and “wildflower” within the standard. • Compile, create, GIS based data mapping for invasive species, to better identify, control species of concern. • Continue invasive species education. • Work to educate fisherman, recreational users within eleven mile to reduce risks of spreading the mud snails. 	<ul style="list-style-type: none"> • Facilitate watershed approach to weeds. • Create “model” standard for revegetation with native plants, and encourage local adoption. • Continue to build a weed page on CUSP website, with links to information and pictures about weeds. 	<ul style="list-style-type: none"> • Seek funding to bring all “weed” interests to the same table to work on integrated pest management. • Seek funding to help property owners deal with invasive (cost share grants) • Work to create “Front Range Weed Management” working group. • Update invasive species info to identify priorities. • Partner with CDOW to better understand mud snails and update information presented to user groups (within 1 yr). • Create watershed wide maps of weed infestations, treatment areas (within 3 yrs).

Watershed Protection, Conservation, Non-Point Source Reduction and Monitoring (these tasks could be added into the High and Low Priority categories addressed above) .

Tasks	Strategies	Activities / Targets
<ul style="list-style-type: none"> • Protection and preservation of watershed lands 	<ul style="list-style-type: none"> • A “Watershed Warrior” award would highlight land owners work to preserve and protect. • Educational programs would aim to highlight how important unimpaired areas are. • Partner with South Park Wetlands Focus Committee, Upper South Platte Restoration Project. 	<ul style="list-style-type: none"> • Create watershed award. • Provide “Watershed Warrior” awards to those whom “go above and beyond.” (within 2yrs) • Identify others who have helped to protect, restore the Upper South Platte Watershed. (ongoing) • Continue watershed education efforts that focus on wetlands and upland impacts
<ul style="list-style-type: none"> • Protect riparian/wetland areas—The watershed is known for some extremely valuable wetlands (fens), and healthy riparian areas are critical to watershed health. 	<ul style="list-style-type: none"> • Fencing—work with ranchers/ land managers to fence riparian and/or wetland habitats to control grazing. • Water for live-stock—work to create hardened / off site watering facilities • Tree planting—Work with ranchers to do clump planting in riparian areas. • OHV Trails--- work with OHV groups and land managers to create sustainable, low impact trails. 	<ul style="list-style-type: none"> • Develop a funding pool to assist landowners with riparian fencing. • Have at least one fencing project completed • Create “demo” hardened watering site (within 2 yrs). • Have at least three demo willow plantings. (within 2 yrs). • Close five miles of riparian/ wetland detrimental trails (within 2 yrs).
<ul style="list-style-type: none"> • Protect/Restore degraded waterways--- Currently there are several segments of river identified on the 2006 303(d) list. These include; SPR from Eleven Mile to Cheesman • Mosquito Creek segments, Trout Creek, MSNF, Geneva Creek. 	<ul style="list-style-type: none"> • Continue Trees for Trout project, riparian work. Partner with USFS, CTU, CDOW, COL, BVCF, SPEB and others. 	<ul style="list-style-type: none"> • Provide trees to watershed river projects (ongoing). • Restore five+ miles of river (within 5 yrs). • Work on identified segments in need of restoration and prioritize work to occur (within 1 yr).

Conservation

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Conservation easements— Easements are an excellent way to protect the watershed, and the Association will collaborate and support the efforts of groups working to acquire easements. 	<ul style="list-style-type: none"> • Facilitate the work of the groups working on conservation easements (COL). • Provide information and contacts to local land owners. • Prioritize projects based upon willingness of property owners to have Cons. Easements on their property. 	<ul style="list-style-type: none"> • Provide conservation easement information to property owners (within 1 yr). • Have one article in the <i>Watershed Watch</i> regarding Cons. Easements (within 1 yr).
<ul style="list-style-type: none"> • Ground Cover/Forest Health — • Adequate cover (grasses, legumes, forbs, brush, and trees) protects the land from erosion. 	<ul style="list-style-type: none"> • Work with partners to identify gaps in habitat and species diversity. • Plant identified species. • Rehabilitate wildfire impacted lands, restore green forest, • Create CWPP for Counties and watershed. • Work with FRFTPR to identify BMPs and prioritize projects. • Partner with CSFS, USFS, SPFA, etc... • Coordinate TCCWAC efforts. • Continue fuels project. • Continue forest health education. 	<ul style="list-style-type: none"> • Hold at least 10 volunteer events to rehabilitate disturbed land (within 2 yrs). • Plant at least 25,000 trees and shrubs (within 2 yrs) • Create water-shed wide CWPP (within 2 yrs). • Complete Park County CWPP (within 1 yr). • Mitigate fire hazard on 500 acres per year. • Attend FRFTPR meetings. • Hold at least one <i>BeAware & Prepare</i> wildfire fair (within 1 yr). • Provide assistance to South Park Forestry Association (within 2 yrs).
<ul style="list-style-type: none"> • Water Conservation 	<ul style="list-style-type: none"> • Create xeriscape demonstration garden, enact water consumption log for CUSP facility, and provide educational materials for public and school children, install water meter at CUSP facility. • Continue watershed education programs. 	<ul style="list-style-type: none"> • Create xeric garden at CUSP facility (within 3 yrs). • Have water conservation article in newsletters (within 1 yr). • Install low flow water devices (within 3 yrs). • Install water meter (within 1 yr). • Distribute water conservation material (ongoing).
<ul style="list-style-type: none"> • Educate school children 	<ul style="list-style-type: none"> • Create curriculum about the watershed and water cycle. • Provide supplemental programs within state standard guidelines. • Utilize field trips, guest speakers, and hands-on programs to teach school age students. 	<ul style="list-style-type: none"> • Provide supplemental education program to fifteen+ schools/groups (within 3 yrs). • Host fifteen+ field trips with schools/groups (within 3 yrs). • Update curriculum annually.
<ul style="list-style-type: none"> • Educate general public 	<ul style="list-style-type: none"> • Prioritize target audience. • Create program specific education outreach programs. 	<ul style="list-style-type: none"> • Publish newsletter quarterly. • Maintain and build web page (within 2 yrs).
<ul style="list-style-type: none"> • Renewable Energy Sources 	<ul style="list-style-type: none"> • Continue to create energy markets for forest fuel. • Continue to pursue carbon sequestration project. • Incorporate renewable energy sources into CUSP facility and operations. 	<ul style="list-style-type: none"> • Work to increase renewable energy possibilities in the watershed.

Non-point Source

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Work from the head waters downstream to the extent that it is practicable, or on stream segments that are currently slated for TMDLs, or that are on the State’s monitoring and evaluation list. • Foster partnerships that make improvements through restoration work on both private and public lands along impaired stream segments. • Develop an “Adopt-a-stream” program. 	<ul style="list-style-type: none"> • Prioritize work based upon need and restoration objectives. Sheep Creek and Spring Creek were initially identified as areas to target first and still will be considered priorities; however other segments on the 2006 303(d) list will also be prioritized. • Partner with CTU to create Adopt-a-stream program to accomplish restoration, plantings, monitoring, clean-ups, etc... 	<ul style="list-style-type: none"> • Develop specific restoration plans for segments without (within 2 yrs). • Continue five+ miles of river (within 3 yrs). • Identify river, stream segments in need of restoration and prioritize work to occur (within 1 yr). • Partner with SPEB, USFS, CTU and others to restore MSSP @ Happy Meadows. • Create an adopt-a-stream program for Eleven mile Canyon (within 2 yrs). • Get a segment of Tarryall Creek adopted (within 3 yrs).
<ul style="list-style-type: none"> • Improve vegetative cover in areas that have been damaged by grazing, off-road vehicles, or other impacts. 	<ul style="list-style-type: none"> • Work with private and/or public landowners to seed areas that have disturbed vegetation. Where grazing is still occurring, and adversely impacting ecosystem, work with livestock owners to fence sensitive areas or provide other feed sources. 	<ul style="list-style-type: none"> • Support USFS /CSFS tree planting projects by providing financial assistance and technical support (ongoing). • Close five miles of riparian/ wetland detrimental trails on the RRMRA (within 2 yrs). • Seed at least 1000 acres (within 3 yrs).

Monitoring

Goals	Strategies	Objectives
<ul style="list-style-type: none"> • Create Socio/Economic monitoring program for Forest Health project. 	<ul style="list-style-type: none"> • Partner with NFF and Manomet to create indicators. 	<ul style="list-style-type: none"> • Collect first year data in 2007 and create long term monitoring program based upon indicators (ongoing). • Provide one report (within 1 yr).
<ul style="list-style-type: none"> • Create GIS based monitoring of all CUSP activities. 	<ul style="list-style-type: none"> • Maintain ArcView GIS software. • Purchase or receive donated GPS models for all field crews. 	<ul style="list-style-type: none"> • Create annual restoration maps and reports (within 1 yr). • Apply for grants, donation for additional equipment (within 3 yrs). • Provide trainings to staff volunteers on GIS/GPS programs (within 2 yrs).
<ul style="list-style-type: none"> • Created Volunteer information gathering program to assess volunteer perceptions. 	<ul style="list-style-type: none"> • Survey all CUSP project participants. 	<ul style="list-style-type: none"> • Create and distribute volunteer survey (within 6 mos). • Adjust CUSP volunteer programs based on participant response (within 1 yr).
<ul style="list-style-type: none"> • Establish annual monitoring conference to relay findings to all watershed stakeholders 	<ul style="list-style-type: none"> • Facilitate annual conference of federal/state/local entities that are currently doing monitoring in the basin. 	<ul style="list-style-type: none"> • Host one conference within watershed to better disperse findings to broad audience (within 2 years).
<ul style="list-style-type: none"> • Establish monitoring stations on segments that don't have adequate information. 	<ul style="list-style-type: none"> • Develop a volunteer monitoring team in cooperation with river watch program. 	<ul style="list-style-type: none"> • Coordinate with the UASPP and RiverNetwork to recruit monitoring volunteers (within 1 yr).
<ul style="list-style-type: none"> • Develop a sustainable and reasonable data collection and maintenance system. 	<ul style="list-style-type: none"> • Train staff and volunteers on inputting data into US EPA's STORET. 	<ul style="list-style-type: none"> • Have an employee/volunteer capable of inputting and maintaining data (within 3 yrs).
<ul style="list-style-type: none"> • Support monitoring in areas of high development. 	<ul style="list-style-type: none"> • Work with counties, developers, etc... to identify high priority needs. 	<ul style="list-style-type: none"> • Collaborate with stakeholders (ongoing).
<ul style="list-style-type: none"> • Fill in gaps in current riparian and habitat assessments. 	<ul style="list-style-type: none"> • Review status of assessments to identify gaps in assessments. 	<ul style="list-style-type: none"> • Collaborate with USFS, CSFS, DWD and others. • Apply for funding for Basin Wide reconnaissance.
<ul style="list-style-type: none"> • Monitor restoration projects. 	<ul style="list-style-type: none"> • Before and After photos, GIS 	<ul style="list-style-type: none"> • Create detailed files per project with map, photos, stats, etc. (within 1 yr). • Continue river restoration monitoring.