

**HEALTHY RIVERS AND STREAMS  
CITIZENS ADVISORY BOARD**

**Courthouse Plaza Building  
Plaza 1  
Aspen, CO  
July 21, 2011 - 4 p.m.**

<b>4:00</b>	<b>Public Comment</b>	
<b>4:05</b>	<b>Board Comment</b>	
<b>4:10</b>	<b>Approval of Minutes</b> May 19, 2011 meeting	
<b>4:15</b>	<b>1. Update of financial status</b> <b>2. Reiteration of goals for 2011</b>	
<b>4:30</b>	<b>North Star proposal</b>	
<b>4:45</b>	<b>Septic system improvement plan</b>	
<b>5:00</b>	<b>Executive Session</b> a. In stream flow strategies C.R.S. 24-6-402 (4)(b)  b. Busk/Ivanhoe change application C.R.S. 24-6-402 (4)(b)	

**Upcoming regular meeting dates**

Aug 18 – Aspen 4:00 pm  
September 15 – Aspen 4:00 pm  
October 20 - Aspen 4:00 pm

***All times are subject to variation without notice***

***Agenda is subject to change***

**HEALTHY RIVERS AND STREAMS CITIZENS ADVISORY BOARD**  
**Meeting Minutes**  
**May 19, 2011**  
**Redstone Inn, Redstone CO**

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**Board members present:** Ruthie Brown, Bill Jochems, Lisa Tasker, Greg Poschman, Andre Wille, Rick Neiley

**Board members absent:** Steve Hunter

**Others present:** John Ely, Lisa MacDonald, Michael Owsley

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**Public Comment**

Michael Owsley thanked the River Board for meeting in Redstone.

**Board Comments**

Chairman Poschman introduced two letters into the record. The Board received a letter from the Crystal Valley Environmental Protection Association concerning dams on the Crystal River and e-mail correspondence from Dee Malone regarding her opposition to dams on the Crystal River.

The Board also received a request from Western Rivers Institute for grant funding of the public forum concerning the City of Aspen's Hydroelectric Facility. The Board concluded that it does not fall into its newly adopted protocol and guidelines for funding requests and declined the request.

**Approval of Minutes**

***Ms. Brown moved to approve the minutes of May 19, 2011. Ms. Tasker seconded the motion. Motion passed 5 to 0.***

***Mr. Wille joined the meeting at approximately 4:30 pm.***

**River District and West Divide Water Conservancy District diligence filing for conditional water rights on the Crystal River**

John Ely discussed the diligence filing as outlined in the agenda item summary. Discussions ensued concerning the application.

Chuck Downey asked the River Board to take the step and file a statement

***Ms. Brown moved to recommend filing at statement of opposition to the Colorado River Conservation District and the West Divide Conservancy District diligence filing for conditional water rights on the Crystal River. Mr. Jochems seconded the motion. The motion passed 6 to 0.***

**Discussion of Wild and Scenic designation of the Crystal River**

John Ely discussed the designation of the Crystal River as wild and scenic. Discussions ensued regarding the designation process.

The process is either controlled by either the Department of Agricultural or the Department of Interior, two divisions of the administrative government, meaning either the USFS or BLM. These two organizations oversee and shepherd any recommendation for the designation. It is a two-step process. One is determination of eligibility is that the river or a segment is free flowing, this has already occurred. Second is that there is one outstanding remarkable value. Values can include ecologic, scenic, recreation, aesthetic, fishing & wildlife, or historic to name a few. There is no stated expiration for designation.

The three classifications associated with wild and scenic are wild, scenic or recreational.

Mr. Ely recommended we not discard the designation, but given our resources and current projects, it should not be a top priority. It may present itself as a viable tool to accomplish other things, such as better management of streamflow or water quality.

**Coal Creek and Crystal confluence area potential projects**

Sharon Clarke of the Roaring Fork Conservancy presented potential project areas along Coal Creek and the Crystal River to the Board. Steep slope and geological instability along with past mining, grazing, roads, railroads and development all have contributed to the stream degradation found in the Crystal Watershed. A goal would be to work with potential partners such as the USFS, CDOT and the DOWon projects to bring restoration to severely impacted areas.

The Board asked Ms. Clarke to come back with a formal proposal that includes costs specific to the healthy rivers fund.

**Adjourn**

The meeting adjourned at approximately at 6:35 pm.

**Approved:**

**Attest:**

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Greg Poschman – Chairman  
Healthy Rivers and Streams Board

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Lisa MacDonald

h&rs sales tax

**HR&S 0.1% SALES TAX**

HR&S 0.1%	2009 Actual	2010 Actual	2011 Budget	2011 Actual	vs budget YTD % chg	vs 10 act % chg
Jan	84,102.25	91,167.65	91,794.36	94,190.24	2.6%	3.3%
Feb	78,633.26	83,134.56	83,706.05	83,170.60	-0.6%	0.0%
Mar	83,148.21	86,152.22	86,744.46	101,518.83	17.0%	17.8%
Apr	33,405.54	33,488.35	33,718.56	35,017.99	3.9%	4.6%
May	25,041.03	24,236.97	24,403.58	26,958.70	10.5%	11.2%
Jun	44,138.22	46,353.67	46,672.32		-100.0%	-100.0%
Jul	58,639.78	67,890.64	68,357.34		-100.0%	-100.0%
Aug	55,055.55	58,467.08	58,869.00		-100.0%	-100.0%
Sep	42,191.08	44,309.47	44,614.07		-100.0%	-100.0%
Oct	28,985.96	30,109.37	30,316.35		-100.0%	-100.0%
Nov	28,200.74	31,255.74	31,470.60		-100.0%	-100.0%
Dec	87,914.33	95,266.41	95,921.30		-100.0%	-100.0%
Total	649,455.95	691,832.13	696,588.00	340,856.36	-40.12%	-36.09%
			696,588.00			

# AGENDA ITEM SUMMARY

February 17, 2011

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**TO:** River Board  
**FROM:** John Ely  
**SUBJECT:** Future and Continuing Work Items

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The following work items are listed for informational purposes and will be discussed further at the Board's meeting and can serve as a continuing guide for fund allocation and anticipated expenses.

## I. **Instream Flow Protection and Enhancements**

- Agricultural Efficiencies

The idea behind this approach to stream flow enhancement is recognition that there is no longer free water on any of our streams outside of the early season runoff period. Therefore, if we are going to improve our flows the water must come from somewhere else. If we are not drying up land that is currently being irrigated, then perhaps improving the methodologies in current irrigation practices will realize benefits to area rivers and streams by being able to deliver the same amount of usable water to an ultimate consumer while relaxing an irrigator or ditch company's current or future potential diversions. As straightforward as this idea sounds it has not been done in Colorado to my knowledge. An engineering methodology needs to be developed, perhaps with assisting legislation as well as meeting the varying concerns of irrigators and ditch companies.

- Trust Agreement Additions

This item reflects the continuation of our pursuit to dedicate existing County water rights to the Pitkin County/CWCB Trust Agreement. Additional work will also try to reduce the transactional cost for these dedications and thereby enhance the use of this methodology elsewhere in the state.

- Water Right Acquisitions

Opportunistic purchases of water rights may present themselves from time to time to the County. As an example, water rights associated with Maroon Creek were recently being made available in relation to the Buttermilk Metropolitan District Service Contract with the City of Aspen. This particular event has not produced any water rights for acquisition, but the availability of water right acquisition is not possible to predict.

- Recreational In-Channel Diversion

The County application for its RICD at the location of the proposed kayak park on the Roaring Fork River just upstream of the confluence of the Frying Pan River was filed in water court at the end of 2010. This application will be progressing through the water court this year although it is not expected that a final decree will enter until at least 2012. In the near term, allocation needs to be made for construction of the actual infrastructure at a time and sequencing to best minimize costs.

- Fry-Ark Project Diversion/PSOP

With the results of the 2010 general election and changes to the Colorado federal delegation, it is logical to assume that renewed efforts to enact this federal legislation will occur and possibly conclude. Our efforts continue to be to position the County to be part of any deliberative process for prospective legislation and to participate in the drafting of this potential legislation to effect the inclusion of beneficial language for the County and the river systems on the west slope.

- Potential Wild and Scenic Designation for the Crystal River

A Phase I analysis of the potential Wild and Scenic Designation of the Crystal was concluded by the United States some years ago. An earlier effort for designation was abandoned in the early 1990s. It is unclear how this designation would benefit the Crystal River and how that benefit could be quantified but without pursuing this option, we would be limiting ourselves in the future to a consideration of less than all possible alternatives to maintain instream flows in the Crystal River.

- Analysis of the North Star Preserve

Over the years since the County acquired ownership of this property, natural flooding of the area has decreased, a deepening of the river channel, not of river depth, has occurred and a general degradation of the fishery now exists. The reasons for these occurrences are unclear but as the County still controls the land there is an opportunity to correct the situation. Additionally, in the past, North Star represented a natural wetland above the City of Aspen that served to decrease the danger of flood and replenish flows to the Roaring Fork River later in the year. If this function could be restored, it could benefit the upper Fork late-season flows without the prospect of the creation of a storage reservoir.

## II. **Opposition to Potentially Damaging Developments**

- West Divide Conservancy District and Colorado River District Conditional Rights in the Crystal River Drainage

Conditional water rights for storage and diversion exist in the name of these two entities along the mainstem of the Crystal and several tributaries. These rights are set to lapse and be abandoned without a diligence application being filed by May of 2011. It appears that the entities may abandon the more unrealistic storage rights on the Crystal itself but we will not know what plans they will seek to preserve or establish, if anything, until May. The County needs to be prepared to evaluate and oppose this diligence application if appropriate.

- Basalt Water Conservancy Exchange Applications

The County will continue its objections to this entity's exchange application concerning contracts for water supply utilizing Ruedi Reservoir. As originally applied, these exchange applications would allow for depletions in the Roaring Fork drainage above the point of replenishment, the confluence of the Frying Pan and the Roaring Fork River.

- City of Aspen Hydroelectric Power Plant

It is anyone's guess as to the direction this proposed project will take in the future. The initial review of the City's project has been completed.

### III. **General River Protection Strategies**

- Septic Repair/Maintenance Program

As previously discussed, seed money from the river fund might be used in a loan program established through the creation of a special district with repayment through property tax collections. Additional work needs to be concluded on the program for allocation of resources and the establishment of a special district.

- Upper Roaring Fork River Analysis

Work initiated last year by MEC, Bill Miller, will conclude this summer with hopefully far-ranging applications for its conclusions. However, I would foresee future enhancements of this work to continue through time to increase our chances of a successfully managed flow in the Roaring Fork above the confluence with Castle Creek.

- Roaring Fork Drainage Gage System

The river fund will continue to support at least one gage in the valley, as well as contemplate future support of additional existing gages. This effort however, will only be complete upon a full analysis of the entire drainage and identification of appropriate locations for gages and the establishment and maintenance of these gages. A project of this type will probably continue over numerous years and involve partnerships with other jurisdictions and conservation entities.

- Ground Water Mapping and FEMA (Federal Emergency Management Administration) Flood Mapping

These two efforts have already been directed and budgeted and hopefully will conclude in 2011.

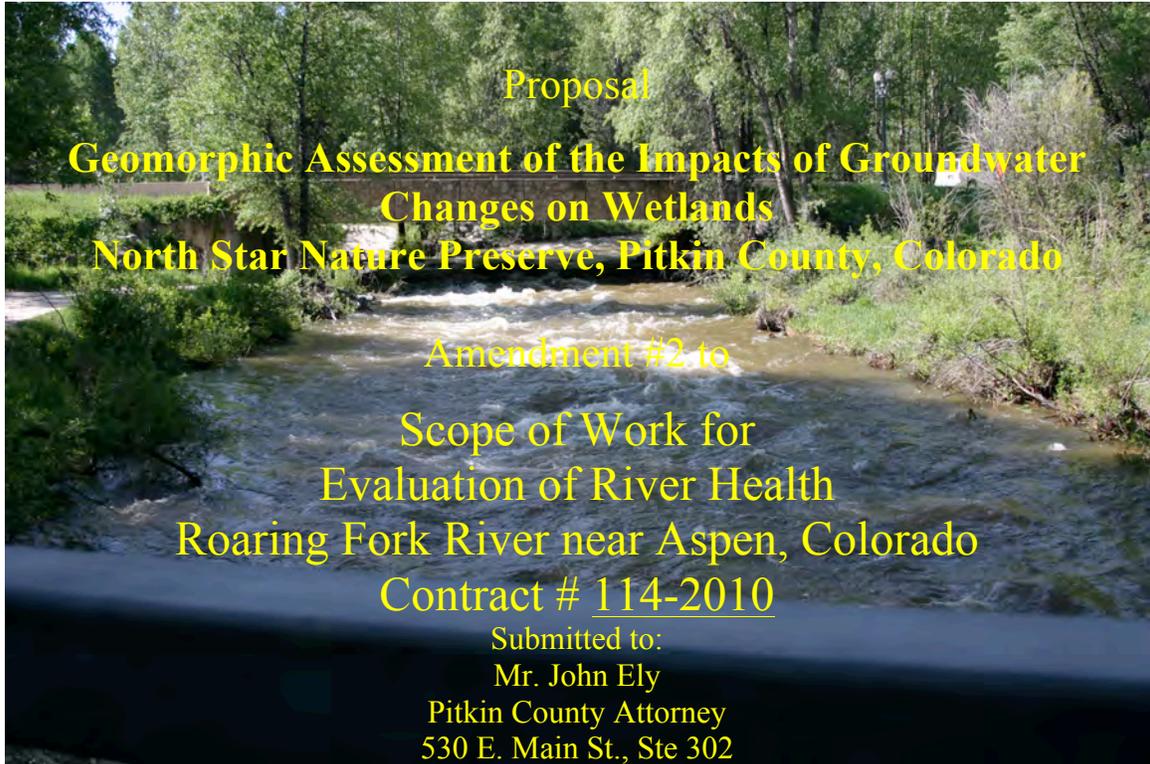
- Invasive Species Control

In the past, we were requested by RWAPA (Ruedi Water and Power Authority) to assist with the cost of zebra mussel control at Ruedi Reservoir. I would anticipate a continued participation with RWAPA in this regard and perhaps an expansion of previous minimal efforts.

- Continued Support of Partners in River Protection

In the past year, the river fund has been used to support the Roaring Fork Conservancy and the Ruedi Water and Power Authority. This year I would anticipate requests for continued support from these entities as well as additional grant requests from other entities including the Pitkin County General Fund.

**Requested Board Action:** Informational – Discussion and comments from the Board



Proposal  
**Geomorphic Assessment of the Impacts of Groundwater  
Changes on Wetlands  
North Star Nature Preserve, Pitkin County, Colorado**

Amendment #2 to  
Scope of Work for  
Evaluation of River Health  
Roaring Fork River near Aspen, Colorado  
Contract # 114-2010

Submitted to:  
Mr. John Ely  
Pitkin County Attorney  
530 E. Main St., Ste 302  
Aspen, CO 81611

**Submitted by:**

William J. Miller, Ph.D.  
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2111 S. College Ave., Unit D  
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970-224-4505

June 17, 2011



MILLER  
ECOLOGICAL  
CONSULTANTS, INC.

## OVERVIEW

Miller Ecological Consultants, Inc. (MEC) is currently conducting an evaluation of river health on the Roaring Fork River between the Salvation Ditch and Castle Creek. Pitkin County (Client) has expressed an interest in the geomorphic conditions upstream of the Salvation Ditch within the general area of the North Star Open Space.

MEC subconsultant, Ayres Associates would conduct a geomorphic assessment of the impacts of groundwater changes on the wetlands and grasslands along the valley floor and evaluate the current characteristics of the Roaring Fork River upstream of the City of Aspen, Pitkin County, Colorado. It is our understanding that the level of the shallow groundwater table that maintains the valley floor wetlands within the North Star Nature Preserve has been slowly dropping, causing the wetlands in the open space to recede and partially dry up. The area to be assessed is generally bound by the edge of the valley floor to the west, the Roaring Fork River to the east, and extending about a mile from the Stillwater Ranch Parcels on the north to the James H. Smith North Star Open Space on the south. In addition, the character and morphology of the channel of the Roaring Fork River along the project reach has changed over time, both naturally and artificially, and currently provides minimal or degraded aquatic habitat.

MEC Senior Aquatic Ecologist, Bill Miller will accompany Ayres Associates' Project Geomorphologist, Mr. William Spitz, PG, and complete a visual evaluation of instream habitat conditions in the proposed project area. Ayres Associates' Project Geomorphologist, Mr. William Spitz, PG, will conduct the following tasks in performance of the geomorphic assessment:

Task 1 – Conduct a brief review of available literature, maps, and data pertinent to the project area and geomorphic conditions therein. This includes reviewing existing 2008 orthophotography and 1-ft contour mapping covering the area, which has already been obtained from the City of Aspen/Pitkin County GIS department.

Task 2 – Perform a site reconnaissance to document and assess the existing geomorphic characteristics and groundwater conditions within the North Star Nature Preserve. Specific conditions to be documented will include tributary inputs, man-made features such as diversions and irrigation channels, existing wetland conditions and extent, river oxbows and cutoffs, river connectivity, and any other features or factors that may be impacting the shallow groundwater table and wetlands.

The site reconnaissance will also include an evaluation of the current morphology of the project reach of the Roaring Fork River with regard to existing aquatic habitat and will assess the potential for incorporating restoration measures within the existing channel and reestablishing old river oxbows and floodplain cutoffs along the project reach of the river to assist in improving the quality of aquatic and riparian habitat.

A handheld sub-meter GIS-based GPS unit will be used to record the locations and/or extents of significant geomorphic features as described above. The GPS unit will also be used to log the locations of all ground photos obtained during the site reconnaissance.

Task 3 – All data and information collected in the field will be compiled, reviewed, and analyzed with regard to identifying factors that may have a direct or indirect impact on wetland conditions and potential actions or countermeasures that may be implemented to reduce or counter further decreases in shallow groundwater levels associated with local wetlands. The collected data and information will also be used to evaluate the characteristics of the current river channel and to assess where and how rehabilitation and restoration measures can be incorporated into the project reach of the river.

Task 4 – Once the wetland analysis and river rehabilitation assessment have been completed, a Draft Letter Report will be provided that documents existing conditions of the wetlands, river, and floodplain within the project area, discusses the impacts of specific features on wetland and river stability, and provides recommendations for rehabilitating and/or increasing wetland and riverine habitat within the project area. Following a review of the Draft Letter Report by the CLIENT, a Final Letter Report will be submitted that addresses review comments and any edits or changes identified in the draft report.

### Schedule

It is anticipated that the site visit and field reconnaissance will be conducted once Notice to Proceed (NTP) has been received. The site visit should be conducted following the spring runoff on the Roaring Fork River, which generally occurs from mid May to mid-late July. However, this year's high snow pack could extend the run off longer than usual. Conducting the visit after run off in a period of stable flows will allow any remaining snow in the area to melt, which will provide optimal conditions for field observations and access. In addition, conducting the field reconnaissance after the spring runoff will allow observations to be made of wetland response to both snow melt and to river and tributary flows. The site reconnaissance is tentatively scheduled to be conducted either during the last week of July.

Unless otherwise requested, the Draft Letter Report will be submitted 90 days following completion of the site visit. The Final Letter Report will be submitted no later than November 15, 2011 and will include revisions and responses to any review comments from the CLIENT. Unless specified otherwise by the CLIENT, two copies of the Draft and Final Letter Reports will be submitted along with a CD containing electronic files of the reports and all information, data, and pictures obtained and/or compiled during the course of this assessment.

## Cost Estimate

The following not-to-exceed estimate represents the costs necessary for completion of the tasks described above.

### Task 1 – Literature and Data Review

<u>Labor</u>	<u>Hrs</u>	<u>Rate</u>	<u>Amount</u>
Senior Geomorphologist	12	\$130.00	\$1,560
CADD	1	\$70	\$70
		Subtotal	\$1,630

### Task 2 – Site Visit and Geomorphic Assessment of Existing Conditions

<u>Labor (includes travel)</u>	<u>Hrs</u>	<u>Rate</u>	<u>Amount</u>
Senior Geomorphologist	32	\$130	\$4,160
Senior Aquatic Ecologist	32	\$150	\$4,800
		Subtotal	\$8,960
<u>Direct Costs</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Amount</u>
GPS & Digital Camera	2 days	\$75/day	\$150
Travel, Per Diem (GSA rate)	6 days	\$71/day	\$426
Travel, Lodging	4 days	\$165/day	\$660
Misc. Expenses	1	\$25	\$25
		Subtotal	\$1,261

### Task 3 – Field Data Compilation, Review, and Analysis

<u>Labor</u>	<u>Hrs</u>	<u>Rate</u>	<u>Amount</u>
Senior Geomorphologist	24	\$130	\$3,120
CADD	1	\$70	\$70
		Subtotal	\$3,190

### Task 4 – Draft and Final Letter Reports

<u>Labor</u>	<u>Hrs</u>	<u>Rate</u>	<u>Amount</u>
Senior Geomorphologist	24	\$130	\$3,120
Senior Aquatic Ecologist	10	\$150	\$790
Word Processor	2	\$75	\$155
		Subtotal	\$4,075
<u>Direct Costs</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Amount</u>
Misc. (copies, binding, postage, etc.)	1	\$50	\$25
		Subtotal	\$25
<b>Total Tasks 1 through 4</b>			<b>\$19,141</b>