

AGENDA

HEALTHY RIVERS AND STREAMS CITIZENS ADVISORY BOARD

**November 19, 2009 4 p.m.
Pitkin County Courthouse Annex
Plaza One Conference Room
530 E. Main Street, Aspen**

- 1. Public Comment**
- 2. Board Comments**
- 3. Approval of the Minutes**
October 27, 2009 meeting
- 3. Peter Nichols - Instream Flow Strategic Planning**
- 4. Executive Session**
Potential Water Acquisition
C.R.S. 24-6-402 4 a
- 5. Future meetings**

ADJOURN

HEALTHY RIVERS AND STREAMS CITIZENS ADVISORY BOARD

Meeting Minutes

October 27, 2009

Airport Operations Center
1001 Owl Creek Road, Aspen

Board Members Present: Ruthie Brown, Steve Hunter, William Jochems, Rick Neiley Jr., Greg Poschman, Lisa Tasker, Andre Wille

Board members absent: None

Others Present: John Ely, Cindy Houben, Lisa MacDonald

ORGANIZATIONAL DISCUSSIONS

This was the first meeting of the newly formed Healthy Rivers and Streams Citizens Advisory Board. The purpose of the board is to assist the Board of County Commissioners ("BOCC") in implementing the Healthy Rivers tax fund. John Ely opened the meeting at 5:06 pm. He went over meeting protocol and the function and duties of the Board.

Election of Chair

Ruthie Brown volunteered to Chair the Board.

Approval by unanimous acclamation

Election of Vice-Chair

Steve Hunter agreed to be Vice-Chair.

Approval by unanimous acclamation

Set Priorities – John Ely spoke on what the water priorities have been. Those being quantity issues, quality issues and conservation issues. It will be up to this board to determine its priorities.

Areas involving quantity issues include 3 specific reaches.

1. the Roaring Fork below the Grace and Shehi Ditch
2. the Roaring Fork in Aspen below the Salvation Ditch
3. the lower stretch of the Crystal River (CRMS to the confluence of the Roaring Fork)

He stated areas 1 and 2 are heavily impacted by ditches and efforts should be made to improve flows during drought times.

Studies - He recommended the Board come up with a plan to contract for some studies that would best suit its shared visions and make recommendations to the BOCC.

A few key areas of concern generating dialogue were shared also shared by John Ely.

10,825 this is the amount of water (10,825 acre feet) being supplied to the "15 Mile Reach Programmatic Biological Opinion" of the Colorado River to assist with the recovery of 4 endangered fish species identified in Upper Colorado River Endangered Fish Recovery Program. The 10,825 is for both East and West Slope recovery program commitments, with each responsible to supply 5,412.5 acre feet per year on a permanent basis.

Shoshone Power Plant owed by Excel Energy and has the most sr. water rights on the Colorado River. Was originally owned by City of Glenwood Springs. Cameo Call consists of ½ dozen agricultural enterprises. Preservation of the plant and Cameo Call is crucial to instream flow on the Colorado River.

Preferred Storage Option Plan ("PSOP") Plan identified after a need for more reservoir storage space options for the front-range. The Fry-Ark is a trans-mountain diversion that provides water to the Arkansas River Basin, Aurora and Colorado Springs through a system of reservoirs, diversions and tunnels. Namely the Boustead and Busk-Ivanhoe Tunnels. The water travels to Turquoise Lake, the Arkansas River to the Pueblo Reservoir. Once in the Pueblo Reservoir it goes to Colorado Springs and Aurora. Surplus water makes up Ruedi Reservoir. The project is managed by the Bureau of Reclamation and the South Eastern Colorado Water Conservancy Board.

ROLE COMMUNITY DEVELOPMENT PLAYS IN WATER QUALITY AND QUANTITY IN PITKIN COUNTY

Cindy Houben, Community Development Director, gave a brief introduction to the Board about the role her department plays in water quality and quantity. The department's focus has been on quality and on conservation issues. They work with Open Space and Trails on conservation issues as well as property purchases that include water rights. The department has three major areas that are water related.

Environmental Health - which includes on-site septic systems and setbacks from streams. New on-site waste water treatment system regulations are coming into play that will handle functioning and non-functioning systems relating to quality.

Building Department – looks at the construction phase of development
Liaison for the valley with the Watershed Management Plan.

The Community Development Department also receives requests for funding from outside resources.

Mr. Poschman asked if there would be a list coming to them for funding requests. John Ely said the board has no obligations right now. The only money that has been approved and spent is for education.

Board direction to staff: Mr. Poschman asked for a listing of resources or a library when they can find information on the valley's water. Perhaps we can post links on the webpage for the board to access.

KEN KOLM PRESENTATION

(Cancelled due to unavailability of Ken Kolm and Paul van der Heijde)

CWCB TRUST AGREEMENT

John Ely presented the Trust Agreement information that was contained in the agenda packet. Discussion ensued.

Mr. Poschman moved to send a letter of support to the CWCB for the Trust Agreement. Mr. Wille seconded the motion. Motion passed 7 to 0.

FUTURE MEETINGS

The Board set the next two meetings dates. November 19, 2009 4:00 pm at the Courthouse Plaza 1 meeting room and December 15th at 5:00 pm at the Courthouse Plaza 1 meeting room.

ADJOURN

The board meeting adjourned at approximately 7:33 pm.

Approved:

Attest:

Ruthie Brown, Chair
Healthy Rivers and Streams
Citizens Advisory Board

Lisa MacDonald



December 1, 2008

Mr. Peter D. Nichols, Esq.
Trout, Raley, Montano, Witwer & Freeman, PC
1120 Lincoln Street, Suite 1600
Denver, Colorado 80203

**RE: Scope of Services
Pitkin County Water Resources Investigation / Open Space Board**

Dear Peter:

The Pitkin County Open Space Board is interested in identifying critical flow-impaired stream reaches within the Roaring Fork watershed. While there is much existing information, it is inadequate to fully identify the location and extent of impacted stream reaches. In order to completely assess stream flow and water right issues, further investigation is required to quantify stream flow conditions and water diversion patterns within this area.

Pursuant to your request, we have prepared this Scope of Services to evaluate existing instream flow issues and water rights within the Roaring Fork and Crystal River watersheds. This investigation will be prepared for Trout, Raley, Montano, Witwer & Freeman, P.C. on behalf of the Pitkin County Open Space Board and will identify specific stream reaches of concern. Please note that this scope is an update of our March 4th Scope of Services, and is based on feedback from the Open Space Board and from you.

PROJECT OBJECTIVES

The following objectives would be associated with the study:

- Identify, evaluate and summarize instream flow issues in principal watersheds within the Roaring Fork watershed. The watershed, including all its tributaries upstream of the confluence with the Colorado River and the Fryingpan River watershed, will be assessed.
- Stream flow conditions in each primary tributary will be quantified and evaluated. This investigation will specifically evaluate whether instream flow water rights decreed to the Colorado Water Conservation Board are maintained in each sub-watershed.
- Stream segments with adequate instream flow conditions will be defined and listed.

- Stream segments in which instream flow water rights are not satisfied will also be identified. The amount and timing of instream flow deficits will be quantified.
- The reasons that any instream flow deficits occur will be identified. For example, we suspect that in many instances, instream flow deficits may occur in response to a natural shortage of stream flow. Specific diversion facilities that impact instream flows will also be identified.
- We will evaluate existing instream flow issues and make recommendations regarding strategies that may be employed to enhance instream flow conditions.

WORK TASKS

The following five work tasks will be conducted:

Task A – Background Information / Preliminary Screening

This task will evaluate existing stream flow, water right and water use information for the Roaring Fork and Crystal River watersheds. Water resource information will be collected and evaluated from local knowledge, existing studies/reports and available water right databases. Upon assessment of existing information, a preliminary list of critical stream segments will be outlined and addressed in a workshop with the Open Space Board. The following specific items to be completed for Task A are outlined below.

- 1) Kickoff Meeting. This meeting will occur with Grand River Consulting and the Pitkin County Open Space Board to facilitate project understanding/clarification and formalize channels of communication between Grand River and the Open Space Board.
- 2) Interview Water Commissioners and Others. Local knowledge of the natural hydrologic conditions for the watersheds of study is necessary to identify and understand existing streamflow and structures that impact natural streamflow. Interviews will include, but not be limited to, those with local water commissioners, Roaring Fork Water Conservancy staff, and others.
- 3) Review Water Right Database. A review of important water rights within the project area will be completed. Data will be collected from the State Engineer Office (SEO) hydro-database and available GIS (Geographic Information Systems) information.
- 4) Review Decreed Instream Flow Water Rights. Decreed instream flow water rights will be summarized for the study area.
- 5) Review and Obtain Previous Studies and Investigations. Several streamflow and water right studies/investigations exist for the Upper Roaring Fork River and the Crystal River watersheds. We will investigate and incorporate relevant data from these studies for the watershed. For example, the Roaring Fork Conservancy's Roaring Fork Watershed Report

will be reviewed to evaluate existing instream flow data/information. In addition, we will also review studies referenced in the Roaring Fork Watershed Report for a thorough understanding of those studies relevant to our investigations and incorporate pertinent data from such studies.

- 6) Develop Preliminary List of Critical Stream Segments. We will develop a preliminary list of critical stream segments for review by the Open Space Board. This list will include stream segments that have adequate instream conditions, as well as those segments in which instream flow conditions are not satisfied. The preliminary information collected in this work task will be used to refine and corroborate the list of critical stream segments. Based on our experience, we anticipate that the following stream segments currently have instream flow issues:

- Upper Roaring Fk
- Hunter Creek
- Woody Creek
- Snowmass Creek
- Middle Roaring Fk
- Capitol Creek
- Sopris Creek
- Crystal River
- Fryingpan River
- Cattle Creek
- Fourmile Creek

- 7) Workshop with Client to Identify Critical Segments for Further Evaluation. A workshop with the Open Space Board will be held to review the list of critical stream segments and to identify those segments of principal interest. The Board may determine that some of the impacted segments are non-critical, and may not warrant further detailed investigation.

Task B – Baseline Hydrology

Development of baseline data is important to understand existing streamflow conditions, decreed instream flows and water right issues on the critical stream segments. Specific information to be provided includes:

- 1) Assemble Available Streamflow Data (public & private). Coordinate with public and private entities to obtain all available streamflow data for critical stream segments selected for detailed study.
- 2) Simulate Native Streamflow for Ungaged Areas. We will initially review stream flow estimates for ungaged stream segments associated with recent modeling efforts by the State of Colorado. In those stream segments where additional simulation is required, native stream flow will be simulated. Several adjacent watersheds similar in hydrologic characteristics will be identified as candidates suitable for extrapolating historical discharge data for those areas that have no adequate existing streamflow data. Regional relationships between runoff, aspect and elevation will be developed from actual streamflow data from these watersheds to develop simulated natural streamflow. Where available, the USGS program StreamStats, or

other similar software utilities, will be utilized to obtain historical streamflow data for critical areas without existing streamflow data.

- 3) Assemble and Download Diversion Records for Key Structures. Daily diversion records for important diversion structures that impact instream flows will be obtained. Those key structures will be identified, including a summary of available diversion records to identify and understand historic and current water demands in critical stream segments.
- 4) Simulate Post-Diversion Streamflow for Critical Stream Segments. Simulated streamflow for wet, dry and average years with all active diversions will be used to identify impacted segments.

Task C – Instream Flow Conditions

Current and historical instream flow conditions for the critical stream segments will be evaluated and summarized. Specific information to be provided includes the following:

- 1) Identify Stream Reaches with Adequate Instream Flow Conditions. Identify and list those specific stream segments with adequate instream flow conditions. In addition, hydrographs and other supporting information will be developed to support this classification. Specific water rights that may help maintain instream conditions will be listed for these segments.
- 2) Summarize Instream Flow Shortages (Location, Frequency, Amount, Cause, etc.). Identify those stream segments that have instream flow deficiencies. Outline the locations of the reaches, including frequency of shortages, shortage amounts and other relevant information.
- 3) Develop List of Strategic Water Rights / Structures. Identify the significant water rights and water structures that either impact instream flow conditions.

Task D – Draft Report

We will prepare a draft strategic report to summarize the results of the study. We anticipate that this report will be of a summary nature with sufficient detail to support the findings of the study.

We recently completed a similar investigation for Pitkin County and for the City of Aspen. This investigation solely focused on the Roaring Fork River upstream of Aspen. Representative material from this study is attached. We anticipate that the investigation proposed herein would be summarized in a similar format as the enclosed draft material.

At this time, we will participate in a workshop with the Open Space Board to review the draft report. In this workshop, we will identify instream flow segments of significant value to the Board and will also identify key diversion facilities that may affect instream flow conditions.

Task E – Finalize Strategic Report

Following review and comment from the Client, Grand River will finalize the draft report. Copies of the final report and document will be sent to you on behalf of the Pitkin County Open Space Board. Activities under this task shall include, but not be limited to:

- 1) Report Preparation. The draft report, including maps and other documentation, will be finalized based on comments and feedback from the Open Space Board.
- 2) Presentation of Final Study Results. A formal presentation, summarizing the final report document, will be made to the Open Space Board.

SCHEDULE AND PERSONNEL

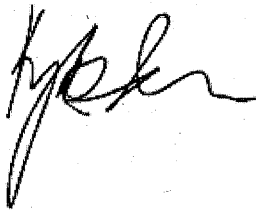
We propose to complete the study within six months of the authorization to proceed with the work. Primary employees of Grand River Consulting that will be involved in the study will be Kerry Sundeen, Maria Pastore, and Dane Ensign.

COST OF SERVICES

We propose to complete the study on a time and materials basis pursuant to our current rate schedule. As outlined in Table 1 (attached), we project that the cost of the study will not exceed \$29,920. Our expenses will not exceed this amount without prior approval from the Open Space Board.

We hope this proposal is in-line with your expectations. If you have any questions or require any additional information at this time, please do not hesitate to contact us.

Sincerely,
GRAND RIVER CONSULTING CORPORATION



Kerry D. Sundeen
Hydrologist



Maria Pastore
Hydrologist

Enclosures