



StreamLines

Quarterly Newsletter of the Office of the State Engineer

GMUG Instream Flow Pathfinder Project

Wayne Schieldt, Assistant Division Engineer, Division 4

In April of 2000, officials for the Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG) started the process to complete the new Forest Management Plan by the year 2005. The White River National Forest had gone through the same process in previous years, with water issues becoming very controversial and contested. In their process, the officials formulated the draft language, ran it through the public review process, and went behind closed doors for a year while the plan was finalized. When it was released, the plan called for mandatory bypass flows at every diversion structure that was diverting water on the Forest. As expected, the water users reacted strongly, as did Colorado's Congressmen. The plan was changed, but the wording was nebulous and doesn't really give clear direction on how to process water related issues such as Special Use Permit renewals and new applications.

The Forest Supervisor for the GMUG, Robert Storch, decided to try a different approach. He concluded that he would 'frontload' the process by forming a collaborative group with all interests represented, bring them to the table, and hash out the contentious issues. Through consensus, the group was to provide recommendations on dealing with stream flow related issues to the Forest Service (FS) that would be included in the final plan. The group was only

to deal with flow-related issues and nothing else. Mr. Storch's key mission was to avoid making the same mistakes as in the White River plan and to stay away from litigating bypass flow issues, which are always messy and expensive.

The group started meeting in April of 2000. Participants were chosen from the following groups and agencies:

- Club 20 Water Committee
- Colorado Division of Water Resources
- Colorado Division of Wildlife
- Colorado Water Conservation Board
- Grand Mesa and Grand Valley Water Users
- High Country Citizens Alliance
- Local Citizens
- Overland Water Users
- San Miguel Watershed Coalition Trout Unlimited
- USDA Forest Service

The group decided to call this the "GMUG Instream Flow Pathfinder Project," and over a series of monthly meetings, formulated a mission statement that reads, "To assist the Forest Service in providing appropriate instream flow protection on the GMUG National Forests." The group also had to choose a facilitator, and the FS secured the funding necessary. There were many issues to discuss, including finding the best method to determine the water yield in a basin based on area and basin characteris-

tics. They discussed the best way to determine the needs of the stream system, be it the R2Cross or the PhabSimm model. The Colorado Water Conservation Board uses the R2Cross method in determining the flow amounts for their minimum stream flow filings. There was also an analysis of the current diversion and water use on the FS with the currently decreed water rights. The Division of Water Resources' database of diversion records was used.

There was also a need for the group to evaluate and identify the

(Continued on page 2)

Inside this issue:

Irrigation Storage in North Park Curtailed 2

Streamgaging Symposium 2003 3

Calendar of Events
(back cover)



GMUG Instream Flow Pathfinder Project (cont.)

values that the FS property satisfied. The human resource needs were water for irrigation and drinking, recreational use of streams and reservoirs, and the community values they support. The resource values are the riparian areas, the functionality of the stream systems and the wildlife they support. Also considered were *Species of Concern*, the key one being the Colorado River Cutthroat Trout.

Currently, after three years of monthly meetings, and working through the various issues, the group had developed a matrix and list of tools that outline goals and objectives that will be incorporated into the Forest Management Plan as the preferred alternative. The matrix lists goals and objectives for addressing the values of legal

water rights, both absolute and conditional, maintaining stream flows, new water development, recreational uses, restorations of stream reaches, and water quality issues. The matrix establishes categories for the current water diversion in the basin, and percentages of the basin yield that is currently diverted. It also lists the basins contain species that of concern.

Accompanying the matrix is a list of tools that the FS must use to accomplish the objectives. The tools identify all of the management options that are available to the FS to maintain both human and ecological values on FS lands. The tools are grouped into tiers, levels of priority in which the tools should be used. Contained in tier three are the tools of last resort, imposing bypass flows use using the power of eminent domain. These tools are to be used only as a

last resort when the use of all other tools have been exhausted.

The Pathfinder Group is now taking the draft matrix and tools to the public asking for final input before they are finalized. They hope to finalize the process by the end of the year.

Perhaps the biggest question with the process is whether the Washington office will support it. Robert Storch has received favorable support from his regional manager in Denver and from others in Washington. This is a new way of creating Forest Management Plans, but the Pathfinder Group and the FS officials are convinced it is the way of the future. Hopefully, the other forests in the State of Colorado will follow the same process and avoid the contentious litigation that imposition of bypass flows cause.

Irrigation Storage in North Park Curtailed

Robert Plaska, Division Engineer, Division 6

At a time when the spring snowpack is at the highest level in the last four years, storage for irrigation use is likely to be curtailed on the North Platte drainage in Colorado. Under the terms of the amended decree issued by the United States Supreme Court in State of Nebraska v. State of Wyoming, et. al., Colorado is limited to its use of the waters of the North Platte River. The limitations listed in the decree enjoin Colorado from (a) irrigating more than a total of 145,000 acres in any one irrigation season; (b) storing, or permitting the storage of more than 17,000 acre-feet of water for irrigation use between October 1 of any year and September 30 of the following year; and (c) exporting more than 60,000 acre-feet of water out of the North

Platte River drainage in any ten consecutive years.

While Colorado is nowhere near the irrigated acreage and exportation limits, it appears the limit on annual storage for irrigation use will be reached for the first time since the decree was entered. This limitation only applies to water stored for irrigation use. This situation was caused in large part by the record-setting drought in 2002 and the abundant snowpack this spring. Last year, the majority of the irrigation reservoirs in Jackson County were drained in an attempt to save crops. There was very limited carry-over storage for irrigation use. Normally, the amount of carry-over storage in the larger reservoirs, and the limited

overall storage capacity in the basin, has assured that the storage limitation contained in the decree was not an issue.

This year, with the available storage capacity in irrigation reservoirs at near-record volumes and the May 1 snowpack at 100 percent of average, it is guaranteed that the 17,000 acre-feet storage limit will be reached. To address this situation, the staff of the Division 6 office in Steamboat Springs have compiled a combined administrative list of the reservoirs in Jackson County that have storage as a use. Storage will be allowed in the reservoir that have rights senior to the cumulative total of 17,000 acre-feet, accounting for carry-over

Irrigation Storage in North Park Curtailed (cont.)

storage from the previous year. In some situations, reservoirs that may have filled storage rights junior to the limitation will be required to

release water back to the system. The goal of the Division of Water Resources is to comply with the provisions of the Supreme Court decree

while providing administration pursuant to the priorities awarded to the reservoirs by the Colorado Water Court.

Colorado Streamgaging Symposium 2003

Written by Robert Ward, Director, CWRRI (Photos by Jana Riedesel, Division of Water Resources)

Snow greeted the flow data collectors and users at the Beaver Run Resort on May 8, 2003, as they arrived for the Second Colorado Streamgaging Symposium. The Symposium is a joint effort of state, federal and university organizations—organizations very concerned with the data upon which our understanding of Colorado’s water resources are based. Co-sponsors of the 2003 symposium are: The Colorado Water Conservation Board, the Division of Water Resources, the U.S. Geological Survey, and the Colorado Water Resources Research Institute.



Robert Ward, CWRRI

The purpose of the Streamgaging Symposium is to share information about the major Streamgaging programs in Colorado; the uses of flow data, current and proposed; coverage of flow gages, and thus, flow data availability; and provide opportunities to collaborate in enhancing flow data in Colorado.

Organizations that collect flow data in Colorado operate over 700 gages reporting via satellite. Increasingly, this data is readily available via the internet and supports the ability of Colorado citizens, from a wide array of economic endeavors, to share benefits from multiple uses of Colorado’s water resources. Since the first Streamgaging Symposium in 2001, a number of gages, in critical stretches of Colorado Rivers, have been ‘hardened’ against flood flows – the gages are better able to record high



Greg O’Neill, USGS

flows without damage. New satellite telemetry is being installed to speed up the data transmission rates. Studies aimed at reducing redundancy in gaging efforts and increasing the accuracy of winter flow measurements were reported. Post fire burn measurements, as well as debris flow studies, were described. Many of the above efforts to improve flow data acquisition represent enhanced collaboration among water organizations in Colorado.

During an open discussion session at the end of the meeting, the use of flow data in water quality management decision-making (e.g. discharge permit and TMDL calculations), as well as the increasing use of water quality data in water exchange agreements, were noted as representing increasingly important data interfaces in Colorado. With strong pushes toward efficiency, as well as accuracy in water data collection and use, there appears to be a growing desire to further enhance the ability to readily share water data among organizations and individuals. This need, in turn, suggests development of a water ‘data commons’ – where organizations and individuals can readily determine what data exists – thus, greatly increasing the efficiency of water data acquisition funds. It was noted that this is a topic needing additional discussion and, in particular, additional dialogue among those collecting water data and those using the data, as it is not clear who would be responsible for creating and maintaining a water ‘data commons’.



Esther Vincent, NCWCD



Eric Oppelt, CDHE



CALENDAR OF EVENTS

- June 3** Colorado Board of Examiners of Water Well Construction and Pump Installation Contractors Meeting, Denver, Colorado; for more information, contact Gina Antonio at 303-866-3581
- July 28-29** Colorado Water Conservation Board Meeting, Pagosa Springs, Colorado; for more information, contact Catherine Gonzales at 303-866-3441
- August 5** Colorado Board of Examiners of Water Well Construction and Pump Installation Contractors Meeting, Denver, Colorado; for more information, contact Gina Antonio at 303-866-3581
- August 15** Colorado Ground Water Commission Meeting, Gunnison, Colorado; for more information, contact Marta Ahrens at 303-866-3581

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