

White River Basin Public Input on Integrated Water Management Planning

Hannah Holm, Facilitator

February 21, 2020

OVERVIEW

On January 22 and January 29, 2020, The White River and Douglas Creek Conservation Districts hosted a series of four public meetings in different corners of the White River Basin in order to help determine whether there was sufficient support to pursue an Integrated Water Management Plan for the basin, as well as what issues such a plan could address and who should lead the effort, if it were to go forward. The meetings were organized and publicized by the Conservation Districts and facilitated by Hannah Holm, author of this report.

Process

The meetings were structured to have participants address the same questions previously posed to stakeholders in a series of interviews and focus groups conducted by Conservation District staff, and the meeting participants were provided with a summary of the results of those interviews and focus groups. This was done both in the interest of transparency about the consultation process and to provide meeting participants the opportunity to respond to perspectives already offered. Each meeting also included a brief presentation by the facilitator on the basics of Stream Management Planning and Integrated Water Management Planning.

Comparison of Interviews/ Focus Groups with Input from Meetings

The input from the public meetings was largely consistent with the input from the interviews and focus groups, although each contain some details missing from the others.

Common Themes across the White River Basin

There was significant support across the basin for doing an Integrated Water Management Plan for the White River Basin, and for having that effort led by the White River and Douglas Creek Conservation Districts. This support did come with some cautions, however: there was some concern that such a plan could be used against current water users, and while several groups indicated a desire for better data on water resources, concern was voiced that data can be unreliable or skewed. This points to a need for strong communication and a high level of transparency around data collection efforts for any planning effort.

Protecting existing water rights and uses, mostly for agriculture, was a strong theme that came up in each of the meetings. Even along the main stem of the White River, where irrigation shortages are not currently being experienced, there is concern that decreasing supplies, increasing competition and downstream demands could bring shortages and calls on the river in the future.

The desire for more storage was expressed in each of the public meetings, both to ensure adequate supplies for water users and for fisheries. Enhancing the capacity of existing reservoirs, building new reservoirs, and in-ground storage were all mentioned as potential solutions.

Although issues related to water quantity were most highly prioritized in all of the meetings, significant interest in water quality was also expressed, with algae, sediment and temperature issues frequently mentioned. The desire to improve irrigation infrastructure and public access for fishing and other recreation were also commonly mentioned. On riparian issues, participants expressed mixed feelings about invasive plant removal, expressing concerns about erosion issues even as they expressed a desire for better habitat and more native vegetation.

Sub-regional differences

In each subregion, different issues emerged as dominant concerns. While each meeting is described in more detail later in this report, these are some of the most notable particularities that emerged in each discussion:

- Piceance Creek: In this sub-basin, unlike the others, irrigators report that they uniformly deal with shortages, every year. Unlike elsewhere in the White River Basin, all water users already have measuring devices on their diversions and regularly experience calls on the stream. Energy companies are also a prominent presence in this sub-basin, and may be in a position to help with some of the supply issues.
- Meeker: Participants in this meeting were concerned about a wide range of issues, from the prospect of future calls on the river to recreational access, water quality and stream health.
- Buford – Upper Basin: Participants here were very concerned about a shift they had observed in land and water rights ownership away from people who farm and ranch for a living to owners who are primarily interested in fishing and ponds for private recreation. They believe that this is changing irrigation patterns and has led to the construction of a number of structures in the channel, with ramifications for water quality, flows and fisheries.
- Rangely: Sedimentation impacts on Kenney Reservoir and the impact of algae to water intake structures were prominent in participant comments at this meeting. Participants also frequently commented on recreational and educational uses of the river as well as use for irrigation and drinking water.

Recommendations

The input received from stakeholders indicates that there is substantial support for the White River and Douglas Creek Conservation Districts to pursue conducting an Integrated Water Management Plan for the White River Basin, under the following conditions:

- There should be a high level of transparency and communication regarding all studies conducted as part of the planning effort. Stakeholders in the basin have a high level of knowledge about the stream conditions and hydrology in their portions of the basin, and those conducting further studies should engage with these stakeholders to access this knowledge and discuss their ideas, both to enhance the quality of the studies and to enhance the credibility of the studies with the stakeholders.
- The entire White River Basin should be included in the planning effort, but it should be broken down into sub-regions and sub-basins to adequately address the particular concerns and opportunities in each area.
- The results of previous and ongoing studies and related planning efforts should be utilized in the Integrated Water Management Planning effort, and key findings should be reported in a succinct way to basin stakeholders through Conservation District newsletters and other means.

DETAILED MEETING REPORTS

Piceance Creek Basin Meeting January 22, 2020

In the Piceance Creek Basin, the meeting was attended by ranchers, anglers, outfitters, and energy company personnel, some of whom fell into more than one category. They reported that this sub-basin is over-appropriated, and irrigators often experience shortages in late summer. Sections of stream also periodically dry up.

Participants reported that energy companies own significant water rights in this sub-basin, and would need to be included in any planning efforts. The energy companies apparently own more water rights than they need, including water held in Ruedi Reservoir, which could potentially be brought into the sub-basin through a transmountain diversion.

Participants expressed a desire for a planning effort that is fair and equitable to all, and that relies on good data. Concern was voiced that data can be skewed, and that the data needs to be accurate.

Water issues that directly affect meeting participants

Meeting participants reported that the following water issues that directly affect them and others in the Piceance Basin:

- **Water shortages:** Irrigation and livestock watering are the primary ways meeting participants use water, and they report experiencing shortages most years, beginning in June or even earlier. They reported that these shortages affect everyone in the entire sub-basin, from top to bottom, every year. Drought years are particularly difficult.
- **Drinking water access:** Some are currently hauling drinking water, due to problems obtaining well permits. Drinking water treatment requirements for an administrative office for an energy company is also a concern.
- **Riparian health:** Sedimentation and erosion problems related to wild horse populations were reported.
- **Water use records:** Participants reported some conflict and communication challenges with the CO Division of Water Resources over water use records. In this sub-basin, unlike in other parts of the White River Basin, water users uniformly have measuring devices on their diversions.
- **Infrastructure:** Headgate erosion and dam washouts were reported, as well as problems related to squirrel holes.

Concerns related to water management and planning

In addition to discussing water issues directly affecting them, participants mentioned the following concerns related to existing and potential water management studies, plans and practices:

- In studies, there is the potential for data to be skewed or inaccurate.
- In-stream flow rights may affect existing uses.
- Endangered Species Act (ESA) protections for endangered fish could affect existing uses. If better flows could be maintained in the stream, it would help existing water users stay out of trouble in relation to the ESA.

- A compact curtailment on the Colorado River could affect all water uses, including energy extraction, irrigation and livestock wells.
- Return flows are currently ok on the Piceance, but they could be diminished if there is more widespread adoption of sprinklers for irrigation.

Potential Solutions

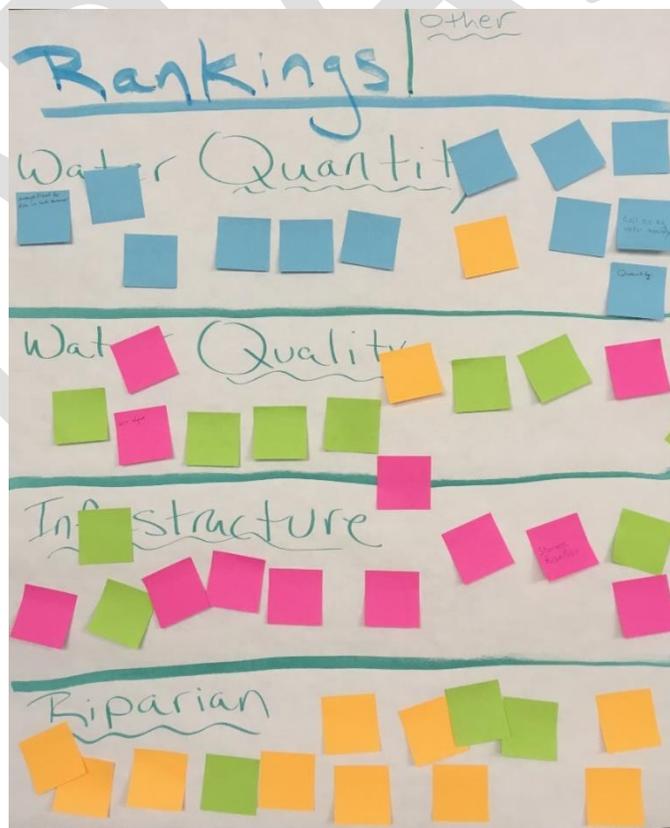
Participants indicated a desire to address water shortages in the Piceance Creek Basin. Ideas raised included a transbasin diversion from the Colorado Basin to move water held by energy companies in Ruedi Reservoir; new reservoirs, and storage generally.

Water Issue Priorities

When asked to rank their priorities among Water Quantity, Water Quality, Infrastructure and Riparian issues, participants almost uniformly ranked Water Quantity first, mentioning both water for irrigation and flows for fish.

Most participants ranked Infrastructure second, explaining that they meant infrastructure for water storage. Riparian issues were ranked third by most participants, with Water Quality ranked fourth by most, although some ranked it as high as second, citing algae concerns.

The following picture depicts the chart where participants were asked to rank their priorities, with blue indicating first priority, pink second priority, yellow third priority, and green fourth priority. Each participant got one sticky note of each color and was encouraged to write explanatory details on the notes before placing it in their chosen priority issue area.



Changes observed in recent decades

Participants reported seeing the following changes in recent decades:

- Less water.
- More cedars and brush in the upper county.
- Eagle predation on fish.
- Increased erosion from the removal of Russian olive and tamarisk.

Priority areas for planning

Participants indicated strong support for including the entire Piceance Creek Basin in a planning effort.

Anticipated changes

Meeting participants said that the coming decades are likely to bring:

- Increasing conflict over water, including between environmental and agricultural interests.
- Risks to water rights
- Growth
- Challenges related to the Colorado River Compact
- Negative economic impacts from the issues listed above.

Conservation Measures Observed

Examples of conservation measures participants had observed include:

- Groundwater encountered by energy companies being used in lieu of depletions for energy developments.
- The installation of flow measurement devices.

Desired Conservation Measures

Meeting participants expressed desires for the following conservation and water management measures:

- Removing brush high in the watershed, because it:
 - Consumes water
 - Increases fire risks
 - Is detrimental to wildlife
- More storage
- An end to a requirement for county permits to conduct ditch work.

Mixed feelings were expressed about Russian olive and tamarisk removal, which participants said is not widespread in the Piceance Creek sub-basin.

Use and communication on existing/ ongoing studies and plans

Participants expressed a desire to see the results of current/ existing studies prior to conducting a new plan. Their preferences for receiving information about studies and plans include meetings, the newspaper, newsletters and information posted on the internet.

Thoughts on doing an Integrated Water Management Plan for the White River Basin

Meeting participants expressed mixed feelings about whether a plan should be done for the White River Basin, with some concern that such a plan could be used against current water users. Some commented that the land use plan had helped, because it had some regulatory teeth. Comments in favor of a planning effort included the opportunity to get on the same page about water data and the improved access to funding for projects that a plan could bring. If a planning effort is initiated, participants thought the Conservation District should lead the effort and ½ to 2/3 said they would be willing to be involved.

Meeker Meeting January 22, 2020

In Meeker, participants represented a wide range of interests and water uses.

Water issues that directly affect meeting participants

Participants in the Meeker meeting expressed concern about preserving irrigation rights and late summer flows for fish, as well as the need to let releases from reservoirs for fish pass by without diverting them. They also mentioned declining flows and precipitation in the headwaters.

In regard to water quality, they noted problems with high temperatures and algae, including algae clogging municipal water intakes in Rangely.

In regard to water access, water shortages were not reported, but a loss of fishing access was noted.

Concerns related to water management and planning

Participants voiced several concerns related to water management and planning:

- Concern that a compact curtailment could affect wells.
- A desire to preserve irrigation rights.
- There is a need to prepare for the possibility of a Demand Management program.
- Instream Flow rights could take priority over existing uses.

Potential Solutions

Participants expressed a desire for more upper basin storage for multi-benefit releases.

Water Issue Priorities

When asked to rank their priorities between Water Quantity, Water Quality, Infrastructure, Riparian and Other issues, the highest number of top priorities indicated were for Water Quantity, with explanations including supplies for agriculture, fish flows, water rights, and upstream storage. Some of the top priority “Other” responses also provided “water rights” as an explanation.

A majority of the second priority votes landed in the infrastructure category, with explanations including improvements to efficiency, storage and improvements to diversion structures.

Water Quality also collected some first and second priorities, with explanations including drinking water quality and algae. It was also noted that sufficient water quantity is one factor for ensuring sufficient water quality.

Anticipated changes

Participants said they anticipated significant changes to the basin. Comments included the following points:

- There has never been a call on the White River, due to cooperation among water users, but that with new influences, more conflict is likely.
- Increasing conflict in general is likely.
- Partial or full year water use changes could occur, which would change the river.
- Water rights might be sold to Denver.
- A transmountain diversion could occur from Trappers Lake.
- More measuring devices will identify unused water for other uses.
- A Demand Management program or water leases could have unintended consequences.
- If wealthy people keep buying land and water in the Upper White above Meeker, they will be less interested in agriculture to make a living, resulting in:
 - Less access for citizens.
 - Less flood irrigation, leading to less return flow.

Conservation measures observed

Participants mentioned the following conservation measures they had observed:

- Catch ponds for sediment, which were effective but got silted in.
- Tamarisk and Russian olive removal to reduce water consumption.
- Forest health/ fire risk mitigation activities upriver – participants would like to see more of this.
- Small-scale restoration activities.
- The algae study.

Desired conservation measures

Participants said they would like to see:

- Up-river storage.
- Riparian habitat improvement activities.
- Headgate fixes with streambed re-engineering.
- Multi-purpose infrastructure improvements.
- The investigation of opportunities for underground storage – there already effectively is some aquifer storage, as flood irrigation puts water into the ground that returns to the river later.

Use and communication on existing/ ongoing studies and plans

Participants expressed a desire to see the results of previous plans and studies before doing a new plan to avoid duplication and save money.

In order to learn about the results, and updates on any new planning effort, participants said they would like to get information through the Conservation District's website, with abstracts of the studies posted. Podcasts were also mentioned as a potential communication tool.

Thoughts on doing an Integrated Water Management Plan for the White River Basin

Participants voiced strong support for doing an Integrated Water Management Plan for the basin, expressing desires to see such a plan:

- Be transparent and locally-driven.
- Preserve their way of life.
- Promote cooperation.
- Use voluntary measures.
- Involve shared sacrifices.
- Work like the land-use plan.
- See what can be done without hurting water rights.

Participants expressed a high level of willingness to be involved and recommended the Conservation District as the entity to lead the effort.

Buford (Upper Basin) Meeting, January 29, 2020

Participants at the Buford meeting reported that the majority of the water use in their area was for agriculture: flood irrigation for hay, as well a grazing in the late season after the hay harvest. Fishing was reported as another use, with some boating: dories and kayaks on the river, as well as boating on Lake Avery and Trappers Lake.

Water issues affecting participants

Meeting participants mentioned the following water issues that affect them:

- Water rights in the area are transitioning from agriculture to recreation as a priority, and they believe water rights being dedicated to ponds for fishing are causing problems with temperature, disease, nutrients and flows in the river.
- Water quality and the health of the river, for both practical and recreational purposes.
- There is a lack of water storage in the Upper White. Participants noted current efforts to expand Lake Avery, and said additional reservoirs were also needed. They noted that releases from Lake Avery helped keep a call off the river the previous year.
- Whirling disease.
- A lack of data on disease and algae.
- Recreational access points lack sufficient services (bathrooms, etc).
- Camping along the river during hunting season leads to problems with trash being left behind.

Potential solutions

Storage to protect and enhance flows was of major interest to the group.

- Participants suggested that upriver groundwater storage possibilities could be helpful, making use of porous soils.
- There was strong support for enlarging Lake Avery.

Changes observed

Some of the changes participants reported seeing along the river include:

- Illegal blocking of the river for “fish habitat structures,” which they believe actually cause problems with sediment and block fish passage, although some new projects appear to be better.
- Reduced flows, especially in the late season.
- Erosion, as described in this US Geological Survey report cited by a participant: *Sediment transport and water-quality characteristics and loads, White River, northwestern Colorado, water years 1975-88*, Water-Resources Investigations Report 92-4031, By: R.L. Tobin
<https://pubs.er.usgs.gov/publication/wri924031>

Priority areas

Areas mentioned by participants as deserving of particular attention include:

- Lost Creek, where lots of sediment is produced.
- Tributaries, to investigate how ponds and other modifications impact the river.
 - Pond creek was irrigated as long as it flowed, supporting late season flows.
- Investigating storing water on Flat-top Dome as a possible back-up water resource for the White River.

Shortages/ Access issues

- Meeting participants reported that the situation for irrigation water was ok, except that algae could impede access by clogging pumps and screens.
- Flows are too low for recreation:
 - Warm temperatures are stressing fish.
 - There’s a shortage for fisheries.
- Access is legal but not accessible, lacking services.

Anticipated changes

Meeting participants expressed concern about the following issues they see potentially coming in the future:

- Colorado River Compact obligations could affect junior water rights holders.
- Cloud seeding could have both impacts and benefits.
- There isn’t much room for increased consumptive use.
- There is vulnerability for existing uses.

Conservation measures observed and desired

Participants discussed the following conservation measures they had observed and their opinions about them:

- The new owners of Westlands are potentially going to modify a V structure in the river and need to be educated.
- Structures have been placed in the river that need to be improved or removed.
- People need to be educated on best management practices (BMP’s)
 - Banks are getting de-vegetated.
- Diversion structures and leaky ditches should be addressed:
 - For the health of the river.

- To address maintenance problems.
- Highland Ditch is one example.

Use and communication on existing/ ongoing studies and plans

The group expressed that education is very important:

- To generate community support for storage.
- Keep it simple, not too technical.

The group suggested the following as good channels of communication:

- Newsletters, with links to on-line information.
- Community meetings.
- A diversity of outlets.
- Clinics with tv's.

Thoughts on doing an Integrated Water Management Plan for the White River Basin

The group expressed strong support for doing a plan for the White River Basin, with about 50% willing to be involved. They said the Conservation Districts should lead the process.

Participants expressed concerns about how a plan would be enforced or implemented, and reiterated that livestock in the area was mostly gone.

Rangely Meeting, January 29, 2020

When asked how they used the river, participants in the Rangely meeting listed the following:

- Education and recreation (boating)
- Agriculture: hay and livestock
- Drinking water
- Industrial: oil and gas, for fresh water and dust control
- Fishing

Water issues that affect meeting participants and solutions

When asked about the water issues that affected them, meeting participants listed the following issues, concerns, and potential solutions:

- Water rights and abandonment concerns
- Irrigation
- Riparian
- Mid-August low flows and algae
- Late season tight irrigation
- Sediment in the lake
- Mosquito spraying (concerns about effectiveness, pollution, and the existence of alternatives)
- Livestock watering

- Wild horse impacts
- Water quality for drinking
 - Sediment during high runoff
 - E-coli in late summer in 2017 and 2018
- There's a need for better water take-outs, for trucks getting water, diversions, and for public access.

Better takeouts would:

 - Protect water quality
 - Be more functional

Issue rankings

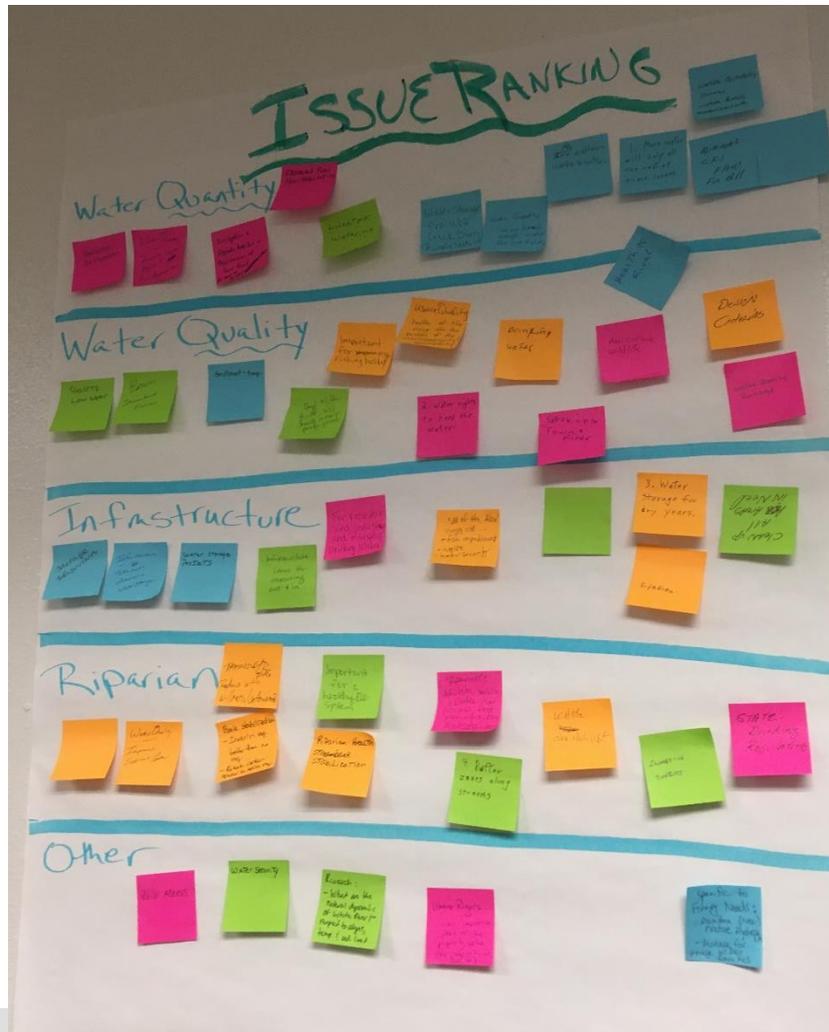
When asked to rank issue areas between Water Quantity, Water Quality, Infrastructure, Riparian and Other categories, Water Quantity got the majority of the top priority (blue) votes, and several second priority votes. Explanatory notes indicated that those listing this as a top priority want sufficient water for irrigation, to protect water rights and for the health of the river. One person voiced support for Wolf Creek Dam. Those indicating water quantity as a second priority also mentioned irrigation and aquatic habitat. The comment was made that sufficient water quantity would help all the other issues.

The next largest number of top priority votes were given to Infrastructure, with explanatory notes mentioning both storage and infrastructure improvements for take-outs and diversions. Lower priority votes for Infrastructure mentioned recreation, industry, drinking water, fish impediments, and storage.

Water Quality received a couple of top priority votes mentioning sediment and temperature and the health of the river. Second priority votes in this category mentioned agriculture, wildlife and spraying. Lower priority votes specified water quality for drinking water, fishing, health of the river, riparian and streambank erosion issues. One comment noted that if other issues are dealt with, water quality should be fine.

Riparian issues collected a few second priority votes, more third priority votes, and a few fourth priority votes. The second priority votes included mention of a holistic view of river processes. Third priority votes mentioned tamarisk and Russian olive control, but also included the comment that invasive vegetation was better than no vegetation for bank stabilization. Improved sediment control and wildlife were also mentioned. Fourth priority comments mentioned buffer zones, ecosystem health and invasive species.

The "Other" category collected votes from the top to the bottom level of priority. The top priority note said that for fishery needs, there was a need to maintain near native hydrology and manage for triage on dry reaches. Public access and water rights were specified on second priority votes, and water security and research on the natural dynamics of the White river with respect to algae, temperatures and sediment load were mentioned on fourth priority votes.



Changes observed

Changes participants had observed in recent years include:

- Changes to the river in high flow years.
- Improvements in recreational use, due to more maps, signage, and more launch sites.
- Increases in water temperatures, at least on Douglas Creek.
- Tamarisk and Russian olive
- Kenney Reservoir
- Sediment ponds and erosion control structures installed by BLM to reduce sediment inflow to Kenney Reservoir were effective and also had benefits for wildlife and stock watering, but these are no longer maintained.

Priority areas

When asked if particular areas in the basin needed particular attention for specific issues, participants noted the following:

- Sedimentation in Kenney Reservoir

- The whole basin should be included, but split by region into segments, such as:
 - Coldwater fisheries up-river
 - Protected warmwater fisheries downstream (below the reservoir there are critical flow issues)
 - Safety issues below the dam (64 bridge)
 - Tributaries: Douglas and Yellow
- Invasive removal and sediment control

Access issues and shortages

The following access issues were discussed:

- Participants reported that in drought years, pumps get burned up with algae problems, and that communication about dropping flows below the reservoir is important.
- Algae is a long-term issue for intakes.
- Recreational access could improve, with better infrastructure, and issues related to private land.
- Late season low flows limit boating.
- There's a water park possibility, which is perceived positively.

Anticipated changes

When asked about what they anticipate for the future, participants brought up the following:

- Endangered species
- Competition from downstream states as water demands rise in the Southwest.
- Sediment in the lake (with the comment that it's a natural thing).
- Need more storage to:
 - Meet higher demands
 - Address sedimentation
 - Provide more consistent streamflows for fish and flows in the river.
- Calls could start coming on the river
 - There is an in-stream flow right above the reservoir, which they have held off calling for when it's short.
- Water users need measuring devices for their own protection.
- Measuring tailwater could be required.

Conservation measures observed and desired

Participants made the following comments when they were asked about conservation measures they had observed, what they thought about them, and measures they would like to see:

- More measuring devices are needed.
- Sprinklers have pros and cons and potential hydrologic impacts.
- Evaporation from reservoirs is more than if we had in-ground storage.
- Operations out of Lake Avery are cooperative and beneficial for fisheries.
- Habitat work could be done to adjust to lower flows.
- Infrastructure improvements are needed at water take-outs.
- Boat launches could be improved.

- Sediment ponds should be restarted, which could help support late-season flows.
- Water detained for stormwater control by industry could be applied elsewhere.

Use and communication on existing/ ongoing studies and plans

When asked about the importance of learning about other plans and studies before embarking on a new one, participants noted that the information was important, and they might be missing out on opportunities for partnerships by not knowing about all that's going on.

When asked about what means of communication would be effective for getting information out about studies and plans, participants offered the following ideas:

- Podcasts
- Mailings
- Short summaries
- Conservation District newsletters with links
- Emails
- Feed store and clinic posters and televisions
- Chamber and town signs
- Social media
- Radio (55 Country AM)

Thoughts on doing an Integrated Water Management Plan for the White River Basin

When asked if they thought doing an Integrated Water Management Plan for the White River Basin was a good idea, participants made the following comments:

- We need to plan, manage and protect our water before someone else does.
- Strong support was voiced, with some agreeing to participate if the effort goes forward.
- We need a living document that can evolve.
- All partners need to be involved – we have tools now to get involvement
 - Get younger kids educated and involved.
 - Riverwatch should be restarted for High School and NWCCC
- There aren't any negatives to planning.
- We should use the CO Water Plan and the Yampa/ White Basin Implementation Plan.

When asked who should lead the effort, participants said the Conservation Districts, which can also help the NRCS put money on private land for projects.