

Engaging Ag Producers on Watershed and Stream Management Planning

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By Phil Brink, Colorado Cattlemen's Ag Water NetWORK Consulting Coordinator

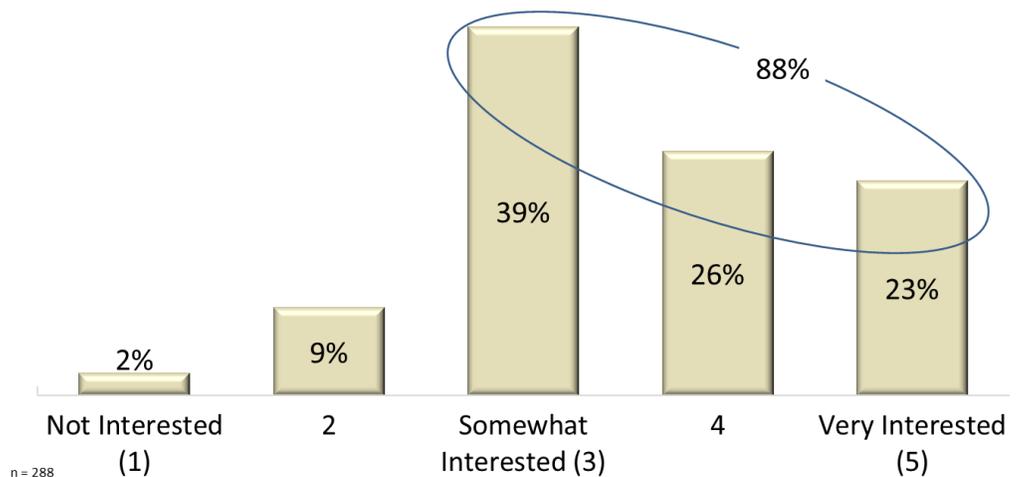
The Colorado Water Plan includes twin goals of having 80 percent of the state's critical watersheds covered by watershed management plans and 80 percent of the locally prioritized streams covered by stream management plans by 2030. Successful watershed and stream management planning involves people representing all local water interests, and that nearly always includes the agricultural community. Through ownership and leasing, agricultural producers control most of the water and land in Colorado. Agricultural input and cooperation is essential in achieving needed improvements in our streams and watersheds.

Irrigation water is a vital component of Colorado's agricultural industry. Without it, crop and forage yields are dramatically lower. An irrigated field of corn, for example, will produce almost three times more grain than a non-irrigated field of corn (2018 Colorado Agricultural Statistics). Irrigation water is a big part of the reason Colorado agriculture contributes \$41 billion to our state's economy (www.colorado.gov).

We often say that agriculture provides food, fiber and fuel, but Colorado agriculture accomplishes much more. It preserves open space and extraordinary vistas, provides wildlife habitat - including habitat for threatened and endangered species - and connects us with our agricultural heritage, helping to create a sense of place and community. Consider the farmer's markets and Colorado-made foods and beverages we enjoy. Much of it would not be possible without irrigation water.

Ag producers want to engage in water-related planning activities. The CCA Ag Water NetWORK's 2019 statewide survey of agricultural producers found almost one-fourth of respondents were "very interested" in participating (see chart). Eighty-eight (88) percent of respondents indicated they were at least "somewhat interested" in participating in local watershed management planning.

Producer Interest in Participating in a Local Watershed Management Planning Initiative



Like other stakeholders, agricultural producers have specific interests around water. Farmers need to utilize their water rights to grow crops and forage and to water livestock. For surface water users this means diverting water from rivers and streams and other surface water bodies and conveying it to fields for application.

The top three (3) water-related challenges expressed by survey respondents were all irrigation-related (see chart below). Note that the survey allowed producers to select more than one challenge, thus the percentages exceed 100 percent when totaled. Not having enough water ("amount of water") was closely followed by water

delivery infrastructure. These two challenges along with “water storage” - which was the fourth most frequently cited challenge - are often interrelated and addressing them can be capital intensive. Demand for grant and cost-share funding chronically exceeds available financial resources.

Through the watershed and/or stream management planning process, funding for irrigation water diversion and delivery infrastructure and source water protection can be obtained from a wider range of sources than is typically available to agriculture as long as projects are multi-benefit in nature. One example is the combination of stream channel and embankment improvements with a diversion dam replacement – which may also incorporate a fish passage that allows aquatic life to move past the diversion structure. Projects like these help wildlife, aquatic life, water quality and irrigators alike. Because this type of project benefits multiple uses, it can garner more funding and reduce the cost to irrigators.

The third greatest challenge cited by ag producers was irrigation efficiency. One of

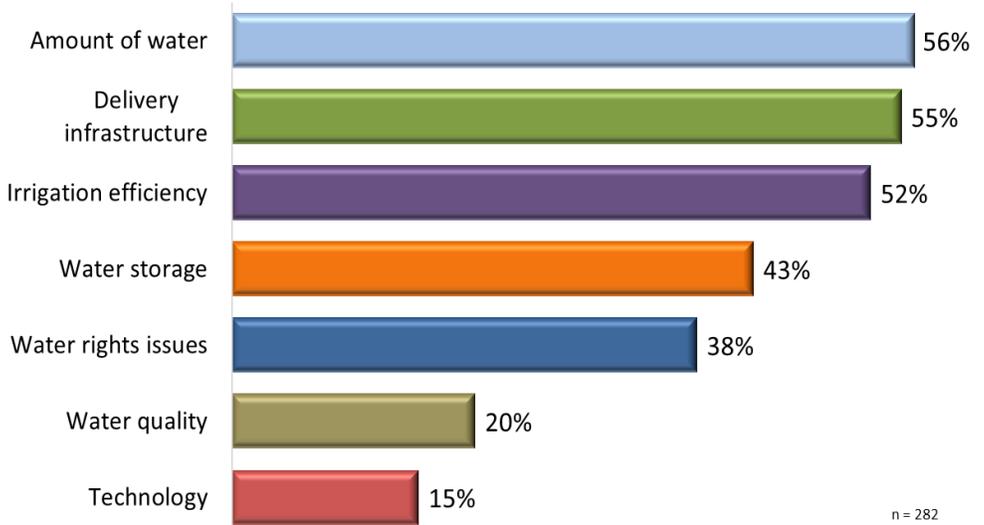
the benefits of watershed and stream management planning is that the process involves assessment and analysis of prioritized problems, and helps to ensure that designed solutions address the problem without creating unintended negative consequences. An example of how this process can be helpful is in the provision of information to ag producers about how to best address ditch seepage and irrigation efficiency – ie., how to deliver water more effectively to forage and crops.

Increasing irrigation efficiency often results in the reduction or elimination of deep percolation and return flow on formerly flood-irrigated fields. Lining earthen ditches with concrete or installing pipelines improves the delivery of water to fields by eliminating seepage. Where there is significant elevational change in a ditch, installing a pipeline can also enable irrigation water to be pressurized, facilitating hydraulic (water-powered) sprinkler irrigation. Lining and piping can also improve water quality in streams by reducing the selenium and salinity content of seep water in areas where shale is near the surface.

However, leaky irrigation ditches also provide watering spots and seasonal wetlands – serving as an oasis for wildlife and birds in otherwise dry areas. Also, flood and furrow irrigated fields and meadows release water slowly back to streams and rivers later in the summer and fall, enhancing flows after snowmelt and summer rains have dwindled. This supplemental flow helps sustain fish and wildlife, and extends recreational use in some cases. Thus, a thorough evaluation of a canal or ditch system is crucial to understanding how to help agricultural producers and other stakeholders achieve multi-benefit solutions.

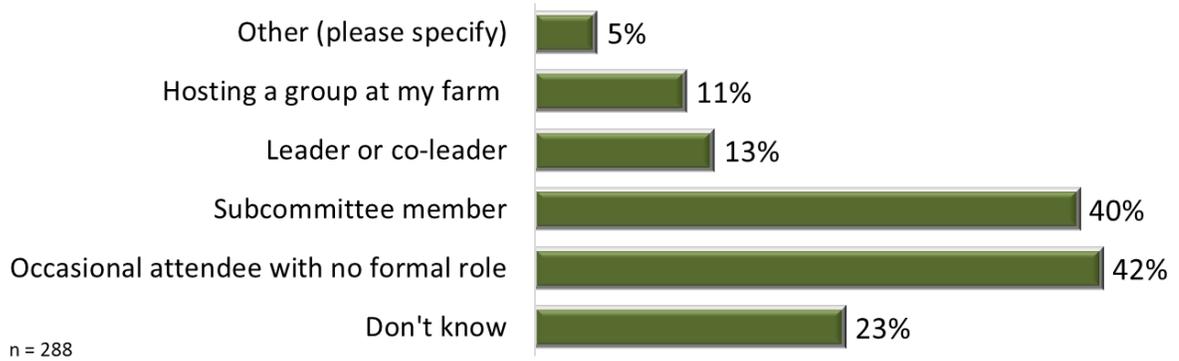
Most agricultural producers want to be involved in local water planning efforts. Our survey found about 40 percent would serve as a subcommittee member and 13 percent would lead or co-lead a watershed or stream management planning initiative. To get agricultural involvement in local planning efforts, it helps to be flexible

Greatest Water-Related Challenges cited by Ag Producers



on meeting times and communication methods. Survey respondents cited evenings as the preferred meeting time. In a separate question, producers also indicated that having the ability to join meetings via conference call would better enable them to attend.

If You Were to Participate in Watershed or Stream Management Planning, in what Role Would You Serve?



Eleven (11) percent of respondents said they would be willing to host people at their ranches or farm. Establishing personal relationships with local farmers and ranchers improves cross-interest understanding, creating alliances and trust that are necessary to implement stream and watershed improvement projects. On-farm tours allow producers to explain how they manage land and water resources and what their needs and challenges are, and answer questions that can lead to breakthrough multi-benefit solutions.

About 52 percent of the 288 producers that took the survey indicated that they had previously, or were currently involved in a local watershed or stream management planning endeavor. Some producers expressed frustration that local planning efforts had not yielded tangible results despite multiple meetings. Producers also expressed concerns related to how the watershed and stream management planning process could affect their property and water rights. These included questions about whether planning activities could place limits on land within a watershed, and whether their water rights would be safe. Several producers also indicated that they needed to learn more about watershed and stream management planning before they could identify where they might fit into the process.

The ultimate goal of watershed and stream management planning is to implement actions that benefit watersheds and streams, as well as the stakeholders that use and rely upon them. Engaging agricultural producers and getting to know them and their water-related challenges will help achieve outcomes that benefit all stakeholders.

Phil Brink, Brink, Inc, is the Consulting Coordinator of Colorado Cattlemen’s Ag Water NetWORK (www.agwaternetwork.org). Phil can be reached at phil@brinkinc.biz or 720-887-9944.