

Freedom's Harmony

Proactive approach brings harmony to ranch waters in Montana.

Story & photos by Corinne Blender

A wide river exists between what some see as ranchers' freedoms and water-quality regulations. The folks at Edwards Angus Ranch, Denton, Mont., have splashed right into that river. Their proactive approach to water quality at their new bull-development facility has brought freedom and harmony to their range.

Clifford Edwards, owner, and Dwight Barber, manager, built a bridge across the mighty waters that have historically caused ranchers to turn their backs toward governmental regulation entities.

"Whenever we are working around a watershed with confinement facilities for any part of our operation we are proactive, and that's by design with governmental authorities," Edwards says. "We want their input."

Edwards and Barber have been in contact with their local Extension and soil conservation services along with other governmental agencies since they began designing their bull-development center and started construction in 2000.

"These people make things a lot easier for the average operation," Barber says. "Most people don't have the time that it takes to really research these things to see what the issues are that really need to be addressed."

Innovative ideas

Edwards Angus Ranch has used the experts' insight to anticipate future regulations expected to come from pending concentrated animal feeding operation (CAFO) laws. These laws could regulate nearly every aspect of the industry.

"They have given us an awful lot of good ideas, a lot of guidance, and they have accepted a lot of the ideas that we have," Edwards says.

But like many ranchers, Edwards likes to be his own boss with the freedom to have some say in how his operation is developed and managed.

"Nobody has ever accused us of not having strong opinions and ideas," he says. "And we do express them, and it's been a very satisfactory working relationship with them."

Satisfying water-quality issues has been the goal of the relationship from the beginning.

"When we first made the commitment to build a bull-development center we had to address the issues of the state waters that are there, not only Wolf Creek, but the shallow waters that many of our springs and wells are fed by. They not only water our livestock, but those of us on the ranch," Barber says.

Water is a big part of the total nutritional and developmental picture of animals, Edwards says. "It keeps management of pastures that have riparian areas in them so much easier by having the watering centers away from the creek and [watering from]

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► The cattlemen of Edwards Angus Ranch have managed watersheds in central Montana's Judith River Basin area for more than a century. Today, water quality at Edwards is in the hands of (from left) Chris and Cliff Edwards and Dwight Barber.

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tanks. I think the animals drink a lot more uniformly and consistently by doing that.”

With a two-way bridge in place, evaluation and communication gave water-quality discussions a free-flowing path.

“We find, first of all, that it makes for a lot less grief, a lot less anxiety . . . if you're dealing straight up with these people,” Edwards says.

Brainstorming and drawing on specialists' knowledge allowed Edwards

Angus Ranch to put key factors into play.

“We showed them our preliminary ideas and they gave us pointers and tips and showed us some things we needed to address because of the physical layout of the land,” Barber says. The result is a high-class bull-development center revolving around concern for water quality.

“We want our facility to be first-class. It fits in with the total scheme of what we are trying to do. We want our ranch to be

managed in harmony from beginning to end,” Edwards says.

Edwards' scheme follows a strict water-quality plan that takes a look at the big picture. It battles the raging river head on. Headgates, vegetation within the pens, diversion dikes and filter strips play a vital role in the center's design.

Trial by storm

Barber began working with the Department of Environmental Quality (DEQ). He learned how to monitor water quality and the steps necessary to develop the site.

Barber says that CAFO regulations will require livestock producers to control a critical window of time where water would travel through the operation. Water-quality plans must provide for the ability to prevent runoff contamination that could happen with what is termed a “a 24-hour, 25-year storm,” or the largest amount of rainfall within 24 hours in 25 years.

On June 27, 3.25 inches (in.) of rain fell on the Edwards' bull-development center in central Montana. That storm qualified as the 24-hour, 25-year storm for that area, testing the center's ability to prevent water pollution.

Following the storm, Barber came to the site with a camera and a notepad, ready to record how these elements had withstood the downpour.

Water flow is controlled before it ever reaches the pens. Barber says the headgates prevent a flood of water from ripping through the center by controlling its speed. When the farm next to the center drains too quickly, the headgates are shut until the water can be filtered through the facility to allow the natural filtration process to function.

Once the water reaches the facility, it travels through a filtration system consisting of vegetation in the pens, grass filter strips, diversion dikes and the final grass filter before reaching the creek.

“You'd think that the taller the grass, the better it would filter. But a filter strip needs to be shorter. Six to eight inches is more effective than a foot,” Barber says. “This allows us to graze the filtered area or mechanically mow it.”

The diversion dikes collect the larger debris, especially during periods of intense rain. After the June 27 storm, Barber was able to see the effects of the filtering process. Debris collected at the diversion dike, keeping the creek below clean.



► Filter strips below the pens allow for natural filtration of debris leaving the pens. The ideal height of the forage in the filter strips is 6-8 inches (in.), which requires the area be grazed or mechanically harvested and gives Edwards Angus Ranch a second use of the area.



► Miles of pipeline run throughout the ranch to provide a water source for cattle other than a stream or river. The tanks provide a source of clean water for cattle and help prevent destruction of riparian areas that can be caused by cattle trampling the banks.

Intrinsic value

“The time and energy it takes to keep your facility in accordance with rules and regulations is much less than it would be to come in the back door and have to retro-fit it,” Barber says. “And look at the turmoil that would cause your management, to address it in that scenario, rather than coming in the front door and doing it the proper way.”

The initial capital investment is minimal when Edwards and Barber consider their final product.

“Rather than view this as some sort of adversarial requirement, we view it as something that enhances intrinsically the value of our ranch as well as our product we are selling,” Edwards says.

Not only has Edwards Angus Ranch found specialists’ knowledge a good resource, but they also encourage other ranchers to use the financial support available for water-quality enhancements.

“We have found those people to be a valuable resource in and of themselves. Sometimes it’s amazing how much information there is for use in some of our tax dollars rather than having to hire an outside consultant,” Edwards says.

Being proactive gives more creditability to an operation as well.

“They’d have us on record, and it will enhance our ability to manage the facility because, as a permitted operation, you are kept abreast through the state with the new regulations, the new policies,” Barber says. “Once the state qualifies you as a permitted CAFO, they kind of take you under their wing because they have put their stamp of approval on your management.”

History has a way of defining the good and the bad, Barber says.

“They already have a history. They already know all about our facility, and they are going to be very much supportive of us because it was they who said ‘This facility is environmentally sound,’” Barber says. “If you ignore these issues you may wake up one morning with the proper authorities at your place shutting down your facility, and you could find yourself without an operation.”

Harmonious expansion

“When we evaluate something like this, part of the analysis is the environmental requirements and the capital it takes to come into compliance. So, we simply figure that in,” Edwards says. “That is part of the total package for that expansion of the ranch.”



► Protecting water quality requires more than just paying attention to water flow on your own land. Headgates have been installed at drainage points above the Edwards bull-development center to control the flow of water traveling from neighboring fields.



► Debris collection around diversion dikes lets Cliff Edwards know this part of his water quality plan is working. The diversion dikes contain larger debris until it can be filtered through a grass strip before it reaches the creek that lies below this point.

For Edwards Angus Ranch, water quality goes beyond expansion. It involves evaluating every aspect of their operation and looking for ways to improve their environment.

“We view spring, deep well, pipeline, water and restoration of rangeland grass each as an acquisition for the ranch that is a line item in the requirements that we analyze,” Edwards says. “They’re always

figured in, they are always accounted for. By the same token, for any appraisal that we have done of our expansion, you can see all of that is reflected. I view it as a very cheap way to enhance the total worth of the ranch unit.”

Because of their proactive water-quality practices, the waters running through Edwards Angus Ranch cast a clear reflection.

