

# Watershed group unveils plans to drown out Barr Lake pollutants

By Will Shoemaker  
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Photo by Will Shoemaker

Scott Roush, park manager for Barr Lake State Park, explains the effect high nutrient levels in the lake have on fish and wildlife – and, ultimately, visitation by humans.

It's no secret. The quality of water in Barr Lake and Milton Reservoir in Weld County has never been great, thanks to a booming population higher up the basin.

An organization with vested interest in the quality of water in these reservoirs, however, hopes it can spark change. The group's latest brainchild, its members hope, will be the roadmap to

reaching a higher level of water quality in the watershed.

The Barr/Milton watershed begins at Chatfield Reservoir and covers most of the Denver metropolitan area and portions of six counties, stretching north and east over 850 square miles.

Water quality problems include high nutrients, excessive algae growth, and high pH. Quality of water is poor enough that the Colorado Department of Public Health and Environment included both Barr Lake and Milton Reservoir on the state's list of impaired waters in 2004. That is of concern to many water users in the area, especially as water in Barr Lake and Milton Reservoir is used more and more for drinking and domestic purposes.

The Barr Lake and Milton Reservoir Watershed Association, formed in 2002, recently released a plan the group calls "a major first step in a 10-year process to reduce nutrient pollution to the lakes, which are popular spots for outdoor recreation, bird-watching and fishing, provide habitat to nesting bald eagles, and store water used for both agricultural and drinking water supplies."

Participants of the group include representatives of cities and towns, major wastewater treatment facilities, drinking water providers, agricultural water users and recreational groups. The plan was unveiled at an association meeting in Brighton on Tuesday, Feb. 27.

Annual algae blooms in July are the greatest problems from high nutrient levels in Barr Lake, said Scott Roush, park manager for Barr Lake State Park since April 2006. Nitrogen and phosphorus – from fertilizers applied to crops, farm animals, wastewater treatment plants and urban runoff – spur overgrowth of algae, which prevents sunlight from entering the water and can cause fish kills to occur.

"It's too much of a good thing, it's doing just what it would do adding nutrients to your garden. It's fueling a lot of algae growth and that has a trickle down on water quality," said Alice Wood, watershed coordinator for the association.

The algae blooms affect fish first, but species high on the food chain, like bald eagles, ultimately suffer.

"If their food sources are going away, they could go other places," Roush said of the lake's eagle population. "We have up to nine of them out there right now."

The water level at Barr Lake is highest in the spring after filling through the winter. As that water is used through the summer to irrigate farmers' crops, the level drops; and the less water in the lake when algae blooms begin, the greater the problem.

"You look at the housing development around here and the potential for visitation," Roush touted. "That's what this place is about and we want to protect it."

"Birding is huge out here," he said. About 300 species of birds exist around the lake.

While water quality has come a long way for Barr Lake, it still has miles to go. Park officials seek to educate the public about the environment, so maintaining quality water is important, Roush explained.

"We're putting this money into stocking fish and you don't want to put money into it if you're losing those fish," Roush said, adding that loss of fish hasn't yet occurred but could if the quality of water doesn't improve.

Barr Lake State Park saw 78,000 visitors in 2006, and water quality is connected to that number, Roush said. If water quality affects fish and wildlife population, fewer people will visit the park.

Barr/Milton association officials hope the plan will continue to evolve in the future as the public becomes more aware of the problem and involved in specific projects.

"It's the type of project that has an effect on both the regional and local scale," Wood explained.

"Everybody in the watershed needs to be a part of the solution," said Steve Lundt, a biologist with Metro Wastewater Reclamation District, a very active member of the watershed association. "By having the watershed group and being cooperative, we have more control over how the regulations are going to look in the future."

Casey Davenhill, coordinator for Cherry Creek Stewardship Partners spoke to the group of Barr/Milton association members Feb. 27 about the partners' efforts educating the public about the quality of water in the Cherry Creek watershed.

"I think it's really important for the adult taxpaying community to understand the stormwater infrastructure," Davenhill explained. "We're trying to do something we don't understand to correct a problem we can't see."

Quality of water reaches further than simply what is contained in the watershed. It relates to the quality of life in the area.

"People take pride in their jobs, they take pride in their community and they want to maintain their property values and this is something that can help them," Davenhill added.

The Barr/Milton group expects to start "on the ground implementation" around 2009. Prior to that, data is being collected and analyzed for water in the reservoirs. One goal is the establishment of a total maximum daily load – the amount of contaminants that a body of water can receive and still meet water quality standards. After that, the next step will be figuring out who needs to reduce their load by how much.

At this point in the plan the objective has largely focused on identifying stakeholders.

Concern for human health from the quality of water is still "pretty far ahead" Wood said. "There are toxic species of algae. I can't say that we're not seeing those. The concerns now are a lot more for aquatic life and that we're shifting to a drinking water use, which affects it's taste and odor but is not a health issue."

Barr Lake and Milton Reservoir, part of the South Platte watershed, are owned by Farmers' Reservoir and Irrigation Company.

Though formed in 2002, by 2005 the Barr/Milton association had evolved into an official Colorado watershed association with a strong stakeholder group of about 50 representatives from cities, wastewater and drinking water facilities, agricultural irrigation groups, recreational groups, Colorado state parks and developers.

"We're trying to increase our number of stakeholders all the time," Wood said.

The current watershed plan and more information about the group can be found at [www.barr-milton.org](http://www.barr-milton.org). The plan will receive updates from year-to-year and comments are still being accepted. They should be sent to Wood at 303-404-2944 ext. 13.

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