Kevin Wagner, project manager with the Texas Water Resources Institute, knows why livestock producers should be concerned with total maximum daily loads (TMDLs) and bacterial contamination in Texas' water bodies. “Bacteria is the No. 1 cause of water quality impairment in the whole United States,” he explains. Wagner works with Dr. Allan Jones and has been actively involved in the work of the task force on bacteria TMDLs formed by the Texas Commission on Environmental Quality (TCEQ) and the Texas State Soil and Water Conservation Board (TSSWCB or Soil Board).

“Why should cattlemen be concerned?” he asks. “Because there are potential requirements that could come out of the TMDL process,” that could end up as regulations, he explains. “I agree with Dr. Jones that at the beginning, right now, we have an opportunity to take care of the problem voluntarily. But, if water quality continues to be a problem and ... we’re not taking care of bacterial contamination and non-point source pollution voluntarily, then there’s a good potential for an increasing amount of regulation. The more proactive a stance cattlemen can take, the better,” he encourages.

Wagner has several suggestions on what those proactive actions could be. “No. 1, be involved in the water quality standards process. That is one of the biggest issues we have to address.

“If there is a TMDL study going on, participate in those meetings,” he says. “The decisions on what direction the TMDL study goes in and what actions are implemented are made at those meetings. If cattlemen aren’t there, then they may be the ones stuck with all work of reducing the daily loads of contamination going into the water.”

Wagner says if the TMDL study participants are limited to just urban and agency people, they may find it easier to shift the work to their rural neighbors rather than take on responsibilities themselves. “Cattlemen need to make sure their voices are heard,” he stresses.

Brian Koch with the TSSWCB in Wharton agrees. He has seen the stakeholder process at work in developing a plan to address water quality impairment along part of the Plum Creek Watershed, which runs from Lockhart to Kyle.

Plum Creek is listed on the Texas Water Quality Inventory and 303(d) List as having bacteria impairment from Kyle to Lockhart and nutrient concern for nitrates, nitrites, ammonia and total phosphorous – from Lockhart to Luling.

Koch says the Soil Board and Texas Cooperative Extension-Soil and Crop Sciences have held three initial meetings to introduce the Plum Creek Watershed Protection Plan in April of 2006, in the watershed area, followed by monthly steering committee or workgroup meetings since then. Word about the meetings was distributed by invitation, news releases in the local papers and a monthly newsletter Koch publishes on the TSSWCB Web site.

“The Luling paper carried everything we gave them,” he says, and Country World News published a good deal of information on the meetings, but other local papers were less generous with space for meeting announcements.

“We have met monthly in the watershed since April 2006. We haven’t done any bacterial source tracking in Plum Creek yet,” he says. “The stakeholders haven’t decided that they want to do it
yet.” They are using other methods to research the problem and options for Plum Creek.

“We run everything through the stakeholders, nothing is done without their approval,” Koch explains. “We ran models and showed the stakeholders the results and they gave us their feedback and input,” in which they asked for additional monitoring of water quality. “We'll put the data from that additional monitoring into the plan,” he says.

Koch doesn't expect the Plum Creek implementation plan to ever be a finished document. The stakeholders recognize the land use from Lockhart to Kyle will change in the coming years, and expect their implementation plan to be adapted to those changes. “It will be a living plan,” he explains. “If a new issue comes up, we can implement that into the plan and make adjustments as we go.”

Out on the ranch, Wagner says good grazing management “will go a long way toward taking care of a lot of these water quality issues. A lot of the bacteria come from direct deposition into the streams or right along the streams. Anything you can do to minimize that, especially during periods when there is a lot of recreation, is beneficial,” he points out.

Wagner is studying some practical techniques in livestock management to see what impact they have on reducing bacterial loads. One technique is installing alternative water supplies for livestock to draw them away from the creek. “We're looking at what kind of load reductions you can get from implementing a simple practice like that.” He points out that an alternative water supply is a benefit to any herd at any time because it provides a reliable water supply, particularly during drought.

Wagner is also researching the effects of techniques such as grazing management, adjusting stocking rates, moving mineral feeders to upland areas, and rotating stock out of creek pastures during seasons of active water recreation on water quality.

Wagner and Koch both advocate stakeholder involvement. Early and active involvement helps identify the problem, track the source and choose the techniques to make improvement with cost efficiency and effectiveness in mind.

Koch says, “That process of giving the stakeholders a choice, voicing their concerns, eases the process and makes everyone want to work together better.”