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Lake Charlevoix Watershed Project
Local officials survey
Significant findings

Dean Solomon and Chris Anderson
Michigan State University Extension

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The social indicators system is designed to provide baseline data and measure change in target audience:

- Attitudes – Assesses beliefs regarding issues or practices. Attitudes are related to willingness to adopt or change a practice
- Awareness – measures awareness of the target audience (in our case, local officials) regarding relevant technical issues or recommended practices in the watershed
- Constraints – Limitations to adopting or changing practices by and individual or community
- Capacity – Capacity of the community to implement a new or revised practice
- Behaviors – Actual change in practices by individuals or communities

The survey sent to local officials focused on the first three core indicators: awareness, attitudes and constraints.

Attitudes

Respondents rated overall water quality "good." Highest ratings were for scenic beauty, boating and picnicking/family activities; lowest for eating fish caught in the water, fish habitat and swimming. There were no significant differences between local official's overall ratings and those of respondents to the watershed resident survey.

The survey question asking officials their level or agreement or disagreement with opinion statements can be categorized as follows:

- **Value importance of water quality** – respondents fairly strongly agreed that both economic stability and quality of life depends on good water quality.
- **Personal or community responsibility** – respondents agreed that the way residents care for their lawn and garden can influence water quality, that residents are personally responsible to protect water quality. (Respondents to the watershed resident's survey agreed more strongly regarding their role in protecting water quality.) They disagreed that water quality is the state's responsibility, not their local unit of government.

- **Economic development vs. water quality** – Local officials, for the most part, see no conflict between economic development and water quality, agreeing with the statement that it is important to protect water quality even if it slows economic development, disagreeing that taking action to protect water quality is too expensive and strongly disagreeing that it is okay to reduce water quality to promote economic development. They were more ambivalent, however, about who pays, with more not supporting than supporting increase in local taxes or fees to improve water quality. (There was, for the most part, no significant difference in the way that local officials and respondents to the watershed resident survey responded to the economic development questions.)
- **Local master plans and zoning ordinances** - Respondents overall believe that their master plan and zoning ordinance does an excellent job protecting water quality, although approximately 40 percent were not sure, neither agreeing no disagreeing with those statements. Local officials would support changes to their plan and ordinance to improve water quality.

Respondents were fairly trustful of common information sources, with most sources being "moderately" or "very much" trusted by nearly 60 percent or more of participants. The most trusted sources are Michigan State University Extension, the Lake Charlevoix Watershed Management Plan Project, Tip of the Mitt Watershed Council, the local Conservation District and Michigan Department of Natural Resources. They only sources weakly trusted were municipal attorneys and tribal government (although over 30 percent were not familiar with tribal government as a source of water quality information).

Awareness

Respondents varied widely in their awareness of water impairments (pollutants and conditions), sources of water pollution and consequences of poor water quality.

Generally, local officials indicated that most impairments are a slight to moderate problem, the most severe being invasive aquatic plants and animals, habitat alteration harming local fish and phosphorus. *However, in most categories, a high percentage of respondents didn't know if a particular pollutant or condition was a problem or not (for instance, 50 percent for phosphorus or toxics, 41 percent for bacteria and viruses).*

Few sources of water pollution were rated as a significant problem, with none rising, on average, to even a moderate problem. The most severe problems were Excessive use of lawn fertilizers and/or pesticides, improperly maintained septic systems, droppings from geese, ducks and other waterfowl, and removal of riparian vegetation. *As with impairments, a significant percentage of respondents (11 to 26 percent) didn't know if a pollution source was a problem or not.*

Consistent with perceptions about water pollution sources and impairments, consequences of poor water quality were viewed as "not a problem" or a "slight problem," the most severe being loss of desirable fish and excessive aquatic plants and algae. There were generally fewer "don't know" responses than in the other awareness questions.

Respondents varied widely in their awareness and us of planning and zoning practices to improve water quality. The survey question was asked in two parts, personal familiarity with a practice, and use of the practice by their community. Greatest familiarity was with minimum setbacks along lakes and streams, minimum open space requirements for new developments, septic system restrictions, and lake and stream vegetative buffer requirements. Least familiarity was with keyhole regulations, municipal wellhead protection, coordinating water quality zoning provisions with neighboring communities and rain garden requirements.

In this question, personal familiarity was significantly related (all practices but minimum setbacks) to current use by the community. In other words, the more a respondent was somewhat familiar or new how to use a practice, the more likely that the respondents indicated that their community used the practice. Also, the less familiar a local official is with a practice, the more likely they don't know if their community uses the practice or not.

As might be expected, communities without zoning are less familiar with practices. Planning commissioners are much more familiar with practices that respondents who are not on the planning commission. Among those planning commissioners, length of service is correlated with familiarity with practices, but only weakly. Respondents from cities were as aware or significantly less aware of practices than respondents from townships.

Constraints

On average, respondents indicated that issues limited their community's ability to change planning and zoning practices to protect water quality only "a little" or "some." The biggest constraints are resistance to new regulations, concerns about economic impact of new regulations and approval by community residents. Conversely, local officials are not as limited by lack of expertise or information.