grassroots planning

Issue 1 October 1998

"If we just took care of the water-quality problem, the community would say nothing more than, 'Thank goodness that was solved.' But if you improve recreation and wildlife as well, then people take notice and say, 'That was really something.'"

—Farley Cole, Macoupin County Farmer

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Special thanks to Ivan Dozier (Macoupin County NRCS district conservationist), Wanhong Yang (graduate student and GIS specialist, University of Illinois), the Otter Lake Resource Planning Committee, the ADGPTV Water Commission, and the hundreds of Illinois residents who filled out our surveys and talked to us during the study period.

This research was funded in part by the USDA Natural Resources Conservation Service under agreement #68-7482-7-208, the Council for Food and Agricultural Research (C-FAR), and University of Illinois Extension.

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Natural Resources Conservation Service

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College of Agricultural, Consumer and Environmental Sciences

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Local Solutions for Global Issues

Issue 1 October 1998

The Otter Lake Story

Anatomy of a Successful Locally Led Planning Effort

Landing the Big Fis

Danny Becker remembers the day clearly. It was the day before his birthday in September of 1992, and as his fishing boat drifted into cover, the big fish struck.

The hooked fish took off for deep water, heading directly under Becker's boat. Instinctively, Becker dropped to his knees and thrust his fishing rod into the water to keep the line from catching on the boat's bottom and breaking. Three or four times, the muskie leaped into the air. When the big fish rested, Becker sent a vibration down the fishing line to get it moving again.

The battle was brief, over in only six or seven minutes, Becker said. But the prize was a 32-pound muskie—the state record for Illinois at the time.

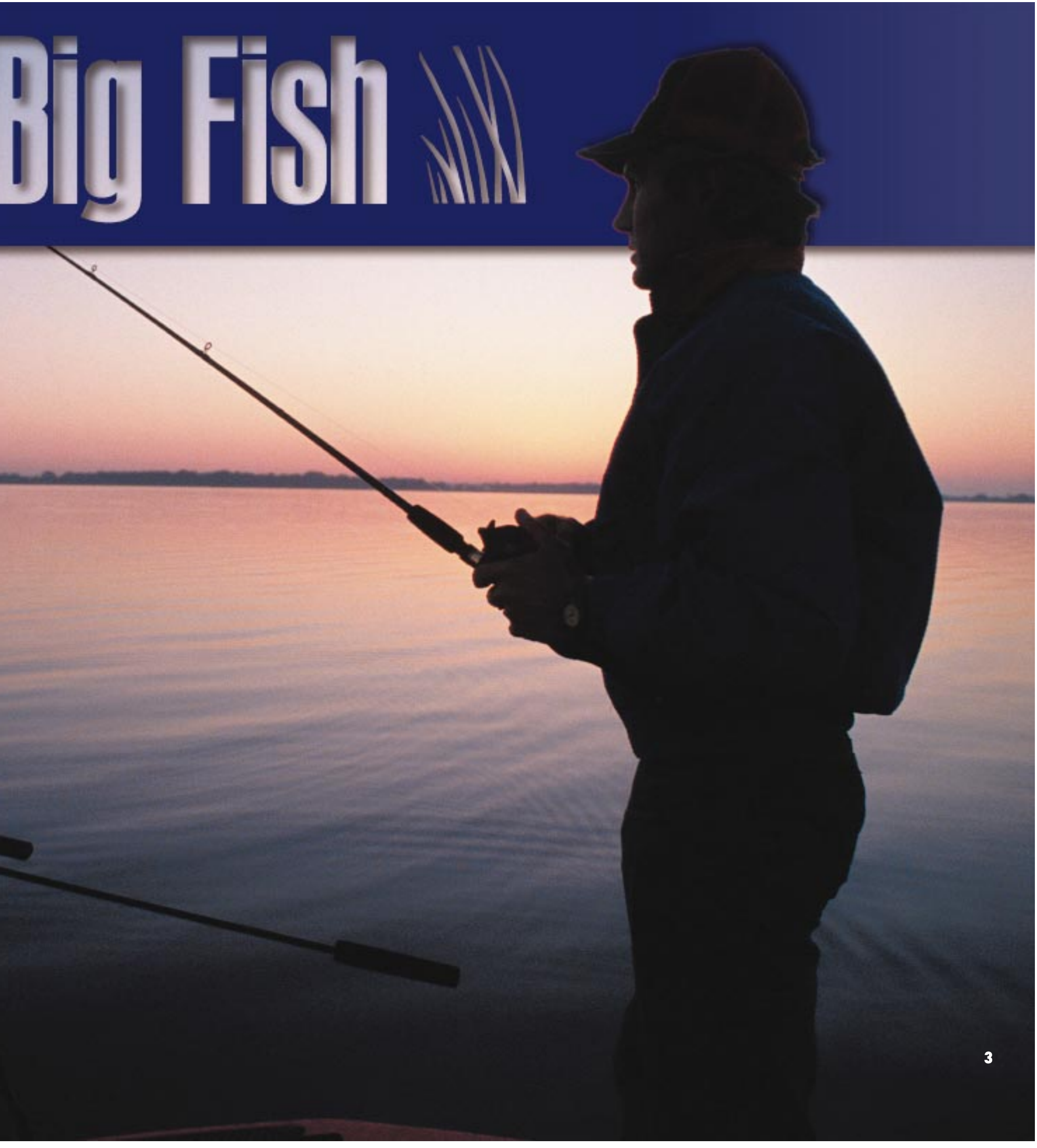
Becker hauled his birthday-present catch from Otter Lake, a 765-acre lake located in Macoupin County, Illinois, about 35 miles south of Springfield. Otter Lake is a popular spot for recreational activities, such as fishing, boating, and camping. Since the early 1990s, though, the locals have been struggling with a challenge even more elusive and formidable than bringing in a record-breaking fish.

They have been dealing with serious water-quality problems in the lake. The impact of these problems has been felt among farmers, builders, community leaders, and all the people who use Otter Lake as their drinking water source in seven nearby communities.

The water-quality issue has reminded people living and working in the area of the central role that Otter Lake plays in their lives. The good news is that the people responded with what has become the watershed planner's equivalent of "landing the big fish." They formed a planning committee, identified solutions to their water-quality and other resource problems, and implemented the plan.

This locally led effort depicts an undeniable story of success.

Big Fish



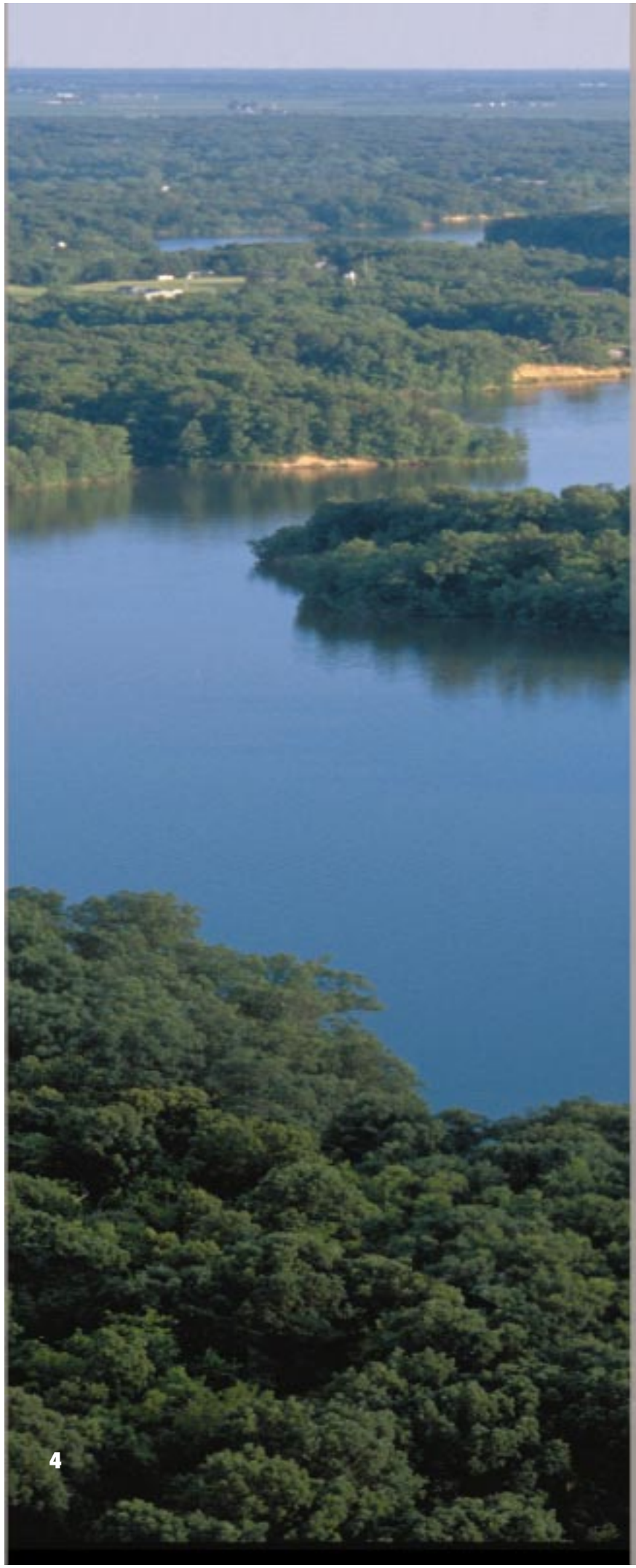


Photo: David Riecks

The Atrazine Issue

Otter Lake's water-quality problem appeared in 1991, when the Illinois Environmental Protection Agency measured atrazine, a popular weed killer, at 6.8 parts per billion in the finished drinking water. This amount is more than double the chemical's maximum contaminant level for drinking water—3 parts per billion.

The ADGPTV Water Commission, which supplies water from Otter Lake to seven communities and numerous farmsteads, took actions that lowered atrazine levels. But the drinking water still did not meet the mandated standard. In August 1993, the Illinois EPA notified the Water Commission that atrazine averaged 4.9 parts per billion during the last four quarters of monitoring.

The Illinois EPA then placed the Water Commission on restricted status. This action barred the Water Commission from adding new residential and commercial customers until it took corrective actions to reduce atrazine in the water supply.

The crisis was not unique. The community's response to the problem, however, was.

The Response

Every year, hundreds of water-supply companies in America's agricultural regions receive notice that one or more farm chemicals exceed safe drinking water standards. Then these companies take action to correct "their" problem. The ADGPTV Water Commission took a different stance. It viewed high levels of atrazine as a *community* problem that should be corrected through local efforts.

Between October 1991 and April 1992, the Water Commission and the Natural Resources Conservation Service (NRCS) built support among the area's chemical dealers, city officials, water consumers, and farmers to solve the community's atrazine problem. They did so using a new pilot planning method called "locally led planning." This grassroots approach encourages communities to recognize and solve their local economic, resource, and social problems themselves. State and federal agencies and governments assist local planning efforts by providing technical expertise and funding for implementing the plans.

Backed by almost every "stakeholder group" (groups that have a stake in the lake), the Water Commission formally asked the Macoupin County Soil and Water Conservation District on May 4, 1992, for resource planning assistance. Three days later, the district unanimously approved the request, setting in motion one of the first tests of locally led planning in Illinois.

The Otter Lake Resource Planning Committee

Ivan Dozier, Macoupin County's NRCS district conservationist, coordinated the formation of the Otter Lake Resource Planning Committee during May and June of 1992. The committee included conservationists and farmers, local fertilizer and chemical dealers, and representatives from the Water Commission and the seven towns receiving treated water from Otter Lake.

Among those who stepped forward to serve on the committee was Farley Cole, a local farmer. Cole and other

farmers knew that the pesticides used on their land were those being detected in Otter Lake. Even though most of them drank well water instead of lake water and strictly adhered to each pesticide's rate and use restrictions, they wanted to be part of the solution, not the problem.

As Cole noted, "We go to church with people who get water from Otter Lake. We see them in grocery stores. Most farmers want to be able to circulate around the communities without stress. We didn't want 14,000 people upset with less than 2 percent of the population."

The Committee's Mission and Objectives

From the beginning, the Planning Committee decided it should do more than solve the atrazine problem—as important as that was.

"We had an immediate problem with atrazine," Dozier said, "so we had to do something about that first. But we also wanted a plan that was both holistic and realistic."

By the end of the first meeting, the committee decided that its plan would tackle the watershed's prominent soil, water, plant, and animal resource problems.

"If we just took care of the water-quality problem, the community would say nothing more than, 'Thank goodness that was solved,'" said Cole. "But if you improve recreation and wildlife as well, then people take notice and say, 'That was really something.'"

The Watershed

Before writing a plan, the committee first had to know more about the watershed's resources, activities, and problems. Therefore, Dozier, the committee, and other experts toured the watershed and inventoried resources.

A team led by Dozier, for example, walked the perimeter of the lake, identifying areas of concern—hundreds of "points of entry" where atrazine and sediment might be reaching the lake. The planning committee relied on the NRCS, Illinois EPA, University of Illinois Extension, Illinois Department of Agriculture, and other agencies to provide it with an overview of the area's local economy and the watershed's soil, water, plant, air, and animal resources.

Communication

Shortly after the watershed's resources were inventoried, the Resource Planning Committee engaged farmers in the planning process.

"We set up a series of 'machine shed meetings' that brought farmers together," Dozier explained. "We re-familiarized them with the watershed, showed them the hot spots around the lake, and outlined the types of practices that can prevent atrazine from getting into the runoff."

The planning committee used the local media, public meetings, watershed tours, demonstrations, and industry and public newsletters throughout the planning process to keep farmers and other stakeholder groups informed about activities occurring in the watershed.

As part of its communication strategy, the committee constantly reminded people that theirs was a grassroots planning effort "…to improve, enhance, or maintain the quality of life for plants, animals, and people in the Otter Lake Watershed area."

By taking on water quality and other resource problems simultaneously, Cole said the planning effort gained a high profile in the communities and generated wide interest and support.

The Plan

The planning committee had nearly completed the first draft of its plan by the time the Illinois EPA again notified the Water Commission of high atrazine levels and barred it from serving new customers in August 1993. Real estate developers, other local businesses, and people concerned about atrazine's health effects jammed the phone lines and offices of city officials and the Water Commission demanding information and action. The Water Commission and city officials turned to the Otter Lake Resource Planning Committee for help in dealing with the public.

Taking charge, the committee held several public meetings. People who attended these meetings learned that the committee was aware of the situation and had devoted considerable time investigating ways to satisfy the Illinois EPA's drinking water standards for atrazine. These meetings successfully reduced the public's demands for immediate action and built support for the committee.

A few months later, the Otter Lake Resource Planning Committee submitted its plan for review to the Illinois EPA and the Illinois Pollution Control Board. After reviewing what the committee had done so far and was planning to do to solve the atrazine problem, the Pollution Control Board granted a variance from the restriction on serving new customers.

"The restriction had been a high-tension point in the area," said Cole. "So quickly putting together a variance package and then getting the variance was a big feather in our hat."

The Illinois EPA eventually lifted the restriction in May 1994.

The Players

The ADGPTV Water Commission

This commission supplies water from Otter Lake to seven communities.

The Otter Lake Resource Planning Committee

This local committee was formed to deal with the lake's water-quality problems, as well as other resource issues. The committee included conservationists, farmers, local fertilizer and chemical dealers, and representatives of the Water Commission and the seven towns that receive water from Otter Lake.

The Natural Resources Conservation Service (NRCS)

Ivan Dozier, the NRCS district conservationist for Macoupin County, coordinated the planning committee.

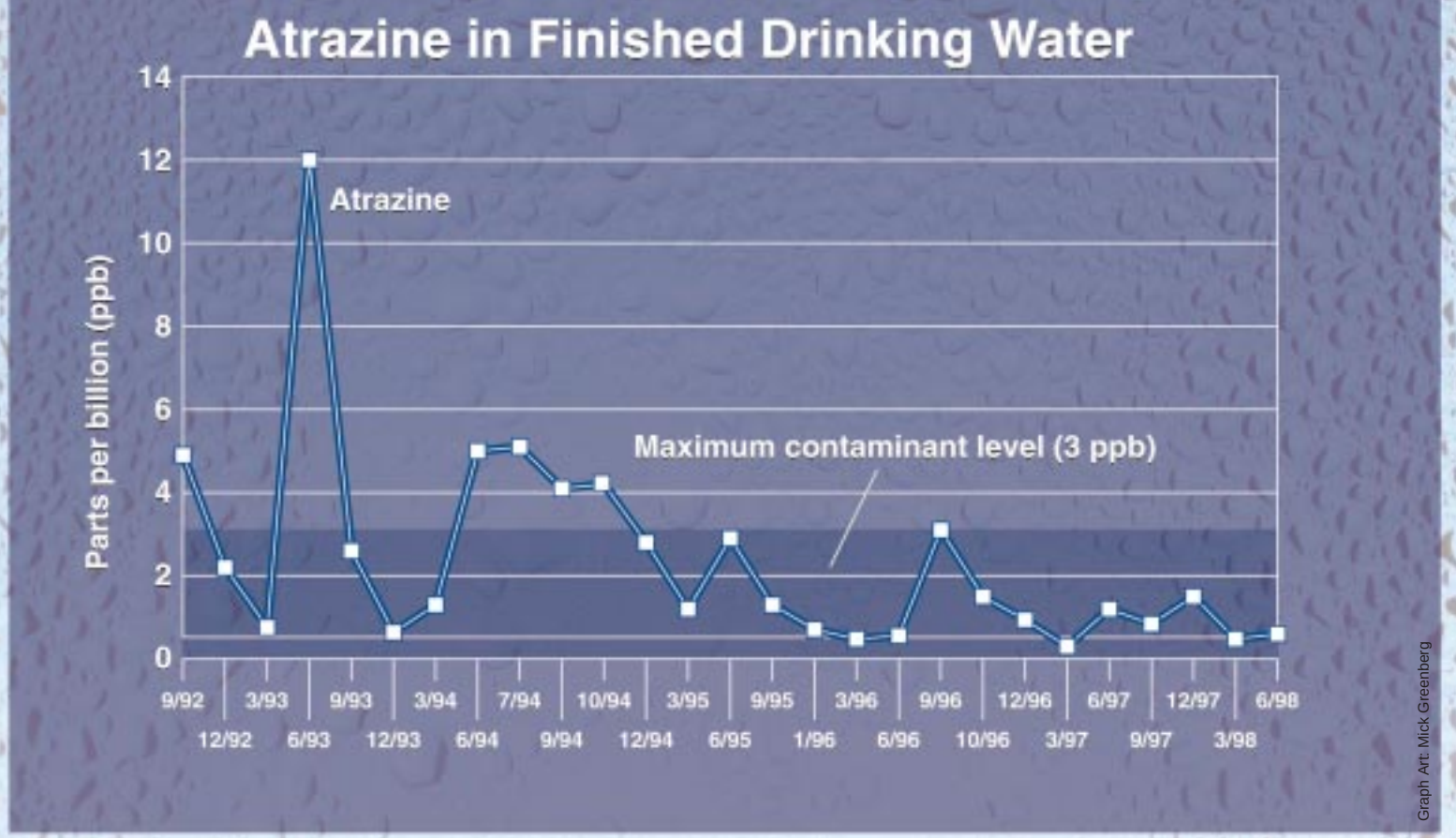
The Illinois Environmental Protection Agency

The Illinois EPA monitors drinking water supplies regularly. The agency first detected high levels of atrazine in Otter Lake drinking water in 1991.

Other Agencies

Other groups and agencies involved in Otter Lake include the Illinois Department of Agriculture, University of Illinois Extension, and the Illinois Department of Natural Resources.

The Results



Graph Art: Mick Greenberg

Making Changes

Illinois EPA gave the committee two years to implement its plan—a time frame during which the locally crafted plan tallied some impressive results:

- Atrazine levels in drinking water dropped below 3 parts per billion, the mandated drinking water standard.
- The committee attracted private and public monies for implementing the plan.
- Soil, water, animal, and plant resources improved within the watershed.
- The committee clearly demonstrated that locally led planning works for a wide range of local resource problems.
- The Otter Lake plan stimulated other locally led planning efforts in nearby watersheds.

The Otter Lake planning effort contributed to the national movement away from top-down planning by federal and state agencies and toward grassroots, locally driven planning. Communities can join this movement and improve their planning efforts by studying, incorporating, or adding to the ideas and processes used at Otter Lake. This publication goes into greater detail on the plan itself.

In the meantime, Danny Becker continues to fish Otter Lake two to three times per week, looking for large-mouth bass, channel catfish, hybrid striped bass, white croppie, and, of course, muskie.

To catch a muskie, Becker said, "You need to do more than just grab a fishing rod. It takes years of knowledge and practice, and you must be knowledgeable about their habitat. You can go three to four days without seeing anything. It's a hard fish to catch."

Solving water-quality problems requires much the same attitude—a lot of hard work and a lot of patience.

As Cole put it, "You can only do so much earth-moving in a year. You don't make changes overnight."

The Otter Lake Plan

Actions form the nucleus of every locally led planning effort. Actions make a committee's view of the future a reality.

The actions approved by the Otter Lake Resource Planning Committee fall into four interconnected categories: soil conservation and water-quality actions; wildlife and other resource actions; education and communication actions; and funding actions. Together, the actions create a comprehensive approach for improving the well-being of human and natural communities within the Otter Lake Watershed.

Soil Conservation and Water Quality Actions

From the very beginning, the planning committee acknowledged the close relationship between soil conservation and water-quality problems and the need for a comprehensive set of corrective and preventative actions. The committee also knew that success required cooperation from farmers in the Otter Lake Watershed and the ADG-PTV Water Commission. They proposed almost a dozen actions for jointly reducing soil erosion and improving water quality:

Residue Management

Reduce sheet and rill erosion in the Otter Lake Watershed by using crop residue management systems.

Leaving crop residue on the soil surface after harvest protects the soil from the erosive powers of rain and wind. In addition, the millions of small dams created by residue lying on the surface slow and trap runoff water, along with its valuable load of eroded soil, nutrients, and pesticides from fields.

Residue management systems also lead to other benefits that should not be overlooked:

- Standing cornstalks and wheat stubble trap snow and keep it from drifting over roads in the winter.
- Residue decreases the frequency and severity of flooding.
- A layer of crop residue keeps soil particles out of the air, thus lowering the incidence of respiratory problems, improving visibility, and reducing economic damages caused by dust storms.
- Air quality improves. Farmers preserve residue by reducing the number of tillage trips over a field, so vehicle emissions from farm machinery decline.

Pesticide and Nutrient Management

Improve water quality in Otter Lake and streams by applying pesticide and nutrient management plans on farmland in the watershed.

A pesticide and nutrient management plan should be part of every farmer's conservation plan. A standard plan includes:

- Crop scouting
- Soil testing
- Setting crop yield goals consistent with a field's inherent productivity
- Selecting pesticides and nutrients suitable for the soils
- Using application techniques that minimize the movement of products such as atrazine off the field in runoff water, through tile drains, and by wind

The Pesticide Evaluation and Selection Tool (PEST) is a useful computer program that farmers can use to identify practices for meeting an area's water-quality standards. Farmers who use PEST can compare groups of herbicides according to their effectiveness, soils compatibility, costs, and impacts on water quality.

Terraces

Correct multiple erosion problems using parallel tile outlet terraces.

Terraces are long ridges constructed across the slope to catch runoff water and reduce soil erosion. However, terraces can be expensive. Farmers need to work with the Natural Resources Conservation Service (NRCS) or University of Illinois Extension specialists to compare the benefits and costs of terracing to other conservation practices.

Setback Zones

Protect and improve water quality by creating setback zones around surface inlets and other points where water leaves the field.

A setback zone is an area surrounding a terrace inlet, river, lake, well, or other resource in which certain farm chemicals cannot be applied or reduced rates must be used. Farmers should follow label restrictions that forbid application or require lower rates in setback zones for certain products, such as atrazine.

Where possible, farmers may want to plant setback zones to vegetative cover to reduce the amount of nutrients, atrazine, and other pesticides leaving the field.

Other Structures

Decrease gully erosion by constructing grassed waterways, water and sediment control basins, open-weir grade stabilization structures, and farm ponds.

These structures work best when they are part of a comprehensive plan to control all forms of soil erosion. Each structure's location and size depend upon the size of the drainage area, soil types, slope of the land, location of gullies, and proximity of the field to a stream or other body of water.

Pasture and Forage Land Management

Decrease erosion and improve productivity on pasture and forage land through the development and application of management plans in the watershed.

Well-managed livestock land increases feed production, reduces overgrazing, decreases soil erosion, and improves water quality. Well-managed pasture and forage land also increases the availability of wildlife habitat.

Streambank Protection

Stabilize eroding streambanks and the lake's shoreline by using vegetative and structural practices.

On short, low, existing or mechanically restored slopes, grasses and legumes work quite well to stabilize the bank or shoreline. On long, steep slopes, banks can be stabilized by planting tree species such as water willow, bald cypress, or live willow posts. When these options fail, rip-rap, gabion baskets, other structural practices, or textile coverings work well.

Also, installing breakwater structures just offshore will decrease shoreline erosion by disrupting incoming waves and decreasing their erosive force. In some instances, it may be more economical to control waves by restricting boat size and speed or by passing similar regulations.

Filter Strips

Improve water quality by establishing and maintaining vegetative filter strips parallel to streams, ditches, and the lake's shoreline.

Vegetative filter strips are planted along streams and shorelines as a last line of defense to prevent pesticides, nutrients, and eroding soil from reaching the water.

Recent studies have shown that well-managed, appropriately sized filter strips remove significant amounts of nutrients, farm chemicals, and sediment from runoff water. For example, one study reported that filter strips removed 32 to 90 percent of the atrazine in runoff water.

Forested strips have also been shown to be effective in trapping chemicals and sediment. Vegetative and forested filter strips work better when they are combined with other practices such as crop residue management and nutrient management.

Artificial Wetlands

Improve water quality by constructing artificial wetlands.

Recent research indicates that wetlands can effectively filter out farm chemicals and sediment. They can also accelerate the degradation of chemicals and related by-products into less-toxic compounds. In addition, wetland areas provide much-needed habitat for wildlife. Key concerns are the cost of constructing an artificial wetland and finding a suitable site.

Water Treatment

Boost water quality by changing water-treatment practices.

Minor changes in water-treatment practices can significantly improve water quality. Many water companies, for example, add granulated activated carbon to reduce levels of atrazine and other chemicals in finished drinking water.

PROGRESS AS OF FALL 1998

- Twenty-seven farmers filed conservation plans at the local NRCS office. These farmers received incentive and cost-share payments from the U.S. Department of Agriculture's Water Quality Incentive Program (WQIP) and Environmental Quality Incentive Program (EQIP) to offset the costs of the following practices:
  - — Integrated crop management (all 27 plans). This system includes a nutrient and pest management component and some form of conservation tillage—usually mulch-till or no-till.
  - — Filter strips to intercept runoff from farm fields (10 of the 27 plans).
  - — Reductions in atrazine use (19 of the 27 plans). As one farmer put it, "I've cut back on the rate (of atrazine) when it's real close to the lake." Another farmer believed it was necessary to "…go lower than the manufacturer's directions (for atrazine)…" in certain areas near the lake.
- Farmers built 20 water and sediment control basins and two artificial wetlands to keep eroding soil and farm chemicals from entering the lake. Farmers and the Illinois EPA shared the costs of constructing most of these structures.
- Four farmers substituted other chemicals for atrazine in their setback zones.
- Other farmers implemented key actions from the watershed plan without assistance from NRCS or other state and federal agencies. These farmers did the following:
  - — Adopted conservation systems, typically mulch-till or no-till.
  - — Lengthened their rotations.
  - — Reduced the movement of atrazine off their fields by changing application attachments, revising the timing of farm activities, and farming across the slope.
- The ADGPTV Water Commission took the following actions to reduce soil erosion and improve water quality:
  - — Adopted an NRCS plan to reduce erosion to acceptable levels on the land it owns surrounding the lake.
  - — Developed and began implementing a shoreline erosion management plan. Rip-rap (a layer of broken stones placed along a shoreline) is being used to protect many shoreline areas. The Water Commission also had willows and bald cypress planted to stabilize the shore and improve wildlife habitat.
  - — Added activated carbon granules to its treatment process. Rates of activated carbon granules vary between 200 and 250 pounds per day.

Wildlife and Other Resource Actions

Photo: Michael Jeffords

Townspeople, farmers, and recreationists value a rural landscape for many reasons, including the nonagricultural services it provides. To protect and improve these services, the planning committee proposed a number of activities that will improve the landscape and habitat.

Wildlife Habitat

Increase the amount of wildlife habitat in the watershed by adding field and farm windbreaks and by converting certain areas to prairie and forest.

Abandoned pastures, existing cropland, edges of fields, stream corridors, and irregularly shaped or hard-to-farm fields are potential sites for wildlife habitat. Planting these areas with wildlife seed mixes will promote wildlife diversity. Creating "corridors" that link wildlife areas also improves wildlife populations.

Riparian Zones and Forests

Improve the management of existing riparian and forested areas in the watershed.

A riparian zone is the area that runs alongside a stream or lake. Regardless of the area's primary use (wood production, recreation, or wildlife), better management can make it more attractive to wildlife.

Fisheries

Improve the lake's fisheries by developing and implementing a comprehensive fisheries management plan.

More people use Otter Lake for fishing than for any other activity. Currently, four fishing clubs host yearly bass tournaments at the lake. Therefore, a comprehensive fisheries management plan should be part of the lake's overall plan.

The plan would include actions for:

- Enhancing and creating new fish habitat
- Managing diverse fish populations
- Protecting fish health
- Improving water quality (most of the soil-conservation and water-quality actions described earlier enhance water quality and, hence, fish habitat)
- Creating one or more protected fish-rearing ponds close to the lake

The Division of Fisheries within the Illinois Department of Natural Resources provides technical and monetary assistance to communities interested in improving the management of their fisheries.

PROGRESS AS OF FALL 1998

- Ten farmers received Conservation Reserve Program money to convert cropland to buffer strips. Although buffer strips cover only a few acres, they add diversity to the landscape, provide wildlife habitat, and prevent a portion of the eroded soil and farm chemicals from flowing into Otter Lake.
- The Illinois Department of Natural Resources recently completed the initial work in developing a fisheries management plan. During 1997, fisheries specialists collected data identifying species of fish in the lake, their age distributions, and overall health. They also identified suitable locations for the development of one or more fish-rearing areas.

Education and Communication Actions

Photo: Michael Jeffords

Planning efforts seldom succeed without educating and informing stakeholders and allowing public input into the planning process. The Otter Lake Resource Planning Committee employed a number of activities to generate and maintain public support.

Education

Inform and educate stakeholders about resource concerns in the watershed and holistic strategies for correcting them.

Information and education change behavior. Programs that promote land stewardship and activities that improve natural resources need to be developed and made available to local schools, churches, and civic groups.

Public tours are needed to educate stakeholders about problems in their watershed and actions being taken. Tours also give farmers a chance to see conservation practices firsthand.

Activities with Other Groups

Encourage and sponsor activities with industry, health, and environmental groups, as well as state and federal agencies.

Industry, government, health, and natural resource groups and communities often identify similar goals and yet fund separate projects. A better approach is for the groups and communities to work together when their goals are the same. The planning committee can foster cooperative efforts and joint funding opportunities by communicating regularly with industry, government, health, and natural resource groups.

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- The Otter Lake Resource Planning Committee developed a communication strategy consisting of demonstrations, tours, and public announcements. The committee sponsored the following:
  - — A tree-planting demonstration (1993) highlighting an effort to control shoreline erosion.
  - — A well-sealing demonstration (1994) conducted by NRCS.
  - — A "Farming Your Watershed" workshop (1995), in which farmers learned about best management practices to conserve soil and improve water quality. They also learned about the availability of state and federal cost-share funds and incentive payments.
  - — "Otter Lake Rally Day" (1995), a one-day event in which the public toured the lake, water-treatment facility, and watershed. On the tour, people learned firsthand about activities completed and planned for the area. This successful event was repeated in 1996 and 1997.
- The Otter Lake Resource Planning Committee pursued a wide range of activities that developed partnerships with other groups. The committee did the following:
  - — Agreed to be part of the NRCS's new ecosystem-based planning pilot study.
  - — Formed a partnership with the Green County Work Camp, a boot camp for individuals convicted of minor offenses. Boot camp members worked off their time by placing rip-rap along designated portions of the lake's shoreline.
  - — Endorsed Novartis's proposal to monitor where, when, and how much atrazine enters the lake. (Novartis is one company that produces atrazine.)
  - — Participated with University of Illinois researchers who wanted to discover why the Otter Lake planning effort succeeded. By incorporating the findings into the planning process, researchers hoped to improve other communities' planning efforts.
  - — Cooperated with the Illinois Department of Natural Resources to develop a fisheries management plan.

Funding Actions

More often than not, a community's resource problems are also regional or national problems, and funding is available to defray implementation costs. The Otter Lake Resource Planning Committee actively pursued outside funds when its objectives matched those of the agency or group offering grants.

Funding

Seek outside funding from state and federal agencies, agricultural industries, and other interest groups that support the objectives of the plan.

Government, industry, and nonprofit groups almost always earmark a portion of their budgets for activities that improve the environment. These funding sources need to be investigated and aggressively pursued where the objectives of the community and the funding source overlap.

PROGRESS AS OF FALL 1998

- Between 1994 and 1996, the Otter Lake Resource Planning Committee received three Water Quality Incentive Program grants totaling $287,000 from the U.S. Department of Agriculture. The money was used to compensate farmers for creating filter strips and implementing integrated crop management plans (which included nutrient and pest management plans and conservation tillage plans).
- In 1995, the Illinois EPA awarded a $54,000 water-quality grant to partially offset the costs of the sediment basins and artificial wetlands that farmers put on their land.
- In 1997, the ADGPTV Water Commission successfully competed for a $25,000 Clean Lakes Program grant from the Illinois EPA to conduct a sediment survey and an in-lake needs assessment.
- Many farmers in the watershed have taken advantage of the U.S. Department of Agriculture's Conservation Reserve and Environmental Quality Incentives programs. These programs pay farmers to retire highly erodible land, convert cropland adjacent to streams to buffers, and adopt numerous water-quality best management practices.

  Farmers contributed more than $25,000 and the ADGPTV more than $12,000 in matching funds to the grants.

The Watershed Profile

Photo: David Riecks

Macoupin County: Today's Ethnic Makeup

Residents of German origin	22 percent
Residents of Irish origin	20 percent
Residents of other origins	58 percent

Macoupin County: The Economy

Retail, health care, manufacturing, construction, farming, and mining make up the area's economic base. Furthermore, the U.S. Department of Agriculture's Economic Research Service now classifies Macoupin County as a "commuting county." This means a large portion of its residents travel to the nearby cities of Springfield and St. Louis for work.

The Towns

- Seven towns use water from Otter Lake—Auburn, Divernon, Girard, Pawnee, Thayer, Virden, and Nilwood (along with rural homesteads near the ADGPTV Water Commission's main water lines).
- Auburn is the largest of the towns with 6,730 people, according to the 1990 census.
- Nilwood is the smallest of the towns with 249 people.
- The closest town to Otter Lake is Girard—4½ miles away.

Otter Lake

Otter Lake lies 35 miles south of Springfield in Macoupin County. Dam construction started in 1965 and ended in 1968. Water from Otter Creek keeps the lake full. Characteristics of Otter Lake and the watershed surrounding it follow:

Lake Statistics

- 765 acres
- 39 miles of shoreline
- 19-foot average water depth
- 50-foot maximum depth near the dam

The Lake as a Water Source

- The ADGPTV Water Commission owns and manages Otter Lake and a strip of land around the lake's perimeter. More than 90 percent of the strip is in trees or vegetative cover.
- ADGPTV draws, treats, and pumps water from the lake to more than 14,000 customers in Auburn, Divernon, Girard, Pawnee, Thayer, Virden, Nilwood, and rural homesteads.

Recreation and Other Lake Activities

- Fishing: 8,500 visits to the lake annually
- Camping: 6,300 visits to the lake annually
- Miscellaneous recreation: 2,200 visits annually
- Boating: 2,000 visits annually
- Boy Scouts: 150 visits annually

The lake also features an underwater search and rescue training area.

The Lake's Watershed

- 5 miles of perennial streams and 7 miles of intermittent streams carry runoff water to Otter Lake from 12,225 acres of relatively flat, highly productive soils.
- Land with slopes of 3 percent or more comprise only 9 percent of the acreage. Most of the land classified as "sloping" or "steep land" is adjacent to the lake and perennial streams.
- 65 percent of the land is in row crop production—primarily corn, soybeans, and wheat.
- 26 percent of the land is in hay, pasture, trees, and other permanent vegetation.
- 9 percent of the land includes the lake, farmsteads, and feedlots.

Recommendations

1. Recognize a community's core beliefs and distinctive culture.

A community's core values and culture permeate every facet of locally led planning, shaping its response to crises such as atrazine in the drinking water or flooding. The advantage of locally led planning is that it builds on these core beliefs and cultural practices, rather than ignores them.

Locally led planning removes the threat that governmental agencies will force change that violates local beliefs and practices. The decision-making authority resides in the communities. Midwestern farming communities, for example, often exhibit a strong community identity, closely knit social and kin networks, ability to mobilize to meet a crisis, and a history of collective economic development activities.

These characteristics are a strength to be drawn on, although they may also hinder the changes proposed for some resource problems.

2. Hire a facilitator or align with an agency that supports locally led planning.

Ivan Dozier, Macoupin County's district conservationist, facilitated the Otter Lake planning effort and served on several of the technical committees. However, if he had to do it all over again, Dozier said he would encourage the planning committee to hire a facilitator or appoint one of their own. Dozier found it difficult to serve as both the facilitator and technical support person. It's preferable to have a local person act solely as facilitator—to call meetings and keep the planning process on track.

Communities that cannot afford to hire a facilitator should use the Natural Resources Conservation Service (NRCS), the Environmental Protection Agency, University of Illinois Extension, or a private group to facilitate the planning process. When possible, limit the facilitator's role to the overall planning process, which includes coordinating but not serving on technical subcommittees.

3. Form a broad-based, proactive planning committee.

A narrow support base and uncommitted members derail planning. First and foremost, select people to serve on the committee from a broad cross-section of the community's stakeholder groups. Any people who shoulder the damages or receive benefits from the present situation or the new plan are "stakeholders" and should be at the planning table.

Second, select individuals who are motivated to solve the community's problems. A good committee member willingly sets aside personal interests and works for the greater good of the community.

4. Use a formal planning process.

Many planning efforts fail because committees lose sight of their objective or miss critical steps, such as identifying and targeting a watershed's primary problems. To prevent this from happening, adopt a formal planning process such as the one recommended by the NRCS (see panel at right).

5. Incorporate a formal structure for making decisions within the planning process.

Following a formal structure for decision making improves planning. The agencies involved in planning can help you select a framework for making decisions. In addition, a number of excellent commercial software programs are available. For example, Expert Choice© can help a planning committee identify its objectives and rank actions according to those objectives. An advantage of this approach is that data and decisions stored in Expert Choice© are available for use by the next planning committee.

6. Integrate a Geographical Information System (GIS) into the planning process.

Good data is the foundation of every planning effort. Unfortunately, most planning committees expend too much time and energy sifting through reams of unstructured data and research and discovering and rediscovering information. A standard, computer-based GIS system eliminates these obstacles by storing, analyzing, and displaying information typically used in planning. The system can supply maps of natural resources, economic resources, and social resources in the watershed.

GIS systems also have query and analysis tools for answering basic questions about a watershed such as acreage in the watershed, land use, locations of low-lying areas and floodplains, population density, and socioeconomic characteristics. GIS's visualization tools allow a planning committee to compare the economic, ecologic, and social impacts before and after implementation of a watershed plan.

7. Conduct a Rapid Resource Appraisal.

Few committee members have a full grasp of the size of their watershed and its economic, ecological, and social resources and problems. A Rapid Resource Appraisal (RRA), conducted shortly after a committee's formation, can effectively fill this information gap.

An RRA is also effective at transforming a committee from a collection of individuals focused on individual problems to a partnership committed to achieving a "desired future state" that improves the well-being of human and natural communities.

A typical one-day Rapid Resource Appraisal program consists of:

- Information packet
- Educational presentations
- Tour of the watershed

- Meeting(s) with stakeholders
- Meeting(s) with municipal, state, and federal agencies

For more information on RRA, read *Hard Rain, Hard Choices*, Issue 2 in the "Grassroots Planning" series.

8. Write a clear mission statement.

A mission statement summarizes a committee's objectives, such as improving water quality and promoting economic development.

Single-objective or narrowly focused mission statements often lead to actions that remediate damages but don't eliminate the *causes* of a problem. To avoid what planners call "bandaid planning," write a mission statement as broadly as possible. The Otter Lake Resource Planning Committee, for example, decided they wanted *"...to improve, enhance, or maintain the quality of life for plants, animals, and people in the Otter Lake Watershed area."*

9. Form a knowledgeable, ready-to-serve, technical advisory committee.

A planning committee is similar to the board of a company, university, or nonprofit organization in the way it assimilates information, sets strategies, monitors progress, and makes adjustments. Just as boards receive data and analyses from in-house and outside experts, planning committees turn to their technical advisory committees. Technical advisory committees assess current conditions in the planning area and develop strategies consistent with a planning committee's mission statement and objectives.

Any individual, agency, industry, or private interest group that can contribute to the planning effort makes a good candidate for membership on a technical advisory committee.

10. Implement actions during the development of the plan.

Every planning effort consists of short-term, easy-to-complete actions and long-term, time-consuming, costly actions. When possible, implement short-term actions soon after a planning committee approves them rather than waiting until the entire plan is written. By immediately implementing short-term actions, the committee legitimizes its efforts while sending a clear signal of progress.

Short-term actions include communication, funding, and some actual changes on the land. For example, certain activities, such as stabilizing Otter Lake's eroding shoreline, began soon after the planning committee approved them.