

Implementation and Evaluation: Don't Stop Now

Introduction

At the party to celebrate its completion, the Watershed Management Plan is proudly displayed with a glossy photo on the cover. The core committee is all smiles because their work is finally done. Reaching this point is cause for celebration, for developing a management plan that is backed with strong support is a great accomplishment, even if there is more work ahead. The real value of a management plan comes from implementing the plan so the goals set forth are met. This chapter provides guidance to continue the momentum through seeking funding, sorting out conflicts and conducting ongoing evaluations that document successes and lead to adjustments that improve management.

Money and services will be needed to carry out the strategies set forth in the management plan. The necessary funds can come from a creative mix of sources, such as grants from federal, state or local government; private foundation grants; donations of labor and services; loans; taxes; sales; fees for services and bonds. Start by seeking resources for a pilot project that is easy to complete, not contentious and can be successful. Successfully obtaining small amounts of funding is important for momentum and to establish a good track record for eventually applying for larger sums. A proposal written for less than \$5,000 is more likely to be funded because a funding source can give more awards in this range, and the application process is likely to be simpler than for larger projects. One or two knowledgeable volunteers can write such a small proposal. Proposals asking for larger sums or for longer time periods take serious documentation and planning and usually require involvement of professionals for data gathering and grant writing.

Proposal writing 101

Previous chapters in this publication have helped the committee to identify problems and to gather data. The management plan developed from Chapter eleven has charted a course to identify causes and sources of the problems, and charted a course to plan and implement solutions.

The committee now needs to clearly restate the primary goals and objectives defined in the management plan. There must be a clearly defined purpose before they can identify potential funding sources. What specific objectives have been identified and what is their priority or rank from most significant to least significant? Have potential strategies been identified and are those strategies supported by the available data?

Some common elements are necessary when applying for funds from any source. The first four elements, adapted from the New York State Federation of Lake Association's *Guidelines for Grant Writing* (NYSFOLA, 2000), have been developed through the management planning process.

- *Clearly identify the problem* or issue that needs funding. The State of the Lake report, described in Chapter eleven, will have documentation about what the problem is and the actual or probable causes of the problem.
- *Defend the project* as the best solution to this problem. The management plan will have identified specific strategies to address the problem.
- *Identify appropriate groups or agencies to be included as partners.* The management plan will note the collaborators needed to carry out each strategy. The core committee, public outreach groups, and diverse interest groups will have to build the relationships and knowledge base

needed. Including partner groups demonstrates the importance of the project to the broader community and also shows that the expertise needed to accomplish the project is available. If your lake project is perceived as too small for a particular funding source, consider collaborating with groups representing one or two other lakes facing similar problems.

- *Draft a clear scope of the work and a realistic budget.* The management plan will provide a starting point, but the tasks and resources necessary to complete each strategy probably will need to be developed in more detail for a funding proposal. Many funding sources require matching funds or cost sharing. This may be stated as a ratio, such as one-to-one, or a percentage, such as fifty-fifty. If \$5,000 was granted, and a one-to-one match required, the applicant must come up with another \$5,000 in matching funds. Often the match can consist of in-kind services and volunteer time rather than cash.

Relationships developed early in the management planning process now begin to pay off. Funds from a federal program cannot serve as a match for another federal program, and state funds usually cannot serve as a match for other state funds. State funds and federal funds can sometimes be paired to make a match. This can be tricky, however, because some state money may have initially come from the federal government.

Finding the pot of gold

The last two elements of the proposal-writing process are identifying sources of funding and preparing the proposal. Sources of funding are constantly changing, but some basic information on governmental sources of funding can be helpful. Local sources of current information may include Water Quality Coordinating Committees (WQCC), county planning departments and Soil and Water Conservation Districts (SWCD). See Appendix F “Internet resources” for more information on these and the following sources.

Federal funding sources

The Federal *Clean Water Act* requires the federal government to provide financial assistance for national lake protection and restoration efforts. Prior to the early 1990s, the U.S. Environmental Protection Agency (EPA) fulfilled this mandate with the Clean Lakes Program, as described under Section 314 of the *Clean Water Act*. Since then, Congress has failed to authorize funding for the program. Some states have continued the Clean Lakes Program by using funds authorized under Section 319 of the *Clean Water Act*, usually referred to as the Nonpoint Source Program. Nonpoint Source 319 funds are an example of federal funds that are given to states for distribution. New York State has not used these funds for activities related to the Clean Lakes Program objectives.

Other federal agencies also provide support. The U.S. Department of Agriculture (USDA), through the Farm Service Agency, provides cost-sharing grants to reduce agricultural nonpoint source pollution and streambank erosion, and to protect wetlands and wildlife habitat. The Natural Resources Conservation Service (NRCS) conducts the Rural Clean Water Program. The Farm Home Administration offers guaranteed and insured loans for agricultural pollution controls, including soil conservation, farm-waste treatment and nutrient and fertilizer runoff control. The U.S. Department of the Interior, through the Forest Service and Fish and Wildlife Service, offers research grants and financial assistance for studies on forestry and habitat development, pesticide transport and watershed management practices. The U.S. Geological Survey (USGS) investigates the chemical and physical characteristics of lakes, streams and watersheds through fifty-fifty matching grants, cooperative programs and the state Water Research Institute Program. Other programs and assistance for lake and watershed protection and management may be available through the Office of Education, the Department of Commerce, the Department of Housing and Urban Development and the Office of Mining Reclamation and Enforcement.

New York State funding sources

For many years, New York State has provided funding to support lake monitoring and management projects through the Department of Environmental Conservation (DEC) and Department of State (DOS). State legislators may be able to secure funding for lake restoration projects within their districts, usually as “member items,” referring to resources secured by a member of the Legislature. These funds also may be referred to as “pork barrel” items in the state budget. Some lake associations have successfully obtained member items for projects that benefit residents and taxpayers (and voters!) in a specific legislative district.

In New York State, some conservation projects involving land acquisition and facilities development have been funded by bond acts approved by statewide referendum. The 1996 *Clean Air-Clean Water Environmental Bond Act* designated \$1.6 billion for a wide variety of environmental projects, including land acquisition, wastewater treatment, toxics, pollution prevention and habitat restoration. These funds were targeted to specific regional areas associated with large management plans, including Lake Champlain, Onondaga Lake, the Great Lakes and the Finger Lakes. While none of these funds were used for specific in-lake restoration activities, many of the projects funded by the 1996 Bond Act used watershed-nutrient and pollutant-control strategies outlined in Chapter nine, “Watershed management.” Past Bond Act funds have been administered through DEC.

The Environmental Protection Fund (EPF) is the New York State permanent fund dedicated to addressing a broad range of environmental and community development projects. One aspect is the Local Waterfront Revitalization Program, administered annually by DOS. Current proposal categories include:

- urban waterfront redevelopment;
- preparing or implementing a waterbody management plan;

- coastal education programs;
- development of a waterfront vision and implementation of revitalizing strategies;
- stewardship funds to develop boat launch sites; and
- creating a “blueway trail.”

The most significant source of EPF funding for lake improvement projects comes from the Invasive Species Eradication Grant (ISEG). This program provides funding to municipalities or not-for-profit organizations, including lake associations, to eradicate invasive plants or animals. Proposals for invasive species management through this competitive, matching-grants program are reviewed by DEC. Grants are awarded for projects most likely to achieve this eradication. The majority of these funds have been used to control terrestrial and aquatic plants.

Funding also may be available from colleges and universities for research projects and water-quality studies. The New York State Water Resources Institute at Cornell University, through the Legislature and the Department of Agriculture and Markets, can provide grants for research and educational projects for government agencies, educational institutions and not-for-profit organizations in the state. Other research institutes may be interested in funding lake research programs. Some specialized statewide organizations can also fund certain projects. The Conservation Fund, which receives money from sales of fishing and hunting licenses, may fund projects involving protection and management of fish and game populations. Certain stream or lake-improvement projects may qualify for these funds.

Local funding sources

Localities are assuming more of the cost burden for projects associated with lake management as funding from federal and state sources has diminished. Local governments, lake associations and individual lake users are taking more responsibility for generating funds that may pay for a project or may be used to match federal and state dollars.

Many communities have local organizations or foundations that supply funds regionally or to the community. Look for foundations and trusts set up by families with a long history in the area and by large employers. Different regions of the state have community foundations such as the Community Foundation of the Southern Tier. These sources may take an interest in a lake restoration project, related research or education. Instead of supplying funding, corporations may provide goods and services, such as donating older equipment or allowing staff to take a paid day of leave to do volunteer work.

Forming a special district is an equitable way to raise revenues by taxing district residents for improvements (see Chapter ten, "Legal framework"). Some associations charge dues to help cover restoration projects. Chapter eleven, "Management plan development", provides more information about both of these methods.

Some local governments are permitting developers to contribute to a fund for community parks and recreation in lieu of providing recreational land within a subdivision. Other sources of funds include a tax on property transfers and a "bed tax" on hotel and motel receipts. Room charges or "bed taxes" are typically used to support cultural activities and to promote tourism, which may depend on healthy water resources.

Additional funding sources may be found by contacting local planning departments, Environmental Management Councils and county Water Quality Coordinating Committees.

Cruising the information highway

Many funding resources and informational tips are available through the World Wide Web. The following is a sample of some of the resources available at the time of publication of this book. See Appendix F, "Internet resources," for addresses and other information.

- *Federal Grant Notices* coordinates all federal funding opportunities. A free e-mail subscription service provides daily updates on funding.
- *Foundation Center* lists public, corporate and charitable organizations that provide grant monies. Some resources are free, others are by subscription.
- *Grants News* is a monthly publication of the New York State Assembly that lists resources for grants and for training in grant writing.
- *Guidestar* provides electronic versions of IRS 990 tax forms that help with researching the funding history of grantors.
- *Libraries* associated with research facilities and institutions of higher learning may provide searchable online databases of funding sources. If access requires a user affiliation, see whether this can be met by one of the management plan partners.
- *Sea Grant New York* provides links to funding sources.

Proposal preparation

After identifying potential funding sources, the next step is writing the actual proposal. Information documented in the State of the Lake report and management plan will be invaluable in making a strong proposal for a project or program. While there are many books and online sources about writing proposals for funding, some reminders are worth noting.

- *Funding deadlines are usually firm.* Dates may be stated as the day the proposal must be received or the date by which it must be postmarked. An increasing number of applications are being accepted or required to be submitted through the Internet. Allow ample time for computer glitches.
- *Match the application to the funding source.* Use words and phrases in the proposal that make it clear the project is in line with the grantor's selection criteria. If it isn't, it is probably a waste of time to apply. The grantor may receive 200 applications and fund only 10 of them.
- *Follow the format and any guidelines about length or font size.* It may seem silly, but an applicant made the news when their proposal was rejected for having a margin less than the one-inch minimum.
- *With collaborative projects,* and most lake management projects, letters of commitment or support may be needed, with the role of each partner clearly identified. Allow plenty of time to obtain letters (and to write thank-you notes in response).
- *Invest time to think through the proposal* and it will serve as the project work plan. A poorly developed project may be funded, only to have the recipient then worry about how to do what they said they would do. A shoreline restoration projected in central New York, for example, was budgeted to cost \$200,000, but grew to cost \$600,000. The grant recipients had to be very creative to find the additional funds.
- *Keep in mind that the effort of writing a grant proposal is never wasted.* Once written, it can be altered as required and resubmitted at a moment's notice as different funding opportunities are found. It also provides a template for subsequent projects.

Conflict is normal

The committee has developed a Watershed Management Plan, and has found resources to carry out some of the strategies. Suddenly hesitation and conflict develop. Conflict is normal and will occur even when everyone has good intentions. While the management planning process may have evolved relatively smoothly, hackles may still rise when it comes time for implementation. People may perceive their property rights are at risk, or an agency may feel others are taking over their turf, or different interests may compete aggressively for limited funds for their pet project. Power, values, aesthetic preferences and lack of information can underlie disputes and tear a community apart.

Attempting to avoid all conflict is counterproductive. Initial avoidance may lead to the conflict reemerging with greater intensity and more entrenched positions. Success comes from understanding what underlies the conflict and seeking a constructive resolution. Long-term gains are more likely to be achieved when everyone's concerns have been heard and considered. Progress is a series of small steps forward. Not everything has to get done at the same time. Look for win-win solutions rather than fighting to be a winner while others lose. In this process, ask, "Can I live with this solution?" rather than "Do I like this solution?" It's important that everyone can live with the decision, even if it is not ideal.

The following principles are adapted from *Watershed Conflict Resolution: Some Guiding Principles* (Raymond, 1995). They can help harness conflict to create productive results and creative solutions. A neutral facilitator skilled in conflict resolution or mediation may be helpful.

- *Identify perceived threats* that underlie different positions on an issue.
- *Separate people from the problem.* Try to understand the concerns of others and then discuss underpinnings of a person's position. Don't attack the person or personality.

- *Invent options for mutual gains.* The options first put on the table may not be the full suite of possibilities. Think outside of the box, don't judge prematurely and be open to unexpected solutions.
- *Be alert to internal differences* within interest groups that are critical to their postures in a dispute. Seek to develop trust to uncover those differences.

These thought processes and attitudes do not occur all at once. They evolve throughout the typical stages in a process. It is important to develop an early rapport through communicating openness while looking for solutions that are acceptable to all. Listening is essential as each party's concerns are identified. It is useful to realize that people need to get their concerns or opinions out in the open, after which they are more willing to move forward with a discussion about alternative solutions.

The next step is to articulate the issues, which may be different from the problem as it was first perceived. It may be necessary to equalize power and share or gather information before generating, evaluating and discussing possible solutions. If an option is selected that everyone can live with, it is wise to put the agreement in writing!

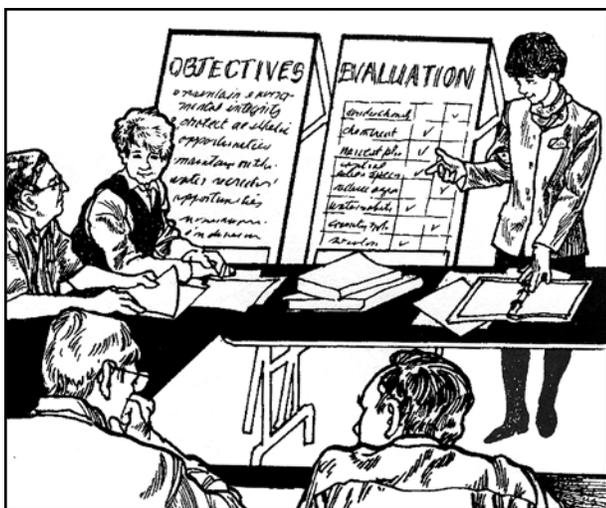


Fig. 12-1. Periodically review progress toward objectives and make adjustments as needed to the management strategies, timetable and responsible party.

(CREDIT: HOLDREN ET AL, 2001)

Is the management plan working?

Securing funding and resolving conflicts are definite indications of success. A better indication is being able to report that the lake is healthier as a result of the work everyone accomplished.

Monitoring provided information on the state of the lake, helped with identifying problems and can now be used for evaluation. It still can take the form of measuring water-quality parameters, such as nutrient levels or vegetation growth, or it may expand to include a survey of lake users to assess the effects of the management plan. Monitoring the effectiveness of the management plan requires both money and time, which must be considered in the overall budget for implementing the plan.

Monitoring and evaluation need to be customized to the management goals and objectives. If the overall goals were to reduce the density of aquatic weeds to restore the lake for swimming, boating and drinking water, then macrophyte mapping would be a high priority. If the goals were to reduce soil erosion to restore clarity, then turbidity measurements might be taken as frequently as every other week. See Chapter four, "Problem diagnosis," for more details on monitoring water-quality parameters. If the primary goal was to improve fishing, then water-quality data specific to fish survival and propagation must be the focus of data collection. See Chapter five, "Fisheries management" for more details on this topic.

Some goals and objectives may address more subjective concerns such as poor aesthetics, or impaired swimming, boating or fishing. While water-quality data may provide some answers, an opinion survey of users may be valuable in quantifying perceptions. A change in response from "The lake looks bad" to "It couldn't be nicer" is a satisfying accomplishment. Opinion surveys are increasingly a component in water-quality monitoring programs.

Evaluation also may take the form of regular assessments of the project's administrative aspects. Long-term effectiveness of the management plan may require that each component be implemented on schedule and within the allocated budget. Timetables need to be continuously checked and adjusted if necessary.

Periodic review of the management plan as a whole is also valuable. Plans are sometimes referred to as “living documents” to convey the idea that they should be updated as the results of multiple strategies are monitored, as new challenges arise, as community values evolve and as new technologies or information becomes available.

Summing it up

Much can be gained from developing and implementing a management plan. The most obvious is a lake that is healthier and that brings enjoyment. Equally long-lasting benefits come from improved community awareness, involvement and partnerships. Recent studies show that communities and individuals feel more resilient when disasters occur if they are engaged in tree plantings, water-quality monitoring or other aspects of land and water stewardship. The following bits of wisdom are compiled from *A Primer for Developing a Successful Watershed Management Program* (NYSFOLA, 2001), the experience of 100 watersheds as summarized by EPA (1997), and a nationwide information-gathering effort by the Center for Watershed Protection (Schueler and Holland, 2000).

Leadership matters. A good leader who is congenial and can motivate others is pivotal. A leader who can work on the management plan as part of job duties in a relevant agency can draw more easily on the knowledge of that agency. If responsibility for the plan rests with consultants or technical staff, the result can be a lack of broader ownership and involvement by the community during the planning process and implementation.

Be patient with yourself and collaborators. If the key to real estate is location, the key to watershed management is patience. Problems didn't arise overnight, so finding a solution also will take time. Keep the larger goals in mind, but focus on smaller steps. The project is in trouble if it becomes stressful rather than a satisfying challenge for the project leader and core committee.

A good plan serves as a sound foundation. Implementation may falter if the plan is seen as an end in itself without sufficient attention or understanding

of how to implement it. The plan should be realistic about the amount of funding, time and human resources available. Failure to commit the resources and authority to a long-term process can lead to the management plan being shelved in favor of other priorities. Regulatory authority rests with governments, which have influence on many areas of water quality. Management plans have failed when governmental entities were not sufficiently involved in both planning and implementation.

Keep taking small steps forward. The best plans have a clear problem statement, a vision of what is desired and a goal to obtain. Strategies need to stress watershed-management outcomes in relation to changes in behaviors and in land-use practices. Steps to achieve the goal contain specifics of who will do what, when and with what resources.

Be realistic. Plans need to cover a reasonable area and may fail if there are too many sub-watersheds and too many stakeholders. If documents are too long and too complicated, they may be ignored or misunderstood by decision-makers and citizens. A 50-square-mile watershed was once considered a reasonable scale to work with, but some are finding that working at a sub-watershed scale of 10 square miles or less is more effective. Creating plans for each tributary watershed can seem time consuming, but may bring better results.

Be adaptable. Future conditions such as land-use changes in the watershed may have profound effects on a waterbody and potential changes need to be considered during the planning and evaluation processes. Unexpected land-use changes may trigger plan revisions. Changes in standards and regulations may also require adaptation.

Celebrate success. Regardless of how small, celebrate progress as well as major milestones. Progress may include obtaining funding for a project, clearing a small but invasive weed patch, planting trees along the shoreline or a lake association developing greater participation and more enthusiasm. Make each celebration a public photo-opportunity to celebrate partnerships and encourage further participation.



PHOTOGRAPH BY DAVID F. BRAKKE

Enjoy the improvements in the lake and watershed.

ABCs of Lake Management

(Kishbaugh, 2008)

Alliances, even among odd bedfellows
Big books? Management plans don't have to be huge
Committees—not individuals—to do the work
Donated labor and expertise
Everyone has a say, even those who don't say it
Fact finding to determine the issues that focus the plan
Go back to your objectives, again and again
Help!!! Don't be afraid to ask for it
I'm in charge—make sure someone is
Just do it
Keep it local
Lawyers, guns and money—you need at least two of these
Mediation to resolve disputes among lake users
Now what? Plan two steps ahead
Ownership and why a plan fails without it
Plan a lot of time to build a management plan
Question authority (or authorities) if they have the answers
Riparian owners, the focus of many plans
Symptoms connected to causes connected to sources
Timeframes and how to build them right
User conflicts and use impairments
Volunteers to lick stamps, buy donuts, pull weeds...
Why, why, why, why, (why are we doing this)?
Xpect delays, obstacles, problems
Y y y y y y y (...it's worth repeating)
Zat's all I can think of