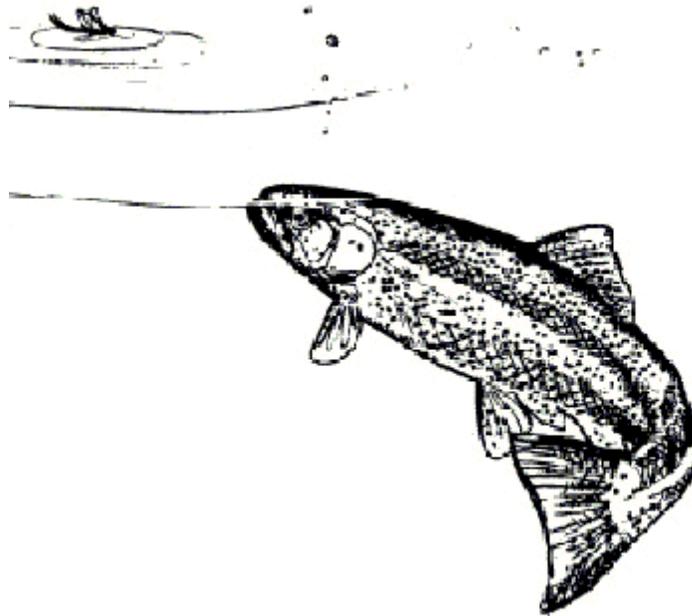


Vermont Watershed Initiative

Guidelines for Watershed Planning



Prepared through a collaboration of a public Statewide Watershed Framework Committee
The Vermont Department of Environmental Conservation
Updated 2007

Vermont's Watersheds

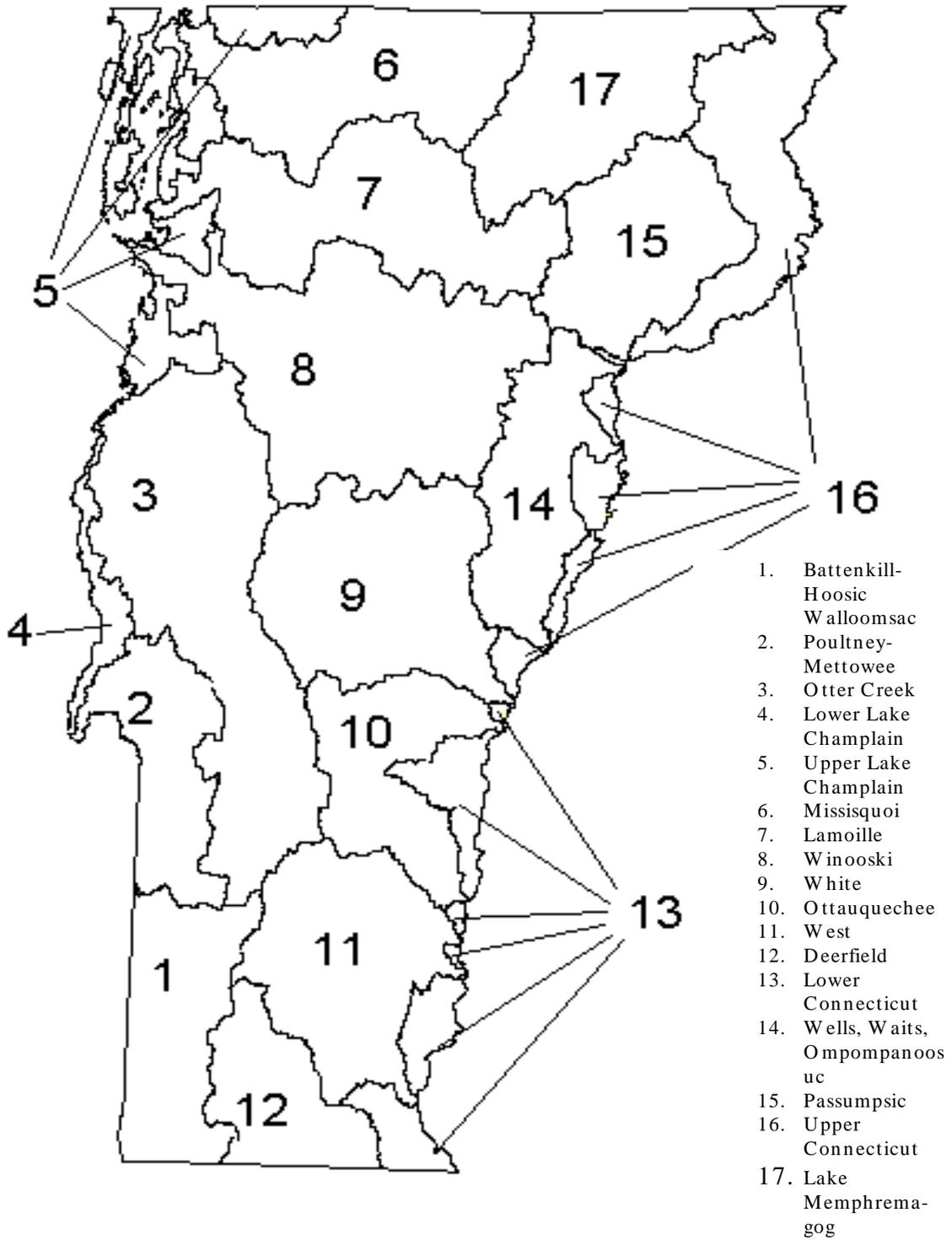


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1. Introduction

This guide to developing river basin water quality management plans is designed for use by the public, Watershed Coordinators, watershed organizations, Watershed Council members and anyone else interested in understanding and being involved in the basin planning process.

River basin plans help communities and the state decide how to:

- Restore the waters most affected by polluted discharges and run-off,
- Protect the waters and adjacent access threatened by pollution and other causes of impairment,
- Establish management goals for all waters through classification and other designations.

Voluntary action, public involvement, adequate funding to clean up waters, and common sense approaches are the keystones on which plans must be based. The job of minimizing polluting runoff from the land can only occur if everyone understands the techniques and does their part. Further, people have to recognize the effects of changing water flow.

Watershed concerns may go beyond chemical pollutants and include the amount of flow, changes to water temperature, access to waters, the preservation of high quality waters and other important water-related issues. Further, it is recognized that flow modifications by structures, such as dams and culverts, and even the presence of aquatic nuisance species can have significant effects on water quality and the aquatic biota. Understanding these concepts is fundamental to taking effective action to restore waters to a more natural condition.

Industry, residences, shops, farms and forestlands all have important places on the Vermont landscape. The owners of each also have a responsibility to do their best to control water and pollutants that wash into rivers and streams (non-point source runoff). People need information about polluted waters and recommended solutions. These can be significant parts of a basin plan.

In the words of Thomas Jefferson: “People... are inherently capable of making proper judgments when they are properly informed.” It is this approach that is the keystone of the basin planning process.

Another keystone to success in managing waters within our watersheds is persistent and straightforward action to eliminate sources of pollutants. Calvin Coolidge admonished: “Nothing in the world can take the place of persistence. Talent will not: Nothing is more common than unsuccessful people with talent. Genius will not: Un-rewarded genius is almost a proverb. Education will not: The world is full of educated Derelicts. Persistence and determination alone are omnipotent.” Talent, genius, and education are all important partners in the in the task but in the long run the job is so great that only persistence and determination will enable us to reach the goal of clean water.

Local watershed associations are among the important partners developing basin plans. Many are already engaged with landowners, include landowners and have projects underway for restoring

water quality. The Department of Environmental Conservation strongly supports the ongoing efforts of local landowners, communities and community organizations. Indeed, the Department is eager to help new organizations become established where they see important work to be done in regard to our water resources.

The Secretary of the Agency of Natural Resources has the ultimate responsibility for adopting basin plans. The Secretary may, if needed, ask interested members of the public to serve and give advice in refining the planning process (Statewide Coordinating Committee) and calls upon a broad range of stakeholders in each watershed to formulate individual basin plans (Watershed Councils).

This watershed planning process simultaneously follows two tracks. It involves planning strategies to protect and restore waters from the outset and following plan completion the process is action-oriented. The Watershed Coordinator with the guidance of the Watershed Council also initiates projects to improve water quality almost as soon as the process is begun in the watershed. The Watershed Coordinator is responsible to carry out the strategies formalized in the Basin Plan long after the plan is adopted.

2. Background

As a common sense approach to resolving water quality problems and in response to a legislative mandate action oriented basin planning involving both planning and remediation started with renewed commitment in 2000.

Following concerns expressed by Vermonters and the U.S. EPA about the impact of storm water and pollutants washing into Vermont's rivers and streams, the Department of Environmental Conservation has learned about the successes and failures of basin planning in other states.

As a result, DEC has sought staff and financial resources to support such planning in Vermont and engaged members of the larger Vermont community in a Framework Committee to provide guidance for the work of the Agency of Natural Resources in carrying out comprehensive basin planning in the State.

In 1998 the Department engaged a faculty member and student of the Vermont Law School to review basin planning efforts throughout the country.

The report's major finding corroborated the Department's own information that pollutants washed from diffuse, non-point sources, cause the majority of Vermont's current water-related problems. The Department's response was to establish a statewide basin-planning framework to focus on non-point pollution sources.

In addition, the report found that:

“A statewide basin planning initiative offers Vermont a unique opportunity to greatly improve the state's natural resource management structure and programs for the 21st century. But the potential of this opportunity will only be fully realized if the program's concept and framework are developed with an ecological focus, progressive vision,

extensive planning, adequate resources, hard work, and last, but most importantly, stakeholder support and participation.” (Duery 1999)

In response to this guidance the Commissioner of the Department of Environmental Conservation invited members of the Water Quality Standards Task Group and others to a meeting to discuss approaches to watershed planning with Kimberly Brewer a representative from the consulting firm Tetra Tech. The goal of the meeting was to learn from the experiences of other states that have moved to statewide watershed or basin management, to see how the state basin level planning can be strengthened and connected to the more local watershed focus of the Watershed Improvement Project.

The group reviewed approaches of other states. There was the greatest interest in the approach taken by the State of Kentucky. There was the feeling that certain portions of that framework would work well in Vermont and deserved careful study. There was interest in an approach that was both top down and bottom up with the state taking a facilitating role.

While some of the decision-making is consensus-based, the principles, described below, state that the 17 individual plans must meet or exceed the applicable requirements of state and federal law. Thus, the plans and planning process are a combination of bottom up (addressed in the sequential process) and top down. The ANR will speak to the water quality standards, the typing of waters, stormwater management, maintaining “existing uses” and certain techniques for water quality management. There are also statutory requirements of the Department of Agriculture. Standards are not consensus based but the methods by which they can be achieved must be.

3. Principles

In implementing the basin planning process, each of the 17 individual plans must meet or exceed the applicable requirements of state and federal law. In doing so, the local basin planning process will be guided by the following eight principles recommended by the citizen committee advising the basin framework development process:

1. The purpose of the statewide effort is to provide an overall framework and inclusive process to guide each of the 17 individual plans in order to ensure a basic level of consistency.
2. Plans should emphasize voluntary actions to solve identified problems.
3. The completion of these 17 individual plans will be given the highest priority by the Agency and thus the Agency will seek and should be given the appropriate resources to ensure that all of the plans are completed by the statutory deadline of January 1, 2006.
4. The process should be inclusive – maximize public participation and involvement in the local decision-making and action.
5. The state program should both complement and support existing and new stewardship efforts in each watershed and be flexible and responsive to the needs and priorities of the people.

6. Each of the 17 individual basin plans will contain objectives, policies, benchmarks and tasks in order to facilitate the implementation of the plans. The basin planning process will need to be action-oriented in order to maintain public enthusiasm and make real progress in improving the management of Vermont's water resources.
7. When completed, the 17 individual basin plans should act as guiding planning documents for water quality management in Vermont and resource documents for the respective regions and their municipalities.
8. Vermont by tradition has a working landscape. This process is committed to working together to achieve the public's water quality goals, while respecting the rights of landowners.

Additional Guidelines

1. Priority will be given to those basins and sub-basin for planning and direct remediation actions where there are the most serious water quality problems or the greatest number of high quality waters and valuable aquatic features deserving protection. Local public interest will be weighed heavily in making these determinations.
2. Each plan must spell out clear, attainable goals and tailor strategies to achieve those goals. The goals must be stated for the watershed as a whole and for individual sub-watersheds. A final plan should contain a 'report card' by which progress can be tracked with regard to measurable indicators of each major goal. The Watershed Council should oversee preparation of the report card and it should monitor progress on the report card.
3. Local efforts will result in somewhat different processes in each basin. The Statewide Coordinating Council should respect the existing structures that are at work in each basin to protect water quality and recognize that plans must have a degree of flexibility to serve the needs of the organizational structures and people of the various watersheds.

4. The Plan

The plan focuses on the important conservation and restoration objectives to be accomplished within the upcoming five-year period. A modest list of strategies focuses on the major new and ongoing conservation and restoration activities in the watershed.

The document describes the background information and water related issues of local and state importance. One path of action is led by the state and one path of action is led by local organizations. Each path achieves environmental conservation and improvements. Strategies for each path include:

- Address the major (most severe) water quality issues
- Address the legal requirements for a basin plan (Appendix A)
- Define clear roles for each participant

- Provide understandable connection between the roles of all participants and the environmental outcomes
- Use a simple report card for tracking the outcomes and monitoring the commitments of the participants

5. Plan Structure

Although each plan will be somewhat different in structure and format, the three-part table of contents below provides a general representation of the contents of a basin plan. The plan must be understandable by the public, reflect the direction for water resources restoration and conservation recommended by the public and comply with the legal requirements for a basin plan. In general, where problems affecting impaired waters are known and solutions are clear, the plan must contain specific action requirements. These must include a list of actions to be taken, who will take those actions, a time line for completion of the actions, an estimate of the cost of the action and an indication of the most probable funding for the action. Where the problems are not totally known, or solutions are not clear, the plan must contain a strategy for reasonable actions that should improve the impaired waters, as well as a process to acquire the necessary information to define the problem and develop solutions as soon as reasonably possible.

As an alternative plan structure in Appendix 4 contains the Table of Contents for the 2002 adopted White River Basin Plan

Part I: Action Plan (potentially no more than 20 pages)

This section is professionally formatted and colorful. It is short yet the main communications piece for the plan

Vision Statement – succinctly describes the Watershed Council’s broad vision for water quality-related conditions in the basin.

Executive Summary –An overview of issues and proposed actions (with and indication of overall priorities).

Chapter 1. Introduction – A brief basin description, purpose of the plan, planning process, and expected implementation process.

Chapter 2. Resolving State and Local Water Quality Concerns

Short explanations of the general water quality issues in the basin (with reference to Fact Sheets and further information in Part II), and a list of the strategies addressing them.

Examples of local water quality concerns:

- STREAM CHANNEL INSTABILITY AND STREAMBANK EROSION
- IMPROVING WATER QUALITY AWARENESS
- PUBLIC ACCESS
- FISHERIES
- DAMS’ INFLUENCE ON TEMPERATURE, AQUATIC HABITAT, FISH MOVEMENT SEDIMENT TRANSPORT, DISSOLVED OXYGEN, PUBLIC SAFETY, HAZARD MITIGATION

Chapter 3. Specific Waters with Water Quality Problems – Short explanations of specific water quality issues in the basin and a list of the goals and strategies addressing them.

- STRATEGIES TO RESTORE IMPAIRED WATERS
- STRATEGIES FOR WATERS IN NEED OF FURTHER ASSESSMENT
- STRATEGIES TO RESTORE ALTERED WATERS AND WATERS OF LOCAL CONCERN

Chapter 4. Establishing Management Goals For Surface Waters – An overview of the classification and typing system and process, and a listing of any proposed changes within the basin. More in-depth information on classification and typing is presented in Part II.

- CLASSIFICATION AND TYPING
- WARM AND COLD WATER DESIGNATIONS
- OUTSTANDING RESOURCE WATERS

Glossary

Part II: Essential Information

This section is in simple word-processing report format, with tables and graphics where needed.

Chapter 1. Description of the Basin

- GENERAL DESCRIPTION OF THE BASIN INCLUDING LAND USE (AGRICULTURE, FOREST LAND, AND DEVELOPED LAND)
- DESCRIPTION OF SUBWATERSHED A
- DESCRIPTION OF SUBWATERSHED B

Chapter 2. Uses, Values, Significant Features

- EXCEPTIONAL USES AND VALUES OF THE BASIN RIVERS, INCLUDING BOATING AND SWIMMING
- EXCEPTIONAL USES AND VALUES OF THE BASIN LAKES
- EXCEPTIONAL NATURAL HABITATS IN THE BASIN
- DRINKING WATER SUPPLIES
- FISHERIES IN THE BASIN

Chapter 3. Water Quality Concerns – Fact sheets on common issues and further information on other issues particular to the basin, for example:

- RIVER CORRIDOR MANAGEMENT
- NUTRIENTS
- PATHOGENS
- FLOW MODIFICATIONS AND DAMS
- LAKE AND POND WATER QUALITY ISSUES

Chapter 4. Sub watershed Assessments

- CAUSES AND SOURCES OF IMPAIRMENT, ALTERATIONS AND STRESSES TO BASIN RIVERS
- CAUSES AND SOURCES OF IMPAIRMENT, ALTERATIONS AND STRESSES TO BASIN LAKES
- IMPAIRMENTS AND THREATS ON SPECIFIC BASIN LAKES
- DESIGNATED USE SUPPORT STATUS - RIVERS
- DESIGNATED USE SUPPORT STATUS - LAKES

Chapter 5. Detailed Information on Classification and Typing – More details about the system, the process for determining proposed changes, and a description of proposed changes.

- CLASSIFICATION AND TYPING FACT SHEET
- MAPS OF PROPOSED MANAGEMENT TYPES AND CLASSIFICATIONS
- WRITTEN DESCRIPTION OF PROPOSED MANAGEMENT TYPES AND CLASSIFICATIONS
- EXISTING USES
- WARM AND COLD WATER DESIGNATIONS
- OUTSTANDING RESOURCE WATERS

Chapter 6. Public Planning Process Documentation

Chapter 7. Statutory Index

Chapter 8. Other Sections With Basin-Specific Information (As Needed)

- GEOMORPHIC ASSESSMENT DETAILS
- REVIEWS OF MUNICIPAL AND REGIONAL PLANS.
- WASTE WATER AND STORMWATER TREATMENT FACILITIES

Part III: Regulatory and Non-Regulatory Programs

This part of the plan presents the summary of programs applicable in the basin (state and federal). It is also in simple word-processing report format. Most of the information is common to all basins.

6. Planning Process and Public Participation

In general, the planning process should include the following steps:

- issue identification,
- issue ranking,
- strategy and solution development,
- allocation of resources and funding,
- assessment, and
- implementation.

The planning process should occur for each watershed on a five-year cycle, incorporating planning, implementation, monitoring, and evaluation. Every 5th year, the renewed plan will steer a continually evolving course of watershed improvement and protection activities for the basin.

Communication and Public Participation

“We must engage a broad cross-section of Vermonters in each watershed in developing these action plans and working to implement their own strategies for watershed improvement. The Agency will provide leadership and support this effort, but the best, most successful strategies for managing our waters will come from the people who live, work, and play in each watershed.” – Canute Dalmasse, Commissioner, VT Department of Environmental Conservation

To succeed, the basin planning process must encourage and support meaningful, effective, and enduring public participation (Wondolleck et al, 2000), as well as sustaining and nurturing an atmosphere of cooperation. Since each watershed is inherently different in its natural, cultural, and economic resources, each watershed plan will be unique and may require a variation on the proposed process.

The planning process should emphasize collaboration and consensus. While consensus isn't always possible, it is important to promote a shared-learning environment on most issues that will help to ensure ownership of the problem-solving approach and its outcomes by Watershed Council members and their constituents.

Engaging the public early on, and often, throughout the decision-making process is one effective way ensuring broad ownership of the problem solving approach. By ensuring that the Council is inclusive and representative of constituents in the watershed, a meaningful planning process can take place.

Many people live along impaired waters and do not realize it. It would be a significant oversight of the basin planning process not to reach these people and inform them of appropriate actions that they can take to control a pollutant.

Public information methods should be tailored to reach the people who can change water quality. As appropriate, mailing lists, postings on the internet, newspapers, newsletters, one-on one, posters in stores, radio, TV, kitchen meetings, forums, site visits, tours, demonstration projects panel discussions booths at fairs and other venues should be used. Watershed Coordinators should keep local legislators up to date on basin planning progress.

Conservation Districts, planning commissions, municipal boards, landowners and others are “in the trenches” bringing about water quality change directly and indirectly and must receive constructive, appropriate communication. Although these people may not be involved on the Watershed Councils, it is essential to open lines of communication with them from day one of the planning process and to maintain that communication throughout.

Effective and efficient meetings where people feel valued for their input ensure meaningful public participation through a Watershed Council. A key component of maintaining effective meetings has been through the use of a facilitator. Successful watershed planning initiatives in other states have shown that a facilitator was critical to the process and that their watershed programs would have been unsuccessful without them (Durey, 1999). The State of Vermont has recently hired regional watershed coordinators to serve this purpose for each watershed planning process in each basin. Another means to promote meaningful participation is to maintain an efficient organizational structure. Collaborative efforts involve stakeholders who represent different constituencies and the issues that each representative chooses to focus on are diverse as well.

In order for the watershed planning process to continue to be successful, the people involved in the process must continue to feel as though they have a part in it, that their opinions are being heard and that they are able to have an impact on the outcomes and actions that come from the process.

Encouraging stakeholders to work together using meaningful and legitimate objectives that have been identified through consensus-based decision-making is also critical to maintaining ongoing and enduring public participation. “Ultimately, they are self-sustaining because a structure is provided that facilitates productive interaction, and the partners continue to benefit from it.” (Wondolleck et al, 2000)

Successfully creating a meaningful, effective, and enduring planning process is the key to solving water quality problems in Vermont’s watersheds. Such participation and decision-making will entail a significant level of staff time by supporting agencies.

Durey, Hunt, Watershed Management and Public Participation: A Summary Report. Masters Internship of Studies in the Environmental Law Program, Vermont Law School *prepared for* Water Quality Division, Department of Environmental Conservation, Vermont Agency of Natural Resources. March 1999.

Wondolleck, Julia M., and Steven L. Yaffee, Make Collaboration Work. Washington D.C: 2000 pp 99-117.

7. Planning Bodies, Personnel and Roles

A. Statewide Coordinating Council

The Statewide Coordinating Council is a volunteer group made up of community, stakeholder and government representatives that can help ensure the watershed planning process remains public and achieves the goals described in this document. A Statewide Coordinating Council will be established only when the Secretary believes that watershed planning and management issues are of such a nature that the Agency leadership requires the advice of such a Council.

The Council can have a significant voice in determining ANR and DEC policies on watershed management. The Council can undertake the roles described below with the administrative support of the Agency of Natural Resources. It can maintain continuity and institutional memory in the basin process, identify statewide issues that need attention, share ideas, solutions and information, review final products and coordinate efforts between various basins.

Roles

- Monitors statewide watershed planning process in each basin periodically for consistency with these Guidelines and reports to the Secretary, Agency of Natural Resources and the legislature on implementation,
- Updates “Guidelines for Watershed Planning” as necessary,
- Reviews the schedule for completing the plans with the current staff employing the process of planning and the concurrent correction of impaired waters,
- Seeks to assure that resources are available for all participants in the watershed planning process to achieve the 2006 completion date,
- Supports and coordinates participatory commitment of resource technical advisors,
- Assists watershed coordinators in attaining the full range of representation on watershed councils; actively engages constituents and encourages their participation in the basin planning process,
- Ensures that watershed plans contain the required elements prior to submission to the Secretary of ANR (checklist),
- Shares constructive ideas and coordinate efforts between basins (technology transfer); provides a forum for communication between constituent groups and between constituents and their representatives,
- Tracks implementation and evaluation of basin plans; reports statewide results - tracks statewide issues, solutions, and resolution.

Membership

The Statewide Coordinating Council could be a group of 14 volunteer members. They are selected as individuals or organizations that have been requested by the Secretary to submit nominees. The ANR would provide logistical support. The Council can establish its own operating procedures, including its method of decision-making. The Secretary will consider nominees from the list below for appointment to the Council. At least half

the membership shall be private individual landowners or representatives of non-governmental organizations. Meetings will be open to the public. Organizations and individuals listed below are examples of the possible members of the Council.

Deputy Secretary of the Agency of Natural Resources
Commissioner Department of Environmental Conservation
Secretary, Agency of Agriculture, Food and Markets
Member appointed by the Speaker of the House
Member appointed by the Committee on Committees of the Senate
Secretary of Agency of Transportation
Natural Resources Conservation Districts Representative
Other agriculture interests such as the Grange, Farm Bureau, etc.
Natural Resources Conservation Service Representative
Regional Planning Commissions
Watershed affiliated organization representative from each the
Connecticut, Memphremagog, Hudson and Champlain Basins
Statewide non-governmental natural resources oriented organization
representative
Statewide industry representative
Major private landowner
Agriculture and forestry interest representative
Fisheries interest and other recreation and sports enthusiast
Local government representative
Municipal Conservation Commission or local “environmental” group
representative
Regional development corporation representative
Regional marketing organization representative
Water users: power companies, public water systems, ski resorts and
mining
Public land managers: VTrans, USFS, ANR, USFWS, park districts, and
towns
Watershed Coordinator and Technical Advisor

Meeting conduct and frequency

The Council would meet as frequently as it is determined to be necessary. ANR would provide logistical support, and the meetings would be held in accordance with all applicable state and federal laws. At the meetings the watershed coordinators may present a discussion of obstacles encountered and successes.

B. Watershed Councils

A Watershed Council will be the main body to guide the basin planning process within each watershed. The open ended Council, comprised of volunteer local watershed constituents, will be guided and supported by a Watershed Coordinator.

Watershed Councils will encourage constituents' participation in the planning process and conduct outreach and education to inform constituents and others about watershed issues. Watershed Councils will prioritize water quality issues and concerns through a public participation process, with the assistance of Technical Advisors, who may meet separately with groups to develop solutions for specific problem areas. Outlined below are the roles and interrelationships of the Watershed Councils, Watershed Coordinators, and Technical Advisors.

- Each council member provides a perspective from within a given constituency(s); existing watershed groups may serve as the council if watershed constituents are fully represented, or an existing group may serve as the foundation on which to build a fully inclusive council.
- Council members encourage constituents' participation and conduct outreach/education to inform constituents about the watershed and known watershed issues
- Councils form early and develop and conduct watershed forums (assisted by Watershed Coordinators and other facilitators) The forums' purpose is to identify water resources issues (assets and problems), related community needs, and potential solutions.
- Identify immediate or ongoing water quality improvement projects to be undertaken during the planning process
- Prioritize issues, select highest priority issues to be addressed in plan and/or by Watershed Councils as immediate projects.
- Guides plan through review, revision, and approval process (see section 5.4.2)
- Implement the plan

Potential Participants- Watershed Council Members

At a minimum, the following constituent groups should be considered in identifying representatives to the Watershed Councils:

- Select Boards and Village Trustees (Managers and Administrators)
- Municipal and Regional Planning Commissions (Planners)
- Municipal Conservation Commissions and Local "Environmental" Groups
- Watershed Affiliated Organizations (lake associations, river groups, etc...)
- Regional Development Corporations
- Regional Planning Commissions
- Regional Marketing Organizations / Chambers of Commerce / other small business rep.
- Natural Resource Conservation Districts
- Recreation and Sports Enthusiasts (land and water)
- Major Land and Water Managers (farmers, loggers, ski resorts, large business)
 - Agriculture
 - Forestry
- Major Land and Water Users – watershed specific
 - Power Companies
 - Public Water Systems
 - Ski Resorts
 - Mining
 - Large businesses

Small Private Landowner or Representative of Land Owners
Agency of Agriculture Food and Markets (local representation for all agricultural interests)
U. S. Forest Service (where office is local)
Vermont Department of Fish and Wildlife (local biologists)
Vermont Department of Environmental Conservation (Watershed Coordinator)
Vermont Department of Forests and Parks (local representation)
Business Community
Other public land managers (Vtrans, Corps of Engineers, Park Districts, municipalities)
Watershed Coordinators and watershed organizations will staff the Councils. Council membership will be open-ended and ongoing.

NOTE: Technical Advisors may also serve their agency in an “advocacy” or “constituent” role on the Watershed Council depending on the nature of the agency’s land ownership and management responsibilities in the watershed. In such cases, it is generally more appropriate for local agency staff to serve as council members, than centralized staff, as local staff is tapped-into the watershed community.

C. Watershed Coordinator

Watershed Coordinators are the Department’s central contact in leading the Watershed Planning process. There are two tracks of the process for which the Coordinator is responsible; planning and implementation. Both are initiated at the outset of the watershed planning process in a watershed. Once a plan is completed, the Coordinator has a continuing responsibility to cause the strategies to take place by carrying some of them out directly and making the necessary arrangements for others.

- Watershed Coordinators meet with and solicit participation of constituent groups, education and outreach on basin planning process and watershed issues
- Form Watershed Councils with sizes and compositions appropriate to the individual watersheds, respecting existing watershed-based organizations
- Staff the Watershed Councils
- Facilitate meetings
- Compile factual material related to the waters of the watershed
- Serve as a liaison between the Technical Advisors and Council
- During the planning process, seeks technical and financial resources for water quality improvement projects identified by watershed constituents
- Prepare (write) draft and final plans
- Update the Coordinating Council regularly (if applicable) on the watershed planning process in each watershed
- Facilitate watershed plan implementation
- Work with landowners and resource agencies to meet the needs of landowners while determining methods that they are willing to apply to restore waters.

D. Technical Advisors - consist of technical staff of the appropriate resource related organizations who provide information to the Watershed Council, and Coordinator on each identified major issue and assist in identifying solutions. Technical Advisors may include:

Vermont Agency of Natural Resources

Legal Advisor

Department of Environmental Conservation

- water quality (+ stormwater)
- water quantity
- water supply
- wastewater management
- wetlands
- lakes and ponds
- invasive exotics
- river management (floodplains)

Department of Fish and Wildlife

- non-game / natural heritage
- fisheries
- wildlife

Department of Forests, Parks and Recreation

- forests
- parks
- recreation

Vermont Agency of Agriculture Food and Markets

Vermont Natural Resource Conservation Districts

Vermont Agency of Transportation

District Representatives

Federal Agencies

Environmental Protection Agency

U.S. Army Corps of Engineers

US Fish and Wildlife Service – Conte and Lake Champlain offices

USDA - Natural Resources Conservation Service

- US Forest Service – Green Mountain National Forest

US Department of Transportation

Other Resources

Vermont Local Roads Representative

UVM Extension

Sea Grant

Lake Champlain Basin Program

Local and Regional Land Trusts

Colleges/Universities/Schools

Nonprofits and citizen groups (watershed groups, environmental groups,...)

Private industry, consultants

Resource Technical Advisors

- Each agency/department/organization has a “point person” that supports and coordinates the participation of their technical staff in the basin planning process; this list of “point persons” is provided to the Coordinator who will then work with these contacts to identify the appropriate technical advisors
- Educate Watershed Councils on technical aspects of water resource issues
- Work closely with Watershed Councils to determine solutions to watershed issues
- Assist the Watershed Council in identifying immediate or ongoing water quality improvement projects to be undertaken during the planning process
- Ensure legal compliance of plans (each Agency responsible for statutes/laws by which it is directed)

Outreach Contacts

At a minimum, the Watershed Coordinator and Council should contact the following groups in their watershed on a regular basis to inform and educate them about the status of the watershed planning process, accomplishments, challenges:

- 1) Constituents: all those identified in the basin, whether they are participating in the planning process or not
- 2) Technical advisors: those pertinent to the watershed and agency/department point contacts
- 3) Media: radio, TV, newspapers (local/regional)
- 4) Legislators
- 5) Other interested individuals: any who sign up at watershed planning public meetings, or otherwise express interest in being updated on the watershed planning initiative

8. Plan Development and Review and Approval Schedule

The following narrative lays out a potential schedule related to plan development and plan review and approval. The final approval comes for the Agency of Natural Resources Secretary.

Plan Development

1. General outreach, education, and solicitation of constituent groups by coordinator and existing active watershed groups, conservation districts, regional planning commissions or others to inform of planning process and opportunities for serving on Council. Public participation tactics might include working with the mass media and speaking at local organizations’ meetings to help raise awareness of possible participants. **3 months**

2. Form an inclusive and representative Watershed Council with size and composition appropriate to the watershed, respecting any existing organizations and their structures. Provide education for the Council members about public participation objectives and the basin planning process. Allow time to refine organizational structure of the Council to assure efficient and effective future operations. Define roles of Council members and the watershed coordinator. Formulate ground rules for **3 months**

Council function including commitment to the collaborative process. Identify and address any funding needs of Council participants to assure enduring participation.

3. Council members encourage constituents' participation in planning process and conduct outreach/education to inform constituents and others about the watershed and watershed issues/opportunities. Provide facilitation training to the Council members so that they can work more effectively with their constituents. Examples of outreach include, but are not limited to, mass media, ANR watershed website, direct mail to members of constituent groups, or articles in groups' newsletters/website to convey the importance and need for the planning effort. **2-3 months**

4. Coordinator, Council, and other constituents identify and implement ongoing water quality improvement projects during the planning process to keep the process action-oriented, and to encourage and celebrate early successes.

5. Councils develop and conduct public watershed forums to learn about needs, attitudes, and behaviors of general public. The main purpose of the forums is to identify water resources issues (assets and problems), related community needs, and potential solutions. Efforts are made to draw in local citizens as much as possible. Other public participation may include educational workshops or field trips to help public understand options and increase shared learning. **2-3 months**

6. Council prioritizes issues, selects highest priority problems, threats, and opportunities; **1 month**

7. Issue teams (or the Council itself) develop recommendations including potential implementation activities to address each high priority water resource opportunity, problem, or threat identified by the Council. Process needs to include adequate time for science-based education for Council and Issue Team members to reach a level of shared learning that will allow effective and meaningful participation. **4-6 months**

8. Council approves issue teams' proposals (or proposals prepared by Coordinator with Focus Groups) and determines resource allocation and funding priorities. Using these proposals and other public and technical input, the Coordinator writes a draft watershed plan in close consultation with the Council. Public participation includes publicity of accomplishments; and celebration/reward of the important work of the Council and Issue Team members and others. **2 months**

Subtotal **17-21 months**

Review and Approval

1. Council and or the Watershed Coordinator release(s) the draft plan to public and for review. Public participation tactics include, but are not limited to, mass media, web-site comments “bulletin board”, and public hearings.	2 months
2. Council, Issue Team, Focus Groups, Watershed Coordinator re-work draft addressing feedback received.	2 months
3. Council releases semi-final plan to public and steering committee (where applicable) for review. Public participation tactics include, but are not limited to, mass media, web-site comments “bulletin board”, and public hearings.	1 month
4. Council and Watershed Coordinator re-work semi-final plan addressing feedback received.	1 month
5. Council and Watershed Coordinator submits final plan to ANR Secretary for signature. ANR staff submits plan to WRB as petition for reclassification of waters and ORW nominations, as needed. (WRB conducts public participation on reclassifications and ORWs – not included in this timeline.) (ANR guides plan through federal approval process with the EPA – not included in this timeline).	1 month
Subtotal	7 months
TOTAL	24-28 months

9. Implementation and Results

No planning process is complete without feedback on the elements of the plan. This can take the form of documenting the actions taken on the land in an effort to improve water quality to placing a conservation easement on a swimming hole to assure its protection for future generations. Periodically, during the implementation phase of the plan, progress can be measured by checking on the different strategies completed or in progress in various parts of the basin. For this reason these Guidelines call for a report card that is prepared by each Watershed Council with the Watershed Coordinator. The report card lists measurable accomplishments that can be checked up on from time to time during the five year or so period following the completion of the plan. Areas of accomplishment can be duly noted as can areas in need of more attention.

10. Evaluation

Periodically the Secretary with the assistance of the Statewide Coordinating Council (where such a council is created) must take stock of the process and examine accomplishments in planning and implementation. Subjects to be considered the adequacy of the process set forth by this guidance document, the progress of the basin planning process, reactions of the public to the process, and the adequacy of resources to conduct planning and implementation. In addition, the Statewide Coordinating

Council¹ will make a report to the Secretary every year initially and later as needed (See Section 4, Planning Bodies, Personnel and Roles, Statewide Coordinating Council, Roles).

11. Watershed Council Toolkit

Each Watershed Council needs basic background information or a “tool kit” that describes the basin and the major known issues. Items that it should contain include, at a minimum:

1. A copy of the watershed assessment
2. A list of impaired waters and state lists of waters for the basin
3. An explanation of water quality classification and typing
4. A copy of the Framework Committee Report “Guidelines for Watershed Planning”
5. Map of entire watershed, surface waters and wetlands

These basic materials will help citizen become familiar with some of the known issues that will be the subject of discussion.

¹ The Secretary, if needed may create a Statewide Coordinating Committee.

Appendix:

Appendix 1. Legal Aspects

Points Required in Basin Plans

Federal and state law and regulation call for the review of specific topics in basin plans. In the material below the underlined requirements are followed by a brief summary of each.

July 2, 2000 Water Quality Standards - Section 1-02 D - Basin Planning and 40 CFR, Part 130, Section 130.6 - Water Quality Management Plans and

Vermont Agricultural Non-point Source Pollution Reduction Program Law and Regulations and the Memorandum of Understanding between the ANR and DAF&M

10 VSA section 1253 (d)

Basin Planning is a required public process that inventories both water uses and problems and that develops strategies for enhancing water quality. Of particular importance is the process of identifying strategies (including Total Maximum Daily Loads, restoration plans and Best Management Practices) for remedying water quality problems. In addition the basin planning process assigns Water Management Types and, at times, classifications to establish goals for attaining and maintaining water quality.

A basin plan provides the Secretary of the Agency of Natural Resources with the data, rationale, and community-based recommendations to support petitions to the Water Resources Board for typing and changes in the classification of rivers and streams or specific reaches or bodies of water within a watershed.

The Water Quality Division has prepared a table called “Water Quality Division Interpretation of Water Quality Standards” that provides succinct guidance for assigning Water Management Types. Some of the issues related to this topic, particularly as they relate to changing an B designation to a B1, B2 or B3 are complex and subject to ongoing disagreement within the legal community. It was the sense of the Legal Subcommittee that these issues are best resolved with a concrete fact pattern and that the ultimate goal of protecting water quality, enhancing our State’s anti-degradation efforts and common sense should be the principle guides for Coordinators and Watershed Councils in recommending and, ultimately, assigning Water Management Types.

The Vermont Statutes create special obligations on the part of the Commissioners of the Department of Environmental Conservation and the Agency of Agriculture, Food and Markets to work cooperatively to resolve farm related water quality problems with respect to Basin Plans. The Secretary of the Agency of Natural Resources retains ultimate responsibility regarding non point sources of pollution relative to basin planning and agriculture.

The following is a summary of basin planning points that have been extracted from the Vermont Water Quality Standards (WQS), the Federal Register and the Agency of Agriculture, Food and Markets’ (AAF&M) *Accepted Agricultural Practice Regulations* (Effective June 29, 1995), their *Best Management Practice Regulation* (Effective January 27, 1996), and the Memorandum of Understanding between the ANR and the AAF&M. All appropriate points must be included in basin plans before the Secretary of the Agency of Natural Resources (ANR) can adopt them. Organizations are encouraged to include as many points as possible in their basin planning efforts. The Department of Environmental Conservation will incorporate this information in the development of basin plans.

Following are points contained within the July 2, 2000 Water Quality Standards:

1. Basin plans inventory the existing and potential causes and sources of pollution that may impair the waters.
2. Basin plans establish a strategy to improve or restore waters.

Basin plans...

3.shall seek public participation to identify and inventory problems, solutions, high quality waters, existing uses, other water uses, and significant resources of high public interest.
4.shall consider approved municipal and regional plans adopted under 24 V.S.A. Chapter 117.
5.shall coordinate and cooperate with the Commissioner of DAF&M, as provided for in 6 V.S.A. Chapter 215.
6.shall identify strategies, where necessary, by which to allocate levels of pollution between various sources as well as between individual discharges.
- 7.....should, to extent possible, contain specific recommendations by the secretary that include, but are not limited to the identification of all known:
 - a. existing uses
 - b. salmonid spawning or nursery areas important to the establishment or maintenance of such fisheries
 - c. reference conditions appropriate for specific waters
 - d. any recommended changes in classification and designation of waters
 - e. schedules and funding for remediation
 - f. stormwater management
 - g. riparian zone management
 - h. other measures or strategies pertaining to the enhancement and maintenance of the quality of waters within the basin.
8. In basins that include class B waters which have not been allocated into one or more Water Management Type or Types pursuant to Section 3-06 of the WQS, the basin plan.....shall propose the appropriate Water Management Type or Types based on both the existing water quality and reasonably attainable and desired water quality management goals.
(A watershed association or municipality or other party with legal standing to do so may also present a petition for classification to the Water Resources Board)

Following are points contained within 40 CFR, Section 130.6:

9. Water Quality Management (WQM) plans....consist of initial plans produced in accordance with sections 208 and 303e of the Clean Water Act (CWA) and certified and approved updates of those plans.
10. State water quality planning should focus annually on priority issues and geographic areas and on the development of water quality controls leading to implementation measures.

11. WQM plans are used to direct implementation.
12. WQM plans draw upon the water quality assessments to identify priority point and nonpoint water quality problems, consider alternative solutions and recommend control measures, including the financial and institutional measures necessary for implementing recommended solutions.
13. State annual work programs shall be based upon the priority issues identified in the state WQM plan.
14. The following plan elements shall be included in the WQM plan or referenced as part of the WQM plan if contained in separate documents when they are needed to address water quality problems:
 - (1) Identification of anticipated municipal and industrial waste treatment works, including
 - (a) facilities for treatment of stormwater-induced combined sewer outfalls;
 - (b) programs to provide necessary financial arrangements for such works;
 - (c) establishment of construction priorities and schedules for initiation and completion of such treatment works including:
 - (i) an identification of open space and recreation opportunities from improved water quality in accordance with sections 208(b) (2)(A) and (B) of the CWA.
 - (2) Nonpoint source management and control
 - (a) describe the regulatory and non-regulatory programs, activities and best management practices (BMPs). Economic, institutional and technical factors shall be considered.... BMPs shall be identified for the nonpoint sources identified in Section 208(b)(2)(F)-(K) of the CWA and other nonpoint sources as follows:
 - (i) Residual waste
 - (ii) Land disposal
 - (iii) Agricultural and silvicultural
 - (iv) Mines
 - (v) Construction
 - (vi) Urban stormwater
 - (3) Effluent limitations - including water quality based effluent limitations and schedules of compliance
 - (4) Total maximum daily loads

The nonpoint source plan elements outlined in #14 above shall be the basis of water quality activities implemented through agreements or memoranda of understanding between EPA and other departments, agencies or instrumentalities of the United States in accordance with section 304(k) of the CWA.
 - (5) Identification of management agencies necessary to carry out the plan and provisions for adequate authority for intergovernmental cooperation.....
 - (6) Identification of implementation measures necessary to carry our the plan, including financing, time needed to carry out the plan, and the social, economic and environmental impact of carrying out the plan in accordance with 208(b)(2)(E).
 - (7) Identification and development of programs for the control of dredge or fill material in accordance with section 208(b)(4)(B) of the CWA.
 - (8) Identification of any relationship to applicable basin plans developed under section 209 of the CWA.
 - (9) Identification and development of programs for control of groundwater pollution including the provisions of section 208(b)(2)(K) of the CWA. States are not required to develop groundwater WQM plan elements beyond the requirements of section 208(b)(2)(K) of the CWA, but may develop a groundwater plan element if they determine it is necessary to address a groundwater (water) quality problem [see section 130.6(c)(9) for specifics of the groundwater plan element.

Following are points contained in Title 6, Ch. 215, Agricultural Non-Point Sources Pollution Reduction Program and Memorandum of Understanding Between the ANR and AAF&M:

15. The Secretary of AAF&M shall cooperate with the Secretary of ANR in the basin planning process with regard to the agricultural nonpoint source waste components of each basin plan.
16. Any person with an interest in the agricultural nonpoint source component of the basin planning process may petition the Commissioner (AAF&M) to require, and the Commissioner may require, BMPs in the individual basin beyond accepted agricultural practices (AAPs) adopted by rule, in order to achieve compliance with the water quality goals in section 1250 of Title 10 and any duly adopted basin plan.
17. The Secretary shall retain state and federally mandated responsibilities related to basin planning, water quality management planning and the wasteload allocation process except that the Secretary shall coordinate with the Secretary AAF&M about those aspects of basin planning and water quality management planning which relate to the agricultural NPS component of each plan.
18. The Secretary shall be responsible for determining the extent to which designated water uses and water quality standards are supported or impaired and for determining the causes and sources of water quality problems. The Secretary AAF&M may assist the Secretary with these determinations.
19. The Secretary AAF&M shall cooperate with the Secretary in basin/water quality management planning processes by preparing appropriate sections of each plan which relate to the implementation of controls and programs affecting agricultural NPS wastes and runoff.
20. The wasteload allocation process results in the allocation of a river's limited assimilative capacity to receive discharges from point and nonpoint sources. The Commissioner DEC shall be responsible for the designation of wasteload allocations within specific river basins or watersheds. The Commissioner DEC shall coordinate with the Secretary AAF&M when making determinations regarding the magnitude of any wasteload allocation dedicated to pollution from agriculture nonpoint sources.
21. The Secretary AAF&M shall follow the priorities identified in the most recent version of the Vermont State Clean Water Strategy, which describes the nature, location and extent of agricultural NPS pollution and the prioritization of river basins or waterbodies for further action.
22. The Secretary AAF&M, in collaboration with the Commissioner DEC, shall conduct evaluations to determine to what extent and which land treatment measures, including BMPs, are necessary in each basin to achieve water quality standards.
23. The Secretary AAF&M shall cooperate with the Commissioner DEC and shall be responsible for preparing descriptions of agricultural NPS programs and practices for the biennial water quality assessment report required by Section 305(b) of the federal Clean Water Act (and for the report required under Title 10 V.S.A. Chapter 47).
24. The Commissioner DEC shall retain the responsibility for evaluating the effectiveness of agricultural NPS control programs in attaining water quality standards. Such evaluations will be based on all available information with an emphasis on water quality monitoring data. The Secretary AAF&M shall be responsible for determining the effectiveness of land use practices to reduce the release of agricultural pollutants and for compatibility with sound agricultural practices.

Appendix 2.
Items for Consideration by Watershed Councils and Watershed Coordinators in the Preparation of a Basin Plan

Regional plans
Municipal Plans
State and Federal Lands Plans
Maps of Conserved Lands
Water Resources Board Orders
FERC Licenses
Impairment by flow modification
Aquatic nuisance species
Artificial stream barriers including culverts and dams
Clean Water Act 401 Water Quality Certifications
Municipal Zoning – Districts and Descriptive Text
Water Quality Studies
Existing Water Quality
Water Chemistry
Water biology
Aquatic Habitat
Existing Uses
Location of Waste Management Zones
Fisheries Studies
Biological and Chemical Water Quality Studies
Fluvial-Geomorphic Studies
Water Quality Assessments
Flow Modifications
Dams, culverts and bridges
Fish Movement
Sediment Transport
Public Safety and hazard mitigation
Various natural and manmade influences on water temperature

Appendix 3. Frequently Asked Questions

Q. Doesn't the planning process add more layers of bureaucracy via watershed committees, facilitators in addition to the regulators so as to further delay remedial actions as the volunteer committees climb a steep learning curve? Won't delays be blamed on the watershed committees and improperly engineered solutions with unsatisfactory results that they decide on? Isn't the committee approach to solving technical problems using non-technical "volunteer" personnel with non-technical "facilitators" serving as the interface with the regulators too inefficient in terms of both resources and timeliness of resolution?

A. Our experience has been that Watershed Coordinators have the technical experience to implement solutions to water quality problems on their own or have access to Agency, municipal or federal personnel and to financial resources to address the principle water quality problems. From the very beginning of the planning in process the Watershed Coordinator begins to develop strategies and assemble resources to address the most important water quality problems while developing a public participation process. The Coordinators begin immediately to initiate projects to address water quality problems. Some of these are technical solutions, others can only be resolved in partnership with landowners and many other stakeholders. The Watershed Council facilitates these relationships. Watershed Coordinators, working with their Councils, already have long lists of remedial projects accomplished and in progress.

Q. Doesn't the planning process place too much power in the hands of those with political agendas almost all that are hostile to private property ownership? Can't anyone who wants to call themselves a watershed council and advocate for typing categories that will lead to changes in landowners' allowed activities? Isn't the potential for abuse of private property owners by those with a radical ideology enormous?

A. The Water Quality Standards call for a determination of the existing, reasonably attainable and *desired* water quality. In determining "desired water quality management goals" legitimacy is associated with:

1. Waters that are managed in accordance with rules or orders issued by the Water Resources Board.
2. Waters that are regulated by the Federal Energy Regulatory Commission (FERC) where a public process has been held and a license has been issued.
3. Waters flow within lands designated for uses by a municipality in a municipal plan or zoning ordinances.

A planning board appointed by elected officials develops Town plans. Public hearings are held and the plan is approved by elected officials or by a vote of the population. The method of plan and bylaw approval depends on municipality size. The same approval by elected and appointed officials applies to bylaws. These are regarded as legitimate expressions of the "desire" of the people regarding land use and, by extension, the designation of waters.

Once the existing and attainable water quality is determined, to the extent possible, the Watershed Coordinator reviews all municipal plans, zoning, and regional plans as well as applicable state and federal land plans, the classification of waters, inventories of exceptional

natural features, and inventories of biological and other relevant data. The Coordinator prepares an initial classification and typing proposal map for review by the Watershed Council.

The Coordinator takes the proposed map to each municipality and discusses the implications of the proposed classifications and types on the land and water use. The public must understand whether or not the land use will have to change or be managed more carefully if they opt for a certain water quality management goal.

Through an open and public process, the public decides about the desired management goals for waters, understanding the implications of a specific classification or water management type on land use. The Coordinator takes to the Secretary the recommendation of the municipality for typing and classification. Where there is a complication between municipalities, the Coordinator strives to work it out.

Once the Secretary adopts the basin plan it is forwarded to the Water Resources Board that holds a full public process on the recommendations in the plan adopted by the Secretary before adopting Classification and Typing for a watershed as a rule.

Q. What if an existing watershed group agrees to provide the foundation of a watershed Council yet doesn't achieve the recommended balance of watershed constituents?

A. The Watershed Coordinator must persist in seeking to involve the full range of watershed stakeholders. There are no guarantees that all sectors will be willing to participate but a continuous effort to involve all sectors must be made throughout the planning process. If the existing watershed group is not willing or capable of being broadly inclusive it will be the responsibility of the Watershed Coordinator to establish such a Council from whole cloth.

Q. What should be done if the Council is willing to serve as the basin planning entity yet refuses to take up obligations that may have regulatory implications.

A. It would not be unexpected if certain members of a Council or the entire Council felt uncomfortable recommending policy with regulatory implications. The members of the Council are volunteers and are not obligated to participate in decisions they do not want to make. The Secretary has the responsibilities under the law to adopt the plans with all the required components and will make efforts through the Coordinator to obtain comments on policies with regulatory implications from the Council as well as municipalities and the general public that attends public hearings in the watershed.

Q. What is the authority for basin planning?

A. Section 303(e) of the federal Clean Water Act (Public Law 92-500) sets out the basic requirements for state water quality planning. ANR, the Water Resources Board, and the Agency of Agriculture, Food and Markets (which share the administration of the federal Clean Water Act in Vermont) are amply empowered to carry out water quality planning and protection. The current federal rules implementing the 303(e) requirements are in 40 CFR 130. At the state level, statutory references to the basin and watershed planning requirements are included in 6 V.S.A. §4810 (which requires the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources to develop a memorandum of understanding describing how they will coordinate watershed planning activities to comply with Public Law 92-500 consistent with the Secretary's duties, established under the provisions of section 1258(b) of Title 10, to comply with Public Law 92-500); 6 V.S.A. §4813 (pertaining to the responsibility of the Secretary of Agriculture, Food and Markets to cooperate in preparing basin plans), 10 V.S.A. §1251 (which

defines the term “basin plan”); 10 V.S.A. §1253(d) (which requires the Secretary to prepare basin plans and provide progress reports) and 10 V.S.A. §1258(b) (which requires the Secretary to adopt a continuing planning process approvable under section 303(e) of Public Law 92-500). Also, basin and watershed planning are covered in the state’s water quality standards in Section 1-01 B (8) (which defines the term basin plan with reference to the basin planning process required by the Federal Clean Water Act and 40 CFR Part 130) and in Section 1-02 (D) which sets out detailed guidance on the preparation of basin plans. Reference to basin planning requirements is also found in Section D 1 (e) of Chapter 13.12 of ANR’s rules governing general permits for water discharges and in Section 13.4 b. 1. (d) (iii) of ANR’s wastewater permitting rules (which requires discharge permits to comply with waste load allocations included in plans prepared under 303(e) of the Clean Water Act.

Appendix 4. Contents of the White River Basin Plan (ANR adopted 2002)

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 - 4.3 PUBLIC ACCESS
 - Background
 - Recommendations – Public Access
 - 4.4 FISHERIES
 - Background
 - Recommendations – Fisheries
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Appendix 5. Planning Timeline	Month																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	24	25	
Organize Planning & Coordinate Council & Team(s)																									
Negotiate any contracts if necessary with any entities that may be helping with the effort (i.e. RPCs, RCDs, watershed associations, consultants, etc.)	■	■																							
Hold as many planning strategy sessions as are necessary	■	■																							
Identify potential council representatives and hold targeted outreach meeting(s) and establish watershed council				■	■	■																			
Educate council members on history, evolution of process, state framework, objective of watershed plan, mandatory components of watershed plan, areas of flexibility in watershed plan, desired outcomes of watershed plan, etc.				■	■	■																			
Prepare/conduct public forums and educate constituents							■	■	■																
Develop a vision for the watershed, identify issues and establish respective issue teams							■	■	■																
Identify and discuss issues of concern regarding the watershed / and special areas the plan should focus on							■	■	■																
Gather Information																									
Inventory/document past and existing related efforts and products				■	■	■	■	■	■																
Understand watershed's current conditions				■	■	■	■	■	■																
Identify gaps in the existing data / information							■	■	■	■	■	■	■	■											
Identify and prioritize which gaps are to be filled first												■	■	■	■	■	■	■	■	■					
Issue teams ² work with technical advisors to fully understand their issues and to develop recommended solutions												■	■	■	■	■	■	■	■	■					
Develop Watershed Plan																									
Finish documenting current and desired conditions, vision and issues												■	■	■	■	■	■	■	■	■					
Draft plan - develop objectives, tasks, responsible parties, schedule, potential funding sources, benchmarks												■	■	■	■	■	■	■	■	■	■				
Plan Review and Approval Process																									
Review of draft plan by state steering committee and public																					■	■			
Revise draft plan based on feedback received																					■	■	■		
Review semi-final plan by state steering committee ³ and public																							■		
Revise semi-final plan based on feedback received																							■	■	
Submit final plan to VANR's Secretary for approval																								■	
Typing and Reclassification Petition Forwarded to WRB																									

² This work may also be undertaken by the Watershed Council.

³ Statewide Steering Committee may be established by the Secretary.

Appendix 6. Reference Materials

The Vermont Water Quality Standards may be obtained by writing:

Vermont Water Resources Panel,
National Life Records Center Building, Drawer 20,
Montpelier, Vermont 05602,
Phone 802-828-3309,
On the web at <http://www.nrb.state.vt.us/wrp/rules.htm>

Permit Handbook,

Agency of Natural Resources
Department of Environmental Conservation
http://www.anr.state.vt.us/dec/permit_hb/index.htm

Watershed Solutions

Collaborative problem Solving for States and Communities.
National Policy Consensus Center.
<http://www.policyconsensus.org/publications/reports/index.html>

Water Quality Assessments

Prepared by planning basin and available from the Water Quality Division.
<http://www.anr.state.vt.us/dec/waterq/planning.htm>

Water Quality Division Internet reference site:

<http://www.anr.state.vt.us/dec/cf/ref/RefIndex.cfm>

Basin Planning web site for each planning basin:

<http://www.vtwaterquality.org/planning.htm>

Environmental Protection Agency

Handbook for Developing Watershed Plans to Restore and Protect Our Waters
http://www.epa.gov/owow/nps/watershed_handbook/

The Vermont Department of Environmental Conservation is an equal opportunity agency and offers all persons the benefits of participating in each of its programs and competing in all areas of employment regardless of race, color, religion, sex, national origin, age, disability, or other non-merit factors.

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