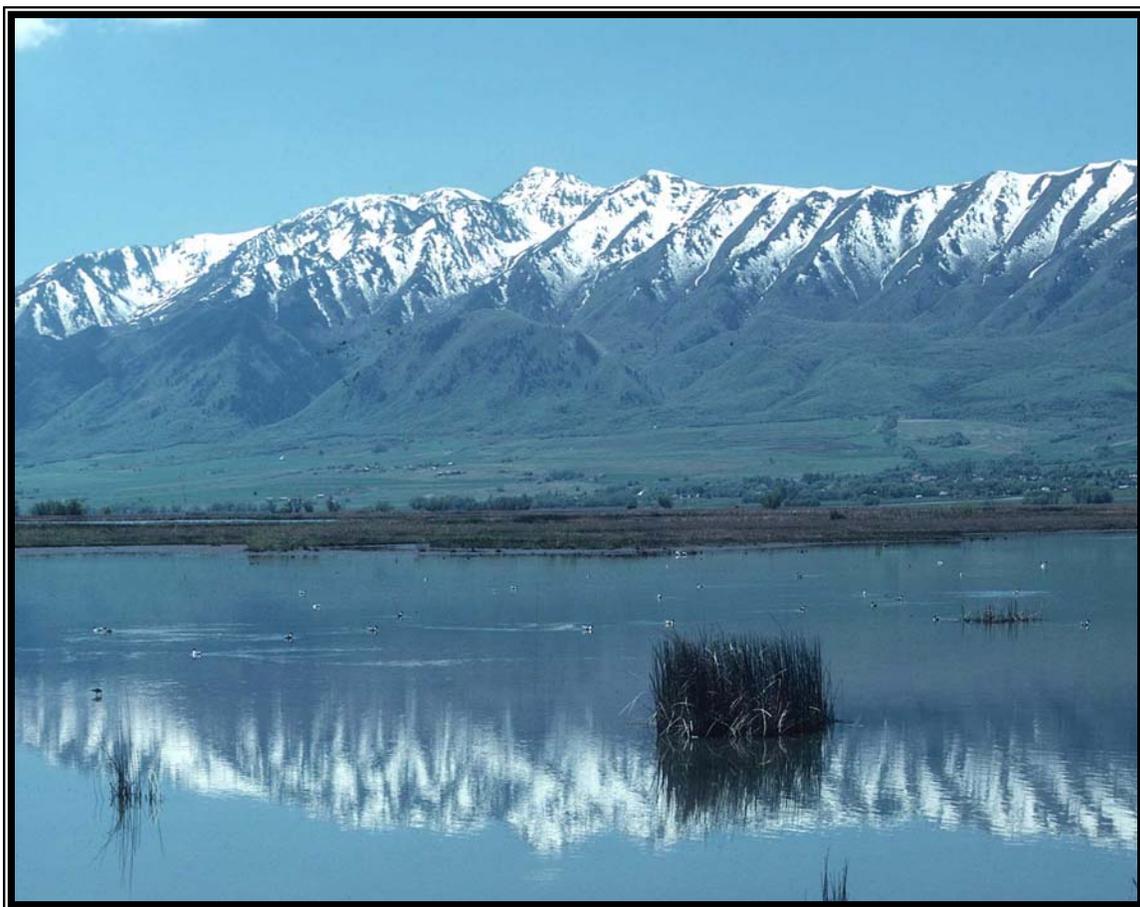


Utah Areawide Planning Guide



April 2007

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INTRODUCTION

Purpose of the Planning Guide

This guide is a reference for use in areawide planning. It is comprehensive enough to be of value for communities' planning needs, yet specific enough for the Natural Resources Conservation Service (NRCS) programmatic use. Areawide planning is a process for local people to assess natural resource conditions and needs; set goals, identify programs and other resources to resolve those needs; to develop proposals and recommendations; implement solutions; and measure success. An areawide natural resources plan may be developed for a watershed, ecological region or any other specified geographical area. Such a plan addresses all resource problems identified, and contains alternative solutions that meet the minimum criteria for each resource, applicable laws and regulations.

This guide may be used as a stand-alone tool to assist communities with their areawide planning needs. It may also function for NRCS field use as a supplement to the NPPH, which describes the process and procedures pertinent to agency's areawide planning activities. This guide gives detailed "insider tips" for carrying out areawide planning at the local level. It explains why a particular step is important and suggests how to do it. The guide also includes "General Resources" which cover a variety of tasks and skills relevant during the entire planning process.

The planning process helps citizens develop productive partnerships, reach consensus, make decisions, and obtain financial and technical resources to carry out their ideas. A primary outcome of areawide planning is the enhanced ability of communities to manage natural resources and meet local goals. The purpose of this Planning Guide is to:

- Facilitate communication between stakeholders, communities, government agencies, and the public regarding resource management issues.
- Encourage communities to lead or participate in areawide planning.
- Provide materials and resources that can be helpful in implementation of areawide natural resource plans.
- Provide a reference for communities that wish to engage in areawide planning activities.

How to Use This Guide

The Planning Guide follows the NRCS Three Phase, Nine-Step planning process. This is by no means the only framework for planning and communities may apply their own chosen model. This nine step process does work and may be employed by communities in dealing with their planning needs. It has practical ideas for implementing areawide planning, gleaned from many years of experience working with Utah communities and citizens. It explains what to do first and what comes next. It emphasizes community collaboration and consensus building as the appropriate approach to planning.

Refer to the guide for help to:

- ❖ identify stakeholders
- ❖ conduct effective meetings
- ❖ involve the public
- ❖ determine inventory needs
- ❖ analyze data
- ❖ build local ownership of plans
- ❖ implement plans

Local needs, local people, and local action drive areawide planning. This guide will help facilitate planning so that communities develop and implement plans to protect, conserve and enhance natural resources within their social, economic, and ecological interests.

AREAWIDE PLANNING BASICS

Why Areawide Plans?

Who Plans?

Planning Timelines

How to Plan

Plan Format and Content

National Environmental Policy Act (NEPA)

Why Areawide Plans?

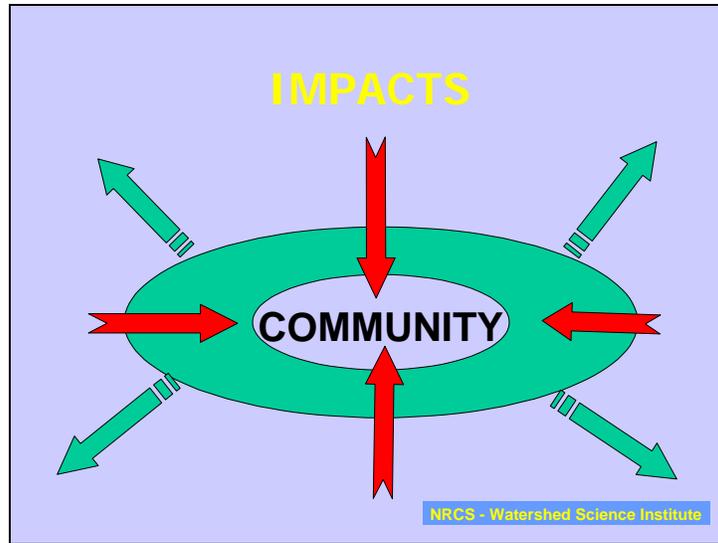
Do any of these describe the natural resource concerns in your community?

- *Natural resource problems transcend political boundaries*
- *Therefore, solutions do the same*
- *Communities are impacted by outside actions*
- *Communities impact areas outside themselves*
- *Issues so complex that people must work together to address them*
- *Everyone cannot agree about how to address the concerns*
- *Management strategies will take a long time to implement, and they will affect others*
- *Management strategies will require public funds or technical assistance to implement*

The magnitude or scope of problems can be so great that no one person, organization, or community can hope to effectively engage in resolving them.



Communities are both impacted by natural resource conditions outside their boundaries, and in turn affect conditions, which are external to themselves.



Examples of natural resources problem issues include water and air resources degradation due to imported or exported pollutants; land use change or development; and loss of aesthetic values.

Natural resource planning is a process to identify and management natural resource concerns. Planners address existing conditions or opportunities, and emphasize desired future outcomes.

Types of areawide problems are many, varied and sometime complex. People may want to know why the aquatic population is insufficient to support fishing as it had done in the past, and may wish to do something to correct the situation. Degraded water quality from both point or nonpoint source pollution may damage the condition of lakes, rivers, streams or the aquifer. Flooding may be an issue, or perhaps the concern about a need for farmland protection. Erosion and sedimentation problems may exist on a large scale basis.

Boundaries types vary based upon natural or political conditions. Political boundaries may be international, state, counties, cities, townships or a host of other local jurisdictions. Natural resource boundaries may encompass watersheds or ecosystems. Variations or overlap in boundaries present challenges to planners because problems require a collaborative consensus building approach to solutions.

Scale of planning area needs to be such that the natural resource problems conditions can be properly studied and addressed. The planning area should be sized to deal with the issues to be undertaken.

Degree of the planning activity, itself, must be determined. Sometimes a resolute group comes together and tackles a single issue that is important to them. This guide is sensitive enough to provide a roadmap for such narrowly scoped action. Often a community knows

it has some problems or issues and does not know exactly where to begin. This guide is also substantial enough to help communities come to grips with identifying issues including their breadth and scope; identifying stakeholders; developing a plan of action; and carrying out targeted implementation and follow-up.

Community-based collaboration is an approach that will take areawide planning through the steps necessary to identify and deal with the complex issues at hand. This is accomplished by an open process with leadership coming from within and a determination toward trust building.

Natural resource issues can be effectively addressed with an “areawide” planning process. The Natural Resources Conservation Service (NRCS) along with the Soil and Water Conservation Districts (SWCD), and other partners use this process to help communities develop areawide management plans that meet locally-identified objectives. Identify actions that the community supports and strategies for how they will be accomplished.

NRCS and SWCDs have trained staff who can facilitate this process when called upon by local people. Often the local SWCD sponsor such a planning effort, but a municipality, a county agency, or a group of concerned local citizens may also initiate the project. *Plans are essential to secure funding for implementation as grant-making agencies often look for evidence of planning and public support as a basis for investments.*

Areawide planning provides a valuable opportunity for communities to look beyond their local area or borders to view natural resource concerns in a holistic way. Ecosystems do not stop at political boundaries but rather respond to natural conditions in which, we the resource planners and stakeholders, must operate in order to understand them. Only then can we attempt to provide good natural resource management leadership. We, the People, are in the end the stewards of the earth.

Who Plans?

Areawide planning essentially involves the deliberate interactions of groups of people who share common conditions, problems, and opportunities. Community-based planning may be initiated in a general way to determine what natural problems exist; which are important; and what they can do about them. Local leaders may be in the lead from the very beginning initiating goal-oriented action. Individuals or groups may start the planning process driven by their concern over a single issue or more.

Locally-led planners accomplish areawide plans through an open process, which leads to broad base support for solutions. Plan development and implementation is based upon:

- An open and inclusive planning process
- Leadership from within communities
- Trust building
- Working through collaboration
- Development and evaluation of community priorities
- Development of consensus for action
- Identification and working with stakeholders
- A process to build trust in relationships
- A process to minimize conflict

Decision makers are those individuals, groups, units of government, or other entities that have the authority by ownership, position, office, delegation, or otherwise to decide on a course of action. For example, a county government representative may serve on the guiding committee, however the county governing board may require a vote be taken at an official board meeting before an action is taken on behalf of the county.

The guiding committee is a group of about 10 to 20 stakeholders who are typical of all the stakeholders in the planning area. Stakeholders are those who will be affected by or have an interest in what happens in a planning area.

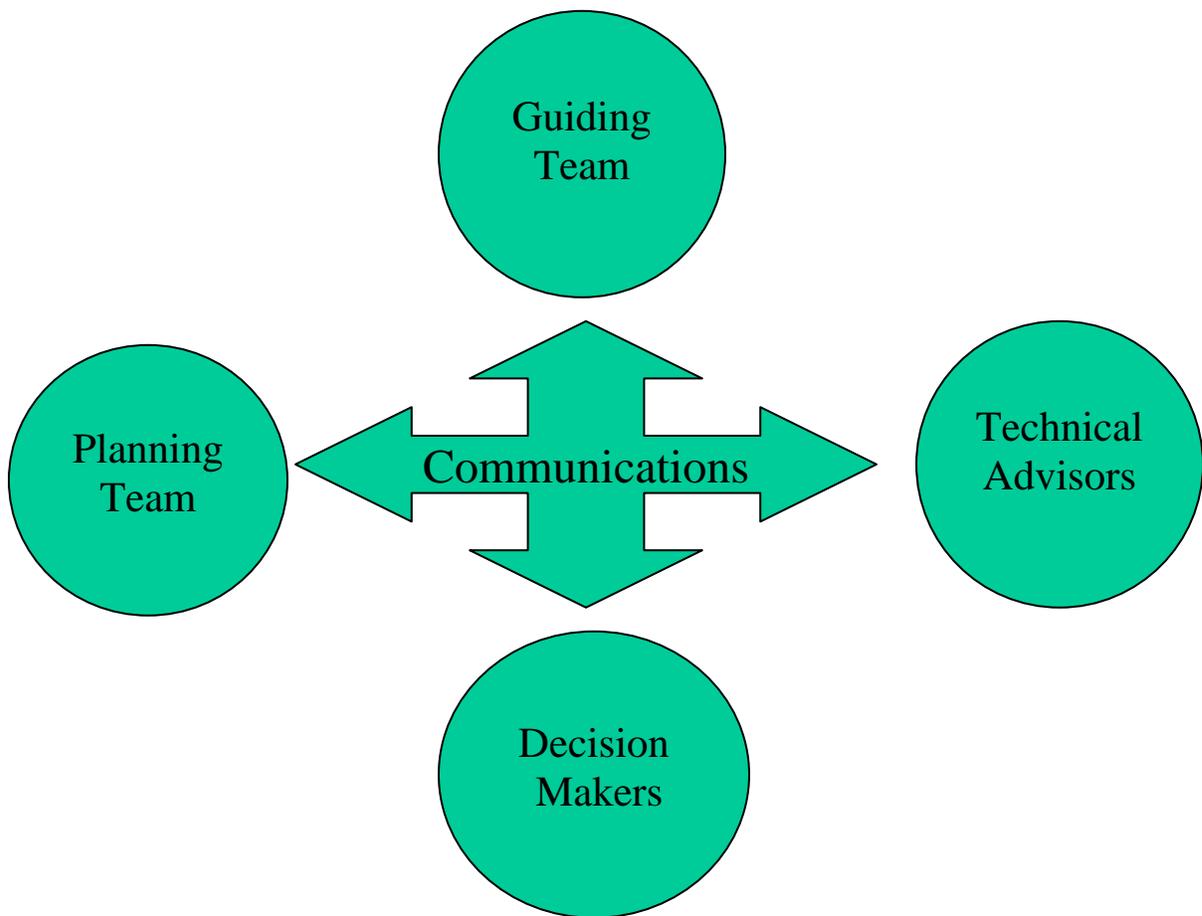
Stakeholders on the guiding committee may include:

- Residents and/or landowners
- Farm owners and operators
- Local government officials
- Business and industry representatives
- Environment and conservation groups
- Other special interest representatives

The guiding committee begins by identifying the resource concerns and objectives in their geographic area of concern. Then with assistance from the technical advisors and with periodic input from the public, they develop a planning team to solve the problems.

The **Planning team** should be interdisciplinary (members that rely on each other to accomplish their tasks) and may include multi-agency personnel. Planning team composition and size will vary between projects. Each team should have a team leader and a core group with the primary responsibility of areawide planning. Stakeholder representation on this team enhances the overall effectiveness of planning and outcomes. Planning team members should look at the “big picture” and not simply represent their singular discipline.

Technical advisors are discipline specialists who provide technical input into the process. They provide technical reports, research results, data, and legal opinions to the Planning Team and may, or may not, meet with the Guiding Committee or Decision makers.





The use of an experienced *facilitator*, a person with no stake in the outcome of the process, will contribute to the effectiveness of any planning effort.

The final plan must be generally acceptable to stakeholders. Some may be heavily involved in the process since they also serve on the guiding committee, planning team or technical advisory group. The remaining “non-committee” stakeholders also contribute to the planning project by providing periodic input on their concerns, preferred alternatives, and desired outcomes.

Typical Stumbling Blocks in Watershed Planning Efforts (*good facilitation can help you through some of these.....*)

The Blimp That Couldn't Take Off - Loss of focus

Inevitably there will be more issues in a watershed than your plan can address. It is important to carefully designate the scope of your plan at the outset and identify very specific goals and objectives for the planning process itself -- and stick to them. It is better to have a narrow focus that is actually accomplished than lofty ambitions that are never realized because the effort becomes too cumbersome.

Us vs. Them - Lack of community support

People like to feel included. All too often, planning efforts fail to consult the ones most affected: landowners and other stakeholders. Suspicion can develop and impede both the planning and implementation efforts. If community concerns are truly validated from the beginning, with stakeholder participation in setting the goals and priorities, there is a much greater likelihood of success. It is a good idea to have an experienced facilitator to keep the public meetings on track and to make sure everyone is heard.

Fuzzy Agendas - Non-purposeful meetings

How many meetings have you sat through where the purpose was, shall we say, vague? It will be much easier to keep people on your committees if it is abundantly clear at the beginning how many meetings will be required (keeping them to a minimum), what is to be accomplished, and by having agendas that are stuck to like glue. Clarify at the outset what committees are needed,

who sits on them, and how decisions are reached. Typically a technical advisory committee is needed to provide technical peer review, so it is important to determine the junctures where such review would be most beneficial. Equally important is to have a public advisory committee to provide review of socio-economic issues. Since these groups serve different purposes, it is a good idea to have them meet separately. The public meetings described in the guide can be geared to the public advisory group and/or the community at-large as appropriate.

That's My Toe You're Stepping On - Unclear responsibilities

Watershed plans involve multiple disciplines and require an integrated team effort. It is important to bring the team together at the beginning to plan an approach, figure out how to reduce redundancy, and best leverage time out in the field. A coordinated effort can help reduce costly streamwalks by every consultant, for example. It should be clear what is expected of every team member in terms of tasks and deliverables. Methodology and protocols also need to be discussed at the outset.

The Slippery Slope of Time - Falling behind schedule

There will always be circumstances that arise beyond your control, but it is important to identify a schedule upfront and adhere to it, making modifications if necessary. Equally crucial is to identify key project milestones. These provide interim deadlines and checkpoints to assess progress, helping to keep the big picture in view.

Hurry Up and Wait - Not taking the plan far enough

On the other hand, the planning process may speed through on schedule but not complete all the steps necessary to actually begin project implementation. Identifying recommendations is just the first step of an implementation strategy. The guide ensures you consider project phasing, costs, potential funding sources, and permit issues, as well the preparation of conceptual designs and environmental review. It can be difficult to raise funds to do the latter two tasks once the plan is complete, which in turn can lead to significant delays. Conversely, it is much easier to get funding for implementation when you have a package outlining a clear strategy with completed initial designs and environmental review.

HerdinG Cats - Difficulty pulling the plan together

Often the structure of the plan is decided on toward the end of the planning process, after the reports have come in from the various consultants. Not only does this run the risk that there may be critical information gaps, but what you do get from the different sources may vary in intent and format, making it difficult to coalesce everything into the plan. A concept in using some kind of guide is that the deliverables, or work products, of the process itself become sections of the final planning document. You should identify the structure of the plan - the chapters and sections - at the outset and work backward to determine what deliverables are needed to produce those sections. If thought is given upfront to the intent and format of the deliverables, and they are each reviewed at the time of delivery as to how they will integrate into the final plan, then the actual production of the plan should consist of simple assembly and minor editing. This heightened focus on the final outcome will help guide decisions along the way.

Planning Timelines

Stakeholders in a watershed, community, or other planning area commonly present requests for areawide planning to the SWCD, NRCS or other conservation partners. Determining whether planning is warranted is the first activity that should be undertaken with the stakeholders. The need to develop a community comprehensive plan may be another. Planning may start at a broad level where community problems, ideas, or concerns are solicited at the start. Often a single issue or concern such as flooding or poor water quality may precipitate action from which broader issues may be explored.

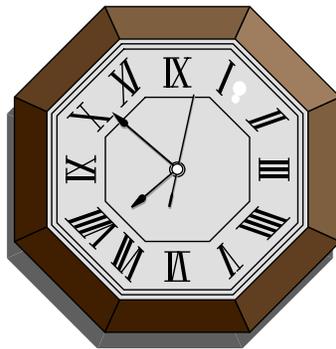
It is difficult to say under what circumstances these activities may lead to a decision that no further action is warranted. This could depend upon the level of support the community musters toward the initiative. Preliminary investigations may provide information to the decision makers that further action would not be feasible. However, before these decisions are made, adequate discussion and examination of the issues should precede the final determinations.

What is the time frame?

The time it takes to complete an areawide plan depends on the purpose, number and variety of stakeholders involved, complexity of the natural resource concerns, and extent of the area to be studied. Areawide plans typically take from 9 months to 2 years to develop because the planning process involves:

- 1) informing and receiving input from a variety of stakeholders,
- 2) natural resource inventories that involve more than one season
- 3) interviews, surveys, evaluations that make use of extensive computer modeling, and analysis of complex data.

A planning timeline is an important pre-planning activity. Generally the guiding committee with input from the planning team and technical advisory group should develop this. In addition to natural resource complexities and social dynamics, timeline considerations should also include deadlines for specific grants or regulatory agency requirements.



Below is an example of a simple timeline or schedule of planning for land treatment work in a small watershed.

Table #1 – Schedule of Planning Activities

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Decision to develop a plan is made	x											
Agronomic evaluation		xxxx	xxxx	xxxx								
Erosion & sediment analysis		xxxx	xxxx	xxxx	xxx		x	xx				
Fish & wildlife assessment		xxxx	xxxx	xxxx	xx	xx	xx					
Environmental evaluation		xxxx	xxxx	xxxx		xxx	xxx	x				
Economic evaluation				xx	xxx	xxxx	xxxx	xx	xx			
Draft preliminary plan								xx				
Guiding committee review									xx			
Draft plan									xx			
Agencies' & stakeholder's review											xx	
Public meeting											xx	
Finalize plan document												x
Signing of plan agreement												x

Note; "X" is equivalent to about one workweek

How to plan

The NRCS' Three-Phase, Nine Step planning process is a tried-and-true interactive method used as the basis for developing natural resource management plans.

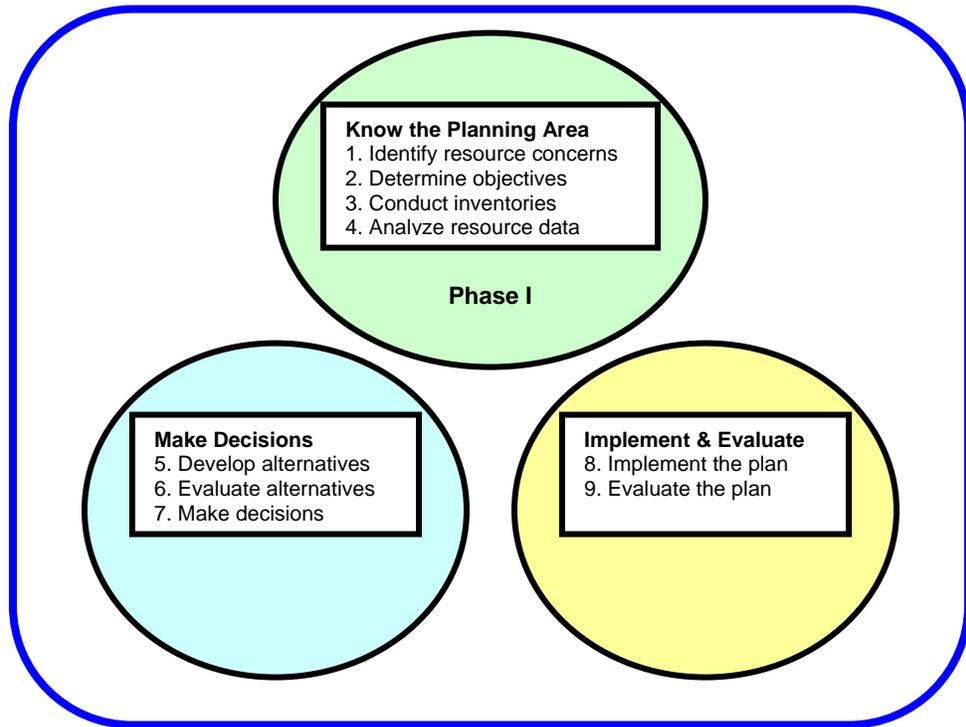


Figure #1 – Three Phase – Nine Step Planning Process

Phase One

This is the information-gathering and data-collection phase. Phase One has four steps:

- 1. Identify concerns and opportunities**
-The guiding committee leads the public process, which identifies resource concerns and opportunities using a variety of processes.
- 2. Determine objectives**
-The guiding committee leads the public process, which identifies their “desired future conditions” for each concern.
- 3. Inventory resources**
-Planning team and technical advisors conduct inventories of the resources.
- 4. Analyze resource data**
-Validates and quantifies resource problems.

Beginning in Phase One, and continuing throughout the planning process, the guiding committee interacts with the public. Committee members can seek input, ideas, and suggestions via the media, community groups, and the general public. Public participation creates awareness about the planning process and sets the stage for successful implementation of the final resource plan.

During this phase, the guiding committee will learn about existing conditions, resource concerns, and opportunities. To understand the planning area, the committee works with the planning team and technical advisors, conducts tours, brings in educational speakers, or networks with other guiding committees doing similar work in neighboring areas.

Phase Two

Phase Two involves the formalization of alternative solutions to identified problems or issues and selection of an acceptable course of action.

5. *Formulate alternatives*

-Using the information they collected, the planning team develops a number of alternatives that will meet the objectives identified and present them to the guiding committee and public for consideration.

6. *Evaluate alternatives*

-The guiding committee with public participation evaluates these alternatives

7. *Make decisions (or recommendations)*

-About which actions they advocate. These decisions and supporting information are then documented in the areawide management plan.

Phase Three

Phase Three is the implementation and evaluation phase. There are two steps:

8. *Implement the plan*

-Funds and technical assistance are sought to implement the various actions in the areawide plan.

9. *Evaluate the plan*

-As the plan is implemented, the results are continuously evaluated and modifications made as necessary.

Areawide Planning

- Involves all stakeholders
- Uses consensus planning
- Identifies desired future conditions
- Inventories resources
- Determines community priorities for action
- Builds local partnerships & coordinates with government
- Ensures implementation and follow-up
- Uses an open inclusive process
- Builds trust and minimizes conflict

Plan Format and Content

What is it?

An areawide management plan describes the planning process and documents all of its background, analysis, and outcomes including the concerns and objectives of stakeholders, resources of inventories, resource management strategies, and implementation information.

Why is it important?

The plan provides written guidance to local people about the management of their resources over time. It demonstrates broad community support for the identified resource management alternatives. It informs grant-making agencies and technical experts who help with implementation about current conditions in the planning area, the interests of stakeholders, and their preferred strategies for managing natural resources.

The plan is a means of measuring success over time. The plan also provides a document which is invaluable in seeking funding from use different word sources.

When do we do it?

Writing the plan begins after completion of the resource inventory, and the guiding committee identifies their preferred management alternatives.

How do we do it?

Areawide plans come in a variety of formats. Some are professionally produced glossy publications with photos and drawings; others are text-only documents prepared on a home computer. To keep the plan reader-friendly, technical details might be provided in appendices. Or a single areawide plan might consist of several different documents — a leaflet highlighting major elements of the plan, a simplified plan for the general public, and detailed technical information for those professionals who will be directly involved in implementation.

No matter how it is formatted, here is a list of the most important components to include in the plan:

Title Page
Executive Summary
Introduction
Description of the Planning Area
Problems and Opportunities
Local Objectives

Resource Inventory
Alternatives
Record of Decisions
Implementation Documentation
Plan Evaluation

A brief listing and /or discussion about the types of information that may be included in the various sections of the plan document follows:

Title Page

- ✓ Date and title of the document
- ✓ Name of the planning area (watershed, city, etc.)
- ✓ Location
- ✓ Who developed the plan and supporting partners
- ✓ Date of the plan

Executive Summary

- ✓ Generally less than two pages
- ✓ Brief need for or background of planning activities
- ✓ A brief description of the problems and concerns
- ✓ Available alternatives
- ✓ The chosen actions or outcomes

Introduction

- ✓ Background information about the reasons for the planning activities
- ✓ Underlying need and purposes for taking action
- ✓ Methods of taking action and public participation
- ✓ Letters of request or commitment to participate in planning (may be in appendix)
- ✓ Letters of support (may be in appendix)

Description of the Planning Area

- ✓ Describe the planning area in terms of physical, demographic, social and other important data and include predicted changes that may occur in the future
- ✓ Describe the present land use and predicted future land use
- ✓ Location map
- ✓ Watershed or area map

Problems and Opportunities

- ✓ Introductory paragraph – a short summary of the section.
- ✓ Describe each problem or opportunity in terms of location and magnitude and include:
 - Extent and area affected
 - Magnitude and context
 - Type of natural resource problems and effects or damage resulting from them
 - Limitation of desired activities because of impaired resources; i.e., recreation, fishing and hunting
 - Map showing the location where damages are occurring, where opportunities may exist, or where damage may be prevented
 - Frequency of damaging events

- Social, cultural resource, and ecological impacts that are occurring (may include safety, health, peace of mind, race, elderly, threatened or endangered species, wetland functions, and police/fire protection)
- ✓ Discuss opportunities for improving quality of life, such as recreation, habitat improvement, or aesthetic values
- ✓ When minor problems, or those not related to the resources, are introduced, explain how they will be handled in relation to the areawide conservation planning effort, i.e., those not related to the resources may be referred to an appropriate person, agency, or entity to handle

Local Objectives

- ✓ Describe the objectives of the decision makers and stakeholders in terms of desired future conditions for the ecological, economic, and social considerations.

Resource Inventory

- ✓ Describe significant resources by location, quantity, and quality
- ✓ Describe how the inventory was conducted
- ✓ Develop predictions of future conditions without an areawide conservation plan Include a specific time period and recognize the impacts of ongoing programs
- ✓ Include a discussion on how scoping was used in this process

Alternatives

- ✓ Describe each alternative and include:
 - Type of measures
 - Costs
 - Effects
 - Probability of meeting the client's objectives

Record of Decisions

- ✓ Record the decisions agreed to by the client and stakeholders
- ✓ Public participation record – agency consultation
- ✓ List of preparers

Implementation documentation

- ✓ Implementation strategy developed in planning step 8
 Note: Include additional documentation developed for specific programs or funding authorities based on the clients' and stakeholders' decisions to pursue these programs or authorities.

Plan evaluation

- ✓ Action plan developed in planning step 9

A completed plan should clearly describe what is to be accomplished, why specific components are included (benefits), how the plan will be implemented, and who will be responsible for the implementation.

National Environmental Policy Act (NEPA)

What is it?

The National Environmental Policy Act (NEPA), signed into law on February 1, 1970, requires Federal agencies to consider the effects of proposed major Federal actions on the human environment. This Act and regulations require in some cases, environmental assessments and environmental impact statements.

Why is it important?

The NEPA is a tool to foster better decision-making. The NEPA process is intended to help public officials and locally-led planning groups make decisions that are based on an understanding of environmental and human consequences of their actions, and to take steps that protect, restore, and enhance the environment. During areawide planning, it makes sense for the NRCS to follow the NEPA process. In doing so the NRCS can consider the cumulative effects of its activities. Both the Council on Environmental Quality NEPA regulations, and the NRCS regulations make this a requirement.

The goal of the NEPA and the NRCS areawide planning process is to help stakeholders make informed and environmentally sensitive decisions about management of their resources. Incorporating the NEPA in the planning process gives stakeholders complete information and promotes consistency in their decision-making.

When is it done?

In site-specific planning, the decision-maker is often only the landowner. That is the case when the NRCS is providing one-on-one pure technical assistance and simply providing advice to the landowner about how to manage natural resources. There are other circumstances when the NRCS is giving advice and recommendations about what conservation practices or systems would help the landowner meet their personal goals. In these cases, the NRCS has no real control over what kind of action will ultimately result, so no federal action has occurred that triggers the NEPA requirements. However, once financial assistance is provided to the landowner, federal action has occurred, and the NEPA requirements are triggered.

NEPA requirements for areawide planning involving federal technical and/or financial assistance are as follows:

- An **Environmental Evaluation (EE)**- is always required, unless the planning effort proceeds directly to an Environmental Assessment or an Environmental Impact Statement.

(See Exhibit B, Environmental Effect for Conservation Plans and Areawide Conservation Plans (CPA-52)).

- An **Environmental Assessment (EA)**- is required if federally assisted.
- An **Environmental Impact Statement (EIS)** is required when....
 1. The project involves stream channel realignment or work to modify channel capacity by deepening or widening where significant aquatic or wildlife habitat exists. The EE will determine if the channel supports significant aquatic or wildlife habitat.
 2. The project requires congressional action.
 3. The project involves a broad Federal assistance program administered by NRCS when the environmental evaluation indicates there may be significant cumulative impacts on the human environment.
 4. If the project involves other major Federal actions that are determined to affect significantly the quality of the human environment based upon an environmental evaluation. An EE may be necessary if it is difficult to determine whether or not there is a significant impact on the human environment. An EA in order to decide if an EIS is required.

How is it done?

Following is more information about Environmental Evaluations, Assessments and Impact Statements.

Environmental Evaluations (EE)

Generally, the EE is a brief evaluation of the alternatives' potential environmental effects. (See Exhibit B for example EE documentation for areawide plans).

Environmental Assessment (EA)

An EA is used to determine whether an Environmental Impact Statement (EIS) is needed. The EA includes a brief description of the need for the proposed activity, possible alternatives to the proposed activity, and persons consulted. The EA documents potential environmental and human impacts of a project and assesses whether those impacts are significant. An EA will result in either a "Finding of No Significant Impact," or a "Notice of Intent to Develop an Environmental Impact Statement."

An Environmental Assessment (EA) is required if:

1. The proposed action is *not* a major Federal action positively or negatively affecting the quality of the human environment, OR
2. It is not *known* whether or not the proposed action is a major Federal action positively or negatively affecting the quality of the human environment.

Environmental Impact Statement (EIS)

If the proposed action is a major Federal action significantly affecting the quality of the human environment, an Environmental Impact Statement (EIS) is required. The EIS details all environmental, social, and economic impacts of the project. Preparation of the EIS gives the public an opportunity to contribute to the decision making process. The result of the EIS is publication of a “Record of Decision” by the responsible Federal Official (RFO) identifying which alternative was selected and why.

Refer to:

- National Planning Procedures Handbook (180-vi-NPPH, Amendment 3, February 2000)
- General Manual 190, Part 410 - Compliance with NEPA
- National Environmental Compliance Handbook (190-VI-NECH, currently in draft)

PRE-PLANNING ACTIVITIES

Assessing the Need for an Areawide Plan

Understanding Communities for Successful Planning

Identifying Stakeholders

Establishing Operating Procedures

Defining the Planning Area

PRE-PLANNING ACTIVITIES

Assessing the Need for an Areawide Plan

Communities may engage in the areawide planning process from a general perspective. Activities are centered around the gathering together of interested parties who are concerned about natural resource problems. These may be community leaders, landowners, groups active in the area on issues and government agency representatives or interested individuals. Begin activities by identifying interested parties, who may be willing to play a role in getting things moving. Conduct meetings in an open inviting atmosphere and create or establish a guiding committee to guide the process. The guiding committee should engage in issue or problem identification. Public involvement in the identification of issues may lead to a significant number of concerns with a wide and varied list of stakeholders, who are getting involved. In the case of this broad planning approach the process should remain open throughout and new ideas may come into play at any time. The key is to trust the process and stick with the collaboration building along all the way.

If a large number of issues develop, single or bundled issues may be engaged by subcommittees, which will organize a guiding committee around them. Any number of subcommittees may be created, established, organized, etc., and stakeholders or volunteers may serve on multiple committees as needed.

Assessing the need involves working with stakeholders to determine whether an areawide plan is the appropriate way to address their concerns. One major benefit of areawide planning is the assessment of offsite impacts of individual practices, both negative and positive. An individual practice may solve an onsite problem but create or worsen a problem downstream.

Areawide planning is not needed if the resource problems are only site-specific and remedied by practices applied to the site. For example, gully erosion on a farm field or eroding banks of a livestock pond call for conservation treatment undertaken by the individual landowner. In contrast, areawide planning is usually needed to resolve problems like water quality degradation, flooding, stream sedimentation occurring throughout a watershed or other planning area.

Concerns such as these may be best addressed with the areawide planning process when:

- ✓ *Natural resource problems transcend political boundaries*
- ✓ *Therefore, solutions do the same*

- ✓ *Communities are impacted by outside actions*
- ✓ *Communities impact areas outside themselves*
- ✓ *Issues so complex that people must work together to address them*
- ✓ *Everyone cannot agree about how to address the concerns*
- ✓ *Management strategies will take a long time to implement, and they will affect others.*
- ✓ *Management strategies will require public funds or technical assistance to implement.*

When one or more stakeholders identify resource concerns for which they want assistance, consider the following:

1. Determine if other stakeholders are experiencing similar resource problems. If further investigation identifies, for example, multiple streambank erosion sites or sediment problems from many construction sites, the resource concerns may be best addressed on an areawide basis.
2. Solicit open discussion with other stakeholders within the area to measure their interest in an areawide plan. Areawide planning is a locally led process that requires strong stakeholder interest. A single citizen concerned about the problem is not sufficient for an effective areawide planning effort.
3. Review any past and current planning projects. In some cases past planning efforts are still relevant. Existing plans may simply need to be updated, or new implementation strategies may be devised. County and municipal long-range plans provide useful background information and context for areawide plans.
4. After it is determined that areawide planning is desired by the community and is appropriate, identify stakeholders to serve on the guiding committee.

Understanding Communities for Successful Planning

The term “community” often brings to mind cities, suburbs, villages, or farm towns. A planning area might include all these communities as defined by political boundaries. Communities defined in other ways may also be significant in the planning area. For example, in a planning area there may be a community of farmers and a community of non-farmers, or a community of urbanites and a community of suburbanites. A community may also be a geographical area that includes only part of a political boundary or more than one political boundary.

Social, cultural, and economic characteristics of communities concern people and their relationships with each other. They include demographics (age, race, income, etc.), attitudes and values, information networks, how decisions are made and problems resolved, and the availability of resources. Other community characteristics relate to how people identify themselves and their town. People are aware of their collective history and how it affects them in contemporary times. Local leadership and social divisions, and how the community manages changes, are also characteristics of communities.

Importance

Understanding communities in a planning area is necessary in order to:

- Evaluate existing resource conditions, why and how those conditions happened and impacts of those conditions over time, to humans, other resources and other species.
- Assess the effects of alternatives, including effects expected if resource concerns remain untreated.

Understanding communities is also critical for a successful planning process. Socio-economics affects the locally led areawide planning process and its outcomes, generally influencing:

- Conflict, cohesion and public involvement during the planning
- Decisions about management alternatives
- Whether and how the plan is implemented

Consider a few fictitious examples of how resource planning is affected by social, economic and cultural community characteristics. Naturally these scenarios don't exemplify all communities, but they do highlight the importance of social, cultural, and economic considerations in areawide planning.

1. A small town may struggle with the locally-led process, because local leadership capacity may be limited due to population declines, and residents may consist primarily of the elderly or very young.

2. A wealthy community adopts a resource plan advocating innovative land management practices because its strong local economy supports risk-taking.
3. Minority stakeholders in a rural area are hesitant to participate on a guiding committee because in that area they feel isolated from community affairs.
4. Farmers in an agricultural area oppose non-farmer involvement to address contamination of the town's water supply from agricultural chemicals because they feel it is an agriculturally related issue.

Q. What's the difference between a community's "culture" and "cultural resources"?

A. One definition of *community culture* is "A complex learned and shared system of human behavior, including the way people think about things, as well as more overt physical behaviors. The codes, customs, habits, and understandings of one's own culture is taken for granted and assumed 'normal.'" (*Social Sciences Institute*)
"*Cultural resources* are all the past activities and accomplishments of people. They include buildings, objects, locations, and structures that have scientific, historic and cultural value. The cultural resources that NRCS deal with most often are known as historic properties. These may be prehistoric or historic districts, sites, buildings, structures, features, or objects."

When is it done?

Socio-economic and cultural information is collected during Step 3 of Phase One, when resources are inventoried. Also, throughout the entire planning process the guiding committee uses and enhances their understanding of communities in the planning area.

How is it done?

"Community Profiles" or "Social Profiles" document the socio-economic and cultural characteristics of communities for resource planning. Community profiles are usually geographically based (e.g., a profile is written for all the municipalities in a watershed) but sometimes profiles are done for specific social groups, such as the landowners in a planning area, or the limited resource farmers in a planning area.

Methods of understanding the socio-economic profile of communities depends on the project, the size and extent of the communities, and the resources available to collect,

analyze and interpret the information gathered. Like other inventories, community profiles can take days, weeks or months, depending on resources available and level of detail desired.

Consider two main categories of information about communities:

1. Primary data: First-hand interaction with the communities, including interviews with community leaders, review of newspapers, focus groups, and citizen surveys.
2. Secondary data: Population, housing, economic, and agricultural census data collected at national, state and local level by various agencies.

The easiest and most effective way to learn about communities is to assemble basic data, such as the census (secondary data source) or talk with people (primary data source), who live, work and visit there. Census data includes information such as US Census Bureau's population and housing characteristics statistics, and the US Census of Agriculture statistics.

Working with census data on a geographic boundary basis.

The NRCS -Watershed Science Institute and the National Cartography and Geospatial Center co-published a technical paper providing guidance in using census data within geographic areas rather than political bounded areas. This assists the areawide or watershed planner with increased accuracy of information about the human characteristics within the boundary being studied. This paper is entitled Using GIS Applications for Census Data in Watershed Analysis, and can be located online at <http://www.wcc.nrcs.usda.gov/watershed/products.html>.

This paper outlines a tutorial on how to acquire, manipulate, and apply US Census data to geographic boundary areas rather than political boundary areas. This approach is beneficial to areawide or watershed studies, where boundaries are not necessarily political divisions. A basic understanding of Environmental Systems Research Institutes' (ESRI) Arcview software and terminology, such as how to add themes, avenue scripts and edit tables, is required to follow the examples presented in this paper.

The watershed practitioner will, by following the example, access census data for the Rocky River Watershed, North Carolina and calculate population densities for selected subwatersheds. By completing this example the user will become familiar with the processes needed to interpolate census data on watershed boundaries within a desktop GIS. This methodology is intended only to familiarize users with the process in Arcview and not as a primer on the fundamentals of demographic analysis. However a supplemental discussion about data limitations and using a weighted average approach to estimating selected population attributes is provided.

Sample Questions for Community Leaders

Demographics. What are the basic population statistics (size, density, spatial distribution, ethnicity, poverty, employment) in the community? What are the important subgroups (e.g., ethnic, religious)? How do these groups vary in their values, objectives, and priorities?

Economic conditions. How would you describe the economic health of the community (average per capita income, poverty rate, families receiving public assistance, etc.)? Describe the businesses and industries in this community. What sectors of the community's economy are doing better or worse? How has this changed over time? Why?

Decision-making. Who are the community leaders? Who do community members trust? How are decisions usually made? Who are the typical decision makers?

Conflict resolution. How is conflict usually handled in the community? Are there certain key conflicts that are still important to the community?

Social divisions. On what basis are social divisions defined? Who is "in" and who is not? Why?

Problem-solving experience. What issues concern the community? Has the community been through other locally led projects? What partnerships exist and what can they do? What money has been brought in to the community? What cooperative projects has the community undertaken? What referendums have passed and failed? What are the existing laws and ordinances significant to the issues?

Trends. What population, land use and economic trends is the community experiencing? How is the community receiving these trends? How is the community managing change?

Identifying Stakeholders for the Guiding Committee

The guiding committee is made up of 10-20 people who represent the stakeholders in the planning area. *Stakeholders are those who have an interest in or may be affected by actions recommended in the management plan.* Stakeholders who serve on the guiding committee may or may not be decision makers during the planning process. They work closely with or may be members of the technical advisory group and planning team. They also interact with the public to develop an areawide plan that can be supported and implemented in the planning area. The guiding committee is responsible for coordinating the planning process activities and maintaining an open collaborative environment, which builds trust.

A guiding committee can be assembled after stakeholders request assistance and the initial assessment indicates that areawide planning is appropriate.

In order to develop a plan that addresses all resource concerns and integrates ecological, economic, and social factors, multiple stakeholders interested in developing a management plan need to be identified.

Work with initial stakeholders to identify people who are interested in planning for

their area. Select guiding committee members who:

The Guiding Committee

Made up of Stakeholders: 10-20 representatives all of whom have an interest in, or are affected by, the plan.

The Committee may include:

- Residents
- Landowners
- Farm owners and operators
- Local municipal officials
- Business and industry representatives
- Environment and conservation groups
- Other special interest representatives

- *Are able to represent stakeholder groups as well as their individual interests;*
- *Can represent the decision makers or can serve as a decision-maker in the planning area;*
- *Together, represent a cross section of the social, economic, and cultural communities in the planning area;*
- *Together, represent as many of the differing views, opinions, and interests in the area as practical.*

Any stakeholder wanting to participate should be given the opportunity. If there is a problem with the guiding committee getting too large consider sub committees. ***In order to keep numbers manageable, one individual can represent multiple interest groups.***

Normally, government agency staff should not be included on the guiding committee unless they have a vested interest. Instead, they serve as technical advisors or help to facilitate the planning process. To do otherwise may weaken local leadership and acceptance of the plan.

Hold one or two “preplanning” meetings with the stakeholders. The purpose of these early meetings is for the group to understand the areawide planning process, assess whether a plan is needed in their area, and determine whether they wish to participate in its development. Once this core group is committed to the project, they can expand their numbers if any critical stakeholder was overlooked during the early stages of the process.

Limiting the guiding committee to around 10-20 participants does not mean the committee makes decisions in a vacuum. The guiding committee must periodically seek input from, and provide information to, the community of people in the planning area to ensure that the final plan is acceptable to all.

Establishing Operating Procedures

What are they?

Operating procedures address how guiding committee members function as a team. They address procedures such as who will chair the committee, how member absences are handled, who will take meeting minutes, and how agendas will be distributed.

Operating procedures for guiding committees are similar to the bylaws of boards, councils and commissions. However, because the newly formed volunteer guiding committee does not have legal responsibility for the operation and management of an organization, the formal written bylaws typical of boards is not warranted. Instead, it's usually sufficient for the guiding committee to make decisions about the procedures that will be effective throughout the planning process, and document them in the meeting minutes. Later, if the committee reorganizes as a membership group accepting public funds, applies for non-profit status, or achieves some other legally recognized status, then more formal documentation of procedures will be needed.

When:

Discussion about procedures, which will guide the activities and functions of the guiding committee, should take place during the first few meetings.

Why:

Operating procedures add consistency and reliability to the planning process, and help the committee get things done and keep track of progress. A consistent record of committee proceedings should be maintained. Members should know whom to call with questions between meetings, and will know when the committee will normally meet.

Decisions about operating procedures are made by the guiding committee. With assistance from a facilitator, resource planning specialist, or other key individual, the committee should discuss the following:

- ***Guiding Committee Leadership***

The guiding committee selects a Chairperson. Some committees choose two Co-Chairs to share responsibilities. The Chairperson is the primary liaison between the guiding committee, the planning team, technical advisors, and ultimately, the decision

Makers. The Chairperson works with the guiding committee to establish meeting agendas. He or she is responsible for sending correspondence to committee members between meetings, communicating with the technical advisors, and in general, working with everyone to make sure the planning effort is proceeding on schedule. The Chairperson is

often designated as the primary contact person who can answer questions and provide information to the public.

The guiding committee decides how a Chairperson will be selected. If more than one person is interested, or nominated, then the guiding committee may chose to vote and “elect” the person receiving the most votes.

• ***Attrition and Absenteeism***

Most committees establish a procedure for member absences and how they will be handled. It is important to clarify whether decisions made at the meeting are absolute and cannot be disputed by the absent member. (Regardless of the procedure established, the process will continue even if a quorum of members isn’t present?) In any event it is important to keep all committee members informed of discussions and decisions.

On occasion, people may need to drop out of the planning process. Adding new members can be problematic in the middle of the planning process. New members may not agree with what has taken place, and “starting over” may be discouraging to the rest of the committee. In any case, one or two people resigning from the guiding committee may not cause problems and may not warrant replacing them. However, if several people drop out, then it may suggest that interest and support for the planning or issues under study is lacking. Heavy attrition warrants an honest look at whether the community supports and is interested in continuing the process.

• ***Tenure***

It is important to distinguish between the tenure expected of members during the planning phase compared to tenure during implementation. Usually guiding committee members want to stay involved through the entire process. After the management plan is completed, everyone should be given an opportunity to end his or her participation with a sense of accomplishment and provide closure for a job well done. Of course, any individuals who wish to remain active during the implementation of the plan can choose to do so.

Ideally consistent participation from the same group of stakeholders is needed to get through plan development. However, once the plan is completed, a more fluid mix of participants to guide implementation maybe helpful. Of course, not all guiding committees formally “reinvent” themselves as “Implementation Committees,” but if they do, the task shifts to that of an on-going advisory group who can help insure implementation of the plan.

• ***Meeting Location***

A regular meeting time and place helps committee members consistently attend meetings. The guiding committee decides how often they will meet, and for how long. Many committees meet once a month, though meeting more frequently can move things along faster. It’s best to limit any meeting to two hours, except for special events like tours or public meetings.

- ***Decision Making Process***

The guiding committee should determine how they will make decisions. This should be documented in writing so that the process is clear from the beginning. Substantive group decisions are best made by consensus, that is everyone supports the decision even if that decision is not everybody's personal first choice. With consensus, each person may not agree with every aspect of the decision, but they can lend their support to it. Less substantive decisions, such as who will chair the committee, may be made in structured ways such as voting.

- ***Authority in Decision Making***

Usually, each stakeholder on the guiding committee has equal decision-making status. The Chairperson may act as the spokesperson for the group, but does not have more authority than anyone else. Furthermore it should be clear from the beginning, that each committee member represents the community at large.

- ***Other Issues***

Other procedural issues that the guiding committee may want to clarify and document include the distribution of agendas, how they will be distributed, confidentiality of meeting discussions, public communication, and roles and responsibilities of members.

Defining the Planning Area

The extent of the planning area depends upon the reasons and parties involved in planning. The planning initiative may come from one or more communities and deal with wide areas and multiple problems. Conversely, a few stakeholders may drive the initial planning effort in an attempt to resolve some particular problems. In the end, the planning area should be defined to adequately encompass the natural resource problems to be addressed.

Often the extent of the area to be planned seems obvious. Bank erosion and sedimentation in a local stream, for example, requires addressing conditions throughout the stream's "watershed," or all the land that drains to the stream. Some thought should be given to the watershed size to be addressed. Should the plan address the *subwatershed*, *watershed*, or *subbasin* level? (Try to limit the size of the planning area because the larger the area, the more complicated the planning process— especially when watersheds cross state lines.) Also, larger areas may necessitate more generalized plans, which tend to be less effective. In cases where a larger watershed or basin study is needed to ascertain the extent of the resource problems, general plans can be developed on the larger area. More study intensive plans developed with additional details are conducted for sub basins or sub watersheds.

It's critical to clearly define the boundaries of the planning area. A defined The planning area will focus the identification of problems and opportunities, the inventory work, and the development of management strategies within a specific within a specific geographic area. The stakeholders represented on the guiding committee should be largely selected because of their relationship to the planning area.

When is it done?

The planning area needs to be identified during the initial pre-planning meetings with stakeholders.

How is it done?

Often areawide planning is conducted on a watershed basis. In general, watershed-based planning is advantageous because it provides a systems perspective for problem solving, works across political boundaries, and is the most effective way of addressing problems such as flooding and nonpoint source pollution. The guiding committee is encouraged to follow guidance and requirements of funding sources concerning size of the watershed.

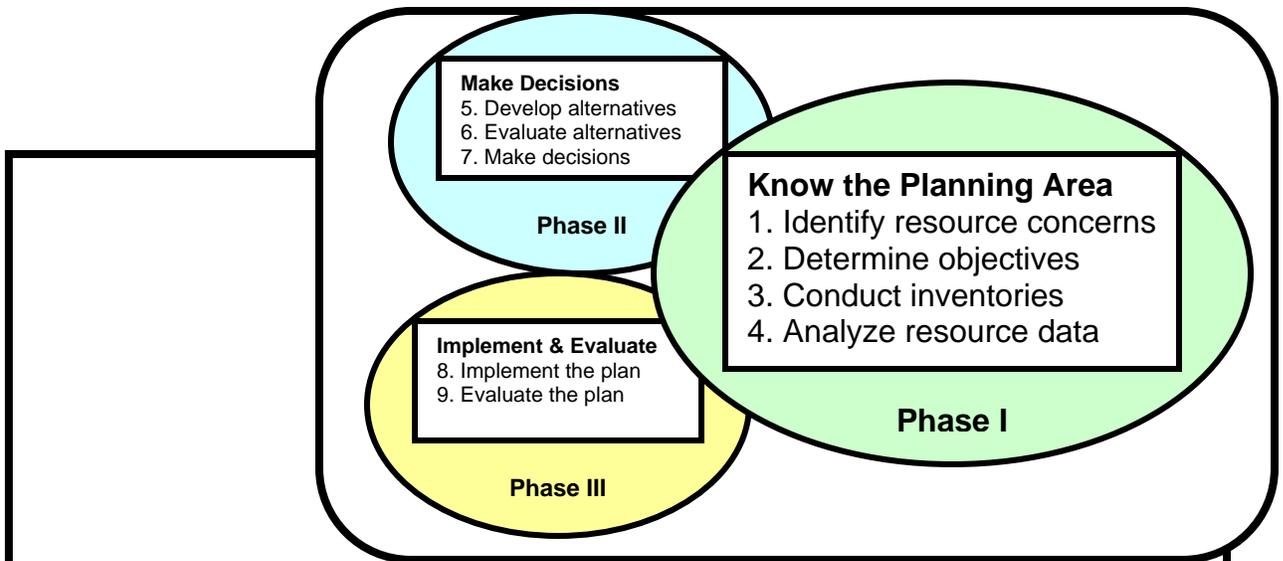
The NRCS District Conservationist and other resource professionals will help stakeholders identify the drainage area relevant to their concerns. Start by reviewing a watershed map such as the [State name](#) NRCS Hydrologic Unit map. All upstream watershed acreage

should be included in the planning area, while downstream acreage is usually limited to a juncture with the next major waterbody.

Occasionally areawide planning is not conducted on a watershed scale. Instead, the planning may be done to address natural resource problems in an area that crosses watershed boundaries. Also such plans may be appropriate for a single community, or a county. The same considerations for watershed based planning apply for non-watershed resource planning. The resource issues, community interests or geographical considerations determine boundaries. All public and private lands necessary to effect change should be included. Local stakeholders should help finalize planning area boundaries.

**The following are some indications
that the planning area is appropriately defined:**

- There are similar stakeholder concerns throughout the planning area.
- There are consistent resource conditions, land uses, and planning issues throughout the planning area.



PHASE ONE: KNOW THE PLANNING AREA

Step 1 – Identify Resource Concerns

Step 2 – Determine Objectives

- **Develop a Mission Statement**
- **Scoping the Planning Process**
- **Set Up the Planning Team**

Step 3 – Conduct Inventories

Step 4 – Analyze Resource Data

PHASE 1 – KNOW YOUR PLANNING AREA

Identify Resource Concerns

Step 1

The resource concerns scoped by the guiding committee will guide the entire planning process. The inventory work of the planning team will focus on these resource concerns. The technical advisors will identify potential management strategies for the concerns. Strategies, which the guiding committee and communities endorse, will be promoted in the final management plan.

When is it done?

After the stakeholder group has been formed; the committee has discussed the procedural issues that will guide the planning process; and they've defined the planning area; then it is time to identify the resource concerns. Identifying resource concerns is the first step in the Nine-Step, Three-Phase Planning Process. These may come from both the guiding committee members or from the public at large.

Meetings may be held to solicit input from the public about the issues problems and opportunities for natural resource planning. At any time during the process new issues may be raised for consideration. The process remains open.

How is it done?

A list of resource concerns for the planning area may be developed through public meetings; focus groups, or from the stakeholders themselves. The guiding committee may develop an initial list themselves. It may be helpful in this step to use professional facilitation services so that everyone can remain neutral. For this reason only in rare circumstances should a guiding committee member facilitate the discussion about resource concerns, During the discussion of resource concerns, it is usually adequate to have the discussion facilitator also record all the ideas, though a separate recorder can be used.

While there is a need to prioritize concerns or issues at some point, it is not necessary to do so as they are collected in a series of public meetings. To do so at those times can lead to inconsistencies between meetings, and generate needless conflict. It is more important in public meetings to capture ideas and identify potential stakeholders grouped around their issues. The guiding committee needs to work on priority identification with the appropriate public feedback loops available.

Here is the process for a facilitator to use with the group:

1) The facilitator will begin by explaining to the group why they are identifying their concerns for the planning area, and how these concerns will guide the work of the planning team and the entire planning process.

2) Next, the facilitator will explain the technique called “brainstorming,” which is used to prepare a list of resource concerns. Before the brainstorming begins, the facilitator will review some basic ground rules with the guiding committee. The committee should add any additional rules they think are important. If the guiding committee veers off track during the discussion (for example, if they begin to debate someone’s ideas), the facilitator should intervene and reminds the group of the ground rules.

How Brainstorming works.

- Each member takes turns identifying a concern in the planning area, until there are no new concerns.
- The group avoids lengthy discussion about the merits of each person’s concerns. Instead, everyone identifies all their concerns no matter how trivial or controversial.
- Then, they combine (if needed) and rank the entire list so those concerns that are most important to most members of the group will be addressed in the planning process.
- At this time the group should avoid discussing ways to solve the problems identified by the group. The technical advisory group will identify potential solutions to the concerns for the guiding committee’s consideration later in the planning process.

Brainstorming Ground Rules...

- Leave rank and status at the door
- No criticism or evaluation
- Quantity and exaggeration is welcome
- Record all ideas
- Everyone participates
- There are no wrong ideas
- Build on the ideas of others

3) After the brainstorming process and the ground rules are explained, the facilitator asks each person to write down all their concerns for the planning area. The facilitator asks, “What are your concerns in this area?” After people stop writing, go around the room and ask each person to share their ideas. Record each idea on a flip chart in the front of the room. Here are some

- Always record ideas in the participant’s words only. The facilitator/recorder should never paraphrase. Instead, ask participants to paraphrase their own ideas so the recorder can write it succinctly.
- Leave plenty of space on each page so that similar ideas can be written together.
- Set up several flip charts so the recorder can write on multiple sheets of paper with less page turning.
- As ideas are recorded on the flip chart pages, have someone besides the facilitator (e.g., field staff) post pages on the walls where the Guiding committee can see them.

tips for effective recording of ideas:

4) After everyone's ideas are listed, the entire list is reviewed and similar ideas are grouped together. Always ask the person who offered an idea whether it fits with another before merging them. Consensus is required before changing any item on the initial brainstorming list. Work with the group to ensure the final list has discrete ideas, which do not overlap with any other ideas. Also make sure everyone understands the meaning of each idea. Put letters beginning A, B, C, etc. next to each idea or cluster of merged ideas so it's clear to everyone which ideas comprise the list of concerns. Avoid using numbers. Then, review the list to see how many concerns were identified. At their discretion, the group may wish to narrow down and prioritize their list. As a general rule, about ten or fewer concerns is usually manageable.

5) To reduce the list of concerns, each person should identify their top concerns. Then the facilitator will tally the top scoring ideas for the entire committee. This is called the "Nominal Group Process" and it helps the guiding committee quickly reach consensus on their top concerns. If the committee wants a list of the five most important concerns, each person will identify their top five concerns. If they want ten concerns, each person identifies the top ten concerns. The Nominal Group Process is an effective way of eliminating less critical concerns while avoiding contentious discussion.

To use the Nominal Group Process, give each person the appropriate number of sticky self-adhesive colored dots (i.e., five or ten dots, depending on the size of the desired final list of concerns). Give the group five or ten minutes to privately write down the letters of the concerns that are most important to them. When everyone is finished, have them place their sticky dots next to those concerns on the posted flip charts. Add up the number of "votes" each idea received. Eliminate low scoring ideas. Review the final list with the group, and review how the list will be used. Remember that some resource concerns are mandated by law and must be addressed whether or not their 'rating score' is high.

A word about prioritization

While the nominal group technique described above leads to a priority listing of issues, give consideration to skipping rank designation of issues entirely. The value of a prioritization exercises is more related to the direct need to allocate scarce resources to gain effective resolution to problems. The ranking of natural resource issues or concerns themselves has no useful purpose. Thus stakeholders and interested parties may be identified and encouraged to come together, find common ground, and begin to resolve issues together. The ranking of issues in a public forum may adversely affect people's motivation when they observe their concerns are ranked relatively low.

The Next Step

After the resource concerns are identified, the group will indicate their objectives or “desired future conditions” for each concern. The guiding committee and the field staff will also identify technical experts who can address their concerns as part of a technical advisory group. During this period, the guiding committee may also want to conduct a tour of the watershed or planning area, if they haven’t already done so.

If there is a possibility that a federal agency maybe asked for resources or implementation actions as a result of this plan, the group should follow the NEPA and state environmental planning review processes.

PHASE 1 – KNOW YOUR PLANNING AREA

Determine Objectives

Step 2

What is it?

Objectives are those aims that the guiding committee is working towards or intend to accomplish, they are also discussed as “Desired Future Conditions.” They are the stakeholders/guiding committee’s expression of the desired future state of the resources compared to current conditions. Objectives can be qualitative (expressed in words) or quantitative (expressed in numbers). For quantitative objectives, target values can be set depending on the availability of data.

When is it done?

The guiding committee determines their objectives after they have identified the resource concerns in the planning area. Determining objectives usually takes place around the third or fourth guiding committee meeting.

Why is it important?

The guiding committee needs to reach consensus about their objectives, and capture these in writing. Reaching consensus and documenting the results is important for several reasons. Discussing objectives among guiding committee members provides an opportunity for the committee to work out their differences early in the planning process. Without clearly stated objectives the guiding committee will find it difficult later to be able to select and endorse solutions to resource problems. Further, the objectives are critical information for the planning team and technical advisory group. The planning team uses the objectives to understand what the guiding committee wants to accomplish, and they identify solutions to the resource problems that can meet these objectives.

How is it done?

A facilitator may be used at this juncture to solicit and record the objectives of the group. It is important for whoever leads the meeting that the tone and the atmosphere of the meeting is positive and participants feel comfortable with each other and participation is encouraged.

For each resource concern, have the facilitator or discussion leaders work the guiding committee through the following questions. All three questions should be answered *for each resource concern*.

- 1. What desired future conditions do we want to achieve with respect to the resource concern?** (*Other ways to prompt discussion include: What do we want to happen with this resource concern? In what condition do we want the resource to be? Develop a goal statement for each resource concern.*)
- 2. What do we know about this concern?** (*Ask the committee to describe the concern: What is happening? Where is it occurring? Why is it occurring? How long has it been happening? Has the intensity of the concern changed? What sources of information are available about the concern?*)
- 3. What do we need to know about this concern?** (*Ask the committee: What questions do we have about this concern that need to be answered in order to solve it? What questions need to be answered in order to implement our solutions?*)

Initial discussions typically require objectives be stated in qualitative, or narrative terms. After the planning team complete the inventories and devise management strategies, the objectives can be quantified with target values based on the benchmark conditions. Benchmark conditions means the current state of the resource in measured terms. For example fish diversity in a water body may be determined by type and number of species. Project targets could be measured in terms of changes in the type and number of species after project implementation.

It may take several meetings to record the guiding committee's objectives, comments and questions for all the resource concerns. The results of these discussions should be recorded and distributed to all members for their review. Changes can be made immediately if necessary, or additional changes might be made later in light of findings by the planning team.

If necessary, the guiding committee can prioritize their objectives. Consider prioritizing objectives if they identify more than a few objectives for each resource concern. To prioritize objectives, use the same ranking technique explained in the section, "Identifying Resource Concerns."

Why ask "What do we know?" and "What do we need to know?"

The purpose of these questions is to document the existing knowledge among committee members about the resource concerns, and identify areas they feel need to be further investigated. Information about "what is known" and "what needs to be known" can help the planning team target their inventory work.

Stakeholders also tend to raise issues during the discussion that can potentially sidetrack progress towards reaching consensus about objectives. For example, during the discussion someone may ask why the problem is occurring. Or another person may counter someone's

opinion by citing a lack of information about some aspect of the problem. Recording these comments validates their concerns while avoiding having to answer the questions at this time. It is important to remember that technical questions about why or where problems are occurring or how the problems should be solved are left to the planning team and technical advisors as the planning project unfolds.

It is a facilitator's challenge to keep the discussion focused on what the guiding committee wants to achieve, while minimizing conversation about related issues. There will be time later to discuss these issues. Just remember that someone needs to record questions and comments so that the planning team can provide answers for the committee's consideration at a later date.

In practice, people share their thoughts without necessarily connecting them to one of the three questions. That is, the facilitator may encourage the group to identify their objectives for a water quality problem, when someone calls out, "But how do we know the regulatory standard is fair?" The facilitator should acknowledge the comment, record it under the question, "What do we need to know?" and then continue soliciting comments. Because this is the way this exercise tends to proceed, it's helpful to use three flip charts; each headed by one of the questions. This allows the facilitator to record comments under the appropriate topic as they are offered.

The Next Step

After objectives are identified, it's time to organize the planning team using the list of resource concerns and objectives. Also, the guiding committee develop need to a mission statement for their committee.

Here are a few examples of what natural resource concerns may look like.

- prevalence of invasive species
- loss of habitat functions coincident with land use practices
- preservation of valued habitat
- loss of anadromous fish passage
- loss or lack of riparian buffer areas.

• Develop a Mission Statement

What is it?

A mission statement should be stated in such a way that it answers four basic questions:

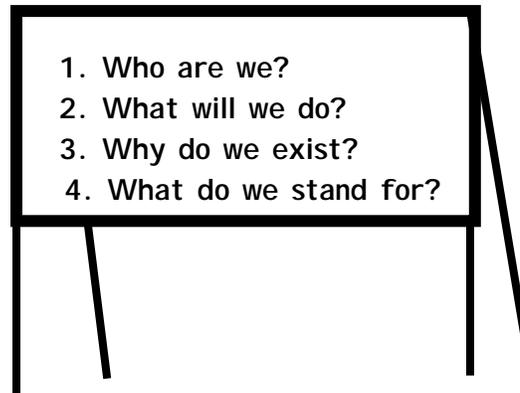
- Who are we? -Why do we exist?
- What will we do? -What do we stand for?

By crafting a response, the mission statement will give the group strategic direction. Further it serves as a guide for decision-making and goal development.

Why is it important?

- 1) A mission statement informs people in the planning area about the guiding committee and the planning process. It should be included in promotional brochures, correspondence, the areawide plan, and in grant applications to inform stakeholders and funding agencies.
- 2) The mission statement helps the media accurately convey the guiding committee's intentions and activities to the public.
- 3) The mission statement helps the guiding committee stay focused. The process of developing the mission statement clarifies areas of agreement and disagreement, and ensures that common understanding is reached early in the planning process. This facilitates later decision-making.
- 4) The mission statement can help keep the guiding committee motivated, by giving a clear verbal reminder of the group's purpose and objectives.
- 5) The mission statement can demonstrate the organizational relationship between the guiding committee and related organizations. For example, if the guiding committee acts as a citizen advisory committee to the county commission, then the guiding committee's mission statement acknowledges that relationship.

Using the assistance of a facilitator, an easy way to develop a mission statement is as follows:
Write the following questions on a flip chart:



The facilitator asks the group, brainstorming-fashion, to provide their answers until each topic is fully addressed.

- ❑ All answers are posted around the room.
- ❑ Each member of the group is asked to privately draft a mission statement utilizing all or part of the information in front of them. (Allow about 20 minutes for this, or until most people have finished writing.)
- ❑ Everyone--or those who wish to do so--shares their mission statement with the entire group.
- ❑ The shared mission statements are written so everyone can see them at the same time.
- ❑ With the group's input, the facilitator underlines key phrases or words that are common among the various statements.
- ❑ Using consensus, the group selects one or two of the statements to work on. These are modified until the group devises a statement that all can support.

Once developed, a typed copy of the mission statement should be provided to all group members. A large copy of it should be on display at all future group meetings.

The Next Step

The guiding committee will establish a planning team, if they haven't already done so. They will also work with the technical advisory group to determine inventory needs.

Example Mission Statements

- 1) *To develop, enhance and protect the ecological and socioeconomic values of the natural resources while continuing private ownership.*
- 2) *The objective of the guiding committee is to develop a Comprehensive Management Plan for the natural resources in the entire Embarras River Basin. They hope to unite private citizens, public groups, and government agencies to address the resource problems related to watershed management.*
- 3) *The mission of the guiding committee is to develop and encourage the funding and implementation of a long-range plan among landowners, government entities, and other appropriate groups which will help ensure safety to human inhabitants through proper enhancement, management and protection of the ecological and socioeconomic resources within the Blackberry Creek Watershed. This will include but not be limited to stormwater management, groundwater quality, aesthetic values, wildlife protection, and reduction in flood damages.*

• Scoping the Planning Process

What is it?

Scoping determines what is important to investigate during the planning process. It involves identifying which concerns, actions, and impacts will be addressed in the development of the plan.

Why is it important?

Scoping allows stakeholders and technical experts to put their limited financial and technical resources towards studying the most critical issues in the planning area.

When is it done?

Scoping occurs throughout Phase One and Phase Two. Refer to Figure #1 showing the 3 Phase, 9 Step Planning Process).

How is it done?

Scoping occurs during two distinct steps

- identification of resource concerns (Step 1, Phase 1: Know the Planning Area), and
- evaluation of alternatives (Step 6, Phase 2: Make Decisions).

Identifying Resource Concerns

The number of concerns in a planning area is potentially unlimited. During the brainstorming sessions, the guiding committee identifies all their concerns. (See previous section, “Identifying Resource Concerns.”) The committee then groups the concerns in a way that provides a logical framework for problem definition. For example, similar concerns may be combined as “Water Quality,” “Residential Development,” “Forest Management,” and “Farmland Preservation.”

Each concern is rated for its importance to local people. The guiding committee might use the Nominal Group Process (Step 1, Phase 1: Identifying Resource Concerns) to rank their concerns in order of priority, or they can rate each concern’s significance using some other ranking scheme such as high, moderate, low or none. An example of a rated set of resource concerns follows in table #2.

Table #2 - Example of Rated Resource Concerns

Resource Concerns	Significance to Stakeholders	Significance to Decision-Making	Remarks
Soil Sedimentation	High	High	Filling in lake
Water Water quality	Moderate	Moderate	Pesticides and surface water
Air No identified concerns			
Plant State-designated Natural Areas	High	Moderate	Glade habitat
Animal Threatened and Endangered species	Moderate	High ¹	Indiana Bat habitat ¹
Human Cultural resources	Moderate	Moderate	Family farms

¹ Early in the planning, stakeholders ranked the importance of threatened and endangered species as a “moderate” concern. However, during inventorying technical advisors discovered that the project area included habitat for the endangered Indiana Bat. Legal requirements therefore dictated a full accounting of this resource issue.

Regardless of how it is done, the scoping process provides the planning team with clear direction for their inventory and evaluation work. The final management plan should explain why certain resource issues were addressed and others were not – as a result of scoping.

Evaluating Alternatives

Scoping is used to identify all the resource issues that need to be investigated in order to assess the effects/impacts of alternative solutions. Each management alternative will have effects and impacts on the physical, socioeconomic, and cultural resources in the planning area. In addition to affecting the targeted resource problem, a management alternative may affect related resources. For example, installing a flood-control dam on a river can reduce the targeted flooding problem. In addition, this alternative may affect water quality, threatened and endangered species, and adjacent land use. At a minimum, inventory information will be needed for compliance with the National Environmental Policy Act, other environmental laws, and state or federal program requirements. Agencies that provide financial support to the guiding committee may also require information. For most management alternatives, the following issues are usually critical:

- Cultural resources

- Threatened and endangered species
- Water quality
- Erosion
- Wetlands
- Human health and safety
- Environmental justice or equity

The management plan should also serve as a reference of decisions and processes, so full disclosure of actions is advisable. For example, concerns that were considered, but found to not require detailed discussion in the plan should also be identified. Further the plan should describe why certain concerns or issues were deemed to be significant. All parties involved in the planning should agree upon the relative insignificance of these issues.

• Set Up the Planning Team

What is it?

The planning team is a group of professionals and stakeholders who conduct resource inventories, evaluate the inventory data, and suggest management strategies that may meet objectives identified by the guiding committee. This team should contain the technical capacity to conduct the planning activities necessary to address the concerns and achieve the designated objectives.

When is it done?

After the identification of resource concerns and objectives during Steps 1 and 2, the committee can begin putting together a planning team.

How is it done?

With assistance from participating agencies, elected officials and partners the guiding committee can identify possible planning team members. This may be done by reviewing their list of the resource concerns and naming one or more individuals who have expertise or interest in these areas. Typically, team members are drawn from local government, non-profit and private organizations, and state and federal agencies. However, it is also advisable to include one or more guiding committee members for continuity. Local experts are particularly valuable because they have intimate knowledge of the project setting.

Planning Team Members:

- Help guide the planning process
- Help identify problems and opportunities
- Inventory resources
- Analyze resource data
- Develop and evaluate alternatives
- Document local planning decisions
- Help find appropriate funding programs for implementation
- Help implement and evaluate plans

The following are some of the organizations that may serve as a resource for planning team members.

Local Organizations

- Soil and Water Conservation District
- Planning and zoning office
- County commission
- Business and industrial groups
- Public works departments
- Financial institutions
- Neighborhood & Homeowners Assoc.
- Non-Profit Organizations

Federal Government

- USDA-Natural Resources Conservation Service , USFS
- USDA-Farm Service Agency
- USDA-Rural Development
- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- US Army Corps of Engineers
- Bureau of Land Management

State Government

- Utah Cooperative Extension
- Utah Department of Agriculture & Food
- Utah Department of Natural Resources
- Department of Commerce/Community Affairs
- Utah Association of Conservation Districts
- Utah Dept of Environmental Quality
- Utah Division of Wildlife Resources
- Utah Division of Water Rights

Once people are identified, they should be personally contacted to ask if they are interested in serving on the planning team. Briefly describe the planning project and what their contributions and time requirements would be. Follow this initial contact with a formal letter of invitation from the guiding committee. The letter typically states the nature of the problems motivating the planning project and the time, date, and place of the first team meeting. The letter is signed by the guiding committee chairperson and sponsoring organizations.

Those individuals agreeing to serve on the planning team should have an initial meeting where they learn about the planning process, the resource concerns, and their role in the project. During this meeting the guiding committee or others familiar with areawide planning can explain the planning team role in inventorying, evaluating, developing management strategies, and assisting with implementation. The entire guiding committee, to

give them and the planning team an opportunity to get to know each other and discuss the issues, should attend the first meeting. The Chair of the guiding committee should lead the first meeting of the planning team.

Early in the evolutionary development of the planning team a leader should be named. The planning team leader will delegate assignments, complete assignments, maintain accountability, monitor schedules, and serve as coach.

At this point the guiding committee should develop a detailed plan of work jointly with the planning team to guide the planning process. The plan of work should identify planning activities, who is responsible for the activity, and when the activity will be completed. The planning steps form a good framework for the plan of work.

The Next Step

Once the planning team is organized, the members will begin collecting data about conditions in the planning area.

PHASE 1 – KNOW YOUR PLANNING AREA

Conduct Resource Inventories

Step 3

Why is it important?

Resource inventories provide factual, objective data about the planning area and are vital for sound decision-making. Resource inventories detail the condition of soil, water, air, plant, animal and human resources (SWAPA+H). Resource inventories are needed to determine the severity of resource concerns, identify opportunities for improvement, and determine which strategies may be most appropriate given conditions in the planning area. They help local stakeholders understand human interactions with the environment, and interrelationships among resources in the planning area. Inventories provide a description of current conditions— called “benchmarks”—that are compared with future conditions desired by the guiding committee. Inventories are also used to forecast potential impacts resulting from various resource management alternatives.

When is it done?

Resource inventories are compiled after the guiding committee has scoped the significant resource concerns and objectives in the planning area.

How is it done?

The planning team is primarily responsible for compiling resource inventories. The technical advisors also provide significant input into the process. Often the guiding committee helps with the compilation of data, but their major role is to advise the planning team on where they believe problems are occurring, the severity of problems, and answer questions the planning team and technical advisors ask about the resource concerns. The planning team and the guiding committee should communicate regularly throughout the inventory work.

It is generally good business to develop and distribute a written inventory action plan so that everyone involved will know what is going to be inventoried, who is doing the various inventories, to what intensity, and during what time frame. The planning team will

use a variety of methods and procedures to collect data and may suggest resource issues in addition to those identified in the scoping process. Such suggestions will have to be judged on their individual merit by the guiding committee. The scoping process helps to identify which inventories need to be conducted.

Types of inventories should be based on:

- ✓ Stakeholders' significant problems, opportunities, and concerns
- ✓ Objectives developed for the planning area
- ✓ Complexity of the natural resource setting
- ✓ Pertinent local, state and federal regulations

Inventory intensities should be based on the need to determine:

- ✓ Current and historical resource, economic, and social conditions and trends
- ✓ Cause and effects of existing problems
- ✓ Potential problems
- ✓ Future conditions if current trends and treatment continue
- ✓ The feasibility of taking advantage of the opportunities identified
- ✓ Monitoring underway, completed, or needed

Factors to consider in inventories:

1. Cost
2. Time involved
3. Accuracy of information needed

Additional Considerations

Before beginning inventory work, the planning team should review existing data. For example, they should look at previously developed areawide plans, community plans, demographic studies, and floodplain studies. In some cases, data from these studies only needs to be updated for current conditions.

Occasionally, cost considerations or lack of expert technical staff in some special areas make it impossible to gather all the information needed for a full inventory of certain resources. In these situations, the planning team should recommend to the guiding committee that funds are needed to compile critical information. A typical example is when a hydrologic model is not available to accurately assess the impact of various flood-mitigation measures. The planning team might identify strategies for reducing flooding, and gauge the general impacts of each alternative, but also recommend that a hydrologic model be developed to gauge detailed effects.

The inventory process includes documenting the data found. Worksheets help the planning team document the inventory data in an easy-to-understand format. Examples of these worksheets are: the Problems Identification Worksheet that is contained in the NRCS Field Office Technical Guide, the Woodland Planning Worksheet, the Sheet and Rill Erosion Worksheet, or the Grazing Land Evaluation Worksheet.

Inventory documentation includes a description of the methodology used to complete the inventories, a detailed description of the planning team's findings and interpretation of results, and identification of any additional information, if any, that needs to be collected in subsequent studies. This inventory information should be compiled and assembled in a format that can be readily reviewed by the guiding committee.

The Next Step

As inventory information is compiled, the data needs to be analyzed.

A complete inventory:

1. Provides the benchmark (existing) conditions for the planning area
2. Helps determine resource trends, problems, and opportunities
3. Can include descriptions of such things as population trends, economic conditions, social considerations, current crops, farming practices, livestock types, available equipment, etc.

Efficiency and accuracy of planning can be greatly assisted by use of GIS special analysis and presentation tools. Current technology not only provides for spatially referenced data bases or layers for mapping purposes, but includes the capacity to manipulate the data to assist in analysis by overlapping map layers to create newly derived information. An example is identifying soils by capability class, wetlands, floodplains and areas of potential development to see where likely development will be suited and trouble areas may exist.

Existing Material

Keep in mind that a large amount of material may already exist. Examples include:

- Information from knowledgeable stakeholders (flood levels, economic information, social considerations, trends, community values, etc.)
- Material from local organizations
- Information and data from local, state and federal agencies
- Demographic data
- Economic data
- Population trends
- Agricultural statistics
- Business statistics
- Soil surveys
- Monitoring results (water quality, air quality, water use, contamination, etc.)
- Weather records
- Previous inventories (HEL, wetland, land use, wildlife, water samples, water supply, etc.)
- Previous studies
- Existing Plans
- Natural Resource Inventory
- Land use and trends
- Production records
- Aerial photography
- Infrastructure (roads, power lines, pipelines, urban developments, etc.)
- Zoning information

PHASE 1 – KNOW YOUR PLANNING AREA

Analyze Resource Data

Step 4

What is it?

Analysis of resource data involves the review and interpretation of the resource inventories conducted in step 3.

Why is it important?

Resource data analysis is an important step in identifying resource problems and the significance of the problem. Many times the resource analysis will show that what was perceived as a problem by the stakeholders is not a problem or not as severe a problem as they envisioned. Resource data analysis helps the planning team and the guiding committee use the information to full advantage. Studying the resource data reveals how individual resources relate to each other, and identifies causes and effects of problems. Analysis also helps the planning team present the information in a meaningful way to the guiding committee and the public.

This activity sets the determinants for which goal setting can be established and the later evaluation of results measured.

When is it done?

As resource data is accumulated, the planning team is continually evaluating the results to determine if more investigation is needed for that particular resource, or if techniques for analyzing other resources need to be changed in light of the findings. Thus the activities in this step may actually be commingled with those in step three.

How is it done?

The planning team is primarily responsible for analyzing the resource inventory data, but they seek input from the guiding committee and as necessary, use the expertise of additional agencies and groups (i.e. technical advisors). Manual and automated data analysis tools are used during this step. These include but are not limited to models, GIS analysis, and the Site

Specific Physical Effects Worksheet in the NRCS Field Office Technical Guide, Section V. The planning team is encouraged to use such models during data analysis.

The planning team determines the type of analysis needed based on the resource concerns, opportunities and objectives of stakeholders. They also consider the planning scope, potential for adverse impacts, and the ecological and human setting of the planning area. Data analysis is comprehensive. It addresses all ecological, economic, and social factors.

The planning team uses data analysis to determine present conditions in the planning area. Working with the guiding committee, the planning team also evaluates whether present conditions meet their objectives. Data analysis is used to identify present and future resource trends and for ways to moderate those trends if needed. The planning team identifies causes and effects— asking, “why is this occurring?” to identify causes and “what is occurring?” to identify effects.

The results of the analysis are communicated in a format easily understood by the guiding committee, other local groups, and the general public.

For more information

The NRCS Field Office Technical Guide provides a list of resource analysis methods for most resources. Also contact NRCS resource specialists for assistance.

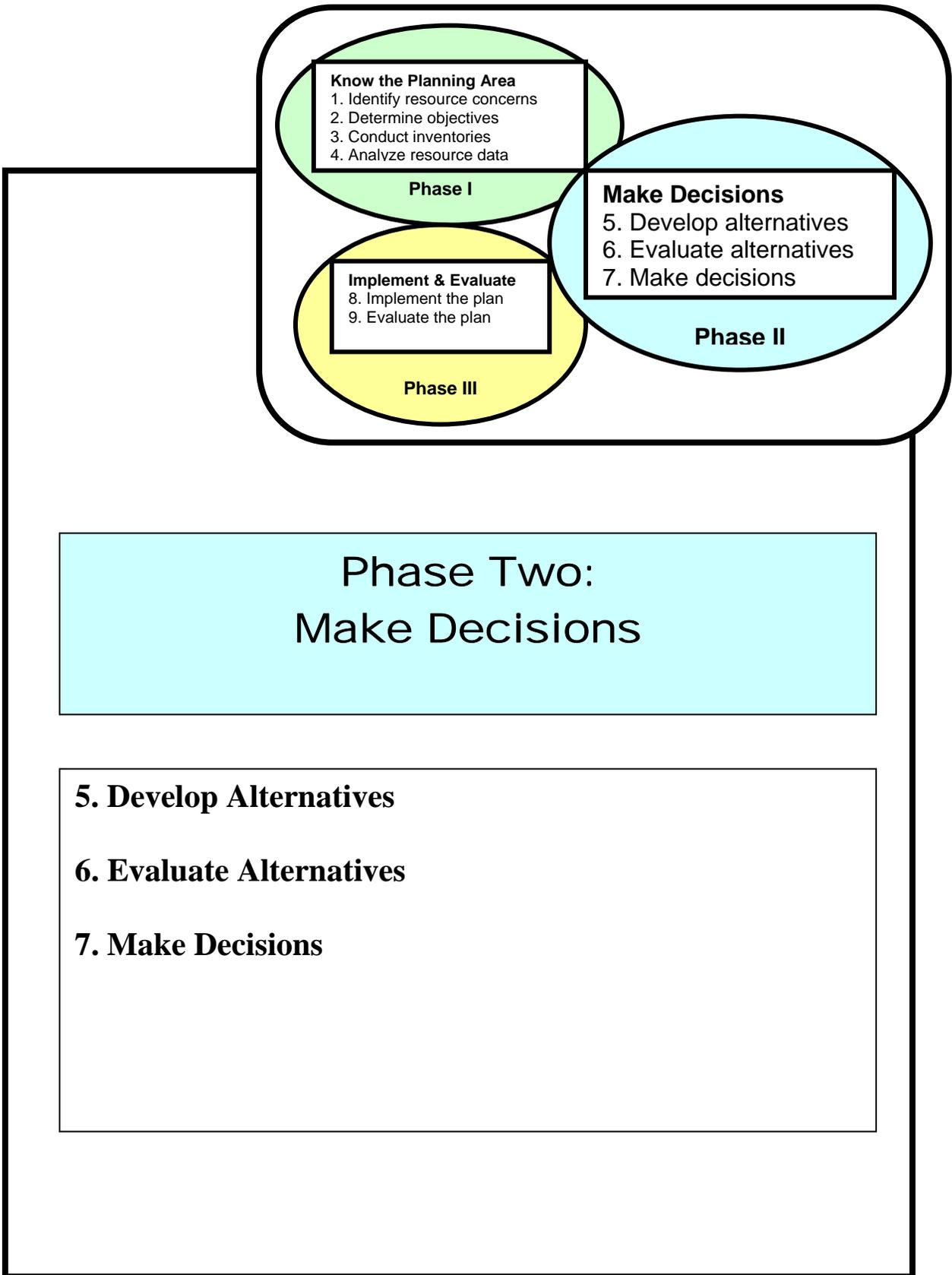
KEY POINTS

- **Involve the guiding committee, other agencies and local groups in data analysis.**
- **Establish a schedule for completing resource inventories and data analysis.**
- **Consider public opinion and communicate frequently with the guiding committee.**
- **Review existing reports and studies for relevant data and data analysis. How do the findings compare?**

The Next Step

After resource inventory data is collected and analyzed by the planning team, the guiding committee reviews the resource concerns, opportunities, and objectives to see if revisions should be made. New concerns may be identified, objectives may need to be changed, or new opportunities may be revealed.

Once the problems, opportunities and objectives are finalized, the plan moves into Phase Two.



PHASE 2 - MAKE DECISIONS

Develop Alternatives

Step 5

What is it?

Alternatives are the resource management options developed by the planning team and guiding committee and interested stakeholders. Viable alternatives are those that can solve the problems and meet the objectives of the guiding committee and stakeholders. The guiding committee reviews the alternatives with help from technical advisors. Those that the guiding committee feels it can endorse are then included in the areawide plan.

How is it done?

The planning team develops alternatives based on their resource inventories and analysis of the resource data. In addition to formulating strategies that will solve the problems identified by the guiding committee, they consider acceptability to stakeholders, NRCS quality criteria (for plans done under the auspices of NRCS), existing opportunities, and ways to prevent additional problems from occurring. Management system templates and the NRCS Field Office Technical Guide (FOTG) are useful tools when developing land treatment alternatives in an agriculturally dominated watershed.

The guiding committee should be involved throughout the process of formulating alternatives so that decision-making is improved and the acceptability of solutions is continually considered. Typically, this involvement is accomplished via periodic informal presentations from the planning team to the guiding committee about the progress of the planning effort. Further, participation of one or more members of the guiding committee on the planning team helps facilitate communication among the two groups.

Initially, multiple solutions are identified for the guiding committee's consideration. These may include structural approaches (e.g., floodwalls or streambank stabilization measures), non-structural measures (e.g., flood-proofing or emergency evacuation procedures), market-based measures (e.g., incentive payments), and institutional approaches (e.g., regulations or buyouts). Establishment of riparian buffers, wildlife habitat, or implementation of practices to reduce erosion and sedimentation may be the solution to identified natural resource problems. Multiple alternatives give the guiding committee the opportunity to select the best approaches given the unique social, political, economic, and cultural considerations in their area.

KEY POINTS

- Planning teams should rely heavily on the problem statements and objectives identified by the guiding committee early in the planning process. Review meeting minutes and other notes taken during the meetings to understand the guiding committee's concerns and objectives. Guiding committee perceptions are critical to identifying appropriate alternatives.
- The Planning Team should strive for different and innovative solutions, and avoid dwelling on costs during the early stages of identifying alternatives.
- Planners should make a preliminary evaluation of the effects of the alternatives, including an estimate of future conditions if no action is taken. Effects should include estimates of ecological, social, economic, and other consequences of the alternatives.
- Planners should avoid the need for environmental mitigation by developing alternatives that avoid cultural, social, and ecological damages. If alternatives cannot avoid negative impacts, try to minimize impacts, or plan to mitigate for losses. Estimated costs to mitigate any potential ecological damages need to be shared with the guiding committee.

Prepare a concise summary of each alternative with maps and other supporting data to help the guiding committee understand the suggestions.

The greater community should be kept informed of alternative developments as they are formulated. Continued feedback and critical discussion will provide a thorough examination of possible solutions and a broad base of support for later implementation actions.

PHASE 2 - MAKE DECISIONS

Evaluate Alternatives

Step 6

What is it?

The purpose of evaluating alternatives is to help the guiding committee make sound decisions about which management strategies they will advocate in the areawide plan. Alternatives are evaluated to determine their effectiveness in addressing the concerns, taking advantage of opportunities, and meeting objectives in the planning area.

How is it done?

After alternatives or strategies have been identified, the guiding committee and the planning team evaluate the acceptability of the alternatives. A facilitator is useful during this step, and technical advisors are available to provide information and answer questions.

Evaluate alternatives by examining the benefits and drawbacks of each alternative. During the evaluation of alternatives, careful consideration is given to social, economic, and ecological factors that influence the predicted outcome. Encourage discussion and use visual aids to help explain alternatives. Planning teams can prepare technical specifications and a short concise narrative for each alternative. For each alternative include costs, and positive and negative benefits.

The guiding committee considers the “effects” and the “impacts” of each alternative. The alternatives are compared to benchmark conditions to evaluate their ability to solve problems, meet quality criteria and meet the guiding committee’s objectives. The planning team and technical advisors can help the committee evaluate the effects of each alternative and describe the impacts. The effects are outcomes or results of the management strategy. Impacts are the differences between initial conditions and the effects of the alternatives. Here is an example:

- The “benchmark” is a soil loss of 20 tons per acre per year.
- The “effect” of one alternative is soil loss of 4 tons per acre per year.
- The “impact” is soil loss reduced 16 tons per acre per year.

Alternatives are compared based on their potential to bring about the desired future conditions identified by the guiding committee. Another way to evaluate alternatives is to use an Alternatives Analysis Worksheet (see Exhibit B)

Public participation should be an integral part of the evaluation of alternatives. This will help with acceptability of the alternatives. By keeping the process open the community has the opportunity to be on board all the way through planning and solution implementation. Trust the process and make adjustments as needed as the community works through the plan together.

During this step, give some thought as to how the strategies might be implemented. Identify NRCS programs, programs of other agencies, and other funding opportunities that may be available to implement the alternatives. Doing this helps in the evaluation of alternatives by providing information about how feasible they may be. The guiding committee may also need to revisit the objectives and mission statement in order to determine if they need to be changed in light of the range of possible management alternatives suggested by the guiding committee.

PHASE 2 - MAKE DECISIONS

Make Decisions

Step 7

Making decisions involves the guiding committee selecting the preferred management alternatives among those identified by the planning team. The preferred strategies will be documented in the plan. The guiding committee may or may not be able to make decisions. They may only be able to make recommendations to a set of decision makers. This is why it is important to have decision makers represented on the guiding committee.

When do we do it?

Decisions about alternatives are made during Step 7 of Phase Two of the planning process. Decision-making occurs after each alternative is evaluated for the ecological, economic and social effects and impacts as well as for acceptability to the community.

How do we do it?

Making decisions involves using information generated during the “evaluation step” about the economic viability, social and political acceptability, and environmental integrity of each alternative.

The guiding committee— perhaps assisted by a facilitator— reviews the evaluation information for each alternative. During this review, there should be a lot of discussion about the pros and cons of the strategies, how each member views the alternatives, how achievable the alternatives may be, and whether the alternatives can be supported by the community. This discussion is the primary opportunity for the guiding committee to assess the acceptability and feasibility of various management strategies.

During the decision-making discussion, the various differences among guiding committee members in values, objectives or concerns may come to a head. Conversations may become heated as members take a stand for or against a strategy. Effective ground rules for discussions and a skilled facilitator are often crucial at this step. Planning team members and technical advisors should be present to answer questions, clarify information, and provide feedback.

It is often useful to make decisions about the whole range of alternatives in a single meeting. This may entail an entire day devoted to this task, since the planning team may recommend many management strategies. Stopping discussions and starting again a week or two later usually inhibits the decision-making process. It is easier for people to remember all the strategies, keep in mind their various interrelationships, and account for concerns and comments during the discussions without substantial interruptions.

Remember Public Input!

Public input is critical during both evaluation of alternatives and during decision-making. Public participation reveals information about socio-economic impacts, effects and acceptability, which is critical for the guiding committee to make sound decisions. If the guiding committee makes decisions in isolation from the community, the plan is at high risk for being rejected or never implemented. Therefore, no matter how it's done, public input is useful during all steps in the process, rather than only after the plan is drafted. One outcome of this public review process may be a need to modify concerns, revise objectives, or restate effects. Giving adequate time and attention to this stakeholder review process will pay off in a better areawide plan that is more likely to stand the test of time.

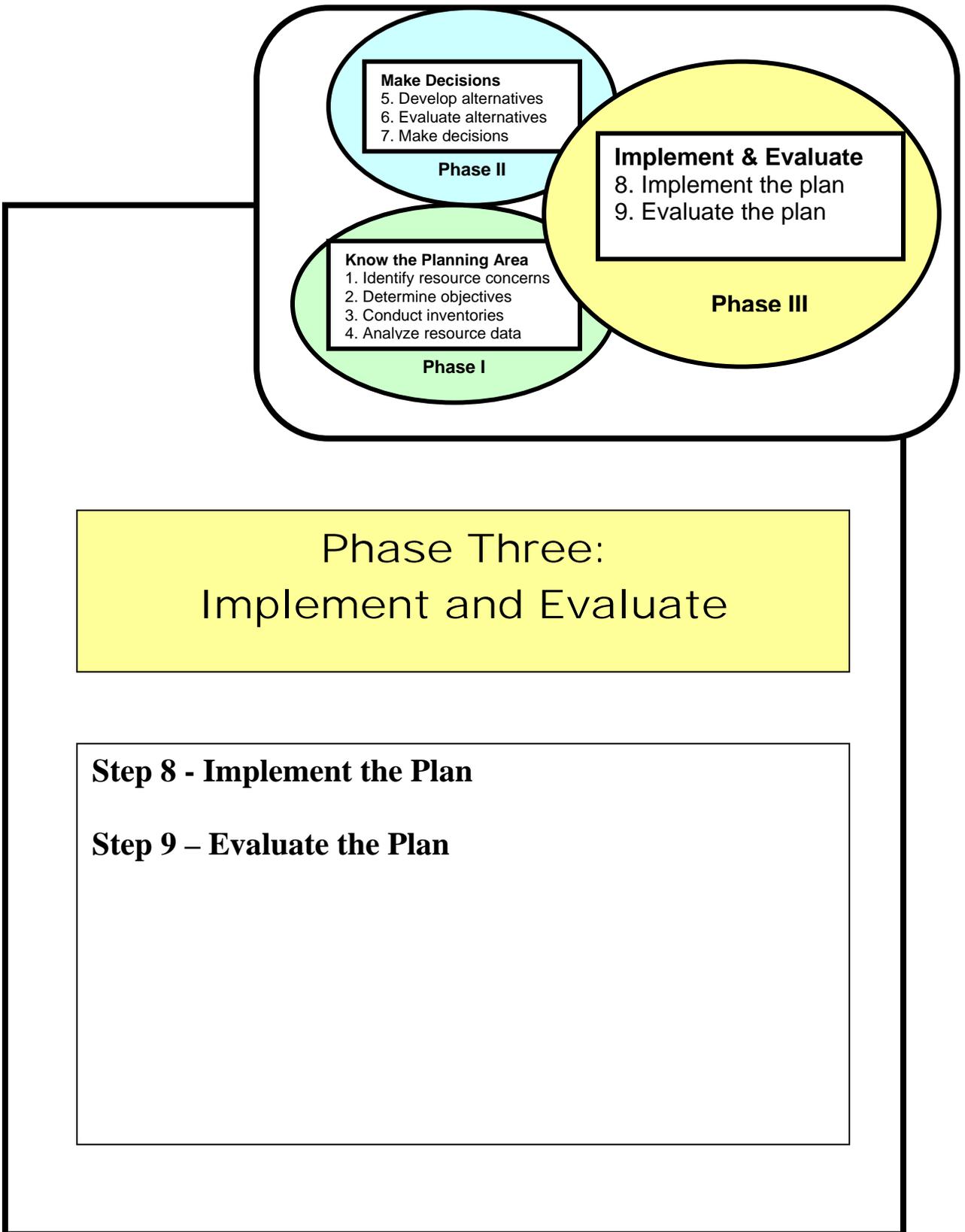
The Next Step

Decisions should be documented in a “draft” plan along with a description of the planning process, inventory data, implementation strategies and other information deemed important by the guiding committee. This draft plan will be reviewed by the local agencies and interest groups, and their comments incorporated into the final plan.

Once decisions are reached, implementation strategies for achieving the alternatives are devised. This means that the plan will include implementation information indicating who, what, when, and how the actions will be applied to the planning area.

Tips for Decision-Making

- Making good decisions requires understanding the economic, social and environmental advantages and disadvantages of each alternative.
- Stakeholders, through a facilitated process, should be given the opportunity to review the proposed alternatives. Planning team members should be available during discussions.
- The results of public input and review should be documented in the plan.



Make Decisions
5. Develop alternatives
6. Evaluate alternatives
7. Make decisions

Phase II

Know the Planning Area
1. Identify resource concerns
2. Determine objectives
3. Conduct inventories
4. Analyze resource data

Phase I

Implement & Evaluate
8. Implement the plan
9. Evaluate the plan

Phase III

**Phase Three:
Implement and Evaluate**

Step 8 - Implement the Plan
Step 9 - Evaluate the Plan

PHASE 3 - IMPLEMENT & EVALUATE

Implement the Plan

Step 8

When do we do it?

In theory, implementation occurs after a written areawide management plan is finalized. In practice elements of the plan may actually be implemented as they are made ready and approved by the decision makers.

How do we do it?

Implementation of plans requires the participation of citizens and local, state, and federal partners. Implementation entails using the plan to seek financial and technical support from many sources, meeting program requirements and deadlines, and designing, laying out, constructing, inspecting, and maintaining practices.

Typically, the guiding committee is responsible for ensuring the plan is implemented. This often entails reconfiguring the guiding committee into a new “Implementation Committee.” Doing this may bring closure to stakeholders who have been actively involved in the long planning process. Some guiding committee members may choose not to take part in the implementation activities, and new stakeholders can be invited to help.

Implementation committees often organize themselves as “Friends of” or “Coalition” groups. They may have many citizen members, a Board of Directors, and non-profit status. These coalitions spearhead projects, act as community advisors and advocates for the plan, and seek project funds. Their membership tends to be fluid with new stakeholders continually participating.

To help coordinate multiple activities and participants, the implementation committee should strategize about what needs to be done to apply the recommendations in the plan. Regardless of whether it’s included in the plan or documented separately, some kind of implementation strategy is necessary to determine how the actions in the plan will be applied. This will ensure that the plan is actually carried out, rather than shelved and forgotten.

Some implementation may occur before the plan is finalized, especially activities such as applying for grants or completing demonstrations projects. For the remaining actions in the plan the implementation committee should determine:

- ✓ **Which activities should be a priority?** Initially consider tackling easy projects that are not controversial to build confidence and community support. Also prioritize projects based on how serious the need is and how likely it is to be successful.
- ✓ **Where will the activities take place?** Locations probably were identified in the plan, but additional surveying or more detailed data collection may be needed.
- ✓ **Who are the responsible parties to implement the actions, and what sources of technical assistance are needed to help?** Consider local, state, and federal agencies, as well as non-profit and for-profit organizations.
- ✓ **How will the actions be financed?** Consider staffing needs and opportunities for local communities to provide matching monetary and non-monetary contributions.
- ✓ **When will the actions take place?** Devise a tentative implementation timetable to guide the work.

Additional Considerations

- Keep the public informed and involved. Try demonstration projects, kick-off campaigns, field days, newsletters, and regularly report activities in local media and to community leaders. Seek citizen volunteers and community groups to participate, so results happen and community support increases.
- Coordination of all activities is essential, especially the design and installation of structures, which require coordination for the needed work such as surveys, design, layout, certification, and maintenance.
- Identify projects for which financial assistance is needed. Include in the implementation strategy any steps that need to be taken to obtain funding. Identify who will apply for grants and any additional documentation that may be needed.
- Identify any mitigation issues, environmental requirements, and other information needed to implement the plan. Items to consider include federal, state and local permitting requirements, interagency agreements, and other laws and executive orders; such as NEPA and those concerning threatened and endangered species, historic properties, and cultural resources.
- Coordinate implementation with other planning and implementation bodies, especially with county, municipal neighborhood, and growth management plans. Also coordinate with the independent activities of individual landowners, local municipalities, and non-government organizations.
- Identify land rights and permits that will need to be secured. Ensure all parties clearly understand their responsibilities.

- Identify the agreements that will be needed for cooperative projects, and for the operation and maintenance of completed projects. Consider contracting issues--for example, long-term contracts needed for upland treatments.

- Consider documenting the implementation approach, including:
 - ✓ tasks
 - ✓ responsible Persons or Organizations
 - ✓ sources of Funding and In-kind Services/Amount
 - ✓ scheduled Start Date/Scheduled Finish Date
 - ✓ actual Start/Actual Finish

• Obtaining Funding

Areawide planning groups must focus this task.

Areawide planning is “**program neutral**”--meaning the plan identifies ways to manage resources regardless of the sources of funding. However, program neutral planning does not imply that the guiding committee ignores financial issues. In fact, funding is an integral part of the planning and implementation process. Most alternatives have some cost associated with their implementation. Even producing and distributing the plan document costs money.

Once the plan begins to take shape, the guiding committee, with assistance from the planning team, stakeholders and decision makers, starts looking for ways to fund their ideas.

Getting the funds to carry out stakeholder ideas involves commitment, energy, and time. But the most important elements of successful funding are already in place:

A viable, organized stakeholder coalition, systematic consideration of goals, needs, and alternatives...all documented in an areawide management plan. In Utah, local, state, and federal government programs are available for landowners and communities to protect, enhance and restore natural resources. Non-profit organizations and private industry also provide assistance.

The guiding committee should actively and continuously search for the opportunities to apply for funding. Committee members may need to enlist help from the local Conservation District, city, village, or county government. Consider creating a “grant writing” team with partners who have experience with grants.

Next Step

The guiding committee will develop an implementation schedule to include in the plan document. The implementation schedule lists potential funding sources and assigns responsibility to individuals who will write applications for funding. Several sources of funds are referenced in the following pages. The guiding committee--or new “Implementation Committee”-- continues to meet regularly to ensure the plan is implemented.

See Table #3 Opportunities for Areawide plan implementation Assistance for an example display of information about possible sources of assistance or funding.

The U.S. Environmental Protection Agency offers a comprehensive guide to financial resources called *A Guide of Financial Tools: Paying for Sustainable Environmental Systems*. This publication is only available in electronic format from the EPA web site at <http://www.epa.gov/efinpage/guidbk98/index.htm>

Where can we get the money to solve our problem?"



Table #3 - Opportunities for Areawide Plan Implementation Assistance

Program	Primary Contact / Funding Agency	Support Agencies
Environmental Quality Incentive Program (EQIP)	NRCS/FSA	SCD, UOE
Conservation Reserve Program (CRP)	FSA	NRCS, SCD
Section 319 Clean Water Act Grants (CWA)	EPA/SDNR	SWCD, UOE, NRCS
Section 319 Clean Water Act Mini-Grants (CWA)	EPA/SDNR	SCD, UOE, NRCS
Section 604(b) Clean Water Act Grants (CWA)	EPA	Regional Planning Commissions
Section 104(b)(3) Clean Water Act Grants (CWA)	EPA	UACD, NRCS,FWS,DWR
Small Watershed & Flood Prevention Program (PL-566)	NRCS	SCD,USFS, BLM
COE Watershed Protection Programs	COE	
State Cost-Share Incentive Program	SCD/SDNR	NRCS
Loan Interest-Share Program	SCD/SDNR	NRCS
Forestry Incentives Program (FIP)	NRCS	FS, FSA,, SCD
Grazinglands Incentive Program (GIP)	UDAF	UPCD, NRCS, DWR, BLM,USFS
Wetland Reserve Program (WRP)	NRCS	SCD, FWS
Wetland Heritage Program (WHP)	SDC	NRCS, SCD
Habitat Improvement Program (HIP)	FWS	SCD, NRCS
Wildlife Habitat Improvement Program (WHIP)	NRCS	SCD, DWR
Resource Cons. & Development Programs (RC&D)	RC&D	NRCS, SCD, County
Technical Assistance & Training Grants (TAT)	RD	NRCS
Watershed Assistance Grants (WAG)	EPA	NRCS, DNR
Water & Waste Disposal Loans & Grants	RD	

Agency Acronyms

State Department of Natural Resources	SDNR	U.S. Environmental Protection Agency	EPA
State Department of Conservation	SDC	U.S. Fish & Wildlife Service	FWS
University Outreach & Extension	UOE	U.S. Army Corps of Engineers	COE
State Agricultural & Small Business Development Authority	MASBDA	USDA-Farm Service Agency	FSA
Soil and Water Conservation District	SWCD	USDA-Forest Service	FS
Soil and Water Conservation Program	SWCP	USDA-Natural Resources Conservation Service	NRCS
		USDA-Rural Development	RD

For more information on the above programs, loans, or grants contact the supporting agency directly.

PHASE 3 - IMPLEMENT & EVALUATE

Evaluate the Plan

Step 9

Areawide plans should be periodically evaluated and plans should be updated and modified, as needed. An evaluation action plan should be developed to measure the effectiveness of the areawide plan and progress to achieve intended goals.

The evaluation action plan will contain two types of objectives. These are *management objectives* and *evaluation objectives*. Management objectives measure the success of implementation. They may be used to answer questions like:

- ❑ What improvements are being made?
- ❑ Where in the watershed are improvements occurring?
- ❑ Are all elements of the plan being applied according to schedule or are some actions lagging?
- ❑ Are producers or landowners in some areas of the watershed more reluctant to participate?

Management objectives are helpful in fine tuning the plan and ensuring continued implementation.

Evaluation objectives measure the success of the plan in protecting or improving natural resources. They may be used to answer questions like:

- ❑ Were the assumptions, upon which the alternatives were formulated and selected, actually true?
- ❑ Have there been changes (e.g., new technology, new programs, changes in technical standards, etc.) that should be incorporated into the plan?

Evaluating objectives helps to redirect the plan if it is missing the target or if there are significant changes.

A well-constructed set of objectives will drive the evaluation action plan so it is important to word them carefully. A helpful syntax for objective statements breaks them into three pieces:

infinitive verb + object word or phrase + constraint

An infinitive is a verb form that is typically preceded by the word *to* such as “*to determine...*”, “*to evaluate...*”, “*to assess...*”. The second piece is the object. The object receives the action of the verb and answers the question, “What?” The third piece of the

objective statement is the constraint. The constraint limits the objective in space or time or may limit the objective to specific variables. A complete monitoring objective might be:

“To determine + the effects of implementing conservation practices + on fecal coliform levels in Long Branch Lake.”

Most projects have multiple planning objectives and thus will have multiple evaluation objectives. Some evaluation objectives are dependent upon others. The relationships among objectives can be better understood by developing an objective tree. An objective tree displays all of the evaluation objectives in a hierarchical manner so that they may be prioritized. One way to develop an objective tree is to compare each objective to every other objective and in each case ask: “Does the achievement of objective A contribute directly to the achievement of objective B?” If the answer is “Yes” then B is dependent upon A and A must be completed before B. This can also be tabulated in an objective matrix. (Examples of both the objective tree and objective matrix with priorities determined are located at the end of this section).

Once evaluation objectives are established and prioritized, an action plan is developed to guide the evaluation efforts. The action plan should include a list of the information needed to satisfy each evaluation objective and the data needed to support the information. The action plan should also include a list of the tasks to be completed (including methodology), who is responsible for each task (including clients, contractors, NRCS, and other agencies), when the tasks are to be completed, and the estimated cost for completing the task. Once the action plan for the evaluation is completed, concurrence and needed approvals should be obtained from all the agencies and groups that will be participating in the evaluation. A good action plan will schedule periodic reports on the findings of the evaluation and recommend changes in the areawide plan as needed.

Often a considerable volume of data must be collected and analyzed before meaningful conclusions can be made. It is especially difficult and expensive to develop long-term water quality, habitat or natural resources data sets that establish cause and effect relationships. Therefore, it is essential that planners locate and evaluate all existing sources of information and clearly define precisely what information is needed before setting up their own monitoring program. The EPA, USGS, Corps of Engineers, USDA, universities, state and local agencies, and non-government organizations may all have land use and water quality information available in various forms. Public water supply districts sample their raw water on a regular basis and will generally make this information available. Information from stream teams and volunteer water quality Monitoring efforts may also be helpful in documenting improvements in natural resources conditions. Interpret existing data sets with caution considering the veracity of the source, the period of record, the intensity of sampling, and the resolution, accuracy and precision of the data. The best data sets include metadata (data about the data) that addresses many of these concerns. Collecting data is costly. Partnering with other agencies and groups, where possible, can minimize evaluation costs.

When monitoring is necessary, it pays to consult an expert. Many well-intentioned monitoring efforts have invested lots of money only to become data-rich but information-poor. The inherent variability in natural systems makes it difficult to establish reliable averages or trends much less detect effects of treatments in the watershed. A number of statistical tools and techniques are available to design monitoring programs that deliver the best return of information for the monitoring dollar invested. Variables must also be selected with care, as some are much less costly to monitor than others. Indicators derived from aquatic macroinvertebrate sampling, for example, reflect water conditions over the average life span of the organism. This information would give a more reliable picture of stream health than individual grab samples analyzed for chemical composition.

Areawide plans are often designed to influence social behavior and improve (or at least not damage) the economic well being of the stakeholders. Surveys may be conducted to measure changes in public perception, information and education accomplishments, and economic impacts resulting from plan implementation. For example, one objective might be *to compare knowledge and opinions of water quality issues in the watershed through surveys at the beginning, mid-point, and end of the project.* To accurately reflect the population sampled, surveys must be statistically sound. It's best to consult with an expert before a survey is undertaken.

Areawide management never ends. Conditions change, new opportunities arise, public support for particular project elements rise or fall, and additional planning elements are identified. Stakeholders must continually respond to these challenges, evaluate their areawide plan and modify it as necessary.

Example of Objective Tree and Objective Matrix:

In this example there are several project objectives, some rather broad and some more specific. All of the objectives are measurable as to their success. The matrix shows how they are interdependent and records the answers to the question does objective "A" impact objective "B"? Thus it leads to a conclusion about how they should be may ranked in priority. The objective tree also displays the hierarchy of these relationships. Failure to gain success in the top priority objectives will have a significant impact on overall project success.

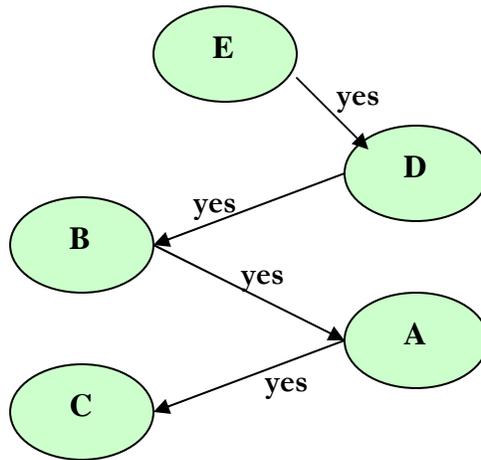
Objectives –

- A) Determine if conservation practices reduced eutrophication in Home Lake.
- B) Determine if conservation measures improved instream habitat conditions in the three streams flowing into Home Lake.
- C) Determine if project measures improved the fish diversity in Home Lake.
- D) Determine if conservation practices reduced in stream waters temperature
- E) Determine if riparian buffers reduced pollutants and sedimentation to the and Home Lake and adjacent waterways.

Table #4 – Objective Matrix

	A	B	C	D	E
A	-	YES	NO	YES	YES
B	NO	-	NO	YES	YES
C	YES	YES	-	YES	YES
D	NO	NO	NO	-	YES
E	NO	NO	NO	NO	-

Figure #4 Objective Tree - Hierarchy of objectives based upon impacts.



Does evaluation objective “x” impact objective “y”?

Evaluation objectives ranked in priority order due to their dependant relationships.

Table #5 – Objective Priorities

PRIORITY	OBJECTIVE
1	E
2	D
3	B
4	A
5	C

GENERAL RESOURCES

GENERAL RESOURCES

Resources for Areawide Planning

- **Support Materials**
- **Web Site Resources**
- **Further Reading**

Support materials

There are many publications available that can aid the areawide planning process:

The **Conservation Technology Information Center (CTIC)** has published a “Know Your Watershed” series, and offers an introductory guide “Getting to Know Your Local Watershed.” Other publications that CTIC has available for areawide planning are listed on Page 7 of their guide with instructions on how to order.

The **NRCS’ Social Sciences Institute (SSI)** published “The People, Partnerships and Communities Information Sheets Series” which provide guidance to the conservation partnership on effectively working with people and communities. Each information sheet covers one topic and answers the following 5 questions.

1. Why is the topic important?
2. Who benefits from the information?
3. When is the information useful?
4. How do you apply the information?
5. Where do you go to get more information?

Some topics include Running Effective Meetings, Listening Skills, and Creating Effective Relationships with the Media. The information sheets are posted on the SSI WEB site: <http://www.ssi.nrcs.usda.gov>

For a free catalog contact SSI at (616) 942-1503

Any or all of these publications and information sources could be added to this guide for personal reference.

Web site resources

FEDERAL AGENCIES

Natural Resources Conservation Service

<http://www.nrcs.usda.gov/>

Offers general information, program information, and technical resources.

Watershed Science Institute

<http://www.wcc.nrcs.usda.gov/watershed/>

Social Sciences Institute

<http://www.ssi.nrcs.usda.gov>

National Water and Climate Center

<http://www.wcc.nrcs.usda.gov/wcc.html>

Mission is "to lead the development and transfer of water and climate information and technology which support natural resource conservation."

National Water Quality Information Center

<http://www.nal.usda.gov/wqic/>

Offers electronic information about water quality and agriculture.

Stream Corridor Restoration Handbook

http://www.usda.gov/stream_restoration/newgra.html

A reference intended primarily for interdisciplinary teams responsible for planning, design, and implementation of stream corridor restoration projects. The reference may also be useful to others who are working in stream corridor restoration, including contractors, landowners, volunteers, individuals, and agency staff. The reference is intended to aid in developing stream corridor restoration projects.

Clean Water Initiative/ Clean Water Action Plan

<http://www.cleanwater.gov>

Offers information concerning development of the Plan, partners, and related links.

Watershed Academy

<http://www.epa.gov/OWOW/watershed/wacademy.html>

Offers training courses and publications in watershed management.

Nonpoint Source Pollution Control Program

<http://www.epa.gov/OWOW/NPS/>

Offers information about the Section 319 Program and other EPA NPS programs.

Surf Your Watershed Program

<http://www.epa.gov/surf/>

Helps you locate environmental information about your watershed.

Top 10 Watershed Lessons Learned

<http://www.epa.gov/owow/lessons>

Pollution Prevention Grants Homepage

<http://www.epa.gov/opptintr/p2home/>

Offers information about EPS's Pollution Prevention Grants Program.

US Geological Survey

<http://www.usgs.gov/>

U.S. Army Corps of Engineers

<http://www.usace.army.mil/>

STATE AGENCIES

State Government

<http://www.>

State Department of Conservation

<http://www.>

State Department of Natural Resources

<http://www.>

University of State

<http://>

NON-GOVERNMENT ORGANIZATIONS

Conservation Technology Information Center

Know Your Watershed Campaign

1220 Potter Drive, Room 170

West Lafayette, IN 47906

Voice: (317) 494-9555

Fax: (317) 494-5969

<http://www.ctic.purdue.edu/CTIC.html>

Offers a series of helpful guides on watershed partnerships. Features MAX program, Desmodema interactive water quality game, National Watershed Network, National Watershed Library. Free catalog covering crop residue management, nutrient and pest management, youth education, watershed management, agricultural and urban BMP's.

Izaak Walton League of America

Save Our Streams Program

707 Conservation Lane

Gaithersburg, MD 20878-2983

(800) BUG-IWLA

<http://www.iwla.org/sos/index.html>

Free catalog of books, videos, equipment, and workshops to help you monitor, protect, and restore streams.

Center for Watershed Protection

8391 Main Street

Elicott City, MD 21043

Voice: (410) 461-8323

Fax: (410) 461-8324

<http://www.cwp.org>

Offers workshops, publications, technical notes, and links. This is a good source of information for developing areas.

Leopold Center for Sustainable Agriculture

209 Curtiss Hall

Iowa State University

Ames, Iowa 50011-1050

Voice: (515) 294-3711

Fax: (515) 294-9696

<http://www.leopold.iastate.edu>

Offers free water cycle software, publications, competitive grants, and education programs.

NACD Net

<http://www.nacdnet.org/>

Offers information about NACD and conservation districts.

Soil and Water Conservation Society

<http://www.swcs.org/>

Offers books, publications, and membership information.

Water Environment Federation

<http://www.wef.org/>

A technical and educational organization supporting preservation and enhancement of the global water environment.

American Water Resources Association

<http://www.awra.org>

The mission of the American Water Resources Association is to promote understanding of water resources and related issues by providing a multidisciplinary forum for education, professional development and information exchange.

Adopt-A-Stream Foundation

<http://www.streamkeeper.org/>

Mission is "To empower people to become stewards of their watersheds"

Center for River and Stream Studies

<http://www.colostate.edu/Orgs/CRSS/>

Mission: research, education, and technology transfer. Objectives: Develop effective Public/Private partnerships for focused problem solving related to rivers and streams. Train personnel in science and engineering specialties to develop inter-disciplinary approaches for comprehensive stream system solutions

Further reading

Here are a few references regarding collaboration that the reader might wish pursue.

Making Collaboration Work, Julia M. Wondolleck and Steven L. Yaffee, Island Press, 2000.

The Deliberative practitioner, John Forester, MIT Press, 2000

Collaboration: A Guide for Environmental Advocates, Univ. of Virginia, June 2001.

EXHIBITS

A - Areawide Planning Activities Checklist

B - Example Watershed Survey / Questionnaire

C - Alternatives Analysis Worksheet & Definitions

Areawide Planning Activity Checklist

Pre-Planning:

Working with People

- Request for assistance received and underlying issue(s) reasonable and solvable with areawide planning
- Initial planning area boundary established
- Stakeholders identified
- Leader(s) and power actors identified
- Key roles and member identified (e.g. chairpersons, advisors, workers, staff)

Planning

Phase 1

1. Identify Problems and Opportunities

- Draft list of major problems (scoping) and opportunities created

2. Determine Objectives

- Major problems or opportunities restated as objectives

3. Inventory Resources

- Conditions needing to be inventoried identified including related ecological, social and economic factors
- Inventory techniques are selected and consistent with accuracy, available time, staff and funding
- Inventories conducted to determine current conditions and causes of impairment

4. Analyze Resources Data

- Existing conditions compared to Desired Future Conditions (DFCs) and Quality Criteria (QCs) and deficiencies and needs noted
- Causes of impairment validated
- At risk ecological, social and economic conditions and interactions with DFCs and QCs determined

Organization of People and Information

- Organizational structure (e.g., council, committees, subcommittees, teams) selected
- Logistics identified (e.g., meeting places, stakeholder contact methods, meeting management methods, documentation and community communication requirements)

Phase 2

5. Formulate Alternatives

- All reasonable, acceptable measures, practices, and management identified and clearly documented

6. Evaluate Alternatives

- Consistent evaluation of all alternatives made (effectiveness, profitability, acceptability, environmental impact, etc.)
- Documentation of effects on critical ecological, social and economic factors (NEPA requirements as applicable)

7. Make Decisions

- Select alternatives that meet objectives, DFCs/QCs and other criteria

Phase 3

8. Implement Plan

- Identify strategies and methods to carry out decision (e.g., information-education, financial assistance, technical assistance for consultation, regulatory)
- Develop schedule and carry out strategies

9. Evaluate Plan

- Determine application rate of decisions
- Determine achievement of DFCs/QCs
- Need for iterative planning and adaptive management determined

EXHIBIT B – Questionnaire for Scoping Area/Watershed Issues

WATERSHED AREA NATURAL RESOURCE SURVEY

1. Please rate the **FIVE** most important natural resource issues facing this watershed in the next decade. Rank them 1 to 5, with 1 being the most important, and 5, the least important.

- | | |
|---|---|
| <input type="checkbox"/> River channel maintenance | <input type="checkbox"/> Field drains(tile and open channel) |
| <input type="checkbox"/> Stream bank stabilization | <input type="checkbox"/> Air quality |
| <input type="checkbox"/> Noxious and invasive plants | <input type="checkbox"/> Flooding |
| <input type="checkbox"/> Loss of Wildlife habitat | <input type="checkbox"/> Erosion from construction activities |
| <input type="checkbox"/> Predator control | <input type="checkbox"/> Forest health |
| <input type="checkbox"/> Crop land erosion | <input type="checkbox"/> Ag land conversion to development |
| <input type="checkbox"/> Stream sediment | <input type="checkbox"/> Grazing land(loss of, or overuse of) |
| <input type="checkbox"/> Wetland protection | <input type="checkbox"/> Irrigation water management |
| <input type="checkbox"/> Gully erosion | <input type="checkbox"/> Trails-walking, ATV's, etc. |
| <input type="checkbox"/> Irrigation induced erosion | <input type="checkbox"/> Pest management (insects, rodents) |
| <input type="checkbox"/> Water conservation | <input type="checkbox"/> Riparian/stream corridor mgt. |
| <input type="checkbox"/> Water quality | <input type="checkbox"/> Storm water management |
| <input type="checkbox"/> Well head protection | <input type="checkbox"/> Threatened/Endangered species |
| <input type="checkbox"/> Septic tank management | <input type="checkbox"/> Water rights |
| <input type="checkbox"/> Absentee landowners | <input type="checkbox"/> Crop production |
| <input type="checkbox"/> Recreational impacts | <input type="checkbox"/> Specialty crops |
| <input type="checkbox"/> Pasture management | <input type="checkbox"/> Nutrient mgt.(i.e.-commercial fertilizer, or manure) |
| <input type="checkbox"/> Conflicts between Ag and urban | <input type="checkbox"/> Canal seepages and losses |
| <input type="checkbox"/> Threat from wildfires | |

2. Are there other concerns not listed, you would like to address and rank?

3. What specific areas of this watershed do you think is in need of natural resource conservation assistance? Or, just share any additional thoughts or comments you may have.

Thank you for sharing your opinion with us.
Please return the completed survey to:

Name:	Address:
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EXHIBIT C - Areawide Alternatives Evaluation Worksheet - Definitions

Ecological

Erosion, soil quality, sedimentation - The degree to which the action meets FOTG section III Quality criteria.

Pollutants- chemical, biological - The degree to which the action affects water quality, either surface or subsurface and meets FOTG section III Quality criteria.

Air quality- local, regional - The degree to which the action meets FOTG section III Quality criteria.

Habitat quality/connectivity - The degree to which the action affects habitat quantity and quality.

Coastal zone management areas - The degree to which the action is consistent with the State's Coastal Zone Management Plan.

Threatened-endangered species - The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Wetland, riparian, aquatic sites:

Wetlands - The degree to which the action affects wetland functions and values.

Riparian areas - The degree to which the action adversely affects long-term riparian area function and structure.

Special Aquatic Sites - The degree to which the action affects fish and wildlife sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffles and pool complexes. Except for wetlands, which are described in the Documentation Guides on "Wetlands," each special aquatic site is described in the following paragraphs in accordance with guidance for Federal agencies published in the Federal Register (Dec. 24, 1980, Vol. 45, No. 249, p. 85346, -48, -52, -53).

Channel modification - Whether the action involves stream channel modification. If so, policy found in GM 190, Part 410.27 must be followed. It is the policy of NRCS and USFWS that care and effort will be made to maintain and restore streams, wetlands, and riparian vegetation as functioning parts of a viable ecosystem upon which fish and wildlife resources depend. An interdisciplinary planning process will be used which will permit a balancing of the need to maintain a viable, naturally functioning ecosystem, projected food and fiber, economic, and other social needs. The application of these guidelines, resource inventory, interpretation, and planning assistance provided by NRCS and USFWS will ensure identification and consideration of alternatives to channelization. An EIS is required for: (1) projects that include stream channel realignment or work to modify channel capacity by deepening or widening where significant aquatic or wildlife habitat exists. The EE will determine if the channel supports significant aquatic or wildlife habitat (GM 190, Part 410.7). Channel realignment is defined in the General Manual 190, 410.4) as actions including the construction of a new channel or a new alignment and may include the clearing, snagging, widening, and/or deepening of the existing channel.

Economic

Land - The degree to which the action affects land value and productivity. Land is the basic unit of production. It is where crops are grown, livestock grazed and wildlife produced. Land is measured in acres (or hectares). Productivity on the land is measured as units of production (pounds, bushels, etc.). Farm machinery and structures are also included with land.

Labor - The degree to which the action affects the landowner's "ability to work" or hire "workers." Labor is measured in units of time (hours, years). Labor includes the landowner, family, hired help or other trained workers.

Capital - The degree to which the action affects the landowners "ability to pay" for farm or ranch improvements. Capital is a measure of the landowner's monetary assets (dollars), physical assets (land & machinery) their ability to borrow money (credit), obtain financial assistance (cost-share) or barter "goods and services".

Management level - The degree to which the action affects the land user's "knowledge, skills and ability" to operate the farm or ranch. The management level is measured in qualitative units of skill level.

Risk ; Uncertainty - The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

Profitability - The degree to which the action affects the relative benefits and costs of the farm or ranch operation, and is often measured in dollars. An activity is profitable if the benefits are greater than the costs.

Unique characteristics - Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas (CEQ)

Wild and Scenic River - The degree to which the action affects a designated wild and scenic river. A wild and scenic river is a free-flowing river or river-segment that has outstanding scenic, recreational, geologic, fish-and-wildlife, historic, archaeological, or other value. This type of river is designated by act of Congress (P.L. 90-542) or by the Secretary of the Interior as part of the National Wild and Scenic Rivers System. The designation of a river under the Wild and Scenic Rivers Act provides legal protections from adverse development and provides a mechanism for management of the river's resources. The principal effect of the Act is to preclude or to severely limit the construction of dams and other water resources projects that might affect the free-flowing character of the river and its associated resources.

Natural areas - The degree to which the action affects existing natural areas. Natural areas are defined as land and water units where natural conditions are maintained. Natural conditions result when ordinary physical and biological processes operate with a minimum of human intervention. Manipulations of natural areas may be needed to maintain or restore features where degradation of those natural features has occurred.

Prime and unique farmland - The degree to which the action adversely impairs the productive capacity of farmlands identified as prime and unique. NRCS shall consider alternative actions, as appropriate, that could lessen adverse effects; and assure that Federal

programs, to the extent practicable, are compatible with State, unit of local government, and private programs and policies to protect farmland.

Floodplain Management - The degree to which the action adversely affects floodplain function. The objectives of E.O. 11988 are to avoid, to the extent possible, the long- and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development where there is a practical alternative.

Social

Client/stakeholder acceptability- the degree to which the action is acceptable to the client. This should also include the effect on the application rate.

Precedent - the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Controversy - the degree to which the effects on the quality of the human environment are likely to be highly controversial.

Legal requirements - whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Public health and safety - the degree to which the proposed action affects public health or safety.

Scenic beauty - The degree to which the action affects the scenic beauty or the landscape. Scenic beauty is the perceived physical elements and processes of the landscape that have value for human use. Through proper planning, the landscape can be managed, allowing visual characteristics to be maintained or improved. NRCS will provide technical assistance with full consideration of alternative management and development systems that preserve scenic beauty or improve the landscape (GM 190 410.24). NRCS will emphasize the application of conservation practices having scenic beauty or landscape resource values particularly in waste management systems, field borders, field windbreaks, wildlife and wetland habitat management, access roads, critical area treatment: design and management of ponds, stream margins, odd areas, and farmsteads. Siting or positioning of structures and buildings will be in harmony with the landscape while reducing the potential for erosion. NRCS will use native and other adaptable plants for conservation which enhance scenic beauty and create variety while linking beauty and utility.

Environmental justice - The degree to which the action will exclude minority and low-income persons or groups from participation in, deny persons the benefits of, or subject persons to discrimination. This applies to NRCS programs, policies, and activities that substantially affect human health or the environment, because of their race, color, or national origin.

Cultural resources - The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

Exhibit C Alternatives Analysis Worksheet

A. Planning Unit/Setting:	B. Desired Future Conditions					C. Considerations																				F. Ranking of Alternatives							
						Entries in italics denote a concern with an underlying federal policy, act or requirement.																											
						1. Ecological										2. Economic						3. Social											
D. PROPOSED ACTIONS: List a concise description of each proposed alternative below. The 'No action' Alternative based on the projection of benchmark conditions is provided. Use additional worksheets as needed.	1	2	3	4	5	a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	a	b	c	d	e	f	g	h	i	
	E. Effects: "+2" meets threshold, "+1" beneficial but not meeting threshold, "0" no effect or n/a, "-1" some adverse effects, "-2" severe adverse																																
	<i>'No action' Alternative (benchmark/projection)</i>																																

Step 1: For the planning unit designated in part A (may be part or all of the planning area), enter the desired future conditions (DFC's) in part B based on objectives identified by the planning group. Modify or enter additional ecological, economic or social considerations as needed in part C (line through any consideration that repeats a listed DFC). In part E, rate the 'no action' alternative against thresholds (indicator target values, quality criteria, legal requirements, agency directives, etc.) established for the DFC's and other applicable columns to the right. Use values of +2 = meets or exceeds threshold, +1 = beneficial but not meeting threshold, 0 = no effect or not applicable, -1 = some adverse effects, -2 = severe adverse effects.

Step 2: For the planning unit, enter a concise description of each proposed "action" alternative in part D. In part E, rate each alternative against DFC's/thresholds for all columns to the right using the values of +2, +1, 0, -1 or -2 (assume the alternative is fully applied, functional and operating with other related and obvious foreseeable future actions). Short-term effects are rated and enclosed in parentheses in the same box. Using consensus or other approach, decision-makers may use block F to rank alternatives with special attention paid to both fully-functional and short-term effects and any alternative with -1 or -2 ratings in part E. To properly document the completed worksheet, attach the rationales or reasoning for the ratings given.

Appendix A – Various Tools , References for information and use as appropriate

Add others as appropriate for future reference and for your area...

Criteria for Designation as an Approved Areawide Plan

Checklist – Content for Watershed Plans (PL-566)

Prioritizing Issues or Concerns – Paired Comparison Technique

EPA – Handbook for Developing Watershed Plans to Restore and Protect our Waters – Appendix A (Resources)

Watershed Planning Guide- reference

Potential 1 page handouts that could be used in meetings, education:
watershed, prime ag land, landslides, wildlife habitat, floodplains, wildland fires, dam safety, cultural & historic resources

Using GIS Applications for Census Data in Watershed Analysis

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