



Wellhead Protection Area Management Planning Manual

A Community-based Approach to the Wellhead Protection Area
Management Planning Process in Nebraska

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Adapted from *United States Department of Agriculture Area-wide Planning Process* and *Stepping Toward Better Watershed Management in Nebraska: A Community Based Approach to the Watershed Management Planning Process*

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Printed in the United States on recycled paper with soy-based inks

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Supported by a CWA Section 319 Grant from the Nebraska Department of Environmental Quality Nonpoint Source Management Program

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Introduction

Groundwater is and will continue to be the source of drinking water for the vast majority of Nebraskans, and protection of this vital resource is becoming increasingly important. For example, expanding development may bring with it more potential sources of contamination, growing populations may stress the quantity of water available, and intensive agricultural practices may increase the need for more proactive management strategies. Whether faced with an existing impairment to the water source or seeking ways to prevent contamination, wellhead protection makes good economic and environmental sense.

Wellhead Protection is a voluntary program in Nebraska. Public Water Supply Systems (PWSSs) in Nebraska have the option of developing a Wellhead Protection Plan. The plan is generally written by a local community official or a technical advisor and provides the PWSS with a detailed account of the potential threats to the system and general management strategies, including ordinances related to wellhead protection.

This process includes five steps:

1. Delineate the Wellhead Protection Area (WHPA).
2. Inventory potential sources of contamination.
3. Manage potential contaminant sources.
4. Develop emergency and contingency plans.
5. Educate and involve the public.

Wellhead Protection Area Management is the next step communities should take after developing a wellhead protection plan that has been formally approved by the Nebraska Department of Environmental Quality. In order for a management program to be successful, it must be locally-driven and thoughtfully planned out. The management program must also identify management strategies that will have the greatest effect on reducing the threat of contamination of the water source.

The Community-based Wellhead Protection Area Management Planning Process is a series of steps that a community may follow to take their drinking water resource protection efforts to the next level – a results-oriented level – by identifying and implementing specific, customized management strategies within their wellhead protection area. Technical experts will be included throughout the process to provide community members the information they need to make good management decisions for their wellhead protection area and, in turn, groundwater supply.

This manual is intended to be used as a step-by-step guide to completing the Wellhead Protection Area Management Planning Process. It has been written specifically for community PWSSs that use groundwater as their primary source, have a state-approved Wellhead Protection Plan, and are ready to begin the implementation phase of on-the-ground protection.

This manual has been written in chronological order and divided into two phases – Pre-planning Activities and Planning Activities. One individual will be the coordinator of this process, but it will be a community effort. This coordinator should be someone who will be present during all phases of the process, which may take up to one year. At the completion of the process, the PWSS will have a complete Wellhead Protection Area Management Plan, outlining specific actions that will be taken over time to protect the water source. This plan may also be used as the basis for applications to a variety of grant programs to receive funding to implement the identified activities and land management practices.

The manual may also be used as a guide for community PWSSs that have not yet developed a state-approved Wellhead Protection Plan, but are interested in doing so utilizing a community-based process. For more information about developing a state-approved wellhead protection plan or a wellhead protection area management plan, contact the Nebraska Department of Environmental Quality's Water Quality Planning Unit at (402) 471-2186.

Instructions

There are two entities that need to be identified before beginning the Wellhead Protection Area Management Planning Process - the Sponsor and the Process Coordinator. The Sponsor is the local governing body, agency, organization, or group that has a direct interest in the process and authority over the PWSS - usually the municipal government. The Process Coordinator is an individual, usually an employee of the Sponsor, who takes responsibility for overseeing the process and development of the Wellhead Protection Area Management Plan. The Process Coordinator is responsible for understanding the contents of this manual and filling out or compiling the materials needed to prepare a Wellhead Protection Area Management Plan. Generally, unless otherwise specified, all instruction throughout this manual is directed towards the Process Coordinator.

- ✓ Insert this manual into a three-ring binder, with the tabbed dividers in the front. These tabbed dividers are the beginning of your Wellhead Protection Area Management Plan.
- ✓ Throughout the manual, there are several pages for you to fill out and incorporate into the corresponding section in the tabbed portion of this manual. Completing these pages and transferring them to the tabbed section will lead to the completion of your Wellhead Protection Area Management Plan.
- ✓ As other steps are completed, you will be instructed to incorporate additional information into the Plan, such as maps, meeting notes, etc.
- ✓ This manual often refers to optional materials that have already been inserted into the tabbed sections of the plan. For example, an educational brochure is included behind the “Educational Information” divider. You can use or refer to these materials during the process, if you like.
- ✓ Once a committee is established, most tasks associated with this process may be delegated to members of the committee. It is up to you, the Process Coordinator, to delegate tasks that you are unable to do or feel would be better accomplished by someone else.
- ✓ Fill in the blanks on the following page with the PWSS information, Sponsor information, and Process Coordinator information. Insert this sheet in the cover of your binder.
- ✓ Fill in the blanks on the timeline on the following page with expected dates or date ranges for each of the described tasks. Insert the draft timeline behind the “Timeline” divider in the front of your binder.

Wellhead Protection Area Management Plan

PWSS Name: _____

HHSS PWS ID#: NE _____

SPONSOR

Name: _____

Affiliation: _____

Address: _____

Phone: _____

Fax: _____

Website: _____

E-mail: _____

The Sponsor understands and supports the efforts of the Process Coordinator to employ the community-based process in developing a Wellhead Protection Area Management Plan to protect the groundwater resource for the Public Water Supply System identified above.

Sponsor Representative Signature

PROCESS COORDINATOR

Name: _____

Affiliation: _____

Address: _____

Phone: _____

Fax: _____

Website: _____

E-mail: _____

The Process Coordinator takes responsibility for leading the community-based process in developing a Wellhead Protection Area Management Plan to protect the groundwater resource for the Public Water Supply System identified above.

Process Coordinator Signature

Draft Timeline

Community-based Approach to the Wellhead Protection Area Management Planning Process

Duration	Target Date(s)	Task to Complete
Months 1-3	_____	Pre-planning Activities
Month 1	_____	Recognize the Need for Further Management of the Resource
	_____	Identify the Sponsor, Process Coordinator, and Primary Technical Advisor
	_____	Find & Review the PWWs State-Approved Wellhead Protection Plan
Months 1-2	_____	Organize a Pre-planning Committee
Month 2	_____	Hold the First Pre-planning Committee Meeting – Identify Issues and Concerns, Gather Existing Information, Identify Public Information Activities, Identify Technical Advisory Team, Compile List of Stakeholders
Months 2-3	_____	Hold the Second Pre-planning Committee Meeting – Share Progress on Delegated Tasks, Identify Data and Information Gaps, Plan First Public Meeting
Months 3-10	_____	Community-Based Planning Process
Months 3-4	_____	Step #1 – Hold the First Public Meeting
Month 4	_____	Step #2 – Hold Planning Committee Meeting #1 – Analyze Existing Information, Confirm Issues or Concerns
Month 5	_____	Step #3 – Hold Planning Committee Meeting #2 – Formulate Strategies
Month 5	_____	Step #4 – Hold Planning Committee Meeting #3 – Evaluate and Select Strategies

Duration	Target Date(s)	Task to Complete
Month 6	_____	Step #5 – Develop a Draft Wellhead Protection Area Management Plan
Months 7-8	_____	Step #6 – Hold Planning Committee Meeting #4 – Review the Draft Plan and Plan the Second Public Meeting
Months 8-9	_____	Step #7 – Hold the Second Public Meeting – Present the Draft Wellhead Protection Area Management Plan
Months 9-10	_____	Step #8 – Finalize the Wellhead Protection Area Management Plan
Ongoing After Month 10	_____	Implement the Wellhead Protection Area Management Plan – Evaluate Implementation and Impacts; Celebrate as Milestones are Reached

Pre-planning Activities

The pre-planning process will likely take around three months. The good news is, you've probably already completed the first three steps; by requesting and reading this manual, you have recognized a need for management of your wellhead protection area and groundwater resource, you've identified yourself as the Process Coordinator and your employer will most likely be the Process Sponsor.

Following are the basic steps involved in getting organized for a smooth planning process. It may work best to follow these steps in order, but it is not necessary. Additional steps are described in further detail on the following pages.

- ✓ Recognize the need for further management of the resource.
- ✓ Identify the Sponsor.
- ✓ Identify the Process Coordinator.
- ✓ Find and review the PWSS's state-approved Wellhead Protection Plan.
- ✓ Identify a Primary Technical Advisor.
- ✓ Organize a Pre-planning Committee.
- ✓ Hold the first Pre-planning Committee meeting including the Primary Technical Advisor.
- ✓ Hold the second Pre-planning Committee meeting including the Technical Advisory Team.

Recognize the Need for Further Management of the Resource

Regardless of the source of water, every public water supply system needs protecting. Regardless of whether the water is being treated, the wells are brand new, or there are no existing potential sources of contamination in the wellhead protection area, every public water supply system will benefit from a good management plan to protect the water source for the future. By committing to the Wellhead Protection Area Management Planning Process, you are recognizing the need to protect your drinking water source now and in the future.

Identify the Sponsor

The Sponsor is a unit or sub-unit of government, non-profit organization, or other group of people who have a direct interest in the process, usually the governing body of the PWSS. If a grant is applied for to implement activities to protect the water source, the Sponsor will likely be the applicant. Before moving forward with the community-based wellhead protection planning approach, the Sponsor must endorse the project.

Identify the Process Coordinator

Usually an employee or affiliate of the Sponsor, the Process Coordinator is a person who will be a regular member of the Wellhead Protection Area Management Planning Committee, has considerable interest in the planning process, and has time to oversee preparation for the events and prepare the final written Wellhead Protection Area Management Plan.

For more information see
*Roles and Responsibilities:
Wellhead Protection Area
Management Planning Process* in
the “Contact Information”
section of your binder.

Find and Review the Public Water Supply System’s State-Approved Wellhead Protection Plan

For the Community-based Wellhead Protection Area Planning Process to be successful, it is best to first have a completed and state-approved Wellhead Protection Plan. Assuming you already have a state-approved plan, you will need to have the plan readily available and update it, if necessary.

- ✓ In the tabbed section of your binder titled “Background Information”, you should insert the essential information from your Wellhead Protection Plan, including but not limited to a map of the wellhead protection area, summaries of any existing ordinances that relate to wellhead protection, and a map of potential sources of contamination, if available.

If you need a copy of your current wellhead protection area map or to get an updated map, contact the Nebraska Department of Environmental Quality at 402-471-2186; they can also provide you with a poster-sized map to display at public meetings.

Identify the Primary Technical Advisor

The Primary Technical Advisor is a person that will be on the Technical Advisory Team and is available between meetings to relay concerns, progress, and future commitments to the other team members. The Primary Technical Advisor helps facilitate the Wellhead Protection Area Management Planning Process and emphasizes the benefits of working together to accomplish the process’s objectives. This person is often someone from the local Natural Resources District, Nebraska Rural Water Association, University of Nebraska-Lincoln Extension, or another regional natural resource organization. The Primary Technical Advisor must agree to commit to this process from beginning to end.

Organize a Pre-planning Committee

The Pre-planning Committee usually consists of three to five individuals who have a stake in the Wellhead Protection Area Management Planning Process and are willing to be the primary decision makers who complete the pre-planning process. They understand the value of the planning process and are able to inform and motivate others to give their time and talent to the process. Often these individuals end up serving other roles later on in the process.

- ✓ As you organize and secure volunteers to be on the Pre-planning Committee, use the following pages to record the Pre-planning Committee members’ contact information and insert the pages behind the “Contact Information” tab in your binder. Copy additional blank pages as needed.

Pre-Planning Committee

Contact Information

Process Coordinator

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Primary Technical Advisor

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

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Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Hold the First Pre-planning Committee Meeting with the Primary Technical Advisor

The Process Coordinator, Primary Technical Advisor, and the Pre-planning Committee will participate in a brainstorming session to identify all potential issues and concerns relating to the community's water resource, identify all existing information useful to the process, determine a method for informing the public about the Community-based Wellhead Protection Area Management Planning Process, identify desired members of the Technical Advisory Team, and make a list of all stakeholders in the process.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.

Identify Issues and Concerns

Brainstorm any current, potential, or historical threats to the water source. You do not need to discuss solutions or prioritize issues at this point.

- ✓ Write down all identified issues and concerns; you can use the table on the following page, if you like. File this page behind the "Issues or Concerns" tab in your binder.

Issue or Concern	Category of Need			
	Quality	Quantity	Security	Education
High Nitrates	X			X
Lack of consumer knowledge of WHP				X
Ag production methods in the WHPA	X	X		X
No meters		X		X
No fencing around wells or water tower			X	
Use of fertilizers in town	X			
Excessive lawn watering in town		X		
Septic systems	X			
Outdated Contaminant Source Inventory	X			X
No WHPA signage	X		X	X
Declining water levels		X		X
Household hazardous wastes	X			
Leaks in the distribution system	X	X		
Junk automobiles	X			X

Gather Existing Information

You should already have the Wellhead Protection Plan for your system; this will include the map of the Wellhead Protection Area and the Contaminant Source Inventory, two of your greatest tools. Make sure that everyone on the Pre-planning Committee is familiar with the Wellhead Protection Area and Wellhead Protection Plan.

Discuss what other existing information would be useful to the process and delegate the gathering of this information. Desirable information will include but not be limited to: current land use maps, water testing results, soil sampling results, zoning jurisdiction maps, etc. For a list of potential information resources, see the “Background Information” section of your binder.

- ✓ Include in the meeting notes what information is to be gathered and who is taking responsibility for gathering each item.
- ✓ If the map and/or Contaminant Source Inventory need to be updated, decide who will take responsibility for getting them updated. If you need to get an updated map, contact the Nebraska Department of Environmental Quality at 402-471-2186; they can also provide you with a poster-sized map to display at public meetings.

Identify Public Information Activities

The community should be given some introductory information about the Community-Based Wellhead Protection Area Management Planning Process and a “heads-up” on what to expect in the future. Information may be distributed through a local newspaper, radio station, direct mail, website, e-mail, etc. A sample brochure is included in the “Public Information” section of your binder that may be reproduced for this purpose. Also included in this section is a *Groundwater and Wellhead Protection Area Information* sheet and a worksheet you can use to organize all your public information activities.

- ✓ Decide how information will be distributed to the public and identify the date(s) by which information will be distributed.
- ✓ Identify individuals to prepare and distribute specific public information materials and conduct specific public information activities.
- ✓ Insert copies of all the public information materials developed as part of this process in the “Public Information” section of your binder.

Identify Technical Advisory Team

The Technical Advisory Team is made up of subject-area specialists from public agencies and private organizations that are willing to work with and support the Planning Committee as they develop a Wellhead Protection Area Management Plan. The Technical Advisory Team helps identify issues and concerns, develop strategies and assess the effects of particular strategies on the area and on the area’s people. For a list of potential resource groups, see the “Contact Information” section of your binder.

- ✓ Identify individuals with technical knowledge in the desired subject matters.
- ✓ Delegate someone to contact and request these individuals’ support and cooperation as Technical Advisory Team members.
- ✓ Use the table on the following page to record the Technical Advisory Team members’ contact information. Insert this page into your binder behind the “Contact Information” tab.

Technical Advisory Team

Contact Information

Primary Technical Advisor

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

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Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Compile a List of Stakeholders

A stakeholder is anyone who has an interest in and may be affected by actions recommended in the Wellhead Protection Area Management Plan. Broadly defined, this will include everyone who lives or works in the Wellhead Protection Area and the associated community of customers served by the PWSS.

Potential stakeholders include but are not limited to:

- Landowners
 - Farmers
 - Water system customers
 - City officials
 - Business owners
 - School teachers
 - Chamber of Commerce
 - Civic associations
 - Boy and Girl Scouts, other youth organizations
 - High School clubs and organizations
 - Farm groups
 - Media
-
- ✓ Use the table on the following page to record the stakeholders' contact information (duplicate as needed) and move to the "Contact Information" section of your binder. Create an electronic database of contacts that you will use for future mailings and revise as additional stakeholders are identified. Portions of this task may need to be delegated in order to get a complete mailing list of all potentially interested individuals and groups in the community.
 - ✓ Review the action items that need to be completed before the next Pre-planning Committee meeting and who is responsible for completing them.
 - ✓ Schedule the next Pre-planning Committee meeting to be held in approximately one month.
 - ✓ File the meeting notes behind the "Meetings" tab of your binder.
 - ✓ Make the meeting notes available to the Pre-planning Committee. For example, the notes could be sent along with a reminder to attend the second Pre-planning Committee meeting.

Stakeholder

Contact Information

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

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Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Hold Second Pre-Planning Committee Meeting with the Technical Advisory Team

This meeting will include the Process Coordinator, Primary Technical Advisor, the Pre-planning Committee, and the Technical Advisory Team. The main purpose of this meeting is to finish compiling all existing information, identify areas where there is no existing information, and plan the first public meeting. Begin the meeting by having everyone introduce themselves and summarizing the notes from the first meeting.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.

Share Progress on Delegated Tasks

By this meeting, the public should have been made aware of the process, all the basic existing background information on the water source should be gathered, and there should be a complete mailing list compiled of all stakeholders.

- ✓ Review the list of action items from the first meeting and get an update on each from the committee member responsible for that item.

Identify Data and Information Gaps

- ✓ Ask the Technical Advisory Team to identify any areas in which more information is needed. This could include water quality data, soil data, agricultural practices in the area, etc. If there is a need for more research to be done, delegate those responsibilities to members of the Pre-planning Committee or Technical Advisory Team. You may use the table on the following page to identify specific data and information gaps and record who is responsible for researching each; file in the “Background Information” section of your binder.

Confirm/Revise Timeline for Planning Process

- ✓ If the timeline needs to be changed, complete the revised timeline following the “Additional Data and Information” sheet and include it in the “Timeline” section of your binder.

Additional Data and Information

Check the item and name the person responsible where needed

Data and Information Gaps	Person Responsible
<input type="checkbox"/> Current Land Use Maps	
<input type="checkbox"/> Water Quality Data (e.g., water testing results)	
<input type="checkbox"/> Water Quality-related Information (e.g., past drinking water quality violations, if any)	
<input type="checkbox"/> Soil Sampling Results	
<input type="checkbox"/> Soil Types	
<input type="checkbox"/> Zoning Jurisdiction Maps	
<input type="checkbox"/> Agricultural Best Management Practices	
<input type="checkbox"/> Urban Best Management Practices	
<input type="checkbox"/> Future Land Use (e.g., housing development)	
<input type="checkbox"/> Threatened and Endgangered Species	
<input type="checkbox"/> Nutrient and Pesticide Application within the Wellhead Protection Area	
<input type="checkbox"/> Existing Laws/Ordinances/Zoning	
<input type="checkbox"/>	

Revised Timeline

Community-based Approach to the
Wellhead Protection Area Management Planning Process

Duration	Target Date(s)	Task to Complete
Months 1-3	_____	Pre-planning Activities
Month 1	_____	Recognize the Need for Further Management of the Resource
	_____	Identify the Sponsor, Process Coordinator, and Primary Technical Advisor
	_____	Find & Review the PWWs State-Approved Wellhead Protection Plan
Months 1-2	_____	Organize a Pre-planning Committee
Month 2	_____	Hold the First Pre-planning Committee Meeting - Identify Issues and Concerns, Gather Existing Information, Identify Public Information Activities, Identify Technical Advisory Team, Compile List of Stakeholders
Months 2-3	_____	Hold the Second Pre-planning Committee Meeting – Share Progress on Delegated Tasks, Identify Data and Information Gaps, Plan First Public Meeting
Months 3-10	_____	Community-Based Planning Process
Months 3-4	_____	Step #1 – Hold the First Public Meeting
Month 4	_____	Step #2 – Hold Planning Committee Meeting #1 – Analyze Existing Information, Confirm Issues or Concerns
Month 5	_____	Step #3 – Hold Planning Committee Meeting #2 – Formulate Strategies

Duration	Target Date(s)	Task to Complete
Month 5	_____	Step #4 – Hold Planning Committee Meeting #3 – Evaluate and Select Strategies
Month 6	_____	Step #5 – Develop a draft Wellhead Protection Area Management Plan
Months 7-8	_____	Step #6 – Hold Planning Committee Meeting #4 – Review the Draft Plan and Plan the Second Public Meeting
Months 8-9	_____	Step #7 – Hold the Second Public Meeting – Present the draft Wellhead Protection Area Management Plan
Months 9-10	_____	Step #8 – Finalize the Wellhead Protection Area Management Plan
Ongoing After Month 10	_____	Implement the Wellhead Protection Area Management Plan - Evaluate Implementation and Impacts; Celebrate as Milestones are Reached

Plan the First Public Meeting

The purpose of the first public meeting is to inform the public and stakeholders of the benefits of wellhead protection area management and the effect maintaining the status quo could have on the wellhead protection area and the community. This meeting is intended to evoke public interest and participation by providing general descriptions of issues and opportunities associated with the wellhead protection area. Use this meeting as an opportunity to create awareness and spark common interest in the wellhead protection area throughout your community. This meeting will begin addressing possible solutions by first defining the problems and priorities. This is the first time most members of the community will be together to consider the condition and future of their drinking water source, so get a feel for attitudes of the community regarding the wellhead protection area. It is particularly important to develop an agenda, so the first interaction with the public is organized.

- ✓ Choose a date and time for the meeting.
- ✓ Identify potential locations for the meeting.
- ✓ Discuss and select methods to promote the meeting. Recommendations for meeting promotion, along with sample promotional materials, are in your binder behind the “Meetings” tab.
- ✓ Identify someone to facilitate the meeting. In many cases, the Process Coordinator, Primary Technical Advisor, or other member of the Pre-planning Committee may have the skills and be willing to serve as a meeting facilitator; however, some may feel more comfortable working with a facilitator from outside the immediate planning process.
- ✓ Complete the schedule of tasks on the following pages, assigning roles to members of the Pre-planning Committee and/or Technical Advisory Team. The Process Coordinator will need to follow up on tasks to make sure they are getting done on schedule.
- ✓ Photocopy the complete schedule and distribute to all in attendance. Include a copy in the “Meetings” section of your binder.
- ✓ Write the draft agenda for the first public meeting. Below is a sample agenda; you can use it as a model in creating your own agenda from the template on the following page.
- ✓ File the meeting notes behind the “Meetings” tab of your binder.

WELLHEAD PROTECTION AREA MANAGEMENT MEETING

Public Meeting Hall, Community, NE
September 20, 2008, 5:30 p.m. – 8:00 p.m.

5:30	Meal Served	
6:15	Welcome / Planning Process Overview / Meeting Purpose	<i>Process Coordinator</i>
6:30	Confirm WHPA Issues and Concerns	<i>Technical Advisory Team</i>
7:30	Develop a WHPA Vision Statement	<i>Process Coordinator</i>
7:45	Discuss the Role of the Management Planning Committee	<i>Process Coordinator</i>
8:00	Final Questions and Comments	<i>Process Coordinator</i>

Agenda Template

First Public Meeting

Wellhead Protection Area Management Meeting

Location: _____

Date: _____

Time (beginning and ending): _____

Time	Agenda Item	Person Leading Agenda Item
_____	Meal Served (Optional)	_____
_____	Welcome, etc.	_____
_____	Confirm WHPA Issues and Concerns	_____
_____	Develop a WHPA Vision Statement	_____
_____	Discuss the Role of the Management Planning Committee	_____
_____	Final Questions and Comments	_____
_____	Adjourn	_____

Planning Checklist

First Public Meeting

Two Months Prior to Meeting	Person Responsible	Date Completed
Reserve a meeting room. The room should have adequate space for the number of people expected to attend. Rooms too large or too small tend to create an overwhelming or a cramped feeling; both discourage conversation and comfort.		
Prepare a draft meeting agenda, featuring the date, location, and time of the meeting, along with topics and speakers.		
Identify and secure a facilitator; if the facilitator is from outside your Pre-planning Committee or Technical Advisory Team, make them aware of the work done so far, along with the scope and direction of the process. Send the facilitator a copy of the draft agenda for review. The facilitator may provide recommendations on room set up, ice breakers, and activities to identify area issues and concerns, and develop a vision statement. Incorporate the facilitator's recommendations into the agenda before it is finalized.		
Prepare promotional materials, such as news releases, e-mails, flyers, posters, and personal invitations (e.g., letter with agenda, letter with brochure). Recommendations for meeting promotion, along with sample promotional materials, are in your binder behind the "Meetings" tab. Send draft copies of the promotional materials to the Pre-planning Committee and Technical Advisory Team for review. Incorporate their recommendations into the promotional materials before they are finalized.		
Begin general promotion of the meeting as soon as the materials are finalized. General promotion includes sending news releases, publishing articles and advertisements in newspapers and newsletters, making announcements and doing interviews on the radio, putting up posters, distributing flyers, and giving presentations about the process.		

At Least One Month Prior to Meeting	Person Responsible	Date Completed
The Process Coordinator and Primary Technical Advisor finalize the meeting agenda. Some details of the meeting may still change but the date, location, time, topics, and major speakers should be finalized.		
Send a personal letter to all stakeholders informing them about the process and inviting them to the meeting.		
Promote the meeting as much as possible. Solicit volunteers from the Pre-planning Committee and Technical Advisory Team to help with all promotion efforts. For additional promotion ideas, see <i>Promoting a Public Meeting</i> in the “Meetings” section of your binder.		
Offer Pre-planning Committee and Technical Advisory Team members the opportunity to set up a display or other media at the meeting. Displays and other media (e.g., wellhead protection area map, groundwater flow model) give attendees an opportunity to better understand area issues and concerns, along with available programs and resources to address these concerns.		
Three Weeks Prior to Meeting	Person Responsible	Date Completed
Make personal phone calls to ask stakeholders if they received their invitation to the meeting and if they have any questions about the process or the meeting. During the call emphasize that the stakeholder’s input is very important to developing a wellhead protection area management plan that is both protective of the community’s drinking water supply and acceptable to the community. End the call by asking if the stakeholder plans to attend the meeting. Be sure to solicit volunteers from the Pre-planning Committee and Technical Advisory Team to help make the calls.		
Secure a meeting host (optional). The facilitator will guide the meeting; however, at the first meeting it may be more welcoming to the stakeholders if someone they know (or know of) opens the meeting, introduces speakers, and closes the meeting. A volunteer from the Technical Advisory Team or the Pre-planning Committee, such as the committee chair or mayor, may serve as host.		
Call to confirm meeting room reservations for the appropriate number of people.		

Two Weeks Prior to Meeting	Person Responsible	Date Completed
Continue general promotion of the meeting by putting up posters, publishing articles and advertisements in newspapers and newsletters, making announcements and doing radio interviews, putting up posters, distributing flyers, and giving presentations about the process.		
Prepare for any presentations that may require special equipment, such as a laptop computer, PowerPoint®, LCD projector, overhead projector, DVD player, flip chart, note paper, writing utensils, etc. Make arrangements to have the equipment at the meeting. NOTE: this also provides an opportunity to touch base with all speakers.		
In consultation with the Pre-planning Committee and Technical Advisory Team members, set the tentative date for the second public meeting. This gives everyone involved with the planning process an early opportunity to clear that date on their schedules.		
One Week Prior to Meeting	Person Responsible	Date Completed
Mail a meeting reminder to key stakeholders; a personal postcard featuring the meeting logistics is most effective.		
One-Two Days Prior to Meeting	Person Responsible	Date Completed
Call key stakeholders to remind them of the meeting and that their input is vitally important to developing a wellhead protection area management plan that is both protective of the community's drinking water supply and acceptable to the community. End the call by asking if the stakeholder plans to attend the meeting.		
Continue to promote the meeting through general advertising, such as newspaper and radio announcements.		
Prepare copies of the agenda to hand out to attendees. Photocopy the sign-in sheet.		
Prepare suggestions for the next meeting's agenda.		
Decide who will be responsible for taking notes during the meeting.		

Day of the Meeting / Set-up	Person Responsible	Date Completed
<p>Set up the meeting room. Everything, including the chairs, display(s), equipment, and food (if you are serving a meal), should be in place before the stakeholders arrive. To make sure stakeholders understand that they are the focus of this meeting, seat the Technical Advisory Team members and visitors at the sides or back of the room, not at the front.</p>		
<p>Set out sign-in sheets and pens so stakeholders can provide their contact information as they enter the meeting room. Following this checklist is a sample sign-in sheet; you may copy and use it for this meeting. Setting out multiple sign-in sheets means people do not have to wait in line to sign in. By providing their contact information, meeting attendees can receive information about future meetings directly through personal phone calls, invitation letters, or e-mail.</p>		

Meeting Date/Time: _____

Location/Host: _____

Page ___ of ___

WHPA Meeting Sign-in Sheet

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please contact me about future meetings by (mark one): e-mail phone US mail

Planning Activities

Below is a general overview of the planning steps that are about to take place now that the pre-planning activities have been completed. The timeline in your binder outlines how long each step usually requires. Please refer to the timeline periodically to help stay on schedule.

1. Hold the First Public Meeting - Introduce the process to stakeholders; discuss and prioritize issues and concerns.
2. Hold Planning Committee Meeting #1 - Analyze existing information, confirm issues and priorities.
3. Hold Planning Committee Meeting #2 - Formulate strategies.
4. Hold Planning Committee Meeting #3 – Evaluate and select strategies.
5. Develop a Draft Wellhead Protection Area Management Plan.
6. Hold Planning Committee Meeting #4 – Review draft plan, plan the second public meeting.
7. Hold the Second Public Meeting - Present the Draft Wellhead Protection Area Management Plan.
8. Finalize the Wellhead Protection Area Management Plan.
9. Ongoing - Implement the Wellhead Protection Area Management Plan.

Step #1 - Hold the First Public Meeting

The Purpose: After completing the pre-planning activities, you should be ready for the first public meeting. The purpose of the first public meeting is to inform the public and stakeholders of the benefits of wellhead protection area management and the effect maintaining the status quo could have on the wellhead protection area and the community. This meeting is intended to evoke public interest and participation by providing general descriptions of issues and opportunities associated with the wellhead protection area. All members of the Pre-planning Committee and Technical Advisory Team should be at the meeting and encouraged to mingle with attendees. During the meeting, stakeholders will be asked to brainstorm the issues and their concerns, prioritize the issues and their concerns, and develop a vision for the wellhead protection area.

One of the last agenda items for this public meeting will be to ask for volunteers from the community to serve on the Planning Committee for the development of the Wellhead Protection Area Management Plan. Volunteers must agree to attend the four Planning Committee meetings, the second Public Meeting, and may be asked to help out on other tasks throughout the process. For more information about the Planning Committee's role, see *Roles and Responsibilities: Wellhead Protection Area Management Planning Process* in the "Contact Information" section of your binder.

During the Meeting

- ✓ Record and save all the ideas from the meeting so notes of the meeting can be made available afterward.
- ✓ Welcome everyone and make sure everyone has signed in. Provide an overview of the Wellhead Protection Area Management Planning Process; offer copies of the Community-based Wellhead Protection Area Management Planning Process timeline or brochure. Outline the purpose and desired outcomes for the meeting, which are to:
 - introduce meeting participants to each other,
 - confirm wellhead protection area issues and concerns,
 - develop a vision statement,
 - form a planning committee, and
 - ask questions.

All of these activities will be accomplished by the end of the meeting. Stress that questions are welcomed at any time during the meeting, but that time has also been time set aside specifically for questions at the end of the meeting.

- ✓ Introduce the Pre-planning Committee and Technical Advisory Team.
- ✓ Confirm wellhead protection area issues and concerns. Members of the Technical Advisory Team can provide information on the quality of local groundwater supplies, the community's PWSS's compliance with Safe Drinking Water Act (SDWA) standards, past wellhead protection efforts, existing protection and management activities, and the cost and benefits of management as compared to treatment. Write the information on flip charts or a chalkboard so everyone can refer to the information throughout the discussion; speakers may also provide handouts.
- ✓ Develop a wellhead protection area vision statement to describe in objective terms the concerns associated with the wellhead protection area. The statement should be short but adequately reflect the overall concerns within the wellhead protection area and the need for the Wellhead Protection Area Management Planning Process.

Example: Our wellhead protection area is a critical part of the overall quality of life in our community and will be innovatively and economically managed and locally controlled to benefit the needs of the community's water supply and its customers, area landowners, agriculture interests, business interests, and water quality.

- ✓ Discuss the role of the Planning Committee and give instruction on how volunteers may sign up to serve on the committee. Use the table on the following page to record the Planning Committee members' contact information after the meeting.
- ✓ At the very end of the meeting, review the tentative date, time, and place of the next meeting so participants can clear that date on their schedule if they want to attend.
- ✓ Ask for additional questions and/or comments.

After the Meeting

- ✓ Add the contact information from the sign-in sheets to your database of contacts.
- ✓ Prepare meeting notes to hand out at the second public meeting to refresh the memories of the returning stakeholders and inform new individuals attending the meeting. These notes may also be distributed to the Planning Committee at their first meeting.
- ✓ Gather all information from the meeting, including meeting notes and handouts to file in your binder behind the "Meetings" tab.

Planning Committee

Contact Information

Process Coordinator

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Primary Technical Advisor

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Name: _____ Phone: _____

Interest/Affiliation: _____ E-mail: _____

Mailing Address: _____

Step #2 - Hold Planning Committee Meeting #1 , Analyze Existing Information

Approximately 2-3 weeks after the first public meeting will be the first meeting of the Planning Committee and Technical Advisory Team. The purpose of this meeting is to acquaint the Planning Committee and Technical Advisory Team and to bring everyone up to speed on what is known about the current situation. The conclusions drawn from analyzing the information gathered in the pre-planning phase, including the potential contaminant source and land use inventories, will provide information on the current state of the wellhead protection area. The Technical Advisory Team will be asked to participate in this and all future Planning Committee meetings. For this meeting, the Technical Advisory Team will be asked to provide expertise on the most prevalent and threatening existing or potential sources of contamination.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.
- ✓ Have everyone in attendance introduce themselves and state their interest in wellhead protection for your community.
- ✓ Make a formal list of the issues and concerns accompanied by their related objectives. Decide on a method of prioritizing the issues (e.g., high, medium, low). Use the form on the following page to prioritize the issues; once completed, insert this page into your binder behind the “Issues or Concerns” tab.
- ✓ If there are still gaps in data and information at this time, this lack of data and information should be listed as an issue or concern on this form, with the objective being to acquire the described data or information.
- ✓ File the meeting notes behind the “Meetings” tab of your binder.

Issue or Concern	Objective	Priority
High Nitrates	Promote Nitrate BMPs in WHPA	High
Lack of consumer knowledge of WHP	Educate consumers about WHP	Medium
Ag production methods in the WHPA	Promote groundwater-friendly methods	High
No meters	Install meters	Medium
No fencing around wells or water tower	Install fencing	Medium
Use of fertilizers in town	Promote fertilizer BMPs	Medium
Excessive lawn watering in town	Promote water conservation	Low
Septic systems	Promote septic system maintenance	High
Outdated Contaminant Source Inventory	Update Contaminant Source Inventory	Medium
No WHPA signage	Install WHPA signage	Low
Declining groundwater levels	Encourage recharge in WHPA	High
Household hazardous wastes	Hold a hazardous waste collection event	Medium

Step #3 - Hold Planning Committee Meeting #2, Formulate Strategies

Once all pertinent existing information is gathered and taken into consideration, the Planning Committee is ready to formulate a list of strategies for reducing or eliminating potential sources of contamination within the wellhead protection area.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.
- ✓ The Technical Advisory Team will inform committee members on most or all of the possible alternatives to the current situation and identify the best strategies from a technical standpoint. The Technical Advisory Team will base their decisions on the most current knowledge of the situation and cost-effectiveness of the strategies (i.e., what has worked well for other communities in similar situations). For your information, a list of potential strategies is included behind the “Strategies” tab of your binder.
- ✓ Record the strategies for each issue or concern on the following *Strategy Evaluation* sheet. Do not yet fill in the evaluation columns on the form.
- ✓ File the meeting notes behind the “Meetings” tab of your binder.

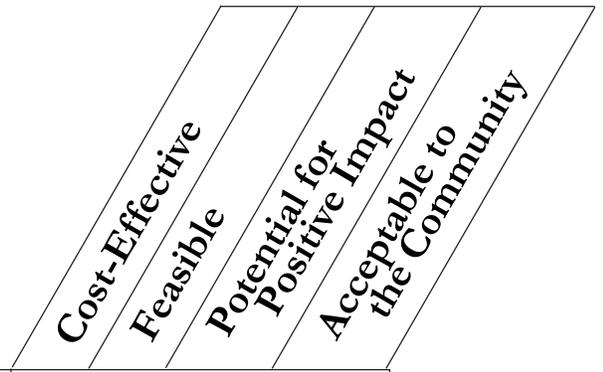
Step #4 - Hold Planning Committee Meeting #3, Evaluate and Select Strategies

By the third meeting of the Planning Committee, all members should be aware and educated on the possible strategies for management of the Wellhead Protection Area. At this meeting, with the advice of the Technical Advisory Team, the Planning Committee will evaluate the identified strategies and select which strategies they would like to include in their Wellhead Protection Area Management Plan.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.
- ✓ Hand out copies of the list of strategies generated from the previous meeting.
- ✓ Committee members should discuss their concerns with the strategies.
- ✓ The Technical Advisory Team will evaluate the strategies based upon whether the strategy is cost-effective, feasible, and effective. The Planning Committee will evaluate the strategies based upon whether they are acceptable to the community. Give a score of 1, 2, or 3 to each strategy for each evaluation category, with 1 being the lowest and 3 being the highest. Record these scores on the *Strategy Evaluation* sheet. (Please note - it is not entirely necessary that strategies be rejected by the committee unless they directly contradict a more desirable strategy. Strategies that are judged to be less effective or less feasible may be given a lower priority and tabled for consideration at a later time, rather than being totally removed from consideration.)
- ✓ The committee will then choose the best strategies for their purposes. Committee members should be prepared to use part, all, or a combination of strategies to reach their goals. Record the chosen strategies, along with the issue or concern the strategy addresses and a target date for implementing the strategy, on the *Chosen Strategies* sheet.
- ✓ File the *Strategy Evaluation* and *Chosen Strategies* sheets behind the “Strategies” tab of your binder.
- ✓ File the meeting notes behind the “Meetings” tab of your binder.

Strategy Evaluation

1=Low, 3=High



Issue or Concern	Strategy	Evaluation Criteria			

Chosen Strategies

Issue or Concern	Chosen Strategy	Target Date for Implementation

Step #5 - Develop a Draft Wellhead Protection Area Management Plan

Following is a Wellhead Protection Area Management Plan outline. The Planning Committee should have all of the information needed to fill out the outline and draft the plan from going through the Wellhead Protection Area Management Planning Process. The Process Coordinator will follow this outline and compile the information into one uniform planning document. Sections of the plan may be delegated to other members of the Planning Committee and/or Technical Advisory Team. This step should take no more than two months, after which the plan is presented to the public during the second public meeting. A final plan may be used to apply for funding to implement specific wellhead protection strategies and activities. Information describing available assistance programs and potential funding sources is behind the “Contact Information” tab in your binder.

Wellhead Protection Area Management Plan Outline

Cover (refer to Cover Page)

Vision Statement

Describes in objective terms the concerns associated with the wellhead protection area and the need for wellhead protection area management; written during the first public meeting (refer to First Public Meeting Notes under “Meetings” tab).

Wellhead Protection Area Issues or Concerns

Describes current, potential, or historical threats to the water source. Lists of issues and concerns were written during the first Pre-planning Committee meeting and confirmed during the first public meeting. Most likely issues and concerns will relate to the quality of local groundwater supplies, the community’s PWSS’s compliance with Safe Drinking Water Act (SDWA) standards, past wellhead protection efforts, existing protection and management activities, and the cost and benefits of management as compared to treatment (refer to lists under “Issues or Concerns” tab).

Wellhead Protection Area Management Planning Process Summary

The process summary should include a description of the sponsor, the planning process, and a short summary of the final plan featuring the chosen strategies and a timeline for their implementation.

The process summary should also include:

- a list of Planning Committee members,
- a list of Technical Advisory Team members,
- a paragraph describing the public information activities conducted during the process, and
- a description of the committee meetings held as part of the process.

Summarize public meeting attendance and all public input as well. Include a description of the partnerships and roles of the groups, agencies and organizations involved (refer to the “Timeline,” “Contact Information,” “Public Information,” and “Meetings” tabs).

Background Information

Provide a description of the wellhead protection area. Include the wellhead protection area map, existing ordinances that relate to wellhead protection and information describing potential sources

of contamination in the area, along with additional data or information that proved helpful in understanding the condition of the area (refer to “Background Information” tab).

Wellhead Protection Area Management Strategies

Describe the strategies chosen to reduce or eliminate potential sources of contamination in the wellhead protection area, how the strategies were evaluated and chosen, and the expected benefits of these strategies in relation to the established vision for the area. Include a timeline detailing when the strategies will be implemented (refer to “Strategies” tab).

Partnerships

Describe the organizations that participated in the development of the Wellhead Protection Area Management Plan and those that will be responsible for implementing the plan. Include groups, agencies or organizations responsible for monitoring and assessment and administering funds (refer to the “Contact Information” and “Meetings” tabs).

Monitoring and Evaluation

Describe any monitoring and evaluation activities that are needed to refine or assess the chosen strategies. Describe benchmarks, future monitoring needs, assessment methods, responsible parties, and funding needs and sources. Develop a timeline for completing evaluations and updating strategies and prepare an implementation checklist listing specific strategies and target dates (refer to “Contact Information” and “Strategies” tabs).

Recognition

Describe how the Planning Committee will determine when milestones in the Wellhead Protection Area Management Plan are reached. Also describe how these milestones will be celebrated.

- ✓ Distribute the completed draft plan to members of the Planning Committee and Technical Advisory Team for review before the next Planning Committee meeting. Ask the committee and team members to bring their copy of the draft plan to the final planning meeting and to be ready to provide comments and suggestions at that time.
- ✓ File the completed draft plan behind the “Draft Plan” tab of your binder.

Following is an example of an actual Wellhead Protection Area Management Plan created using the Community-based Approach to the Wellhead Protection Area Management Planning Process. This is a shorter plan than most, lacking inventory information, but it has all of the other elements necessary for a management plan. As is noted in the plan outline, much of this information is obtained by completing each step of the Wellhead Protection Area Management Planning Process and was reproduced in this management plan for the purposes of communicating it to others.

Wellhead Protection Area Management Plan

Using the Community-based Approach

Issues and Concerns

The committee recognized the following key points:

1. Our community's nitrate contamination is not due to anyone breaking any laws.
2. Research shows that nitrate can take nearly 30 years to move through soils and reach a 70-foot-deep water table.
3. Nebraska is the only state in the Union that the United States Environmental Protection Agency allows to utilize the Wellhead Protection Plan as a means of compliance when excessive levels of contamination are reached. All other states must adopt treatment methods, hook up to another system, or install a new well at increased costs to citizens.
4. There are both unknown and known areas in the Wellhead Protection Area that could contribute to nitrate contamination in our community's groundwater supply.
5. Plans to reduce nitrate contamination must be determined through a systematic manner where facts are used to identify areas of concern and methods adopted utilize best management practices that minimize impact on citizens and maximize dollars spent.
6. Management plans must be developed and accomplished in phases.

Wellhead Protection Area Management - Phase I

- ✓ *Identify unknown areas of contamination* - Vadose zone tests to be conducted in the Fall of 2005 throughout our community's wellhead protection area to determine the level of nitrate contamination in various areas. Areas tested included both urban and rural locations. Upon receipt of results, the committee will identify ways to address the contamination. Results will take three-four months to complete, and methods to adopt will be addressed in Phase II.
- ✓ *Adopt best management practices in known areas* - Areas within the direct groundwater flow path where improvements could begin immediately were identified. Processes that would lead to reduced nitrate contamination were developed and grant funds were applied for in September/October 2005. NOTE: Grant funds have been preliminarily approved; however, final approval, expected in April 2006, is dependent upon federal and state funding availability.

Processes identified are:

- ✓ *Lawn Care/Maintenance* - Conduct workshop(s) to educate our community's residents and surrounding areas about the *need* to reduce fertilizer use and about lawn care practices that reduce nitrate contamination.
- ✓ *Lawn Sampling* - Area high school students will conduct annual samples of lawns to determine nitrate levels in lawns and will monitor areas of improvement. Approved grant funds currently cover cost of sampling of 25 lawns over five years.

Wellhead Protection Area Management Plan, cont.

- ✓ *Filter Strips* - Install filter strips along streams in the wellhead protection area to capture nutrients and reduce the amount that reaches these surface water areas. These filter strips will prevent erosion and reduce the potential for groundwater contamination through groundwater-surface water interactions. Approved grant funds currently cover the cost of installing one mile of filter strips.
- ✓ *Buffer Strips* - Install buffer strips around irrigation wells to assure that proper setback distances around wells are maintained during pesticide applications. Buffer strips may also capture nutrient runoff and reduce the amount that is leached to the groundwater. Approved grant funds currently will cover the cost for buffer strips around six irrigation wells in the area.
- ✓ *Nutrient Management/No-Till Farming Practices* - Install nutrient management equipment to be used by producers that will identify the precise amount of fertilizer needed for crop growth and thus reduce the amount of nitrate contamination leaching to groundwater. Producers will initiate no-till farming practices that decrease the amount of disturbance to the soil, thereby holding nutrients and moisture in the soil and reducing the need for irrigation. Reducing irrigation decreases the likelihood nitrate will leaching to groundwater. Approved grant funds currently cover the cost for 240 acres within the wellhead protection area.
- ✓ *Conversion from Gravity to Pivot Irrigation* - Studies show that irrigating crops utilizing pivots rather than gravity flow drastically decreases the amount of leaching of contaminants into the groundwater supply. Approximately 240 acres of farm ground will be converted to pivot irrigation, water meters and other water-saving equipment will be installed, and producers will be required to work with crop consultants to monitor the amount of water required for crop growth and apply only what is needed.

Wellhead Protection Area Management - Phase II

Vadose zone tests were conducted in the Fall of 2005. At the present time (February 2006), not all test results have been received; therefore, plans to address areas of concern must wait for receipt of the results. Issues to be addressed in Phase II may include, but are not limited to:

- ✓ Compost pile
- ✓ Pesticide container cleanup
- ✓ Wetland treatment of abandoned livestock area
- ✓ Wetland treatment of "fertilizer site"
- ✓ Education/information needs
- ✓ Future events showcasing improvements
- ✓ Future grant opportunities

Wellhead Protection Area Management - Phase III

Process oversight and management will be a vital component of our community's Wellhead Protection Area Management Plan. This will be an ongoing phase.

Step #6 - Hold Planning Committee Meeting #4, Review the Draft Plan, Schedule the Second Public Meeting

The purpose of this meeting is to gain endorsement of the completed draft Wellhead Protection Area Management Plan by the entire Planning Committee and Technical Advisory Team and to make sure everyone involved in the process understands the plan and is able to explain it to stakeholders, if asked.

- ✓ Ask for a volunteer or delegate someone to take notes during the meeting.
- ✓ Discuss the draft plan and any suggested revisions.
- ✓ Choose and confirm the date for the second public meeting, approximately 1-2 months from the date of Planning Committee Meeting #4, depending on the amount of time needed for organizing the meeting.
- ✓ Identify potential locations for the meetings.
- ✓ Discuss and select methods to promote the meeting. Recommendations for meeting promotion, along with sample promotional materials, are in your binder behind the “Meetings” tab.
- ✓ Write the draft agenda for the second public meeting. Below is a sample agenda; you can use it as a model in creating your own agenda from the template on the following page.
- ✓ Complete the schedule of tasks on the following pages, assigning roles to members of the Planning Committee and/or Technical Advisory Team. The Process Coordinator will need to follow up on tasks to make sure they are getting done on schedule.
- ✓ Photocopy the complete schedule and distribute to all in attendance.
- ✓ File the meeting notes behind the “Meetings” tab of your binder.

WELLHEAD PROTECTION AREA MANAGEMENT MEETING

Public Meeting Hall, Community, NE
March 5, 2009, 5:30 p.m. – 8:00 p.m.

5:30	Meal Served	
6:15	Welcome and Introductions	<i>Process Coordinator</i>
6:30	Draft Wellhead Protection Area Management Plan Presentation	<i>Planning Committee</i>
7:15	Next Steps	<i>Process Coordinator</i>
7:30	Questions and Comments	<i>Process Coordinator</i>
8:45	Adjourn	<i>Process Coordinator</i>

Agenda Template

Second Public Meeting

Wellhead Protection Area Management Meeting

Location: _____

Date: _____

Time (beginning and ending): _____

Time	Agenda Item	Person Leading Agenda Item
_____	Meal Served (Optional)	_____
_____	Welcome and Introductions	_____
_____	Draft Wellhead Protection Area Management Plan Presentation	_____
_____	Next Steps	_____
_____	Questions and Comments	_____
_____	Adjourn	_____

Planning Checklist

Second Public Meeting

Two Months Prior to Meeting	Person Responsible	Date Completed
Reserve a meeting room.		
Prepare a draft meeting agenda, featuring the date, location, and time of the meeting, along with topics and speakers.		
Prepare promotional materials. Send draft copies of the promotional materials to the Planning Committee and Technical Advisory Team for review. Incorporate their recommendations into the promotional materials before they are finalized. Begin meeting promotion as soon as the materials are finalized.		

At Least One Month Prior to Meeting	Person Responsible	Date Completed
The Process Coordinator and Primary Technical Advisor finalize the meeting agenda. Some details of the meeting may still change but the date, location, time, topics, and major speakers should be finalized.		
Send a personal letter to all stakeholders to invite them to the meeting.		
Promote the meeting as much as possible. Solicit volunteers from the Planning Committee and Technical Advisory Team to help with promotion efforts. For additional promotion ideas, see <i>Promoting a Public Meeting</i> in the “Meetings” section of your binder.		
Offer Planning Committee and Technical Advisory Team members the opportunity to set up a display or other media at the meeting.		

Three Weeks Prior to Meeting	Person Responsible	Date Completed
<p>Make personal phone calls to ask stakeholders if they received their invitation and if they have any questions. During the call emphasize that their input and support of the wellhead protection area management plan is important. End the call by asking if they plan to attend the meeting. Be sure to solicit volunteers from the Planning Committee and the Technical Advisory Team to help make the calls.</p>		
<p>Call to confirm meeting room reservations for the appropriate number of people.</p>		
<p>Mail a meeting reminder to key stakeholders (e.g., the agenda, a postcard with meeting logistics).</p>		
<p>Prepare for any presentations that may require special equipment, such as a laptop computer, PowerPoint®, LCD projector, overhead projector, DVD player, flip chart, note paper, writing utensils, etc. Make arrangements to have the equipment at the meeting.</p>		

Two Weeks Prior to Meeting	Person Responsible	Date Completed
<p>Continue general promotion of the meeting.</p>		
<p>Prepare for any presentations that may require special equipment, such as a laptop computer, PowerPoint®, LCD projector, overhead projector, DVD player, flip chart, note paper, writing utensils, etc. Make arrangements to have the equipment at the meeting.</p>		

One Week Prior to Meeting	Person Responsible	Date Completed
<p>Mail a meeting reminder to key stakeholders; a personal postcard featuring the meeting logistics is most effective.</p>		

One-Two Days Prior to Meeting	Person Responsible	Date Completed
Call key stakeholders to remind them of the meeting and the importance of their support. End the call by asking if they plan to attend the meeting.		
Continue to promote the meeting through general advertising.		
Prepare copies of the agenda to hand out to attendees. Photocopy the sign-in sheet.		
Decide who will be responsible for taking notes during the meeting.		

Day of the Meeting / Set-up	Person Responsible	Date Completed
Set up the meeting room. Everything, including the chairs, display(s), equipment, and food (if you are serving a meal) should be in place before the stakeholders arrive. To make sure stakeholders understand that they are the focus of this meeting, seat the Technical Advisory Team members and visitors at the sides or back of the room, not at the front.		
Set out sign-in sheets and pens so stakeholders can provide their contact information as they enter the meeting room. Following this checklist is a sample sign-in sheet; you may copy and use it for this meeting. Setting out multiple sign-in sheets means people do not have to wait in line to sign in. By providing their contact information, meeting attendees can receive information about wellhead protection area management plan implementation.		

Meeting Date/Time: _____

Location/Host: _____

Page ___ of ___

WHPA Meeting Sign-in Sheet

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Name: _____ Phone: _____

Affiliation: _____ E-mail: _____

Mailing Address: _____

Please inform me about the wellhead protection plan's implementation by: e-mail phone US mail

Step #7 - Hold the Second Public Meeting, Present the Draft Wellhead Protection Area Management Plan

The purpose of the second public meeting is for the Planning Committee to present the draft Wellhead Protection Area Management Plan to the groups, agencies, and organizations responsible for implementing the plan with the stakeholders present. It will be the responsibility of the Process Coordinator and Planning Committee to invite the groups, agencies, and organizations most impacted by the plan. The Technical Advisory Team should be in attendance. This is primarily a celebratory meeting because so much work has already been accomplished. By the end of the meeting all participants should recognize that actual implementation of the Wellhead Protection Area Management Plan will be rewarding because it will lead to the improved condition and long-term viability of their local wellhead protection area.

During the Meeting

- ✓ Welcome everyone and make sure everyone has signed in.
- ✓ Offer copies of the notes from the first public meeting.
- ✓ Begin the meeting by discussing the desired outcomes or agenda and introducing the Planning Committee and Technical Advisory Team.
- ✓ The Planning Committee will then present the draft Wellhead Protection Area Management Plan. Leave time for discussion, questions, and concerns after the presentation.
- ✓ Take time to recognize and thank everyone who contributed their time, talent, and expertise to developing the plan.
- ✓ Record and save all feedback from the meeting so notes of the meeting can be made available afterward.

After the Meeting

- ✓ Use the sign-in sheets to update your database of contacts.
- ✓ Gather all information from the meeting, including meeting notes, sign-in sheets, and handouts and file behind the “Meetings” tab in your binder.

Step #8 - Finalize the Wellhead Protection Area Management Plan

- ✓ The Process Coordinator will take into consideration all the feedback gained from the second Public Meeting to prepare the final Wellhead Protection Area Management Plan.
- ✓ Distribute the final plan will to the members of the Planning Committee and Technical Advisory Team for one last opportunity for input. Insert a copy of the plan in behind the “Final Plan” tab in your binder.
- ✓ Make the final plan available to the public.

Ongoing - Implement the Wellhead Protection Area Management Plan

Implementation of the final Wellhead Protection Area Management Plan will occur as members of the Planning Committee and Technical Advisory Team, along with the Sponsor and Process Coordinator, identify and take advantage of opportunities to implement specific strategies included in the plan. The Technical Advisory Team is the most likely source of information on existing opportunities for support, technical assistance, and funding (if needed). Information describing available assistance programs and potential funding sources has also been included behind the “Contact Information” tab in your binder.

When soliciting support from an organization or agency, be sure to emphasize the fact that your community has gone through an extensive community-based planning process to identify and prioritize wellhead protection area management strategies; this will set you apart from other communities and increase the likelihood that you will receive support. Often organizations or agencies will appreciate seeing materials developed as part of the Wellhead Protection Area Management Planning Process, such as the *Strategy Evaluation* or *Chosen Strategies* sheets; some may even want to see a copy of the entire plan. Make sure copies of the final plan are readily available to potential supporters; you could even post the plan on the Sponsor’s website.

You may also be asked to demonstrate that your community supports a specific strategy by identifying partners that are ready to implement the strategy or will provide matching funds or in-kind support for any additional funds raised. These partners will have been identified during the planning process, so it will be relatively easy for you to include them in the proposal - simply contact these partners and verify their contribution, preferably in writing, prior to submitting the proposal; also include this documentation as part of the proposal.

Evaluate Implementation and Impacts

Implementation of the plan is the most challenging yet rewarding part of this entire process - it is when the community and those directly involved in the process get to see the positive impact of all their hard work. The Planning Committee and Technical Advisory Team will need to meet occasionally to evaluate implementation and impacts based on benchmarks established in the Wellhead Protection Area Management Plan. The frequency of these meetings will depend on the activities being implemented.

Celebrate as Milestones are Reached

Celebrate when milestones in the Wellhead Protection Area Management Plan are reached. Public functions, such as news conferences, recognition ceremonies, and receptions or open houses at sites within the wellhead protection area, are appropriate for these types of celebrations. Celebrating as these milestones are reached will elevate team spirit and keep the momentum rolling. Use the table on the following page to keep a record of these milestones and celebrations; file the sheet under the “Final Plan” tab.

Milestones and Celebrations

Milestone Reached	Date Achieved	Community/Team Celebration

Timeline

- Draft Timeline (complete and insert)
- Revised Timeline (complete and insert)



Contact Information

- Pre-planning Committee Contact Information (complete and insert)
- Technical Advisory Team Contact Information (complete and insert)
- Stakeholder Contact Information (complete and insert)
- Planning Committee Contact Information (complete and insert)
- Roles and Responsibilities: Wellhead Protection Area Management Planning Process
- List of Potential Resource Groups
- Assistance Programs and Potential Funding Sources



Roles and Responsibilities

Wellhead Protection Area Management Planning Process

The following describes who needs to be involved in a successful Wellhead Protection Area Management Planning Process. The process is much more successful when a variety of people with diverse experiences, expertise, and interests are involved.

Process Coordinator – An individual, usually an employee of the Sponsor, who takes responsibility for overseeing the process and development of the Wellhead Protection Area Management Plan. The Process Coordinator is a regular member of the Pre-planning and Planning Committees, has considerable interest in the planning process, and has time to oversee preparation for the events and prepare the final written Wellhead Protection Area Management Plan.

Sponsor – A person, agency, or group of people who have a direct interest in the process. The Sponsor is usually the entity that has authority over the PWSS, usually the municipal government.

Primary Technical Advisor – A person that is on the Technical Advisory Team and is available between meetings to relay concerns, progress, and future commitments to the other team members. They help facilitate the Wellhead Protection Area Management Planning Process and emphasize the benefits of working together to accomplish the process's objectives.

Pre-planning Committee – Three to five individuals who have a stake in the planning process and are the primary decision makers who complete the pre-planning activities. They understand the value of the Wellhead Protection Area Management Planning Process and are able to inform and motivate others to give their time and talent to the process. Often these individuals end up serving on the Planning Committee further in the process.

Technical Advisory Team – Persons with special knowledge of different aspects of the wellhead protection area and the plan (e.g., a water resources specialist or hydrogeologist to answer questions about groundwater flow).

Stakeholder – A person who has an interest in and may be affected by actions recommended in the Wellhead Protection area management plan.

Planning Committee – Six to 15 individuals who have a stake in the planning process and are the primary decision makers during the Wellhead Protection Area Management Planning Process. They work with the Technical Advisory Team and interact with stakeholders and the public to develop a plan that can be supported and implemented in the wellhead protection area. Members of the committee are themselves stakeholders who are interested in developing a Wellhead Protection Area Management Plan. Planning Committee members should be able to represent the overall community as well as their individual interests and serve as a decision maker in the planning area.

Public Information Coordinator – A Planning Committee member who develops comprehensive information and relays that information in a creative and interesting manner to build awareness of the Planning Committee's activities and of the wellhead protection area's components.

Facilitator – A person who uses some level of intuitive or explicit knowledge of group process to formulate and deliver some form of process interventions at a basic or complex level to help a community achieve their objectives and increase the ease and motivation of the community’s performance in the community-based wellhead protection area planning process. Depending upon the needs of the community, the process manager, the Primary Technical Advisor, or educator may also serve as the facilitator at public meetings.

List of Potential Resource Groups

Nebraska Department of Environmental Quality

- provide the Pre-planning Committee with copies of the *Community-based Approach to the Wellhead Protection Area Management Planning Process* timeline, brochure, and manual
- answer questions about the Wellhead Protection Area Management Planning Process
- provide wellhead protection area maps and other water quality information
- provide information on current regulations and potential point sources of pollution
- potential funding source for planning activities

Municipal Government

- lead local efforts to organize public meetings and Planning Committee
- identify and contact stakeholders within the wellhead protection area
- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in updating potential contaminant source and wellhead protection area land use inventory
- assist in identifying appropriate strategies for wellhead protection area
- assist in identifying and implementing public information activities for the process
- develop a wellhead protection area ordinance, if needed

Local Natural Resources District (NRD)

- provide local assistance to municipal government in completing the process
- provide groundwater quality and quantity information
- assist in identifying and contacting stakeholders within the wellhead protection area
- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in updating potential contaminant source and wellhead protection area land use inventory
- assist in identifying appropriate strategies for wellhead protection area
- identify how current Groundwater Management Area regulations may serve to support the strategies described in the Wellhead Protection Area Management Plan

Natural Resources Conservation Service (both county office and Resource Conservation and Development staff)

- assist in identifying and contacting stakeholders within the wellhead protection area
- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in updating potential contaminant source and wellhead protection area land use inventory
- assist in identifying appropriate strategies for wellhead protection area

University of Nebraska Extension

- assist in identifying and contacting stakeholders within the wellhead protection area
- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in identifying appropriate strategies for wellhead protection area
- assist in identifying and implementing public information activities for the process

The Groundwater Foundation

- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in identifying and implementing public information activities for the process
- assist with participation in the Groundwater Guardian program as a way to recognize the implementation of the Wellhead Protection Area Management Plan

Nebraska Department of Health and Human Services

- reinforce importance of wellhead protection area management to protect sources of drinking water
- reinforce importance of wellhead protection area management to maintain (or regain) compliance to Safe Drinking Water Act maximum contaminant level (MCL) for nitrate
- provide drinking water quality data and information

Nebraska Rural Water Association

- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in identifying appropriate strategies for wellhead protection area
- assist in identifying and implementing public information activities for the process

Organizations and Clubs, Including Those Associated with Schools and Environmental Groups

- assist in identifying and contacting stakeholders within the wellhead protection area
- assist in facilitating public meetings
- assist Planning Committee in drafting Wellhead Protection Area Management Plan
- assist in identifying appropriate strategies for wellhead protection area
- assist in identifying and implementing public information activities for the process

Assistance Programs and Potential Funding Sources

The Nebraska Department of Environmental Quality (NDEQ)

NDEQ has several programs, technical resources, and potential sources of funding available to protect drinking water sources:

Source Water Protection Grants Program - The Source Water Protection Grants Program awards funds for either source-specific or regional/non-area-specific projects. Local, source-specific grants are awarded for those implementing source water protection activities in wellhead or watershed protection areas and the associated communities. Practically any activity that addresses drinking water quality, quantity, security, or education is an eligible and fundable activity under this grant program.

Wellhead Protection (WHP) Program - The Nebraska WHP Program is a voluntary program that assists communities and other public water suppliers in preventing contamination of their water supplies. WHP Program activities include delineating the zones of influence which may impact public supply wells, training communities on how to inventory all potential contaminant sources within these vulnerable zones, working with the local officials to identify strategies to manage these potential pollution sources, and helping develop contingency plans to provide alternate water supplies and site new wells.

A number of NDEQ WHP publications and resources are available for free download at <http://www.ndeq.state.ne.us> under Programs – Wellhead Protection Program – Wellhead Protection Publications & Forms; they are:

Publications:

WHP Newsletter 01 - What, Why, Where, When and Who... (09/1994)

WHP Newsletter 03 - Contaminant Source Inventory (09/1996)

WHP Newsletter 04 - Determination of Water Quality Testing Recommendations (04/1997)

WHP Newsletter 05 - Ground Water Regulations and Wellhead Protection (05/1997)

WHP Newsletter 06 - WHP Opportunities (06/1997)

WHP Newsletter 07 - Nonpoint Source Contamination and Wellhead Protection (08/1998)

WHP Newsletter 08 - Developing A Local Wellhead Protection Plan (01/2000)

WHP Newsletter 09 - Determining the Source of Drinking Water (07/2002)

WHP Newsletter 10 - Vulnerability to Drought (03/2003)

WHP Newsletter 11 - Drought and Water Conservation (03/2003)

WHP Newsletter 12 - Drought and Well Interference (06/2003)

WHP Newsletter 13 - Drought: Long-Term Effects on Water Supplies (08/2003)

Reports:

Contaminant Source Management Options For Wellhead Protection (09/2002)

Contaminant Source Management Options For Wellhead Protection - Appendix A (09/2002)

Contaminant Source Management Options For Wellhead Protection - Appendix B (09/2002)

Contaminant Source Management Options For Wellhead Protection - Appendix C (09/2002)

Contaminant Source Management Options For Wellhead Protection - Appendix D (09/2002)

Wellhead Protection Plan Guidance (09/2001)

Drinking Water State Revolving Loan Fund - This fund provides low-interest loans to help communities build and upgrade their water treatment systems. The DWSRF is unique in that loans may be awarded to privately-owned public water supplies. Loans can be used to purchase land or conservation easements in your Wellhead or Watershed Protection Area at a 4-5% interest rate with no up front application fees, origination, or closing costs.

Clean Water State Revolving Loan Fund - This program provides low interest loans and small community matching grants to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems. The repayment of principal on loans goes into new loans and the interest on loans goes to pay off the state match bond issues.

Nebraska Environmental Partnerships Program - Nebraska Environmental Partnerships (NEP) is a unique state-coordinated effort aimed at helping small towns meet those challenges posed by complex environmental regulations, limited financial resources and an aging infrastructure through a team process that helps local communities prioritize risks and find technically and financially feasible solutions.

Nonpoint Source Management Program - This program is an integrated statewide effort to protect and improve water quality impacted by nonpoint source pollution, which is the most prevalent, widespread cause of water quality degradation in the State of Nebraska. A multitude of federal, state, and local agencies and organizations partner to make local and regional processes a success. Major components of the program include program administration, nonpoint source monitoring and assessment, and implementation of nonpoint source projects through Clean Water Act Section 319 grant funding.

Integrated Waste Management (IWM) Program - This program ensures the proper management of solid waste. A number of IWM programs and grant funds may be used to benefit wellhead protection areas, including:

Illegal Dump Site Cleanup Program - provides funding and assistance to political subdivisions for the cleanup of solid waste disposed of along public roadways or ditches, especially household waste, white goods, construction and demolition waste, and furniture.

Litter Reduction and Recycling Grant Program - provides funding for public education, cleanup, and recycling.

Scrap Tire Collection Site Cleanup for Political Subdivisions - provides funding to cleanup scrap tire collection sites.

Waste Reduction and Recycling Incentive Grants Fund - provides grants to assist in financing sound integrated waste management programs and projects, including recycling systems, yard waste composting, and household hazardous waste programs.

Petroleum Remediation Program - This program oversees the remediation of petroleum contamination from leaking above ground storage tanks and leaking underground storage tanks. The program also administers an assistance fund for persons responsible for cleanup costs due to petroleum releases from tanks.

For more information on any of the above programs, call NDEQ at (402) 471-2186 or 1-877-253-2603 or visit <http://www.deq.state.ne.us>.

University of Nebraska-Lincoln Extension

The **Farm*A*Syst** and **Home*A*Syst** programs offer an action-oriented system of education that promotes voluntary actions that can significantly reduce threats to drinking water. Homeowners, renters, and farmers can learn about conditions on their property that may threaten drinking water supplies and how to minimize those threats. For more information, call University of Nebraska-Lincoln Extension at (402) 472-2966; e-mail dspare2@unl.edu or sniemeyer2@unl.edu; or visit Farm*A*Syst at <http://bse.unl.edu/fas> and Home*A*Syst at <http://www.ianr.unl.edu/ianr/bse/ext/has>.

The Groundwater Foundation

The **Groundwater Guardian** Program supports, recognizes, and connects communities taking voluntary steps to protect local groundwater supplies. For more information call 1-800-858-4844 or (402) 434-2740; e-mail guardian@groundwater.org; or visit <http://www.groundwater.org>.

Groundwater Guardian Green Site Program educates, recognizes and encourages the managers of highly managed green spaces to implement, measure, and document groundwater-friendly practices. For more information call 1-800-858-4844 or (402) 434-2740; e-mail guardian@groundwater.org; or visit <http://www.groundwater.org>.

The Midwest Assistance Program

The Midwest Assistance Program has provided wellhead protection help to public water suppliers since 1988, particularly with grants and emergency planning. For more information call (605) 487-7006 or visit <http://www.map-inc.org>.

Nebraska Association of Resources Districts

Represents Nebraska's NRDs, which are involved in a wide variety of processes and programs to conserve and protect the state's natural resources. Their website provides information on and a link to your local NRD. For more information call (402) 471-7670 or visit <http://www.nrdnet.org>.

Nebraska Department of Health and Human Services

This agency is responsible for public health issues dealing with safe drinking water. They enforce regulations governing public water supply systems, administer operator certification and contractor's licensing programs, and provide water testing (for a fee), among many other services. For more information call (402) 471-2541 or visit <http://www.hhs.state.ne.us>.

United States Department of Agriculture Natural Resource Conservation Service (NRCS)

Nebraska Environmental Quality Incentives Program (EQIP) provides up to 75% of the costs of eligible conservation practices to help farmers with ground and surface water conservation, animal feeding operations, and general conservation practices. Through EQIP, farmers may receive help with structural and management conservation practices on agricultural land, such as nutrient management, manure management, integrated pest management, and wildlife habitat management. For more information call (402) 437-5300 or visit <http://www.ne.nrcs.usda.gov/programs/EQIP/index.html>.

Nebraska Rural Water Association

The Nebraska Rural Water Association provides technical assistance to small communities for drinking water and wastewater system improvements. For more information call 1-800-842-8039 or (402) 442-5216 or visit <http://www.nerwa.org>.

United States Environmental Protection Agency (USEPA)

The USEPA is a federal agency whose mission is to protect human health and to safeguard the natural environment - air, water, and land - upon which life depends. The USEPA website is a great resource for information on source water protection as well as other environmental issues. For more information visit <http://www.epa.gov>.

Public Information

- Public Information Materials (insert as they are developed during this process)
- Wellhead Protection Area Planning Process Brochure
- Groundwater and Wellhead Protection Area Information
- Wellhead Protection Area Management Public Information Activities





Management Makes Sense

Groundwater is and will continue to be the source of drinking water for many Nebraskans.

Protection of this vital resource is becoming increasingly important.

For example, expanding development may bring with it more potential sources of contamination; growing populations may stress the quantity of water available; and intensive agricultural practices may increase the need for more proactive management strategies.

Whether faced with an existing impairment to the water source or seeking ways to prevent contamination, wellhead protection makes good economic and environmental sense!



The *Wellhead Protection Area Management Planning Manual* is a step-by-step guide to completing the Wellhead Protection Area Management Planning Process. It has been written specifically for groundwater-dependent community Public Water Supply Systems that have a state-approved Wellhead Protection Plan and are ready to begin implementation of on-the-ground protection activities.

For a copy of the manual or for more information about developing a state-approved wellhead protection plan or a wellhead protection area management plan, contact the Nebraska Department of Environmental Quality's Water Quality Planning Unit at (402) 471-2186.

The *Wellhead Protection Area Management Planning Manual* is also available for free download at <http://www.ndeq.state.ne.us>.

Brought to you by:

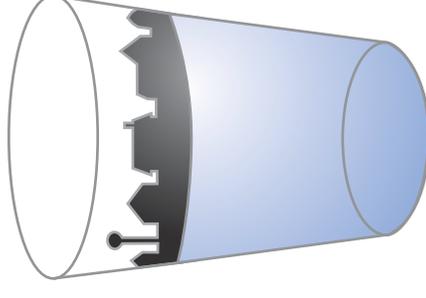


Nebraska Department
of Environmental Quality



Wellhead Protection Area Management

A community-based approach to the wellhead protection area management planning process in Nebraska

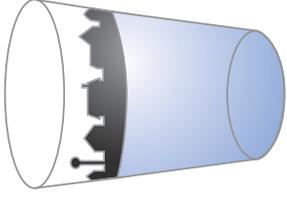


<http://www.ndeq.state.ne.us>

The future of Nebraska is its people and its groundwater.

Wellhead Protection Area Management is the next step communities should take after developing a wellhead protection plan that has been formally approved by the Nebraska Department of Environmental Quality. In order for a management program to be successful, it must be locally-driven and thoughtfully planned out. The process also leads the community through identifying management strategies that will have the greatest effect on reducing the threat of contamination to the water source.

The Community-based Wellhead Protection Area Management Planning Process is a series of steps that a community may follow to take their drinking water resource protection efforts to the next level. This is a results-oriented process of identifying and implementing specific, customized management strategies. Technical experts will be included throughout the process to provide the information needed by the community to make good management decisions for the wellhead protection area and, as a result, their groundwater supply.



Planning for Local, Long-Term Benefit

The Wellhead Protection Area Management Planning Process is divided into two phases – Pre-planning Activities and Planning Activities.

Pre-planning Activities

The pre-planning activities will pave the way for a smooth planning process. This phase will begin by recognizing the need for further management of the resource and end with the first public meeting. During this phase, key local participants and technical advisors will be introduced and assembled, existing information will be gathered, public education efforts will begin, and local issues/concerns will be identified.

Planning Activities

The planning activities phase will encompass the bulk of the planning process and will end with a complete Wellhead Protection Area Management Plan. This plan will be developed by a committee of local stakeholders with input from the community through public meetings and community education activities. This plan will detail the local issues and concerns and identify specific strategies and actions for protection of the water resource; it will also function as a workplan for grant applications to fund implementation of the identified protection activities.

Plan implementation will occur as opportunities to implement specific strategies included in the plan are identified and taken advantage of. Information describing available assistance programs and potential funding sources has also been included in the *Wellhead Protection Area Management Planning Manual*.



Groundwater and Wellhead Protection Area Information

Groundwater is water found in the spaces between soil particles and cracks in underground rocks underground. Groundwater is a natural resource that is used for drinking, recreation, industry, and growing crops, among other things.

When rain falls to the ground, the water does not stop moving. Some of it flows along the surface to streams or lakes, some of it is used by plants, some evaporates and returns to the atmosphere, and some seeps into the ground. Imagine pouring a glass of water onto a pile of sand. Where does the water go? The water moves into the spaces between the particles of sand.

Groundwater is stored in and moves slowly through layers of soil, sand, and rocks called aquifers. Aquifers typically consist of gravel, sand, sandstone, or fractured rock, like limestone. These materials are permeable because they have large connected spaces that allow water to flow through them. The size of the spaces in the soil or rock and how well the spaces are connected determine the speed that groundwater flows.

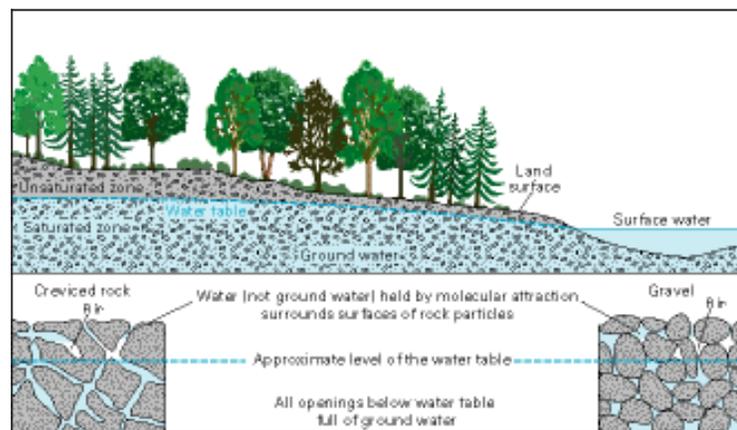


image compliments of US Geological Survey

The area where water fills the aquifer is called the saturated zone. The top surface of this zone is called the water table. The water table may be located only a foot below the ground's surface or it may be hundreds of feet down.

Groundwater can be found almost everywhere. The water table may be deep or shallow and may rise or fall depending on many factors. Heavy rains or melting snow may cause the water table to rise; heavy pumping of groundwater wells or drought may cause the water table to fall.

Water in aquifers is brought to the surface naturally through a spring or can be discharged into wetlands, lakes and streams. Groundwater can also be extracted through a well drilled into the aquifer. A well is a pipe

in the ground that fills with groundwater. This water can be brought to the surface by a pump. Any well may go dry if the water table falls below the bottom of the well.

Groundwater supplies are replenished, or recharged, by rain and snow melt. In some areas of the world, people face serious water shortages because groundwater is used faster than it is naturally replenished. In other areas, groundwater is polluted by human activities, or may be unusable for human consumption due to natural conditions.

In areas where material above the aquifer is permeable (or capable of transmitting water), contaminants can readily seep into groundwater supplies. Groundwater can be polluted by landfills, septic tanks, leaking underground storage tanks, and from the overuse of fertilizers and pesticides, to name just a few sources. If groundwater becomes polluted, it may not be safe to drink.

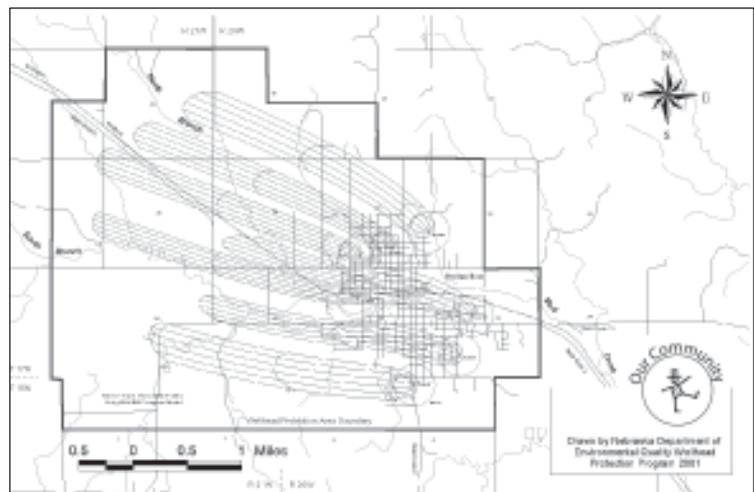
Groundwater is used as a source of drinking water by more than 50 percent of the people in the United States and 85 percent of the people in Nebraska, including almost everyone who lives in rural areas. The largest use of groundwater is to irrigate crops.

A Wellhead Protection Area is defined as a surface and subsurface zone surrounding a well that supplies water to a public water system. A wellhead protection area has been mapped or “delineated” for each public water supply well in Nebraska. The Nebraska Department of Environmental Quality (NDEQ) and other entities used computer models to map the areas. These models take into consideration aquifer characteristics, groundwater flow, river and stream information, and the amount of water pumped by the well. Wellhead protection area maps show:

- ✓ “Time-of-travel” zones – areas that contribute groundwater to the well in one, two, ten, and twenty year periods of time.
- ✓ Wellhead protection area – boundaries that surround the time-of-travel zones, drawn on existing section or quarter section lines, property lines, or easily recognized physical features, such as roads, streams or railroads.

Wellhead protection area boundaries are drawn on property lines because they are easier to recognize and allow for easier management of the area. Squared-off boundaries also allow for extra area to account for physical variability in the aquifer that cannot be modeled; this makes the wellhead protection area boundary more conservative and therefore more protective. An example of a wellhead protection area is pictured here.

For more information about identifying wellhead protection areas and wellhead protection in Nebraska, refer to NDEQ’s website, <http://www.ndeq.state.ne.us> under Programs > Wellhead Protection Program > Wellhead Protection Publications & Forms.



WHPA Management

Public Information Activities

Purpose – To guide the Planning Committee in determining how best to solicit participation and inform the public of progress made related to the Wellhead Protection Area Management Planning Process.

Brief Overview of Activities – In order to inform the public about the Wellhead Protection Area Management Planning Process, the following activities will be implemented:

- send news releases to local media outlets
- present information about the Wellhead Protection Area Management Plan to local groups
- send a mailing to stakeholders to invite them to attend the public meetings
- _____
- _____
- _____
- _____
- _____

Key Messages – Determine key messages by answering the following questions:

1. What is the purpose of the wellhead protection area planning process?

2. What are the goals of the planning process?

3. What does the process entail?

4. How will the public be impacted by the process?

5. What are the public's opportunities for participation and involvement in the process?

6. What else would you like the public to know about the planning process?

Communication Methods – Determine the communication methods that will be used to implement the activities by answering the following questions:

1. What are the primary media outlets serving the wellhead protection area and their contact information (i.e. newspaper, radio, television, internet, etc.)?

2. Have you made contact with these media outlets?

3. What are other methods you plan to employ to communicate with the public (i.e. mailings, emails, meetings, etc).

4. What partners can be involved to help communicate your key messages?

Implementation: Timeframe – Determine and note when to implement specific activities.

Activity	Target Date

Implementation: Key Personnel – Determine who and note how the following will help implement specific activities.

Title	Name(s)	Responsibilities
Public Information Coordinator		
Process Coordinator		
Primary Technical Advisor		
Committee Members		
Local Government Officials		
Other: Extension, Natural Resources District, Schools, Public Health Dept., etc.		
Other:		

Implementation: Resources – Determine and note what resources are needed to implement activities. This should include human, financial, and material resources.

Human: _____

Financial: _____

Materials: _____

Evaluation – Determine what measures will be used to determine whether the activities were successful. Things to consider:

- Percentage of media outlets that received news releases
- Percentage of media outlets that utilized news releases
- Percentage of media outlets that sought further information about the planning process
- Percentage of media outlets that covered events related to the planning process
- Number of stakeholders who attended planning events
- Number of stakeholders who sought further information about the planning process
- Level of public support for and involvement in the planning process
- Other:

I will measure success through/by: _____

Background Information

- Wellhead Protection Area Map (obtain a copy of your local map and insert)
- Existing Ordinances that Relate to Wellhead Protection (obtain and insert)
- Potential Sources of Contamination Map (obtain and insert)
- List of Wellhead Protection Information Sources
- Additional Data and Information (obtain and insert)

- _____
- _____
- _____
- _____



List of Wellhead Protection Information Sources

It may be helpful to know that different agencies and organizations are responsible for different components of your wellhead protection area. For example, the Nebraska Department of Environmental Quality (NDEQ) helps administer programs and regulations directed specifically toward water and air quality, so the NDEQ would probably be the best source for water and air quality information. One of the main focuses of the Natural Resources Conservation Service (NRCS) in Nebraska is soil, so contact NRCS for information and data on soil.

WATER

Nebraska Department of Environmental Quality (NDEQ) - NDEQ Water Quality Division programs include Agriculture (including Livestock), Financial Assistance Section, Groundwater, Petroleum Remediation, Surface Water Monitoring and Assessment, Wastewater Engineering Management, Water Permitting, and Water Quality Planning Programs. More information is available online at <http://www.ndeq.state.ne.us> under “Focus on Water.”

Local water utility and Nebraska Department of Health and Human Services - Data on raw and treated water quality, infrastructure (i.e., public drinking water well location and construction, municipal water use). For more information contact local water utility or municipal government; contact information available in local and on-line directories. Some information also available online at http://www3.hhs.state.ne.us/Sdwis_State/index.jsp.

Nebraska Department of Natural Resources - Manages a database of registered groundwater well information, including well log, use status, location (not including public supply wells), static and pumping water levels, owner; also groundwater, nitrate, and pesticide data. Additional information is available online at www.dnr.ne.gov under “Groundwater - Ground Water Data Base.” Also assists with water modelling and vadose zone sampling.

United States Geological Survey - Contains groundwater site inventory, groundwater level data, and water quality data with more than 20,000 records of wells, springs, and test holes in Nebraska. Available site descriptive information includes well location information (latitude and longitude, well depth, site use, water use, and aquifer). For more information, visit <http://waterdata.usgs.gov/ne/nwis/gw>.

United States Fish and Wildlife Service - National Wetlands Inventory maps are available online at <http://wetlandsfws.er.usgs.gov/NWI/index.html>.

Nebraska Game and Parks Commission - Wetland inventories and maps, statewide wetland resources, wetland conservation efforts are available online at <http://www.ngpc.state.ne.us/wildlife/programs/wetlands>.

United States Environmental Protection Agency - General watershed information, including stream flow, toxic releases, Superfund sites, water use data and citizen-based groups working in the watershed. Visit <http://www.epa.gov/surf/>.

Natural Resources Districts - Water quality and quantity information and data. For more information contact your local Natural Resources District officials; contact information available in local and on-line directories. Also available online through the Nebraska Association of Resources Districts at <http://www.nrdnet.org>.

GEOLOGY, HYDROGEOLOGY

United States Geological Survey - Geologic and hydrogeologic maps, topographic maps and publications are available online at <http://store.usgs.gov>.

University of Nebraska Conservation and Survey Division - Nebraska's geologic history, rock and mineral resources, water resources quality and quantity, land cover, and soils. For more information visit <http://snr5.unl.edu/csd/>.

SOIL

Natural Resources Conservation Service (NRCS) - Soil surveys, published for each county, contain soil maps and detailed descriptions about the soil physical characteristics, uses, and hazards. Some surveys are available online at <http://websoilsurvey.nrcs.usda.gov/app> Available from county NRCS service centers. Center contact information can be found online by clicking on Nebraska on the map at <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>.

LAND USE AND COVER

Local Planning Departments - Numbers of building and subdivision permits, county master plans, transportation plans, county demographics. Contact your local planning and zoning officials; contact information is available in local and on-line directories. Also available online through the Nebraska Planning and Zoning Association at <http://www.npza.org>.

VEGETATION AND FORESTRY

Natural Resources Conservation Service (NRCS) - Information on Farm Bill programs, including: Conservation of Private Grazing Land Program (CPGL), Conservation Security Program (CSP), Resource Conservation and Development Program (RC&D), Wetlands Reserve Program, Environmental Quality Incentives Program (EQIP), Farmland Protection Program, National Natural Resources Conservation Foundation (NNRCF), and Wildlife Habitat Incentives Program (WHIP) Information is available from county NRCS service centers. Center contact information can be found online by clicking on Nebraska on the map at: <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>. Also online at <http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/ProgSum.pdf>.

AIR QUALITY

Nebraska Department of Environmental Quality - Information on air inspection and compliance, air toxics, air quality reports, air emission inventories. Visit <http://www.deq.state.ne.us> under "Focus On Air."

ENDANGERED & THREATENED SPECIES

United States Fish and Wildlife Service - Information on which species are listed as threatened or endangered in Nebraska and nationally, visit <http://www.fws.gov/endangered/wildlife.html> under “Number of Listed Species in each State or U.S. Territory (map).”

WILDLIFE

United States Fish and Wildlife Service - Fact sheets on wildlife, including indigenous species of Nebraska are available online at <http://www.fws.gov/species/#fact>.

WASTE: HAZARDOUS, MUNICIPAL, INDUSTRIAL, CONSTRUCTION, DEMOLITION

Nebraska Department of Environmental Quality - A searchable database of permitted waste facilities, Nebraska hazardous waste regulations, waste reduction and recycling grants incentives programs Available online at <http://www.deq.state.ne.us> under “Focus on Land & Waste.”

AGRICULTURE, LIVESTOCK

Nebraska Agricultural Statistics Service - State and county-level data on number of farms, livestock and crops is available online at http://www.nass.usda.gov/Statistics_by_State/Nebraska/index.asp#.html.

Natural Resources Conservation Service - Information on livestock waste management in Nebraska, including state standards, nutrient management planning resources, links to various agencies is available online at <http://www.ne.nrcs.usda.gov/technical/animals.html>.

University of Nebraska Cooperative Extension - Information on how to develop a Comprehensive Nutrient Management Plan (CNMP) that livestock producer can use to achieve agronomically efficient and environmentally safe manure distribution. A CNMP includes fertilizer nutrient management, soil testing, manure testing, and applicator calibration; it is also an essential component of an application for state livestock waste control facility construction and operating permits, if one is required. For more information visit <http://cnmp.unl.edu/>.

PESTICIDE AND FERTILIZER USE

Nebraska Agricultural Statistics Service - Information on agricultural chemical usage, including chemical distribution rates, pest management practices, and the Agricultural Chemical Use Data Base is available online at http://www.nass.usda.gov/Statistics_by_Subject/Environmental/index.asp.

HUMAN POPULATION DATA

United States Census Bureau - Population density and trends by state, county and city, and other demographic information can be found at <http://quickfacts.census.gov/qfd/>.

Nebraska Chamber of Commerce - Contact information for local chambers of commerce, which can provide information on economic and employment trends. Visit <http://www.nechamber.com> under “Nebraska Chambers of Commerce”

Meetings

- Planning Checklist for the First Public Meeting (template available)
- First Public Meeting Agenda (create and insert, template available)
- First Public Meeting Notes (capture and insert)
- First Public Meeting Sign-in Sheets (insert, template available)
- Planning Committee Meeting #1, Meeting Notes (capture and insert)
- Planning Committee Meeting #2, Meeting Notes (capture and insert)
- Planning Committee Meeting #3, Meeting Notes (capture and insert)
- Planning Committee Meeting #4, Meeting Notes, (capture and insert)
- Planning Checklist for the Second Public Meeting (template available)
- Second Public Meeting Agenda (create and insert, template available)
- Second Public Meeting Notes (capture and insert)
- Second Public Meeting Sign-in Sheets (insert, template available)
- Second Public Meeting Handouts (create and insert)
- Promoting a Public Meeting
- Sample Invitation Letter
- Sample Flyer
- Sample News Release



Promoting a Public Meeting

This section provides some useful tips and information on how to promote public meetings. Everyone in the community is welcomed to attend the Wellhead Protection Area Management Planning Process public meetings and get involved in the process because everyone in the community has a stake in the way the wellhead protection area is managed.

To develop a Wellhead Protection Area Management Plan that will be embraced by the entire community, it is necessary for community members to understand the Planning Committee's purpose, the wellhead protection area issues and concerns, and the personal benefits of the final plan. Promotion of the public meetings and the Wellhead Protection Area Management Planning Process are an important part of generating community support and involvement.

Promotion

There are many ways to keep citizens informed of the proceedings of the Planning Committee. In this technological age, a variety of electronic media, including e-mail and website postings, should be used to encourage stakeholders to participate in the process. Yet often age old techniques, such as a newspaper article, a poster in the library, a phone call, a face-to-face invitation, or a personal letter, work just as well to motivate individuals to get involved. Ultimately the most successful promotional efforts combine general promotion techniques with personal invitations.

For general promotion, use local media (i.e., newspapers, television, radio) to outline the long-term benefits of the planning process and generate understanding of the process within the community. It is important to get local media involved with the process early on, so they can relay the entire story and, ideally, continue reporting on the progression of the plan throughout the process. Media coverage can emphasize to the community that the planning process is a "group effort" with many local leaders involved.

It is a good idea to designate one person as the liaison between the Planning Committee and the media. This will ensure a consistent message from the committee. As information becomes available, the Planning Committee liaison should develop media packets with fact sheets or other information about the committee members, wellhead protection area concerns, agency profiles of all process partners, and descriptions of the Community-based Wellhead Protection Area Management Planning Process and provide them to the media.

Personal invitations are just that – personal. Personal invitations can be as simple as a phone call or a spontaneous conversation at the post office or coffee shop, or more detailed, such as a prepared presentation at a service club luncheon. A written message sent via post or e-mail is also an effective method of making a personal invitation. The important thing to convey in a personal invitation is that the invitee is a valuable member of the community and welcomed to share their perspective and expertise during the Wellhead Protection Area Management Planning Process.

Those Technical Advisory Team members that work for local natural resource agencies, such as county extension, Natural Resources Districts, the Natural Resources Conservation Service, etc., often have a personal connection to stakeholders, especially rural residents. These team members should volunteer to call or otherwise contact individual stakeholders and invite them to the public meetings.

What To Do?

Multiple announcements and invitations are needed to motivate individual stakeholders to participate in the Wellhead Protection Area Management Planning Process.

Promotional materials and announcements that include the meeting logistics should be distributed and published as soon as they are finalized - upwards of two months prior to the meeting. Subsequent to this initial promotional effort, every promotional method that is available to the community should be taken to inform stakeholders that they are not only welcomed to participate in this process, but that their input is vital to making the planning process and implementation of the plan a success. Immediately prior to the public meetings, public invitations to the meeting should be broadcast using radio and television.

To be sure that stakeholders attend the meetings and participate in the planning process, these public announcements must be supplemented with personal invitations, letters, phone calls, and postcards. As was previously mentioned, members of the Technical Advisory Team, along with Planning Committee, should make personal invitations whenever possible.

Brainstorm to create lists identifying all options for the subsequent steps:

- ✓ Find out what promotional resources are already available to your community (e.g., public calendars of events, newspapers, newsletters, radio, television, websites).
- ✓ Identify those promotional resources and methods that have proven to be most effective in motivating individual community members to attend an event in the past.
- ✓ Determine whether any stakeholder group in particular should be targeted and asked to participate in the process (e.g., water system customers, landowners in the wellhead protection area).
- ✓ Decide the most effective ways to reach a particular stakeholder group (e.g., water bill insert to water system customers, personal invitation letter with agenda to landowners in the wellhead protection area).
- ✓ Develop a plan to promote the public meeting(s). You may use the *WHPA Management Public Information Activities* planning template in the “Public Information” section of your binder as a template to develop this plan.

Examples (specific promotional activities are also included in the planning checklist for each of the two public meetings described as part of this process):

- ✓ Arrange process and meeting coverage through local media.
- ✓ Post meeting announcements in public areas (e.g., schools, grocery stores, post offices, churches).
- ✓ Send news releases and post newspaper, internet, e-mail, and local television and radio announcements.
- ✓ Send and otherwise make personal invitations to individual stakeholders.
- ✓ Attend the meetings of other organizations to give presentations about the process, invite participation and answer questions.
- ✓ Make one-on-one phone calls and write personal letters to invite participation and answer questions.
- ✓ Post meeting announcements on Internet bulletin boards.
- ✓ Buy or acquire local newspaper advertisements for meeting announcements.
- ✓ Buy or acquire television or radio station slots for meeting announcements.

This manual offers different types of successful promotion techniques; however, there are several promotion options that are area and community specific. Be creative and find the best way to let the stakeholders in your area know about the process taking place. Remember that the best promotional efforts combine general promotion with personal invitations and that multiple contacts are needed to motivate individual stakeholders to participate in the process.



Print on your
community or
other appropriate
letterhead

Date

First Name Last Name
Organization (optional)
Address
City, State Zip

Dear First Name,

You are cordially invited to attend a meeting on Thursday, March 5 at the Public Meeting Hall (address). The meeting is designed to bring the community together to talk about the source of our community's drinking water supply. For more information, an agenda is enclosed.

Please join us for dinner at 5:30 p.m. After dinner we will learn about the source of our community's drinking water supply and share thoughts about how this resource should be managed for future use.

If you have any questions about the meeting or about our community's drinking water, please contact me directly at (000) 555-1234.

I look forward to hearing from you and seeing you on the 5th!

Sincerely,

Signature

First Name Last Name
Mayor, Our Community

Enclosure (agenda and/or RSVP form)



Your perspective is important. The safety of your drinking water is too.

WE WANT TO HEAR FROM YOU!

On March 5, 2008, come and share your thoughts during a **Water Issues Meeting**. This gathering, designed to bring the community together, will be held at the Public Meeting Hall (insert address here) from 5:30 p.m. to 8:30 p.m..

Water is a precious resource that we all depend upon. It's vitally important that we all do what we can to manage this resource - for ourselves, for our children, and for generations to come.

Attend this meeting to learn about the source of our community's drinking water supply - plus share your thoughts about how this resource should be managed for future use.

Meal served at 5:30 p.m.

Speakers and Discussion at 6:15 p.m.

No charge to attend.

RSVP requested (000) 555-1234



Questions? Contact:

Town Clerk
Our Community
(000) 555-1234

Mayor
Our Community
(000) 555-1234

Environmental Expert
Dept. of Environmental Quality
(000) 555-1234

Heath Director
Dept. of Health
(000) 555-1234



NEWS RELEASE
For Immediate Release
Date of Release

Contact:
Town Clerk
(000) 555-1234

Public Invited to Community Water Meeting

A meeting will be held on Thursday, March 5 at the Public Meeting Hall (address) in town. The purpose of the meeting is to bring everyone together to talk about the source of our community's drinking water supply.

Right now the quality of our drinking water is good - but like anything else, the source of our drinking water must be managed if it is to continue to supply us with good quality water for now and for generations to come.

Those who attend this meeting will learn about the source of our community's drinking water supply. People who attend will also have an opportunity to share their thoughts about how this resource should be managed for future use.

(insert meeting agenda here)

Call 555-1234 if you have questions about this meeting or about our community's drinking water source.

###

Issues or Concerns

- Issues or Concerns List (complete and insert, template available)
- Prioritized Issues or Concerns List (complete and insert, template available)



Strategies

- Strategy Evaluation (complete and insert, template available)
- Chosen Strategies (complete and insert, template available)
- Ideas for Best Management Practices



Ideas for

Best Management Practices

Agricultural land practices

- Buffer and filter strips along cropland and livestock facilities
- No-till
- Nutrient management
- Irrigation management and minimum irrigation demonstration
- Irrigation system conversion
- Crop to grass or forage production
- Crop rotation
- Crop land to pasture conversion (intensive grazing)
- Livestock waste management
- Irrigation and livestock well decommission
- Nitrogen inhibitors

Rural homestead practices

- On-site wastewater rehabilitation and management
- Domestic well renovation and abandonment
- Chemical storage and handling controls

Urban homestead practices

- Low volume water fixtures
- Low volume water use appliances
- Low impact landscaping
- Urban wildlife habitats
- Rain gardens and infiltration or retention systems
- Back flow devices
- Well decommission

Commercial or industrial practices

- Materials storage management
- Chemical storage and handling controls
- Run-off diversion and retention
- Run-off and infiltration monitoring
- Contaminant recovery

City practices

- Water meter installation
- Tiered water rates
- Hazardous waste collection
- Oil recycling
- Composting
- Junk clean up
- Conservation landscaping
- Wellhead protection area fencing
- Nutrient and irrigation management assistance
- Wellhead protection ordinance

Draft Plan

- Drafted version(s) of the Wellhead Protection Area Management Plan (draft and insert, template available)

Draft Plan



Final Plan

- Wellhead Protection Area Management Plan (approve, finalize and insert)
- Milestones and Celebrations (complete and insert, template available)



Manual

- Wellhead Protection Area Management Planning Manual (insert)

