

**SOURCE WATER PROTECTION
GRANT PROGRAM**

SUPPLEMENTAL INSTRUCTIONS

(WELLHEAD OR WATERSHED PROTECTION)

**INSTRUCTIONS FOR
SOURCE WATER PROTECTION GRANT APPLICATIONS
SUBMITTED UNDER THE GROWING GREENER GRANT PROGRAM**

**Administered by
Pennsylvania Department of Environmental Protection
Bureau of Watershed Management
Division of Watershed Protection
P.O. Box 8555, Harrisburg, PA 17105-8555
717-787-5259**

November 2002

Application Deadline: February 3, 2003



**COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection**

Mark Schweiker, Governor • David E. Hess, Secretary

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at www.state.pa.us or visit DEP directly at www.dep.state.pa.us



ENVIRONMENTAL STEWARDSHIP AND WATERSHED PROTECTION GRANT APPLICATION 2003

For office use only:

This form is to be used to apply to the Department of Environmental Protection for a grant to support restoration and protection of watersheds and environmental stewardship in the Commonwealth. Projects will be supported by state funds through Pennsylvania Growing Greener and/or federal funds. See instructions and grant program conditions.

PROJECT INFORMATION

- 1. Project Title (please be concise):
2. Project Location (a) Major River Basin(s): (b) Watershed: (c) Municipality(ies): (d) County(ies): (e) Latitude Longitude
3. Application Type: Watershed Protection (check only one)
4. Application Type: Source Water Protection (check both A & B if applicable)
5. Flood Protection Projects

APPLICANT AND SPONSOR INFORMATION

- 6. Applicant Organization: Address: Contact Person: Phone: Fax: E-Mail: Type of organization: Applicant's Federal Employer Identification Number (FEIN) or Tax Number: Does the applicant have 501(c)(3) status?
7. If your group is a watershed association that is not incorporated, you must find a sponsor to administer the grant on your behalf. Sponsor's Name (Organization): Address: Sponsor's Contact Person: Phone: Fax: E-Mail: Sponsor's Federal Employer Identification Number (FEIN) or Tax Number: Does the sponsor have 501(c)(3) status?

PROJECT DETAILS

- 8. List the name of the DEP watershed manager with whom you discussed your application:
9. Does your project involve mine reclamation or remediation of abandoned mine drainage pollution? Yes No

10. Are facilities or infrastructure projects to be funded under this application? Yes No
 If yes, is your project consistent with a county, municipal or multi-municipal comprehensive plan or zoning ordinance? Yes No
11. Will your project implement recommendations of an existing watershed or river conservation plan, or source water protection plan? Yes No
 If yes, identify the plan and responsible organization: _____
12. Will your project hinder the practice of sustainable forestry? Yes No
13. Is your project located within a federal or state funded flood control project? Yes No
14. Attach a detailed **project description and the Proposed Project Summary Statistics** per suggested outline.
15. Budget Summary (Must be from attached Detailed Budget Worksheet)

Category	Grant Request	+	Match	=	Project Cost
Sponsor Salaries/Benefits		+		=	
Travel		+		=	
Equipment and Supplies		+		=	
Administration (max 2%)		+		=	
Contractual		+		=	
Construction		+		=	
Other		+		=	
Total for each column:					

16. Will competitive bidding be used? Yes No If yes, for which budget items?

17. Was this proposal submitted to another source for funding? Yes No
 Name of other source: _____
18. Are you willing to accept federal funding for this project: Yes
19. Do you wish to be considered for other state grant programs? Yes No
20. Preferred period of performance: _____ to _____
21. Indicate the total reimbursement you would like during the following periods:
 July 1, 2003 to June 30, 2004 \$ _____
 July 1, 2004 to June 30, 2005: \$ _____
 July 1, 2005 to June 30, 2006: \$ _____

CERTIFICATION AND SIGNATURE OF APPLICANT (REQUIRED) AND SPONSOR (IF APPLICABLE)

Applicant: I certify that the information in this application is true and correct to the best of my knowledge.

Submitted By: _____
 Applicant Organization _____ Date _____

Printed Name

Signature

Title

Sponsor: I certify that the information in this application is true and correct to the best of my knowledge. I certify that I am willing to accept responsibility for a grant on behalf of the applicant.

Submitted By: _____
 Sponsor Organization _____ Date _____

Printed Name

Signature

Title

GRANT APPLICATION SUBMITTAL INSTRUCTIONS

Five copies of the completed Grant Application must be postmarked (if mailed), or received (if hand delivered) **by 4:30 p.m. on February 3, 2003** at: DEP Grants Center, 15th Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8776, Harrisburg, PA 17105-8776. Telephone: 717-705-5400 or 1-877-PAGREEN

NO PERMANENT BINDING – STAPLES ONLY – DUPLEX PAGES

NO FAXES. LATE SUBMISSIONS WILL NOT BE CONSIDERED.

For electronic submission, visit DEP's website at www.dep.state.pa.us/growgreen/

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INTRODUCTION

The purpose of this document is to assist those applying for a Source Water Protection Grant under the Environmental Stewardship and Watershed Protection (Growing Greener) Grant Program.

Provisions of the federal Safe Drinking Water Act (**SDWA**) require States to develop a Source Water Assessment and Protection (**SWAP**) Program that will assess the susceptibility of drinking water sources used by public water systems to pollution as a basic framework for eventually building voluntary, community-based prevention barriers to drinking water contamination. As the SWAP program builds upon and expands the earlier inroads made by wellhead protection (**WHP**) efforts, a state's WHP Program serves as the cornerstone of its SWAP Program.

WELLHEAD PROTECTION PROGRAM:

An earlier initiative of the SDWA required states to develop WHP programs to address the protection of groundwater used as sources of public drinking water. The WHP program is a comprehensive, proactive approach designed to protect groundwater sources used by public water systems from contamination, thereby ensuring public health and preventing the need for expensive treatment of wells to comply with drinking water standards. Among the components of WHP are public participation provisions, delineation of the area contributing water to the source, identification of existing and potential contaminant sources within that area and the utilization of planning or management tools to minimize or prevent any potential impact on the drinking water source. Local WHP programs are voluntary in Pennsylvania although there are certain minimum elements that should be followed to ensure successful efforts. There are many communities in Pennsylvania that have already started local WHP activities.

SWAP PROGRAM:

Recognizing the public health and economic benefits associated with WHP, Congress expanded this concept in 1996 to include *all sources* (both groundwater *and* surface water – wells, springs, streams, reservoirs, ponds, lakes, etc.) used by public water systems under a new SDWA initiative – source water assessment and protection. The SWAP program will assess the raw water quality of all drinking water sources that serve public water systems in Pennsylvania for their susceptibility to pollution. The assessment process involves the delineation of the contributing area to the source, an inventory of existing and potential contaminant sources within that area, a determination of water system susceptibility to contamination and informing the public of the results. These assessments will be conducted by the Pennsylvania Department of Environmental Protection (**DEP**) or a contractor working for DEP. By involving and informing the public, the results of the assessments will form the skeletal framework for a voluntary, community-based drinking water protection program. Thus, the assessments can proceed to the next logical step by local stakeholders who are in the best position to decide how to protect *their* water supply. Just like WHP, SWAP is a proactive approach designed to promote the voluntary application of proper management techniques and various preventive measures at the local level to protect drinking water sources used by public water systems.

ROLES AND RESPONSIBILITIES:

Public water suppliers, local governments and the Commonwealth will each play a role and have various responsibilities related to source water protection (**SWP**) in Pennsylvania. The responsibilities for development and implementation of local SWP programs in Pennsylvania will be shared between public water suppliers and local governments. Public water suppliers are responsible for assuring the continuous supply of safe and potable water to consumers. In Pennsylvania, it is recognized that the authority to regulate land use is primarily seated in the local governments whereas the Commonwealth has primary responsibility in regulating public water supplies and most discharges of potential contaminants. The Commonwealth is also responsible for completing source water assessments for all public water system sources. DEP is the primacy agency for the SDWA and the Division of Watershed Protection in the Bureau of Watershed Management is responsible for administering the WHP and SWAP Programs in Pennsylvania.

SOURCE WATER PROTECTION:

SWP programs are locally-designed, voluntary efforts to protect drinking water sources used by public water systems based on the results of the state-provided source water assessment. A SWP program usually takes one of two forms – watershed protection (**WSP**) for surface water sources or wellhead protection for groundwater sources – or it may involve both.

Although source water protection is voluntary at the local level, a growing number of municipalities and water systems across the state are already implementing local programs, mainly in the form of WHP, in order to protect health and safety by ensuring the quality of their drinking water sources. In addition to the public health and economic benefits associated with preventing costly contamination of public drinking water sources, an effective local SWP program can enhance emergency response, complement pollution prevention activities and promote or improve sound land-use planning.

This publication provides guidelines setting forth the minimum requirements for eligible applicants interested in obtaining a SWP grant to develop, complete or implement a local SWP program for a community water system once the source water assessment is completed. Existing WHP programs that are not yet fully implemented, but have already completed WHP area delineations and contaminant source inventories will be considered to have assessments completed *for the purpose of this grant program*. For surface water systems and those groundwater systems that have not started any WHP activities, assessments can be conducted concurrently with protection activities funded under the SWP grant. DEP may prioritize assessments for those systems seeking a SWP grant. The objective of this grant program is for the recipients to prepare and submit a plan that describes a WHP or watershed protection program including a specific schedule of implementation that meets DEP minimum elements for local SWP programs. These guidelines may be revised in accordance with changing needs and priorities of the program. These incentive grants are funded from DEP's Drinking Water State Revolving Fund (**DWSRF**) Set-Aside account under the authority of the SDWA Amendments of 1996, Section 1452.

The following words and terms, when used in this publication shall have the following meanings, unless the context clearly indicates otherwise.

ACRONYMS

CWS – Community Water System

DEP – Pennsylvania Department of Environmental Protection

DWSRF – Drinking Water State Revolving Fund

SDWA – Safe Drinking Water Act

SWAP – State Source Water Assessment and Protection Program

SWP – Source Water Protection

WHP – Wellhead Protection

WHPA – Wellhead Protection Area

WSP – Watershed Protection

DEFINITIONS

Community Water System (CWS) – A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents as defined in the Act of May 1, 1984 (P. L. 206, No. 43), as amended, known as the Pennsylvania Safe Drinking Water Act (35 P.S. 721.1 *et seq.*).

Department – Pennsylvania Department of Environmental Protection (DEP).

Municipality – Any city, borough, incorporated town, or township.

Source Water Assessment – An evaluation of public water system sources that involves the identification of the area supplying water to the source, an inventory of potential and existing contaminants in that area, a determination of water system susceptibility to contamination and informing the public of the results. Assessments will be conducted by DEP or a contractor working for DEP.

Source Water Protection (SWP) Program – A comprehensive program implemented at the local level that is designed to protect drinking water sources used by public water systems from contamination based on the results of the state-provided source water assessment. Source water protection programs can take one of two forms – watershed protection for surface water sources (streams, reservoirs, ponds, lakes, etc.) or WHP for groundwater sources (wells, springs, etc.).

Applicant – The legal entity that enters into an agreement with the Commonwealth for an SWP grant award.

State Source Water Assessment and Protection (SWAP) Program – A comprehensive State program designed to assess drinking water sources that serve public water systems for their susceptibility to pollution as a basic framework for eventually building voluntary, community-based prevention barriers to drinking water contamination.

Watershed Protection (WSP) Program – A comprehensive program implemented at the local level that is designed to protect a surface water source (stream, reservoir, lake, pond) used by a public water system from contamination.

Wellhead Protection Area (WHPA) - The surface and subsurface area surrounding a water well, wellfield, spring or infiltration gallery supplying a public water system, through which contaminants are reasonably likely to move toward and reach the water source. A WHPA will generally consist of an area immediately surrounding the well (Zone I); the land surface overlying that portion of the aquifer through which water is diverted to a source (Zone II, i.e., the capture zone; note that this is NOT the same as the zone of influence); and the area beyond Zone II that contributes significant surface water and/or ground water to Zones I and II (Zone III). Collectively, Zones II and III constitute the contributing area of a well. The WHPA is determined based on site-specific well hydraulics and hydrogeologic characteristics.

Wellhead Protection (WHP) Program - A comprehensive program implemented at the local level that is designed to protect a groundwater source (well, spring or infiltration gallery) used by a public water system from contamination.

GENERAL GUIDELINES

Who may apply?

Eligible applicants for SWP grants are a municipality, a group of adjacent municipalities or a community water system (**CWS**). The project must involve the development of a SWP program for a CWS. Water systems or municipalities who participated in previous DEP grants for source water protection (County Water Supply Planning/Wellhead Protection Grants, etc.) may apply for this grant. However, the Source Water Protection Grant Program is a one-time grant and may not be renewed.

Who is not eligible?

Individuals, private for-profit firms, unincorporated citizen groups, and county, state and federal government units that are not operating a CWS are **not** eligible for grants under this program. Interested parties may enter into working arrangements with an eligible applicant. Source Water Protection Grants are one-time grants and grant recipients under this grant program are not eligible for another SWP Grant.

What are the funding amounts?

The state maximum amount awarded for wellhead protection grants is \$50,000 and the maximum amount for watershed protection grants is \$200,000. There is a 10% match required from the applicant for either grant. The DEP will hold 20% of the awarded grant amount until the final product is received.

How will awards be made?

Grants will be awarded on a competitive basis. Project review and selection will be guided by the specific criteria described on page 12. The SWP Grant Program is primarily a reimbursement/receipt program. A portion of the grant award (20%) will be held until the local SWP plan is submitted and approved by DEP. Grantees who have not previously had contracts with the Commonwealth will be required to submit a Form W-9 - Request for Taxpayer Identification Number and Certification prior to contract approval.

What is the overall timeframe?

Grant applications will be accepted within the timeframe of the Growing Greener application period. For the current round, grant applications must be submitted by 4:30 PM on **Feb. 3, 2003**. Project duration may be up to five years.

What reports will be required?

Applicants selected to receive grants will need to demonstrate that they have the capability to manage and account for the money they receive. In all cases, a complete spending record including invoices and receipts, (or logs in cases where receipts are impractical) will be required. A concise but descriptive statement of progress completed to date should accompany each invoice which should be submitted on at least a quarterly basis. The final product to be submitted to DEP at project completion is a complete plan that details a local WHP or watershed protection program that meets DEP's minimum elements for each plan.

What is the Difference Between the Two Grants?

Essentially, the WHP grant is for groundwater sources and the watershed protection grant is for surface water sources. If a CWS has both groundwater and surface water sources, they would be eligible to apply for both grants to receive a maximum amount of \$250,000.00. The goal of both is to develop a local SWP program. The following table highlights each of the grants. Examples of eligible activities are listed on pages 14-15. If you need assistance, please call the Division of Watershed Protection or your Regional DEP Office. (Contact information is in Appendix D.)

General instructions for applications are described on pages 7-8. The required Project Description for both grants follows the same general format, which is described on pages 9 and 10. However, each grant has specific instructions relative to the final product which will be a plan describing a WHP or watershed protection program that meets the appropriate DEP minimum elements. Specific instructions for WHP plans are described in Appendix B while specific instructions for watershed protection plans are in Appendix C. Cost information and budget details can be found on pages 16, 17 and 18.

Characteristic	Wellhead Protection	Watershed Protection
Eligible Applicants	Municipality, group of adjacent municipalities, community water system (one-time grant only)	Municipality, group of adjacent municipalities, community water system (one-time grant only)
Project Duration	Up to 5 Years	Up to 5 Years
Amount Granted	Up to \$50,000	Up to \$200,000
Types of Projects:	<ul style="list-style-type: none"> - Rigorous WHPA delineation, - Enhanced contaminant source inventories, - WHPA management or planning (ordinance development, transfer of development rights, monitoring, public education activities, road signs, emergency response enhancements, contingency planning) 	<ul style="list-style-type: none"> - Public education activities, - Watershed management activities (ordinance development, transfer of development rights, monitoring, road signs, emergency response enhancements, contingency planning)
Final Product	Approveable local WHP program/plan (meets DEP Minimum Elements for Local WHP Programs, see Appendix B)	Local watershed protection program/plan (meets DEP Minimum Elements for Local Watershed Protection Programs, see Appendix C)
Matching Funds	10%	10%
Budget	See pages 16-18 for cost information and budget details.	

APPLICATION INSTRUCTIONS FOR SWP GRANTS

When you have developed your idea, consulted with appropriate partners, and talked to the Watershed Management support staff and/or Water Supply Management field staff about any questions you may have, you are ready to prepare the application.

The “official application form” for SWP grants is the Environmental Stewardship and Watershed Protection (Growing Greener) Grant Application which is found at the beginning of this document. While the application form is mostly self-explanatory, a few items merit clarification:

- Under *Part 4. Application Type*, be sure to select “Source Water Protection” and indicate whether the project involves WHP, watershed protection or both.
- Under *Part 15. Budget Summary*, please note that construction is not an eligible category for SWP grants.
- Specific instructions for the detailed project description (*Part 14*) are found in the next section

IT IS RECOMMENDED THAT ALL APPLICATIONS:

- follow the example of a completed application on page 24.
- use plain white recycled paper.
- be on 8 ½ X 11 inch paper with a minimum 0.7 inch margin on all sides.
- be double sided (duplex) text (except where allowed-see page 10)
- have the entire proposal stapled together in the top left hand corner. (***Plastic or other types of covers are not allowed.***)
- include letter(s) of support.

IT IS REQUIRED THAT ALL APPLICATIONS:

- include the Growing Greener application form as the top sheet in the package.
- **contain all the information in the Project Description as described on pages 9-10.**
- provide the Scope of Work, Schedule and Budget in a manner that allows them to be used as stand-alone documents for attachment to a grant agreement.
- are duplicated and we receive **4** copies (original, plus three copies) of the proposal.
 - Do not submit anything after the deadline or after you have made your original submittal. (Call for instructions if you must amend your original submittal).
- Faxes and e-mails will **not** be accepted.
- Electronic submissions are not being accepted at this time.
- All applications must be received by **4:30 p.m. on February 3, 2003.**

Budget

- Please provide a project budget following the example provided in this instruction booklet.
- Also describe the donated or in-kind contributions (time, services, materials) you expect to get - so that the total cost of the project is reflected. The participation of volunteers should be counted and shown as anticipated number of hours donated multiplied by \$/hour. For the hourly rate, use a reasonable estimated value for the kind of service donated. See pages 16-18 for cost information and budget details.
- Check the list of “non-allowable costs,” and make sure none of these is included in your budget.

Four copies of the completed grant application must be postmarked (if mailed) or received (if hand delivered) by 4:30 p.m. on Feb. 3, 2003 at the following address:

DEP Grants Center
15th Floor, Rachel Carson State Office Building
400 Market Street
P.O. Box 8776
Harrisburg, PA 17105-8776
Telephone: 717-705-5400 or 1-877-PAGREEN or 717-787-5259

PROJECT DESCRIPTION FORMAT

This section provides instructions on preparing the detailed SWP Project Description section for a SWP grant. An example of a completed Project Description has been provided on page 24. It is suggested that you follow this example.

Title (Type of SWP project and name of CWS)

Applicant (name, address, contact information, Federal Tax ID #, etc.)

Background Information

Provide a general description of the project area including the following as appropriate:

- Location of source(s) (include 8 ½ x 11" copy of USGS 1:24,000 scale topographic quadrangle map with estimated project boundaries);
- Applicable regional and local physiographic description of area (topography, hydrology, hydrogeologic setting, etc.);
- Size of drainage basin(s) AND/OR geologic unit name(s) of aquifer(s) being tapped;
- Water system description and source characteristics;
- Service area size/extent including current and projected population;
- Current land use in study area;
- Major environmental/planning initiatives (underway or planned);
- Unique characteristics;
- Summarize any past assessment reports, studies, implementation projects that identify a water quality threat or problem, if known (Clean Water Act 303(d) List of Impaired Waters, Chapter 93 stream classification – High Quality or Exceptional Value Waters, Total Maximum Daily Loads – TMDLs, previous hydrogeologic investigations or WHP studies, source water assessment, etc.);
- Provide any assessment maps, if available.

Purpose of Plan Development, Goals and Benefits to system, previous work completed.

State specific project goals. Briefly explain what problems the project will address; how and when the work will be done and who will do it. Describe why the project should be funded and what benefits will be realized by developing a local SWP program. Explain how the project fits with other projects, plans or studies previously completed or underway. Where applicable, describe how the project will integrate with existing or planned watershed management efforts.

Scope of Work

Provide a list of project tasks necessary to develop and implement a local SWP program that meets DEP minimum elements (see Appendix B or C) and describe the tasks in detail. List the personnel who will be responsible for accomplishing these tasks. Provide resumes detailing the qualifications of all listed personnel as an appendix to the submission. ***(The Scope of Work must state that the final deliverable product will be a local SWP program that meets DEP minimum elements.)***

Schedule

List major steps, milestones and expected completion dates for the tasks listed in the Scope of Work. Use relative dates (e.g., 6 months) rather than an absolute date.

Project Partners

In order to successfully implement SWP efforts, it may be necessary to seek cooperation from businesses or landowners in a source water protection area and other groups that may have an interest (local agencies, watershed/citizen groups, etc.) or to enlist volunteers to assist with various tasks. Describe the roles and responsibilities of any other participants assisting in the design and implementation of the project as well as how information will be distributed and participation coordinated. Include letters of intent and support from partners that will be involved in the project. Letters of support should detail commitment of resources from agencies, organizations or individuals who are affiliated with, endorse, support or assist with the project.

Information, Education and Public Participation

Identify and explain all proposed outreach and educational activities planned by the project. Give details on how the public will be informed and participate in your project. Describe plans to gain local government and community support.

Budget

Prepare your budget following the example provided on page 18. The budget does not need to include each budget category, however, only the listed budget categories will be allowed:

- Salaries/Benefits
- Travel
- Equipment/Supplies
- Administrative
- Contractual
- Other

Note that construction is not allowed for a SWP grant.

Appendices

Include any supporting documents for your project. These could include: resumes detailing qualifications of personnel, letters of support/commitment from partners and

stakeholders in the project area, assessment reports, studies, water quality data, or other documents that substantiate the need for or benefits from a local SWP program.

NOTE:

- Letters of intent from partners and supporters of the project must be included with the application.
- The Scope of Work, Schedule and Budget should be provided in a manner that allows them to be used as stand-alone documents for attachment to a grant agreement. (one sided copies are allowed with these sections of the application)
- DEP's selection of a project for funding should not be construed as a specific authorization to engage in any of the proposed activities. The applicant has the responsibility to be aware of and obtain all required permits and authorizations to properly proceed with all aspects of the project. The applicant has the responsibility to obtain permission of the landowner for any activity (monitoring, contaminant source inventory work, signage, etc.) taking place upon any property not owned by the applicant.

PROJECT CRITERIA

Projects proposed for funding under the SWP Grant Program must address the development, completion and/or implementation of a local SWP program to protect drinking water sources used by public water systems. The local SWP program will build upon the results of the DEP-provided source water assessment. Existing WHP programs that are not yet fully implemented, but have already completed WHP area delineations and contaminant source inventories will be considered to have assessments completed *for the purpose of this grant program*. For surface water systems and those groundwater systems that have not started any WHP activities, assessments can be conducted concurrently with protection activities funded under the SWP grant. DEP may prioritize assessments for those systems seeking a SWP grant.

Funding may be requested for just certain components of a SWP program, but the objective of this grant program is for sponsors to develop and submit a plan that details a WHP or watershed protection program for a CWS that meets DEP minimum elements for SWP programs (see Appendix B or C) as the final product. As the Pennsylvania Safe Drinking Water regulations allow for DEP approval of local WHP programs (25 Pa. Code §109.713), it is expected that WHP programs developed under this grant will be of an “approveable” form. Although DEP is not currently approving local watershed protection programs, they will also be expected to meet certain minimum elements. *Proposals that do not address the development of a complete SWP program and do not include a schedule of implementation will be considered to **not** meet the project criteria.*

Applications will be independently reviewed by at least two reviewers from both the central and regional offices of DEP. Reviewers will consider the following criteria when judging applications: What water system improvements will likely result from the project? How well does the project adhere to DEP’s minimum elements for SWP? What is the likelihood of successful completion within the projected time frame? Does the project have a clear source water protection focus? What is the applicability of the expected protection measures toward improving or sustaining drinking water quality throughout the Commonwealth?

The review team will be guided by the following criteria in evaluating each individual project. Applicants should briefly and clearly address each of these points in the proposal.

1. Is commitment demonstrated by the water supplier and/or local government(s) to develop, implement, support and sustain (after funding) a local SWP program?
2. How will the water system benefit from the project? Why is a SWP program needed?
3. Is the project likely to be successful?
4. Has the project been adequately considered and will it be ready to proceed to implementation? Is a schedule provided and is the project likely to be completed in the stated timeframe?

5. Does the Project Description contain enough details to show that all of the components of a local SWP program will be in place at completion? Will the project meet the minimum elements for the appropriate SWP program?
6. Is there a plan for or demonstration of continued support of the project over the long term (once the grant is over)?
7. Does the proposal demonstrate the existence of community-wide support? Are all of the key stakeholders involved?
8. Are matching contributions (10% minimum) of time, money, materials and expertise being provided by the applicant, partners or other non-state sources?
9. Is the applicant organization qualified to carry out the project? Do the personnel listed in the work plan possess the necessary qualifications (education and experience) to carry out the tasks?
10. Are costs reasonable and do they reflect an understanding of the tasks involved? Did the applicant provide a budget that follows the approved format?

Additionally, the final deliverable product at the completion of a SWP grant is a plan detailing a wellhead protection or watershed protection program that meets DEP's minimum elements for local SWP programs. Minimum elements for WHP and WSP programs are found in the appendices.

EXAMPLES OF ELIGIBLE SWP ACTIVITIES

SWP is designed to be community-based since local stakeholders are in the best position to decide how to protect their community's water supply. This allows a great deal of flexibility in designing and implementing SWP programs. The following examples are offered to spark creative thinking. They are in no particular order and there is no guarantee that an application proposing one or more of these activities will automatically be funded. The applicant needs to demonstrate that any proposed SWP activity, whether it is one on this list or not, meets the criteria described previously. The SWP grant can be used to plan, design or support the development of an implementation strategy related to a specific activity that can be funded under other state or federal programs related to watershed restoration or groundwater protection such as implementation of best management practices for nutrient control, stream fencing, etc. Regardless of the activities proposed for funding under a SWP grant, the final product to be delivered to DEP will be a plan detailing a WHP or watershed protection program that meets DEP minimum elements for local SWP.

- Public participation and/or educational activities (flyers, billboards, posters, videos, newsletters, workshops, etc.) that promote awareness and encourage local support of SWP efforts.
- Providing enhancements to or completion of rigorous WHP area delineations (geophysical investigations, dye-tracing studies, groundwater modeling, hydrogeologic mapping, etc.).
- Specific studies (time-of-travel, etc.) to delineate critical areas in support of emergency response procedures for surface water systems.
- Refining or augmenting contaminant source inventories.
- Designing and developing an implementation strategy for ecologically sound shoreline/streamside protection or restoration measures in a surface water body used by a CWS.
- Educational programs that link specific pollution issues to local SWP concerns.
- Educational programs that target identified existing or potential sources of contamination.
- Community-based public participation or consensus-building projects that link specific pollution issues to local concerns in a specific watershed used by a CWS.
- Revision of existing ordinances to support SWP in the community.
- Development and adoption of ordinances specifically designed to protect sources of drinking water (overlay zoning, land development/subdivision ordinances, design/performance standards, health regulations, etc.).
- Establishing a program for transferring development rights within a WHP or watershed protection area to land outside of the protection area.
- Development of institutional controls (easements, deed restrictions, etc.) for SWP including protection of areas where new sources will be located.
- Designing and developing an implementation strategy to retrofit existing infrastructure to improve water quality or development of other creative solutions to problems facing public water systems.
- Designing and developing an implementation strategy to prevent nonpoint source pollution in a WHP or watershed protection area.

- Implementing a groundwater monitoring network or surface water monitoring program that serves as an “early warning” system.
- Development of a house and farm hazardous waste collection program - including herbicides, pesticides, paint products, auto and farm implement products and cleaning agents -- as well as other pollution prevention programs to address concerns within a WHP or watershed protection area.
- Creating a plan for environmentally sensitive land development and working toward local government support for the implementation of the plan.
- Purchase and posting of PennDOT’s Water Supply Area road signs at the boundaries of WHP or watershed protection areas for DEP approved SWP programs.
- Development of a contingency plan for providing alternate water supplies in the event of contamination of a drinking water source.
- Enhancing or augmenting existing public water system and/or local agency emergency response plans to specifically address potential incidents that may impact drinking water quality.
- Purchase of equipment to enhance security of their sources of drinking water (video cameras, alarms, fencing, etc.) as part of a SWP contingency plan.

COSTS

Allowable costs

Any of these costs are allowable if you can clearly demonstrate their connection to the project:

- Administrative costs (2 percent maximum). See page 17.
- Professional services not obtainable through voluntary personnel or regular organizational staff such as planners, geologists, hydrogeologists, hydrologists, etc.
- Materials and supplies.
- Salaries.
- Travel and lodging if directly associated with the implementation of the project.

In-kind services may be utilized for the eligible costs. All state and local share income sources must be for work completed between the beginning and end date of the agreement.

Non-allowable costs

These costs are not allowed under any circumstances:

- Expenses incurred in the preparation of a SWP grant application.
- Major equipment purchases.
- Costs associated with lobbying.
- Construction.
- Sealing abandoned wells.
- Land acquisition.
- Exploration, development or testing associated with new drinking water sources.
- Any activities related to permitting/regulatory requirements for community water system wells (aquifer testing for NEW wells, SWIP monitoring, etc.)
- Entertainment.
- Interest payments.
- Food (except that associated with approved travel).
- Meeting and conference registration fees.

If you have a question regarding costs, please call the Bureau of Watershed Management before preparing your budget.

Phone: 717-787-5259

BUDGET DETAILS

A detailed listing of both grant requested funds and match money must be provided. A 10 percent minimum match is required for a SWP grant. All in-kind and match contributions should be listed along with documentation of the source(s) of the match. Match calculations cannot include other DEP funding sources or DEP in-kind services. Please provide enough detailed budget information and justification so that reviewers can evaluate the cost-effectiveness of the project. Use one or more of the following categories in your budget (budget does not need to include each budget category, however, only the listed budget categories will be allowed):

A. Salaries/Benefits

Include breakout of sponsor employees, hours, rate, and fringe benefits associated with these salaries.

B. Travel

The cost of travel, including transportation, lodging and meal subsistence, shall not exceed rates used by state agencies.

C. Equipment/Supplies (*durable goods*)

List equipment and supplies to be purchased. This could include items such as books, handouts, brochures, etc., needed for a workshop; monitoring or laboratory supplies; or office supplies.

D. Administrative (2% maximum)

Includes office costs (*consumptive* goods) such as postage, telephone and indirects. Indirect costs must be directly related and necessary for the project.

E. Contractual

Not all project sponsors are equipped to accomplish every task specified in the work plan. With DEP approval, the project sponsor may hire a third party to perform all or a portion of the work. Examples of costs that could be included here are services for rigorous delineation work, water quality monitoring, ordinance development and report preparation. If the use of a subcontractor is proposed, but not yet selected or identified at the time of application, funding approval will be contingent upon DEP approval of the subcontractor.

F. Other

This could include items that do not fit any of the above categories.

BUDGET FORMAT FOR SWP GRANTS

Attachment 1

BUDGET

	<u>System Contribution</u>	<u>SWP Grant</u>
SALARIES & BENEFITS:		
Mr. Project Manager 60 hours @ \$15.00 per hour (education/work with Our Consultant, Ltd./ erection of signs)	\$900.00	
Volunteer Committee Bill Johnson Melanie Smith Dave Thomas Scott Nicholas Susan Howard Greg Lawrence 150 hours @ \$7.00 per hour	\$1,050.00	
TRAVEL:		
Educational Program Presentations/ Workshops & Seminars on WHP	\$200.00	
EQUIPMENT & SUPPLIES:		
4 Water Supply Secondary Road Signs		\$1,600.00
1 groundwater simulator		600.00
Brochure – printing & distribution		300.00
Brochure mailing		<u>100.00</u>
		\$2,600.00
ADMINISTRATIVE:		
Phone/fax/postage	\$150.00	
CONTRACTUAL:		
Our Consultant, Ltd.		\$6,000.00
TOTALS:	\$2,300.00	\$8,600.00
TOTAL COST OF PROJECT		<u>\$10,900.00</u>

Matching funds will be taken from Our Town Borough Municipal Authority's General Operating Fund.

PROJECT SUBMISSION, INVOICING, REPORTING AND AUDITING

Applicants must provide three copies of their application along with the original SWP application (4 total).

**All applications must be received by the DEP Grants Center
NO LATER THAN 4:30 PM ON FEB. 3, 2003 IN ORDER TO BE CONSIDERED FOR
FUNDING IN THIS ROUND.**

NO FAXES OR E-MAILS WILL BE ACCEPTED.

The Commonwealth reserves the right to reject any and all proposals received. All funded projects must meet a minimum standard quality and conform to the format and details described herein. Final selection of projects will be determined by the Bureau of Watershed Management.

This grant program is strictly a reimbursement program.

Your organization must spend your funds first, keep detailed records, submit a request for reimbursement form and then receive reimbursement for project expenditures. Payment processing takes four to six weeks from time of request for reimbursement until actual payment is received. A request for reimbursement is made on a standard Bureau of Watershed Management reimbursement form, which will be provided to the project sponsor.

DEP will withhold 20 percent of the project costs until the local SWP plan is submitted and approved by DEP. The local SWP plan will describe a WHP or watershed protection program, including a specific schedule of implementation, that meets the appropriate DEP minimum elements.

All projects will follow the following minimum reporting requirements as applicable:

- Progress reports with each request for reimbursement (usually done on a quarterly basis).
- SWP Grant Program acknowledgement for brochures, publications, etc., (suggested language as provided by DEP).
- Any water quality data generated during the project must be submitted in tabular format and on disk.
- Any GIS data generated during the project must be submitted in a format acceptable to DEP.
- The final report after project completion will be a local SWP plan that meets the appropriate DEP minimum elements (submit three copies).

DEP reserves the right to audit contracts for the SWP Grant Program in the following manner:

- A review of all project-related records.
- On-site inspection by DEP personnel.
- Other appropriate methods.

The auditing of agreements shall be to assure that Commonwealth funds have been expended appropriately and to evaluate the progress and success of the SWP Grant Program.

Sponsors must maintain and provide the following records as a minimum to account for grant funds received through a SWP grant:

- Employee Time and Activity Reports.
- Employee Expense Reports.
- Purchase Invoices.
- Subcontracts.
- Vehicle Trip Tickets.

It is recommended that these records be retained for three years after final payment.

TIPS FOR PREPARING A SWP GRANT APPLICATION

This section describes some of the questions reviewers consider when evaluating SWP grant applications. It also offers some advice on how to make a stronger proposal.

<i>What Reviewers Ask</i>	<i>Tips for Your Proposal</i>
Background Information/Goals	
Are the project area, water system and sources adequately described?	Consult annual water supply report, sanitary survey, DEP inspection report, previous studies, local planning agency, published state or federal water resource reports for information. Make sure that a map is included that depicts source locations and other relevant features.
Does the proposal have well-defined goals that are very likely to be achieved? Are benefits to be realized clearly stated?	Ask someone not familiar with your project to review the proposal. Can they describe to you what you intend to do? If not, make your proposal more descriptive and clearer.
Is the size of the project such that it can be completed and a local SWP plan developed/revised in the time allowed under the grant?	Be realistic with your time frame; carefully consider what tasks are to be done and the number of people available to complete those tasks.
Has there been previous work done to identify problems or initiate local SWP efforts? Is there unnecessary duplication of efforts?	Clearly state if other SWP work (WHP studies, etc.) or other studies have been done and how this project relates to or builds upon them. Make sure there is no duplication of previous work unless it can be demonstrated that updates are needed.
Are there any other watershed management efforts planned or currently underway? Does the proposal show how the project will coordinate with these efforts?	Contact DEP's regional Watershed Manager to determine existing or planned watershed management activities. Where applicable, ensure that the proposal describes how the SWP project will integrate with the watershed management approach.
Scope of Work and Schedule	
Does the work plan list and describe the tasks necessary to develop and implement a local SWP program? Will all components of a local SWP plan be in place at completion of the project?	Refer to the minimum elements for local WHP or watershed protection programs to ensure that all elements are adequately addressed. Keep in mind that the final product will be a plan that describes a program meeting the appropriate minimum elements.

<p>Does the work plan indicate specific items or tasks to be done and not just generally stated or intended goals?</p>	<p>If your project is seeking funding for only certain SWP elements or activities, specify which items or tasks this grant would cover and what has been done previously or will be done to complete the final SWP plan.</p>
<p>Is there a schedule of tasks to be completed and who has responsibility to complete those tasks? Does the schedule include appropriate milestones?</p>	<p>Be sure that there is a firm commitment from individuals or agencies that are expected to complete the tasks. The schedule should be reasonable and achievable within the allotted time frame.</p>
<p>Are qualifications provided for the personnel (in-house staff and/or subcontractors) responsible for specific tasks?</p>	<p>Identify all personnel responsible for work and list their relevant education and experience. If use of a subcontractor is proposed, but not identified in the application, funding approval will be contingent upon DEP approval of subcontractor.</p>
<p>Is commitment to implement the plan demonstrated? Will the resultant SWP program be supported after the grant funding ends?</p>	<p>Be sure to demonstrate that implementation will occur and there is community-wide support for long-term SWP efforts. It should be obvious to the reviewer that the project will not result in a plan that just resides on a bookshelf after completion. While letters of intent/support are useful, commitment can be best demonstrated by a firm schedule for adoption of an ordinance, establishment of long-term educational programs, continued financial assistance, etc.</p>
<p>Partners, Education & Public Participation</p>	
<p>If partners are involved, is there a strong commitment from them? Are specific individuals who will assist listed and not just an agency or group.</p>	<p>Include letters of support or commitment to assist in the project. The involvement of each group or individual should be described in the support letter.</p>
<p>What are the educational or outreach aspects of this project?</p>	<p>Identify and explain all educational and outreach activities. Outreach efforts to promote awareness and encourage local support of SWP efforts will likely result in active involvement by the public.</p>
<p>Are there provisions for public participation in the development of the SWP program?</p>	<p>Give details on how the public will be informed and participate in the process. Active involvement of the public will likely result in long-term support of local SWP efforts.</p>

Budget	
Does the budget follow the categories listed for the grant? Does the budget follow the approved format on page 18 of the instructions?	Some items are not eligible for funding under these grants. Check the criteria and look for another funding source where needed.
Does the budget give details on how amounts were determined?	Review your own budget. For each item ask yourself, "Is it clear in our proposal how this money would be spent?"
Is the required 10 percent minimum in-kind contribution listed? What in-kind contributions are being made?	Make sure the proposal lists who will contribute and whether money or services will be donated. Be sure to give yourself credit for local match, such as volunteer or staff time, donations of materials, cash contribution, etc.
Are specific items or charges listed for each budget category especially contracted services?	Keep oversight and administrative fees to a minimum.

**The following is an example of a
Project Description for a
Source Water Protection Grant Application.
Please follow this format when applying for a
grant.**

Specific instructions are in italicized print.

**A completed one-page Growing Greener Grant
application form
must be included with your
Source Water Protection Grant Application.**

**If you have any questions, please call the
Bureau of Watershed Management
at 717-787-5259.**

APPLICATION FOR A PA DEP SOURCE WATER PROTECTION GRANT

January 3, 2003

TITLE: Our Town Borough Wellhead Protection Program
APPLICANT: Our Town Borough Municipal Authority (The applicant name must match the name listed with the Federal ID # and must be consistent throughout the document.)
1234 Water Street
P.O. Box 111
Our Town, PA 12345-1234

Contact Person: Mr. Project Manager

Telephone #: 000-000-0000

FAX #: 000-000-0000

Email: Ourtown@borough.com

PWS ID: 0000000

Federal Tax ID #00-0000000

Community Water System Name: Our Town Borough Municipal Authority

DESCRIPTION OF PROJECT AREA, WATER SYSTEM & SOURCES:

(All sources of drinking water must be listed in this section.)

Our Town Borough Municipal Authority serves the Borough of Our Town and portions of Mainsville Township, Cumberland County, Pennsylvania with drinking water from groundwater sources. The **two groundwater sources** used by the Authority are located within the Borough limits of Our Town. The Borough of Our Town is located at the intersection of State Route 111 and 234 approximately 12 miles northwest of This Town, and approximately 12 miles southwest of That Town, PA in Cumberland County.

The area surrounding the source(s) is primarily residential with some agricultural land use to the north. The topography of the area surrounding the source(s) is rolling hills and valleys. Both sources are located within the Fishing Creek drainage basin which drains to the Major River. *See attached topographic map

Well #6 is located on flat ground, adjacent to the banks of Fishing Creek. This well is drilled into dark gray limestones that is probably the Onodaga Formation, with abundant calcite seams and pyrite in bedding planes. The rock layers are inclined, or dip to the south and are part of a large regional fold system. The capacity of Well #6 is approximately 150 gallons per minute.

Well #7 is located north of the Career and Technical Center, which is located on Route 234. There are residential homes to the north and to the west of the well. The well is located on the side of a hill that is used for farming. The well was drilled in the Wills Creek Formation, which was logged as mostly shale. The capacity of the well is

approximately 1000 gallons per minute. A monitoring well was drilled approximately 50 yards east of the production well.

Recently, Wells # 1, 2, & 3 have been abandoned and Well #5 did not pass SWIP and was taken off line.

Most land use in Our Town Borough is primarily residential with some industry in the area. As of the last census, the population of the Borough was 968 and is projected to grow to 1,115 by the year 2020.

The water system is operated by Our Town Borough Municipal Authority employees. The water system consists of two wells, a treatment facility and two reservoirs. The system uses chlorination and a cascade aerator to treat the water. The system has two finished water storage reservoirs. Reservoir #1 has a usable storage capacity of 171,000 gallons and Reservoir #2 has a storage capacity of 80,000 gallons. The system serves 351 connections serving approximately 968 residents, or other users. The average daily demand is 100,756 gallons per day with a peak use of 134,000 gallons per day.

PURPOSE OF PLAN DEVELOPMENT:

The Our Town Borough Municipal Authority recognizes the possibility of potential threats to its water supply. In an effort to address the potential problems which could affect the source, the Borough Municipal Authority, with guidance from the Pennsylvania Rural Water Association, Cumberland County Planning Commission, and DEP established the Our Town Borough Municipal Authority Source Water Protection Steering Committee to make recommendations to the Our Town Borough Council, and Cumberland County Planning Commission on protecting the groundwater resources providing drinking water to the residents of Our Town and parts of Mainsville Township.

Source Water Protection plans are necessary for the protection of the system's source from contaminants that are difficult and costly to treat through normal means. The plan clearly identifies actual and potential sources of contamination to the source. Secondly, it allows communities to effectively educate the public on the importance of their drinking water source. Third, the plan serves as the first step for long-term sustainable planning for the future of the community. Finally, it provides a comprehensive action plan in case of an emergency.

Our Town was included in the Cumberland County Wellhead Protection Plan completed in 1997. At that time, all existing wells were delineated. Well #7 was developed after the County Plan was completed. There was no local effort as far as a wellhead protection plan for the local government. We are now taking action to provide what is needed for an approved wellhead protection plan.

When completed, the Our Town Borough Municipal Authority Source Water Protection Plan will meet all of the minimum elements for source water protection as developed by Pa. DEP.

GOALS & BENEFITS TO SYSTEM:

The Our Town Wellhead Protection committee has held monthly meetings since October 16 and has completed the steps from forming a committee to considering management options. The committee has identified goals and benefits of completing a comprehensive wellhead protection plan.

BENEFITS

- Public Education will increase public involvement in protecting the Our Town water resources.
- A rigorous delineation of the wells will identify the area that needs protected and will provide credible documentation to alert residents and adjacent municipalities of the protection area of the wells.
- A good Emergency Contingency Plan will let us plan ahead for possible contamination and will increase the local fire department and emergency management agencies awareness of the location of our water resources.

GOALS

- A rigorous delineation of contributing areas for Well #7.
- Water supply protection signs which will alert motorists and truckers that they are entering a sensitive area of recharge for a public drinking water supply.
- Public awareness of source water plan and protection program through local news and community group presentations.
- Sustained public education through community involvement and partnership with local schools.
- Development of an effective emergency response plan.

PREVIOUS WORK COMPLETED:

- In 1997 Cumberland County completed a County Wellhead Protection Plan and Water Supply Report. Our Town was part of that pilot project study.
- WHP Committee: The Committee was formed on October 16, 2001.
- Delineation: A one half-mile radius delineation was completed by the PRWA Groundwater Technician.
- Inventory: An inventory was completed by the WHP Committee on November 11, 2001.
- Meeting with DEP representative, Joe Smith: December 7, 2001.
(See Public Participation below)

QUALIFICATIONS OF PERSONNEL:

See attached resumes.

PUBLIC PARTICIPATION:

The Wellhead Protection Steering Committee consists of Our Town Borough Municipal Authority employees and officials, a representative from Mainsville Township, a representative from the local Fire Department, and several residents and business owners. The Pa. Rural Water Association provided technical assistance. The general public was notified via the local newspaper of the public meeting date and time along with general information on wellhead protection. Additional groups represented included Penn State Cooperative Extension, Pa. DEP and the County Planning Department. Public participation will continue throughout the development of a WHP program.

Steering Committee *(list committee member roles and responsibilities if known)*

Name	<i>(Include Phone number)</i>	Representative
Mr. Joe Miller, Chairman		Authority Employee
Bill Johnson		School Teacher
Melanie Smith		Authority Official
Scott Nicholas		Resident/Farmer
Robert Jackson		Limestone Township
Kathy Christopher		Penn State Extension
Larry Cole		Fire Chief
Susan Howard		Borough Council

Consultant:

Gary Thomas, Our Consultant, Ltd. *(Include phone number)*

Technical Assistance:

Judy Muehl, Pennsylvania Rural Water Association
Mr. John Doe – DEP Sanitarian, South Central Office
Cumberland County Planning Commission

Annual Meeting:

This Wellhead Protection Steering Committee or its successor will meet and review this Plan and Program implementation on an annual basis. The annual meeting of the Wellhead Protection Committee will be held the beginning of November of each year. A brief annual report will be submitted to the PA DEP describing any changes to the Plan. The Pa. DEP will provide the format for this annual report.

Important note: If you have both groundwater sources (wells and springs) and surface water sources (intake), you will need to submit a scope of work, budget and project schedule for the groundwater sources and a separate scope of work, budget and project schedule for the surface water sources. If you have questions, please call 717-787-5259 before you submit your application.

Exhibit A
SCOPE OF WORK-WHP
Our Town Borough Municipal Authority

TASKS TO BE COMPLETED:

TASK: **Refined/rigorous Delineation** (Contracted Services)
COMPLETION DATE: Three months from award of grant
RESPONSIBILITY: Our Consultant, Ltd

One half-mile radius delineation was completed on November 11, 2001. The first part of our groundwater protection efforts will be a rigorous delineation of the contributing areas of both wells. This work will be completed by Mr. Gary Thomas, P.G., Our Consultant, Ltd.

(A note on delineation: Approaches to delineation should result in delineations that conform to the appropriate Minimum Element for delineation as described in Appendices B and C of the SWP Grant Program Supplemental Instructions.

*For wellhead protection area delineations, the approach should not be method-driven and should involve the development of a **conceptual** groundwater flow model to identify the major features controlling groundwater flow, followed by the selection of an appropriate delineation method with subsequent refinement as more data becomes available. For more information, see the reports by Risser and Madden (1994); Risser and Barton (1995) and Barton and others (1999) cited in Appendix A of the SWP Grant Program Supplemental Instructions or contact the Bureau of Watershed Management at 717-787-5259.)*

TASK: **Enhanced Contaminant Source Inventory**
COMPLETION DATE: Four months from award of grant
RESPONSIBILITY: Our Consultant Ltd./ WHP Committee/ PRWA Groundwater Technician

The WHP Committee will do a site survey with Gary Thomas of Our Consultant, Ltd. and the PRWA Groundwater Technician. A computer search will be done to determine other sources of contamination. A preliminary inventory of potential contamination sources was completed by the Committee on November 11, 2001.

TASK: **Revision of WHP Template to reflect rigorous delineation/management**
COMPLETION DATE: Four months from award of grant
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician

The Wellhead Protection Plan is being developed with the help of PRWA's Judy Muehl. We will be using the DEP approved template for Wellhead Protection which meets the

elements required by DEP for approval. Judy will be following the template to ensure the development of a plan that can be approved by DEP. The PRWA Groundwater Technician will work with the committee and hydrogeologist to complete the enhanced inventory of potential contamination sources, develop an effective management plan for the wells, and develop a pro-active sustainable education program that will result in the completion of a plan that will be submitted to DEP for approval two years from award of grant.

TASK: **Education Implementation**
COMPLETION DATE: Continuing after the grant period has ended
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician

The education component of our project will include education of both the citizens of the area and a groundwater program at local schools. We are proposing to purchase one groundwater simulator to help in this education project. The simulator will be used by the school district and the Authority to educate both residents and school students in the area and to give presentations at local civic events. We will be purchasing and collecting informational brochures, videos, and books to present to the schools so that they will have tools to use in the classroom and information to hand out to the students, who in turn will take them home. The Wellhead Protection Committee will be working with the School District to establish a yearly groundwater program in at least one of the grade levels which will continue after the initial work is completed. With the purchase of a groundwater simulator, we will develop an outreach program to educate all residents in the area. A wellhead protection brochure will be developed and printed. This brochure will be sent to all residents in the area. It will document the reason for doing wellhead protection, show the delineated recharge area, and talk about what residents can do to protect the groundwater. The WHP Committee will also be contacting the local paper and inviting them to attend the WHP Committee meetings. A public meeting will be held five months after start of grant, after a refined delineation is completed.

TASK: **Emergency Management Plan**
COMPLETION DATE: Five months from award of grant
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician/Our Consultant, Ltd.

The WHP Committee will be working on an emergency contingency plan to be implemented to address the possibility of contamination of the wells. Judy Muehl will be assisting the WHP Committee in the completion of the plan. We have asked the Fire Department to help us in this effort. After the contributing areas are delineated, we will be better able to make good decisions on what actions must be taken for Emergency Management to protect the wells and how to handle contamination problems.

TASK: **Water Supply Protection Signs**
COMPLETION DATE: One year from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

As the wells have not yet been delineated, it is hard to determine what impact the road activities have on the wells. After the delineation is completed the committee will determine where the signs should be placed. There is heavy truck traffic on Route 111 and Route 234 and the wells are in close proximity to the road. Signs will be erected after the Wellhead Protection Plan has been approved by the Department of Environmental Protection and the site is approved by the Pennsylvania Department of Transportation.

TASK: **New Source Review**
COMPLETION DATE: One year from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

The WHP Committee will review the need for additional sources including potential sites, existing land use, predicted Zone I and how to obtain access to or control of the site.

TASK: **Submittal of Completed Source Water Protection Plan**
COMPLETION DATE: Two years from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

The WHP Committee will submit the completed report that meets all of the required DEP minimum elements to the DEP Regional Office.

(If a Contractor is submitting a Scope of Work, it must follow the same format and should be a separate document.)

Our Town Borough Municipal Authority
BUDGET

	<u>System Contribution</u>	<u>SWP Grant</u>
SALARIES & BENEFITS:		
Mr. Project Manager	\$900.00	
60 hours @ \$15.00 per hour (education/work with Our Consultant, Ltd./ erection of signs)		
Volunteer Committee		
Bill Johnson		
Melanie Smith		
Dave Thomas		
Scott Nicholas		
Susan Howard		
Greg Lawrence		
150 hours @ \$7.00 per hour	\$1,050.00	
TRAVEL:		
Educational Program Presentations/ Workshops & Seminars on WHP	\$200.00	
EQUIPMENT & SUPPLIES:		
4 Water Supply Secondary Road Signs		\$1,600.00
1 groundwater simulator		600.00
Brochure – printing & distribution		300.00
Brochure mailing		<u>100.00</u>
(postage for brochures can be considered supplies)		\$2,300.00
ADMINISTRATIVE:		
Phone/fax/postage	\$150.00	
CONTRACTUAL:		
Our Consultant, Ltd.		\$6,000.00
<i>(The Contractors budget must follow the same format and should be a separate document.)</i>		
TOTALS:	\$2,300.00	\$8,600.00
TOTAL COST OF PROJECT		<u>\$10,900</u>

Matching funds will be taken from Our Town Borough Municipal Authority's General Operating Fund.

Our Town Borough Municipal Authority
PROJECT SCHEDULE

TASK: Refined/rigorous Delineation (Contracted Services)
COMPLETION DATE: Three months from award of grant
RESPONSIBILITY: Our Consultant, Ltd

TASK: Enhanced Inventory
COMPLETION DATE: Four months from award of grant
RESPONSIBILITY: Our Consultant Ltd./ WHP Committee/ PRWA Groundwater Technician

TASK: Revision of WHP Template to reflect rigorous delineation/management
COMPLETION DATE: Four months from award of grant
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician

TASK: Education Implementation
COMPLETION DATE: Continuing after the grant period has ended.
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician

TASK: Emergency Management Plan
COMPLETION DATE: Five months from award of grant
RESPONSIBILITY: WHP Committee/PRWA Groundwater Technician/Our Consultant, Ltd.

TASK: Water Supply Protection Signs
COMPLETION DATE: One year from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

TASK: New Source Review
COMPLETION DATE: One year from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

TASK: Submittal of Completed Source Water Protection Plan
COMPLETION DATE: Two years from award of grant
RESPONSIBILITY: WHP Committee/Borough Officials

(The contractors project schedule must follow the same format and should be a separate document.)

APPENDIX A - ADDITIONAL REFERENCES AND ASSISTANCE

Pa. DEP Publications/Resources:

Source Water Assessment and Protection Program Document, June 1999, PA DEP, Bureau of Water Supply Management, Document number 383-5000-001.

Pa. Wellhead Protection Program Document, January 1999 (appendices updated February 2000), Pa. DEP, Bureau of Water Supply Management.

The above documents along with other information on source water protection can be viewed electronically at DEP's website <http://www.dep.state.pa.us> choose directLINK "Source Water". Information from other environmental initiatives outside of the drinking water program can also be found on DEP's website. Examples of information that may be relevant or useful for completing a SWP grant application or designing a local SWP program are described below.

Pa. Unified Watershed Assessment

Pa. DEP, Bureau of Watershed Management (717-787-9637).

Under water pollution control initiatives, DEP and cooperating agencies are assessing the condition of surface water bodies as a basis for setting restoration priorities. Pennsylvania's Unified Watershed Assessment can be viewed electronically at www.dep.state.pa.us; select Subjects/Water Management/Watershed/Final Unified Watershed Assessment.

Section 303(d) - List of Impaired Waters

Pa. DEP, Bureau of Water Supply and Wastewater Management (717-787-9637). Section 303(d) of the federal Clean Water Act requires Pennsylvania to identify all impaired waters within the Commonwealth where technology-based treatment requirements for point and nonpoint sources of pollution are not stringent enough to attain and/or maintain applicable water quality standards. This list can be viewed electronically at www.dep.state.pa.us; select Subjects/Water Management/Water Supply and Wastewater Management/Water Quality Assessment and Standards/Section 303(d) - List of Impaired Waters.

Total Maximum Daily Loads (TMDLs)

Pa. DEP, Bureau of Water Supply and Wastewater Management (717-787-9637). Total Maximum Daily Loads (TMDLs) are the sum of the individual waste load allocations and load allocations; a margin of safety is included with the two types of allocations so that any additional loading, regardless of source, would not produce a violation of water quality standards. TMDLs that have been completed to date can be viewed electronically at www.dep.state.pa.us; select Subjects/Water Management/Water Supply and Wastewater Management/Water Quality Assessment and Standards/ Total Maximum Daily Loads (TMDLs).

Watershed Notebooks

Keyed on the 104 watersheds from Pennsylvania's State Water Plan, each notebook provides a brief description of the watershed, population data and projections, information from state and federal agencies about activities in the subbasin, and information about citizens' groups' activities in the watershed. A form is also provided to send DEP information about your project for posting to the Notebooks page. Notebooks can be viewed electronically at www.dep.state.pa.us (directLINK "watersheds").

"We All Live Downstream" Watershed Protection Programs

A portion of DEP's website which is devoted to increasing one's understanding of watersheds and how protecting them benefits both public health and the environment. This can be viewed electronically at www.dep.state.pa.us; select Subjects/Watershed and Nonpoint Source Management/"We All Live Downstream" Watershed Protection Programs.

Additional References:

- Ainsworth, S., Brown, H. and Jehn, P., 1995, Source water protection: what's in it for you?: *The Communiqué*, November 1995, Ground Water Protection Council, p. 5-7.
- Barton, G.J., Risser, D.W., Galeone, D.G. and Conger, R.W., 1999, *Case study for delineating a contributing area to a water-supply well in a fractured crystalline-bedrock aquifer, Stewartstown, Pennsylvania*: U.S. Geological Survey Water-Resources Investigations Report 99-4047, 38 p.
- Coughlin, R., Denworth, J., Keene, J. and Rogers, J., 1992, *Guiding Growth*: Philadelphia, Pennsylvania Environmental Council, sections paginated separately.
- Merideth, R., Jessen, J.R., Abdalla, C.W., Stevens, E.D. and Drohan, J.R., 1997, *Groundwater protection and management in Pennsylvania: an introductory guide for citizens and local officials*: Pennsylvania Groundwater Policy Education Project/League of Women Voters of PA Citizen Education Fund, 58 p.
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For further information or assistance:

Contact the DEP Regional Office in your area (See Appendix D) or the Bureau of Watershed Management, Division of Watershed Protection at 717-787-5259.

APPENDIX B - MINIMUM ELEMENTS FOR LOCAL WHP PROGRAMS

This section describes the minimum elements necessary for a local wellhead protection (WHP) program to receive DEP approval. Local WHP program plans will be reviewed and approved by regional Water Supply Management staff. If necessary, coordination with other programs could be accomplished in a manner similar to that for permit coordination. Essentially, the plan should not only detail the provisions of the local program including a schedule for implementation, but should also demonstrate the commitment needed to support the on-going efforts necessary for a successful local WHP program. Therefore, the plan should not only describe how sources will be protected but also document the resources necessary to implement the plan, thus linking implementation and management to finances.

Each plan should have a table of contents, an introduction that includes the goal or purpose of the plan along with a general description of the area (demographics, topography, local/regional hydrogeologic setting, source characteristics, etc.), concise narrative descriptions for each of the following sections plus any other relevant supporting information. Each plan must have a WHP area delineation map using an appropriate base map with a scale ranging from 1:400 to 1:24,000 that accurately and legibly depicts source locations, WHP area boundaries and potential contaminant sources (preferably a USGS 7.5' quad or GIS-generated map with adequate cultural features/landmarks). The map must also have a bar scale and north arrow.

A local WHP plan must contain the following minimum elements in order to be considered for DEP approval:

1. Steering Committee and Public Participation

This section of the plan will document the formation and meetings of the local WHP steering committee along with provisions for public involvement. The committee chairperson, the chairperson's telephone number, members, a description of roles and responsibilities of the committee and dates/locations of meetings must be listed. Ideally, meeting locations should vary if possible and a tour/inspection of the wellfield/well sites should be conducted. The narrative must also demonstrate that adequate opportunities for public participation were in place at the beginning of and throughout the project (copies of public notices such as flyers, newspaper notices, etc.). This section should also document all public education activities and describe how the final plan will be accessible to the public (on file at municipal government office or public water system office, libraries, etc.).

2. WHP Area Delineation

This narrative must completely describe the methodology used, justification for methodology, and who performed the delineation. For delineations in carbonate and fractured bedrock aquifers that utilize the ½ mile radius as the default WHPA, the justification must demonstrate that it is adequately protective. Rigorous delineation methods must be performed by or under the supervision of a Registered Professional Geologist. This section must also include a description of the local hydrogeologic setting and a formulation of a *conceptual* groundwater flow model. Relevant

hydrogeologic data with sources/references, supporting calculations and any other information necessary for the reviewer to reproduce the steps involved in delineating the WHP area must be provided. The level of delineation will be commensurate with the type of management option to be utilized.

3. Contaminant Source Inventory

A description of the methods used to conduct an inventory of existing and potential sources of contamination must be provided in this narrative. Documentation of field verification of computerized database searches and actual inspection of the WHP area must be provided. Contaminant source locations must be plotted on the accompanying WHP area map(s) and keyed into a table listing the facility name, owner, type of contaminant and a relative prioritization of risk (low, moderate, high) from the source. (DEP can assist with assessing relative risk if requested). This section must also include documentation that these sources are targeted for or were provided specific education regarding potential risks to the water supply.

4. WHP Area Management and Commitment

This section will provide a description of current land use and describe the management method(s) appropriate for the delineated WHP area. What is the cost to do the activities and where will resources come from? Commitment may be demonstrated by:

- a. In-kind services
- b. Dedicated funding (water rate)
- c. Tax/fee dedicated to WHP
- d. General revenue
- e. Other acceptable means

A table listing management options for each identified threat along with a schedule for implementation must also be provided.

5. Contingency Planning

This section will contain a Revised Emergency Response Plan that includes realization of potential threats through spills and any other unintended releases and describes coordination with water supplier, municipalities and local emergency management agency to address contingencies commensurate with risks for each identified threat. Provisions for alternate water supply must be described such as arrangements for bulk hauling or sources of interconnection.

6. New Sources

This section addresses adequate planning for new wells including careful consideration of potential sites, existing land use, predicted Zone I area, how to obtain access and rights to areas if necessary and how the areas will be protected.

Those water systems capable of satisfactorily addressing each of the above elements will be considered approved under §109.713 and would be issued an approval letter. Additionally, an annual report/update will be required that describes changes in WHP area boundaries, land use, potential threats and contingency planning. Specific requirements may also be contained in DEP's approval letter. For those systems that do not initially address the minimum elements adequately, a review letter will be issued pointing out what needs to be strengthened in order to receive approval.

APPENDIX C - MINIMUM ELEMENTS FOR LOCAL WSP PROGRAMS

This section describes the minimum elements recommended for a local Watershed Protection (WSP) program. Essentially, the plan should not only detail the provisions of the local program including a schedule for implementation, but should also demonstrate the commitment needed to support the on-going efforts necessary for a successful local WSP program. Therefore, the plan should not only describe how sources will be protected but also document the resources necessary to implement the plan, thus linking implementation and management to finances.

Each plan should have a table of contents, an introduction that includes the goal or purpose of the plan along with a general description of the area (demographics, topography, local and regional hydrologic/hydrogeologic setting, source characteristics, etc.), and concise narrative descriptions for each of the following sections plus any other relevant supporting information. Each plan should have a WSP area delineation map using a suitable base map with an appropriate scale to accurately and legibly depict source locations, WSP area boundaries and potential contaminant sources (preferably a USGS 7.5' quad or GIS-generated map with adequate cultural features/landmarks). The map must also have a bar scale and north arrow.

A local WSP program should contain the following minimum elements:

1. Steering Committee and Public Participation

This section of the plan should document the formation and meetings of the local WSP steering committee along with provisions for public involvement. The committee chairperson, the chairperson's telephone number, members, a description of roles and responsibilities of the committee and dates/locations of meetings should be listed. Ideally, meeting locations should vary if possible and a tour/inspection of the drainage basin should be conducted. The narrative should also demonstrate that adequate opportunities for public participation were in place at the beginning of and throughout the project (copies of public notices such as flyers, newspaper notices, etc.). This section should also document all public education activities and describe how the final plan will be accessible to the public (on file at municipal government office or public water system office, libraries, etc.).

2. WSP Area Delineation

Delineation for surface water sources will be completed by DEP or its contractor and results will be provided to the water system as part of the source water assessment process. This information, which will be provided, must be included as part of the watershed protection program.

Under the source water assessment program, watersheds over 100 square miles serving public water supplies will be segmented for the inventory and susceptibility analysis of non-conservative, potential contaminant sources primarily to address spills. The segmentation for these large watersheds will be three tiered: Zone A will be a ¼ mile wide area on either side of the river or stream from an area one-quarter mile downstream of the intake to a 5-hour time of travel (TOT) upstream; Zone B will be a

two mile wide area on either side of the river or stream extending upstream to a 25-hour TOT; and Zone C will be the remainder of the watershed. This delineation will be refined by consideration of river hydraulics to determine channeled flow and critical contributing tributaries. These critical contribution areas include areas of high potential sources of contamination such as urbanized areas.

For watersheds with an area less than 100 square miles, a Zone A will be delineated but the remainder of the watershed will be inventoried as a Zone B.

3. Contaminant Source Inventory

Contaminant source inventories will also be completed by DEP or its contractor and results will be provided to the water system as part of the source water assessment process. This information, which will be provided, must be included as part of the watershed protection program.

Two methods are available for conducting the contaminant source inventory.

Method 1: Whole Watershed

1. Area-wide inventory from available databases and land uses.
2. All potential sources of contamination.

Method 2: Segmentation

1. Zone A (critical segment) = all potential sources of contamination.
2. Zone B (second segment) = all significant potential sources of contamination.
3. Zone C (remainder) = area-wide inventory from available databases and land uses.

For non-point source and microbiological contaminants of concern, a critical area analysis will be conducted for each surface water intake based on existing water quality data for the drinking water source and the drainage basin, and on physical characteristics of the drainage basin. Assessments for stream impairment and TMDL determinations will be used to locate critical areas when available. This analysis will include critical areas for nitrate, pathogens, sediment loading and metals.

4. WSP Area Management and Commitment

This section should provide a description of current land use and describe the management method(s) appropriate for the delineated WSP area. What is the cost to do the activities and where will resources come from? Commitment may be demonstrated by:

- a. In-kind services
- b. Dedicated funding (water rate)
- c. Tax/fee dedicated to WSP
- d. General revenue
- e. Other acceptable means

A table listing management options for each identified contaminant source along with a schedule for implementation should also be provided.

5. Contingency Planning

This section should contain a Revised Emergency Response Plan that includes realization of potential contaminant sources through spills and any other unintended releases and describes coordination with water supplier, municipalities and local emergency management agencies to address contingencies commensurate with risks for each identified contaminant source. If a drinking water source is rendered unusable, provisions for alternate water supply must be described such as arrangements for bulk hauling, sources of interconnection, and interim, reserve, seasonal or emergency sources.

6. New Sources

This section should address adequate planning for new source(s) including careful consideration of potential sites, existing land use, potential contributing area, how to obtain access and rights to areas if necessary and how the areas will be protected.

An annual report/update should be completed that describes changes in WSP area boundaries, land use, potential or existing contaminant sources and contingency planning. This evaluation is important to ensuring long-term drinking water protection efforts.

APPENDIX D - DEPARTMENT OF ENVIRONMENTAL PROTECTION REGIONAL OFFICES

The following is a list of the DEP Regional Offices and the counties that they serve:

DEP Northeast Regional Office

2 Public Sq.
Wilkes-Barre, PA 18711-0790
Telephone 570-826-2511

Counties:

Carbon, Lackawanna, Lehigh, Luzerne,
Monroe, Northampton, Pike, Schuylkill,
Susquehanna, Wayne and Wyoming

DEP Southeast Regional Office

Suite 6010, Lee Park
555 North Ln.
Conshohocken, PA 19428-2233
Telephone 610-832-6059

Counties:

Bucks, Chester, Delaware, Montgomery
and Philadelphia

DEP Northcentral Regional Office

208 W. 3rd St., Ste. 101
Williamsport, PA 17701-6448
Telephone 570-327-3675

Counties:

Bradford, Cameron, Centre, Clearfield,
Clinton, Columbia, Lycoming, Montour,
Northumberland, Potter, Snyder,
Sullivan, Tioga and Union.

DEP Southcentral Regional Office

909 Elmerton Ave.
Harrisburg, PA 17110-8200
Telephone 717-705-4708

Counties:

Adams, Bedford, Berks, Blair,
Cumberland, Dauphin, Franklin, Fulton,
Huntingdon, Juniata, Lancaster,
Lebanon, Mifflin, Perry and York

DEP Northwest Regional Office

230 Chestnut St.
Meadville, PA 16335-3481
Telephone 814-332-6899

Counties:

Butler, Clarion, Crawford, Elk, Erie,
Forest, Jefferson, Lawrence, McKean,
Mercer, Venango, and Warren.

DEP Southwest Regional Office

400 Waterfront Dr.
Pittsburgh, PA 15222-4745
Telephone 412-442-4217

Counties:

Allegheny, Armstrong, Beaver, Cambria,
Fayette, Greene, Indiana, Somerset,
Washington, and Westmoreland.

This and related environmental information are available electronically via Internet. For more information, visit us through the PA PowerPort at www.state.pa.us or visit DEP directly at www.dep.state.pa.us (directLINK "Source Water").



www.GreenWorks.tv - A web space dedicated to helping you learn how to protect and improve the environment. The site features the largest collection of environmental videos available on the Internet and is produced by the nonprofit Environmental Fund for Pennsylvania, with financial support from the Pennsylvania Department of Environmental Protection, 877-PA-GREEN.

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