

# *Source Water Assessment and Protection Program for Public Water Systems Using Ground Water*

Ohio's Source Water Assessment and Protection (SWAP) Program helps public water suppliers protect their drinking water sources from contamination.

# SWAP PROGRAM

- ▶ The program consists of **four** steps: the first **three** steps (**the assessment**) are usually completed by Ohio EPA, and the **fourth** step (**the protection plan**) is completed by the public water system.
- ▶ **Step 1 – Delineate a Protection Area:** A protection area is the area that supplies water to your wells(s) based on a five-year time-of-travel. The size and shape of this area will vary based on the pump rate of your well(s) and the properties of the aquifer.

# Delineate a Protection Area

**EXAMPLE ONLY**  
**Drinking Water Source Protection Area**  
**Church, PWSID#1234567**  
**Township, County**



### Legend - Wells & Potential Contaminant Sources

- Active Wells
- Crops: corn, soybean, wheat
- Septic System (discharging)
- Storm Drain
- Inner Management Zones
- Source Water Protection Areas

### Protection Area Data

Number of Wells = 1  
Total Pumping Rate = 2800 gpd  
Porosity = 0.20  
Aquifer Thickness = 14 Feet  
Hydrogeologic Setting = Sand & Gravel  
Total Well Depth = 102 Feet  
Casing Length = 102 Feet



**AQUIFER SUSCEPTIBILITY**



Environmental  
Protection Agency

Division of Drinking and Ground Waters

May 2010

# Next Two Steps in the Process

## ▶ Step 2 – Inventory Potential Contaminant Sources

- ▶ A potential source of contamination includes sources and activities that, if not properly managed or maintained, can impact your drinking water supply. Potential contaminant sources include septic systems, storage tanks and fertilizer applications.

## ▶ Step 3 – Determine the Aquifer Susceptibility

- ▶ The susceptibility of the aquifer indicates the likelihood that your drinking water could become contaminated. This susceptibility analysis is based on the geologic sensitivity of your ground water resource, the potential contaminant sources within the protection area, well integrity and water quality

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# Non-municipal Systems Protective Strategies Checklist

The owner/operator is asked to check off strategies that they **intend to implement or are already implementing**, and return the checklist to Ohio EPA.

**This checklist then becomes the system's protection plan.** Municipal systems are expected to complete a more detailed plan.

# Protective Strategies Checklist for **NAME**

PWS ID #XXXXXXX

Address:

City, Zip:

Contact Name:

Phone:

	<u>Suggested</u> Drinking Water Source Protective Strategies (Please check the box beside each suggestion you feel appropriate and plan to implement)	Planned Implementation Date
General Protective Strategies	Well Construction  Education  Contingency and Emergency Planning	

# Possible Contaminant Sources

- ▶ Aboveground Storage Tanks (ASTs)
- ▶ Agricultural
- ▶ Chemical Storage Areas (Indoor)
- ▶ Dry Wells / Waste Disposal Wells
- ▶ Floor Drains
- ▶ Lawn Chemicals
- ▶ Maintenance Areas (Vehicles and Equipment)
- ▶ Natural Gas Lines (Residential)
- ▶ Oil and Gas Wells
- ▶ Parking areas
- ▶ Sanitary Sewer Lines
- ▶ Septic Systems
- ▶ Wastewater Treatment Plants/Package Plants



# Possible Contaminant Sources

- ▶ Storm Sewer Lines
- ▶ Storm Drains
- ▶ Surface Water Bodies  
(includes ponds receiving runoff)
- ▶ Transportation/Transportation Related Spills
- ▶ Underground Storage Tanks
- ▶ Unused Water Wells
- ▶ Utility Sheds



# Certificate of Recognition

*awarded to*

***Shepherd Pasture Campground***

for efforts taken to protect its source of drinking water  
to safeguard the health of the public it serves.

May 23, 2008

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Ellen Gerber, Manager, DDAGW-Public Drinking Water  
Northwest District Office

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Tim Fishbaugh, Manager, DDAGW-Ground Water  
Northwest District Office