Attachment- Agenda Item 6

Public Drinking Water Working Group Session
May 10, 2005 8:00 am – 10:00 am
Harrisburg City Hall

Meeting Objectives:

1. Better understand public water system contamination risks in the Groundwater Management Area (GWMA) as identified in Source Water Assessments
2. Establish how drinking water protection efforts will be focused using Source Water Assessment information
3. Begin adapting strategies to specifically address contaminant sources in the region
4. Clarify the goals of this group and next steps

Meeting Attendance: See Attachment One.

Meeting Synopsis and Decisions Made:
The objectives above state the overarching goals of this meeting. In relation to some of these objectives decisions needed to be made by the working group in order to move the strategy recommendation process forward. These decisions include:

- How will the group use Source Water Assessment information to focus strategy recommendations?
- Do the goals and specific strategies from the first workshop address the potential contaminant sources that are identified by the Source Water Assessments and by the group's risk prioritization criteria?
- How will the specific details for each strategy be formulated?
- What are the next steps for this group?

The first action requested of the Public Drinking Water Working Group was to establish measures that would help focus the strategy recommendations and increase effectiveness. In order to make an informed decision, Tom Pattee, Department of Human Services – Drinking Water Program, gave some background information on the process by which potential contaminant sources are inventoried. Then the group was presented with data summaries (See Attachment Two) demonstrating the different criteria that could be used to prioritize these identified risks. This process accomplished the first meeting objective.

The data summaries include information from the statewide Source Water Assessment Program's Potential Contaminant Source Inventories. The Inventories classify risks according to level of risk posed by the activity/land use. The categories are Higher, Moderate, or Lower Risk. The contaminant sources are also classified by their proximity to the surface water intake or wells. 2-, 5-, 10-, and 15-year Time-of-Travel Zones were developed using hydrogeologic models that were designed to estimate how long it takes a drop of water in the aquifer to be assimilated into the drinking water system. According to the models used, a drop of water that enters the aquifer within the 2-Year Time-of-Travel Zone will be assimilated into the drinking water supply within two years, in the 5-year Zone, it will take five years, and so on.

This information can be utilized in a number of different ways. For example the group could decide to focus on all the High risk potential contaminant sources. That would be a broad scope. The group could decide to refine that criteria and focus on all the High risk potential contaminant sources within the 2-year Time-of-Travel Zones. This would be a narrow approach.

After reviewing the data and some preliminary discussion on the definitions of the different criterion:

- The group resolved to use the **5-year Time-of Travel Zone** and **High and Moderate risk classification** as the criteria for focusing the strategy recommendations. This includes 38 different categories of potential contaminant sources, 25 categories with more than one occurrence.
- The working group felt it was important not to dismiss the potential contaminant sources that do not meet these criteria, but utilize the Source Water Assessment information to develop risk-specific strategies and address the most pressing risks to drinking water safety.

This decision accomplished the second objective of the meeting and the group proceeded to review the prospective goals and strategies (See Attachment Three). Another decision to be made was to determine if the goals and strategies that were identified at the first Drinking Water Protection Workshop in February (See Attachment Four) still applied now that the scope of the strategy recommendations was refined.

Starting with the highest rated five strategy goals from the first workshop, the group looked through the specific strategies. Two important points concerning the nature of the Drinking Water Working Group came up in this process and it is important to note them here:

- This working group is different than the others because it is not a land use or activity that is examining itself and seeing how it can better protect groundwater. It is a group that has a vested public interest in protecting the groundwater and is recommending ways that different land uses and activities can better protect groundwater.
- The group recognized the importance of coordinating with the other working groups and suggested that these preliminary strategy recommendations be presented to each different land use group.

Through the review of prospective strategies, the group decided:

- **Outreach and Education** is a top priority. Posting signage around the drinking water source area with a phone number/website for more information and providing information at planning departments were two specific strategies under **Outreach and Education** that were discussed and validated as worthwhile strategies. Specific recommendations for information to be distributed included:
    - hazardous waste disposal information
    - septic system safeguards
    - recommended management practices for businesses
    - where drinking water comes from, and
    - GWMA-specific information that businesses could use in training sessions and post on bulletin boards or near drinking water fountains.

- Many of these **Outreach and Education** materials may exist and could be used with minimal expense.
- A discussion began around the **Regulation and Enforcement** priority goal. A question was raised about permitted activities such as Underground Storage Tanks and Large Capacity Septic Systems. Since these activities are already permitted there were some questions on whether or not the strategy recommendations should focus on permitted activities. The group preferred to use this strategy as the basis for partnerships with organizations who have regulatory authority. One example was to compile a list of Underground Storage Tanks within the GWMA's Drinking Water Protection Areas, share this information with the DEQ, and request that they place a high priority on mitigating these specific risks. This seems to be the form that **Regulation and Enforcement** strategies will take rather than requesting new regulations.
- **Technical Assistance and Training Opportunities** is another high priority for the group. A regular meeting of water system operators and local government officials was indicated as a specific strategy, but details were not specified. Many of these programs might be in place at businesses, municipalities, or on farms and the GWMA Committee could help bolster existing efforts.
- Two goals were brought up that fell outside the top five at the first workshop. **Financial Incentives** and **Zoning/Health Ordinances** were discussed as possibilities.
    - A number of potential funding sources were identified. The group thought it would be helpful to compile and advertise these opportunities as well as provide support for interested water systems.
    - The group recognized that funding is a critical component of all the strategies and therefore thought that **Financial Incentives** should be included as a goal.
    - The Springfield Overlay Zone was discussed as an example of a successful zoning ordinance. There was the suggestion of restricting certain activities within the 5-year Time-of-Travel Zone.
    - A specific strategy recommendation is to distribute information to planning commissions and elected officials on the possibility of using ordinances to protect drinking water or provide a template that could be used by governing authorities.
- There was a lengthy discussion on **Establish, Review, and/or Distribute Spill Response Procedures**. It was concluded that these are well established and may not be necessary for this group to recommend as a strategy, but one idea was to distribute successful spill response plans and procedures as case studies or models to help others in the area coordinate and respond effectively.
- **Water Conservation** was brought up and there was some discussion on the role it would play in drinking water protection. The group discussed whether water conservation should always be encouraged or only when drought conditions exist. A decision was not made on the water conservation issue and the group may need more information on this specific goal.

After this review, the group was asked to look over the strategy worksheet. The group began filling in the worksheet for a specific strategy in an attempt to meet the third objective of the meeting (See Attachment Five). It was difficult to fill in the details together and the group thought it would work better if draft recommendations were prepared from the information gathered at this meeting and then reviewed at the next meeting. LCOG agreed to do some preliminary strategy formulation according to the input received at this meeting. These decisions

fulfilled the final meeting objective. The group will reconvene in June to begin finalizing the strategy recommendations.

Since the meeting, various working group members have volunteered their time to assist in the formulation of specific strategy details. This is a great benefit to the working group and the GWMA Committee because it ensures a wide range of input.

Strategy Work Sheet – Public Water System Working Group Trial Strategy

Please compose your suggested strategy into the following format so that there is consistency among land use groups for strategies that get folded into the overall Action Plan.

Land use group: Public Drinking Water Working Group

Strategy:
Distribute new and/or relevant existing educational materials to area residents and businesses at planning departments, with permit applications, and through other avenues.

Goal the strategy is achieving:
At the time of residential or business development, increase public awareness of drinking water vulnerability, what can be done to protect drinking water, and what resources are available to protect groundwater.

Specific actions to fulfill strategy:
1. Review available information targeting homeowners, residential development, and high-risk businesses. Identify distribution methods and locations such as mailings, planning departments, businesses, and utility bill stuffers. Determine what new materials should be developed, if any.
2. Develop new materials or modify existing materials, if necessary.
3. Bring before necessary governing body to get approved, if necessary.
4. Begin distribution.

Who's Responsible for implementing the strategy:
A public water system implementation working group will be formed after approval of the Action Plan and funding will be sought to support staff to coordinate the implementation of the "package" of public water system strategies.

Timeline for strategy implementation:
This strategy is achievable within a short period of time and with limited financial investment. Once the GWMA Action Plan is finalized, preliminary work could be completed in 6 months and distribution beginning shortly after. After initial distribution, the effort would be on-going and updated regularly.

Steps to evaluate the fulfillment/effectiveness of the strategy:
- 100 percent of new business owners in the high or moderate risk category receive information and 50 percent of new business owners apply behavior based on the information.
- All four cities (excluding Corvallis) and the three counties are participating in this strategy.
- Analyze wastewater flow to look for reduction in hazardous materials
- Conduct a baseline survey to determine the level of public awareness prior to materials being distributed and a follow-up survey 5 years later to determine if the level of public awareness has been increased.

PUBLIC WATER SYSTEM WORK GROUP ATTACHMENT ONE: Meeting Attendance

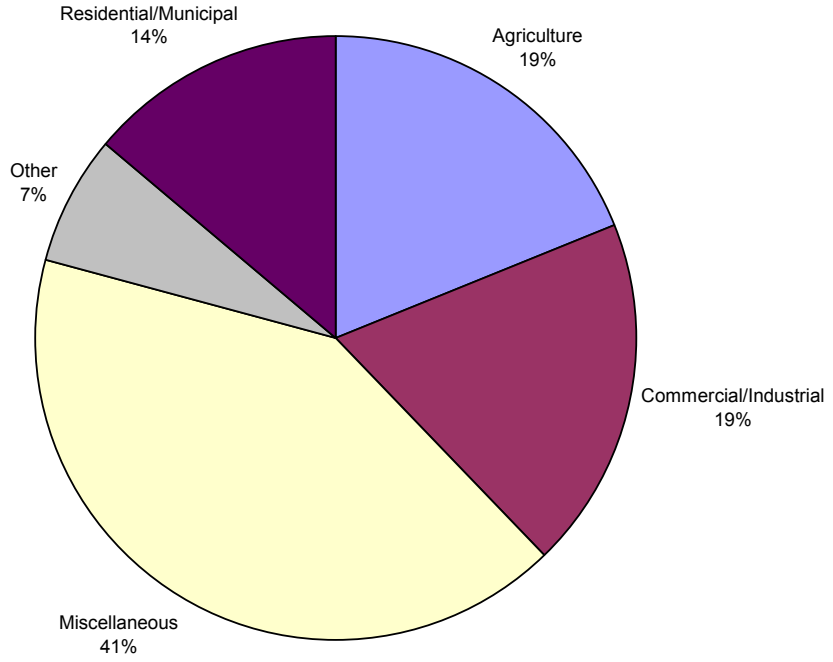
NAME	Organization/System
Tim Bunnell	Community Development Superintendent - City of Harrisburg
Dave Ballard	City Councilor - City of Monroe
Gerald Gorbet	City Council President – City of Harrisburg
Jo Ford	Environmental Coordinator - Weyerhaeuser
John McEvoy	Environmental Health Services - Linn County
Dennis Nelson	Groundwater Coordinator - DHS/Drinking Water Program
Tom Pattee, R.G.	Natural Resource Specialist - DHS/Drinking Water Program
Rick Nelson	Public Works - City of Harrisburg
Dan Mumford	Bergeson-Boese & Associates
Mike Leighton	City Administrator - Junction City
Swati Thomas	Rural Development Specialist- Rural Community Assistance Corporation
Denise Kalakay	Senior Planner - LCOG
Facilitator: Scott Shine	Water Resources Planner - LCOG

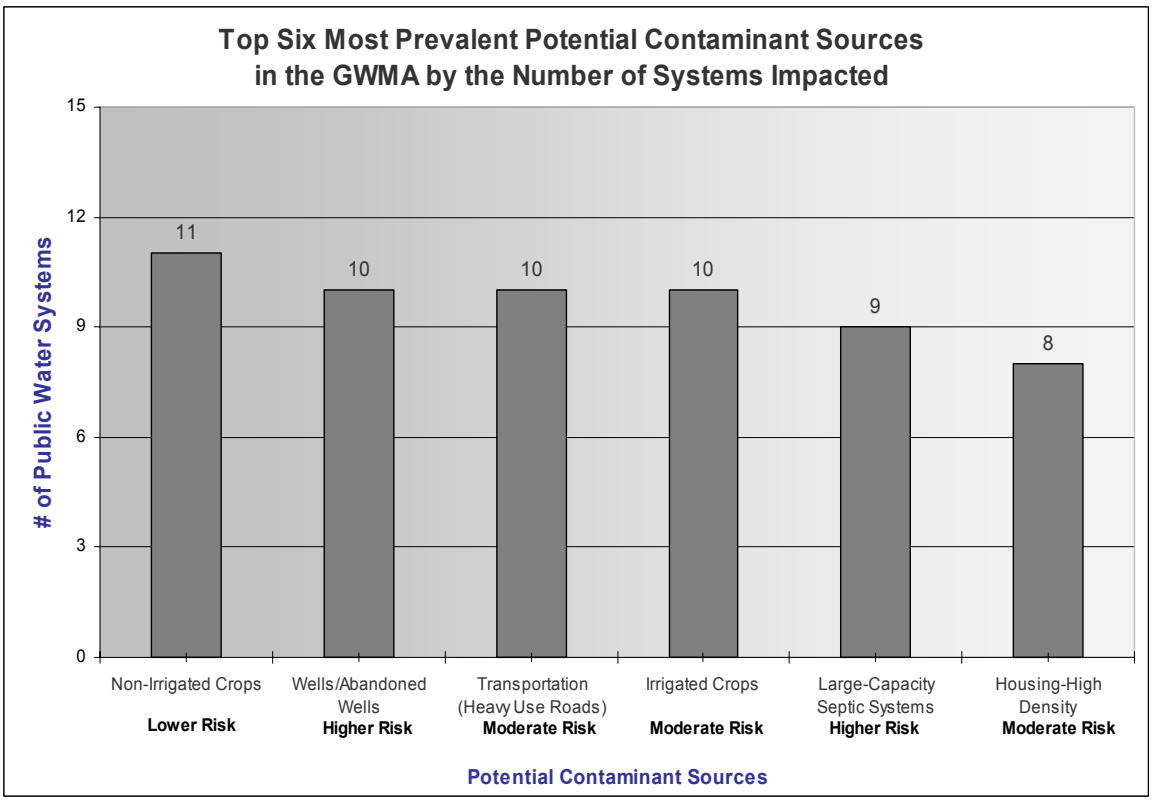
PUBLIC WATER SYSTEM WORK GROUP ATTACHMENT TWO: Data Summaries

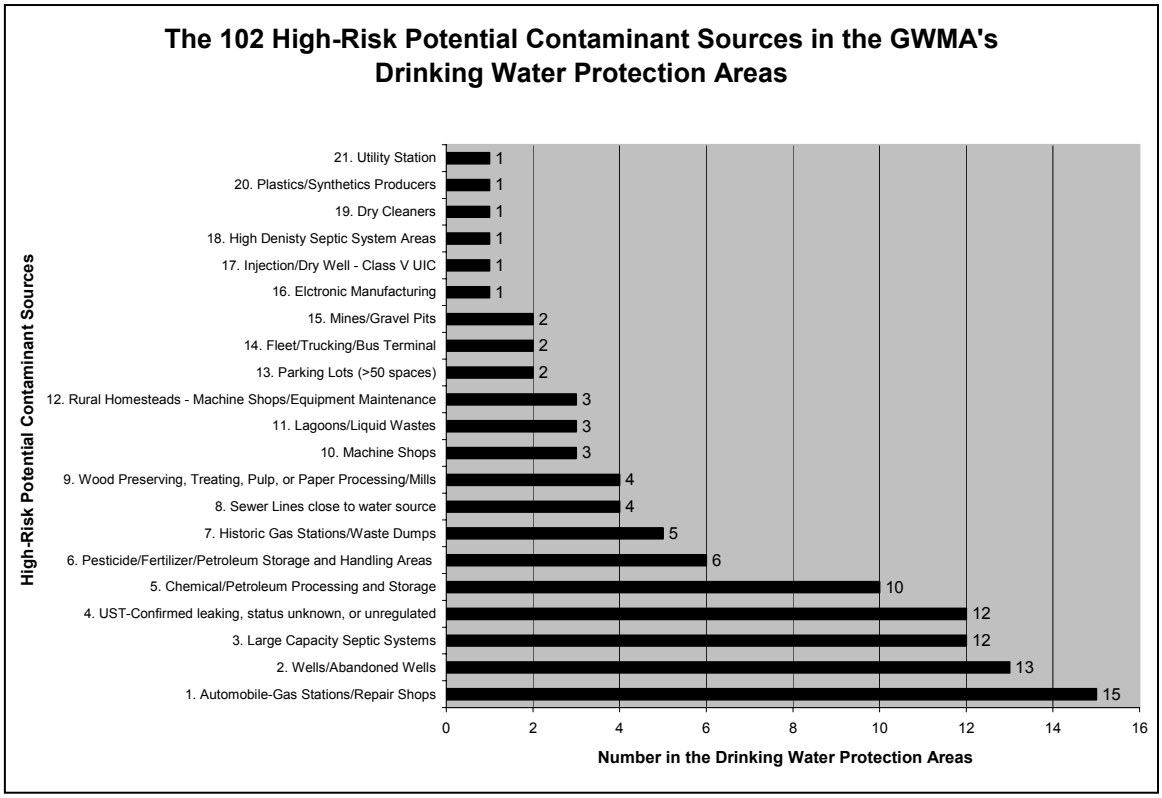
Summary of Potential Contaminant Sources in the Southern Willamette Valley Groundwater Management Area: Classified by Risk Category and Time of Travel Zone				
	2-Yr Time of Travel	**2- to 5-Yr Time of Travel**	**5- to 15-Yr Time of Travel**	**Total**
High Risk PCSs	52	28	22 (1 just outside 15-yr)	*102*
Moderate Risk PCSs	48	21	26	*95*
Lower Risk PCSs	20	20	10	*50*
Other (Risk Unclassified)	5	4	8 (1 just outside 15-yr)	*17*
Total PCSs	*125*	*73*	*66*	**264**

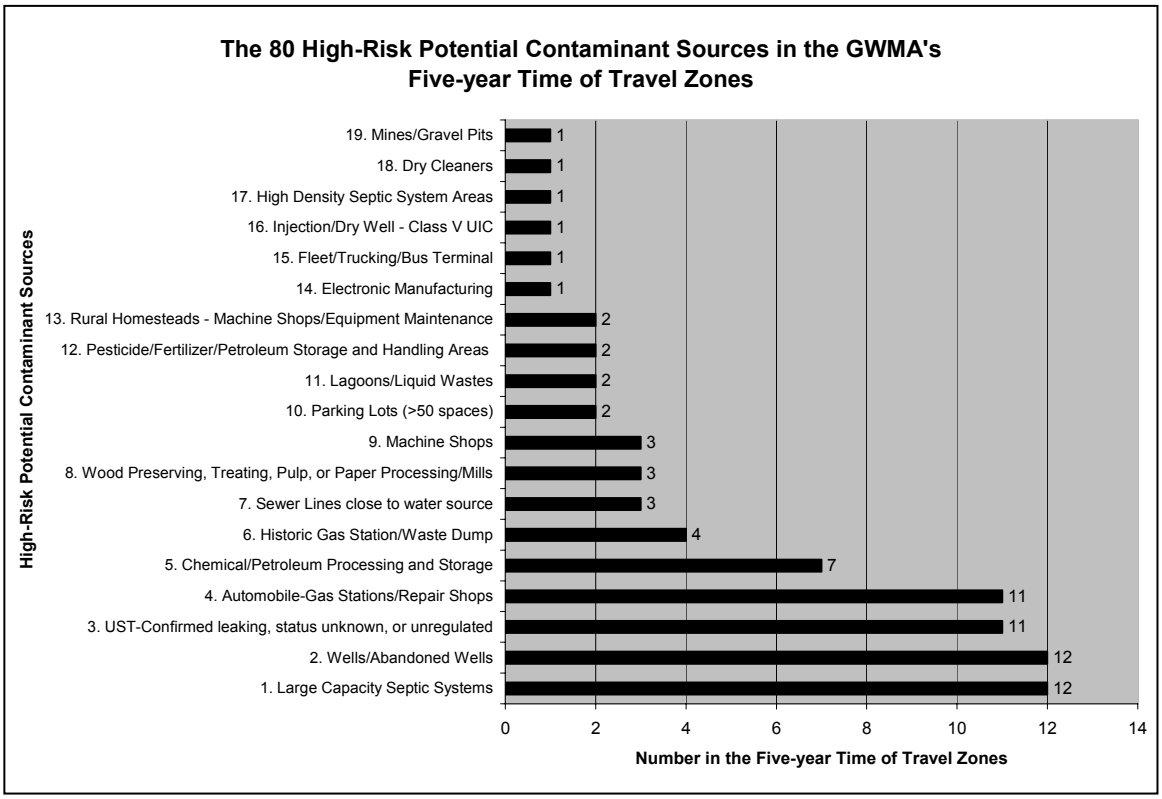
Time of Travel Zone - According to the models used, a drop of water that enters the aquifer within the 2-Year Time of Travel Zone will be assimilated into the drinking water supply within two years, in the 5-Year Zone, it will take five years, and so on.

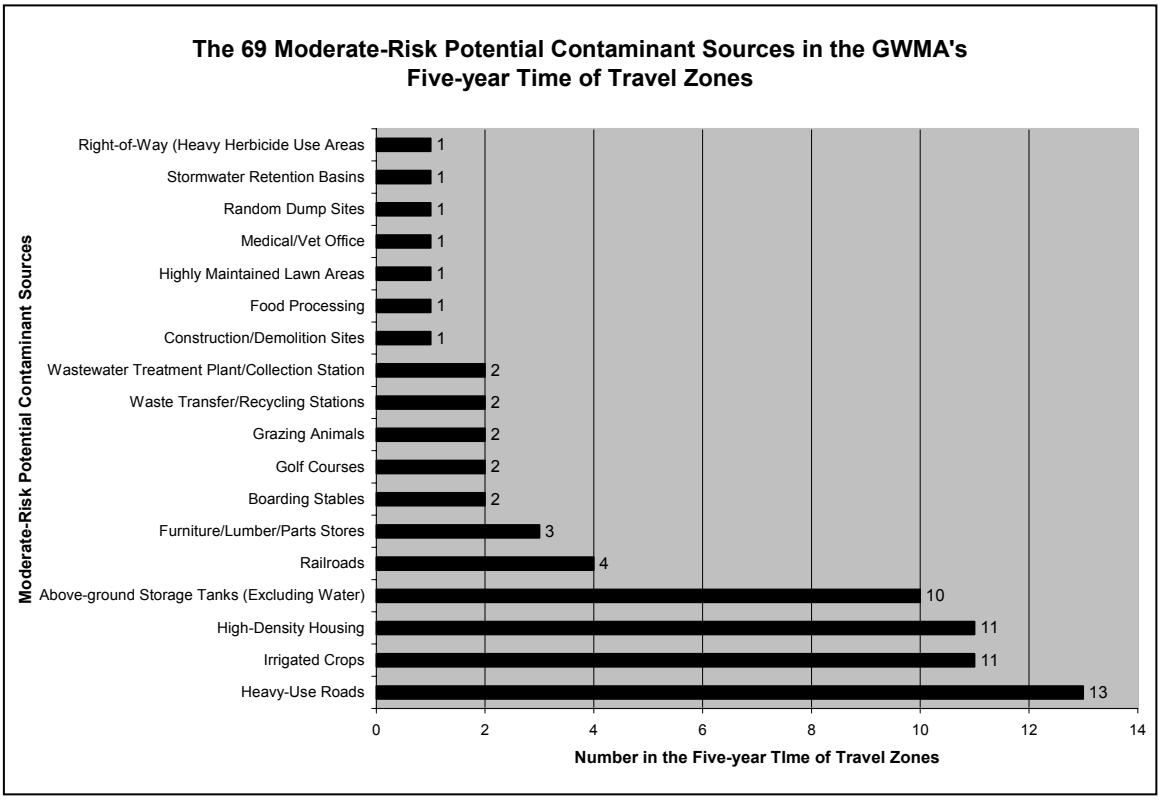
Summary of the 264 Potential Contaminant Sources for the 15 Community and Non-Transient, Non-Community Systems in the SWV GWMA




Top Six Most Prevalent Potential Contaminant Sources
in the GWMA by the Number of Systems Impacted
# of Public Water Systems
15
12
9
6
3
0
11
10
10
10
9
8
Non-Irrigated Crops
Lower Risk
Wells/Abandoned Wells
Higher Risk
Transportation (Heavy Use Roads)
Moderate Risk
Irrigated Crops
Moderate Risk
Large-Capacity Septic Systems
Higher Risk
Housing-High Density
Moderate Risk
Potential Contaminant Sources


The 102 High-Risk Potential Contaminant Sources in the GWMA's
Drinking Water Protection Areas
High-Risk Potential Contaminant Sources
21. Utility Station 1
20. Plastics/Synthetics Producers 1
19. Dry Cleaners 1
18. High Denisty Septic System Areas 1
17. Injection/Dry Well - Class V UIC 1
16. Elctronic Manufacturing 1
15. Mines/Gravel Pits 2
14. Fleet/Trucking/Bus Terminal 2
13. Parking Lots (>50 spaces) 2
12. Rural Homesteads - Machine Shops/Equipment Maintenance 3
11. Lagoons/Liquid Wastes 3
10. Machine Shops 3
9. Wood Preserving, Treating, Pulp, or Paper Processing/Mills 4
8. Sewer Lines close to water source 4
7. Historic Gas Stations/Waste Dumps 5
6. Pesticide/Fertilizer/Petroleum Storage and Handling Areas 6
5. Chemical/Petroleum Processing and Storage 10
4. UST-Confirmed leaking, status unknown, or unregulated 12
3. Large Capacity Septic Systems 12
2. Wells/Abandoned Wells 13
1. Automobile-Gas Stations/Repair Shops 15
0 2 4 6 8 10 12 14 16
Number in the Drinking Water Protection Areas


The 80 High-Risk Potential Contaminant Sources in the GWMA's Five-year Time of Travel Zones
High-Risk Potential Contaminant Sources
19. Mines/Gravel Pits 1
18. Dry Cleaners 1
17. High Density Septic System Areas 1
16. Injection/Dry Well - Class V UIC 1
15. Fleet/Trucking/Bus Terminal 1
14. Electronic Manufacturing 1
13. Rural Homesteads - Machine Shops/Equipment Maintenance 2
12. Pesticide/Fertilizer/Petroleum Storage and Handling Areas 2
11. Lagoons/Liquid Wastes 2
10. Parking Lots (>50 spaces) 2
9. Machine Shops 3
8. Wood Preserving, Treating, Pulp, or Paper Processing/Mills 3
7. Sewer Lines close to water source 3
6. Historic Gas Station/Waste Dump 4
5. Chemical/Petroleum Processing and Storage 7
4. Automobile-Gas Stations/Repair Shops 11
3. UST-Confirmed leaking, status unknown, or unregulated 11
2. Wells/Abandoned Wells 12
1. Large Capacity Septic Systems 12
0 2 4 6 8 10 12 14
Number in the Five-year Time of Travel Zones


The 69 Moderate-Risk Potential Contaminant Sources in the GWMA's Five-year Time of Travel Zones
Moderate-Risk Potential Contaminant Sources
Right-of-Way (Heavy Herbicide Use Areas 1
Stormwater Retention Basins 1
Random Dump Sites 1
Medical/Vet Office 1
Highly Maintained Lawn Areas 1
Food Processing 1
Construction/Demolition Sites 1
Wastewater Treatment Plant/Collection Station 2
Waste Transfer/Recycling Stations 2
Grazing Animals 2
Golf Courses 2
Boarding Stables 2
Furniture/Lumber/Parts Stores 3
Railroads 4
Above-ground Storage Tanks (Excluding Water) 10
High-Density Housing 11
Irrigated Crops 11
Heavy-Use Roads 13
0 2 4 6 8 10 12 14
Number in the Five-year TIme of Travel Zones

PUBLIC WATER SYSTEM MEETING ATTACHMENT THREE: Potential Goals and Strategies

Drinking Water Protection Goal Definitions

Outreach and Education

Develop new materials or distribute materials that are already available to increase awareness and motivate voluntary action.

Technical Assistance and Training Opportunities

Request and/or host trainings and encourage participation from residents, employees, businesses, and farmers. Coordinate with interested organizations to provide technical assistance.

Establish, Review, and/or Advertise Spill Response Procedures

Set up actions to take in case of a spill and share this information with municipal authorities, residents, and state agencies.

Recognition Programs

Advertise and promote actions that are being taken to protect drinking water in order to encourage other drinking water protection activities.

Regulation and Enforcement

Request that enforcement agencies check permits and operations for compliance to existing laws. Request new regulations to protect drinking water.

Test and Model Management Practices

Use short-term tests to see if management practices are practical and effective. When strategies are implemented, offer site visits and information about the practice.

Public-Private Partnerships

Establish partnerships with public agencies, private businesses, and citizens. Share resources. Utilize public programs.

Research

Compile information from past research and plan for future research. Use it to support and encourage actions to protect drinking water.

Zoning/Health Ordinances

Utilize land use planning and public health procedures to minimize pollution. Make concerns about drinking water protection known to city or county officials.

Financial Incentives

Seek incentives for landowners and businesses to implement drinking water protection strategies.

Land Acquisition

Acquire land in the protection area to limit the potential for contamination.

PUBLIC WATER SYSTEM WORKING GROUP ATTACHMENT FOUR: February Workshop Prioritization Results

Collaborative Prioritization of Drinking Water Protection Goals

A group of 14 people rated a list of goals on a scale of zero to four (0-4). The top score a goal could receive was 56. **Table 1** summarizes the results.

The highest rated specific strategies under the top five goals are listed below.

Goal: *Outreach and Education*

- Post "Entering a Drinking Water Protection Area" signs that include spill response contacts
- Provide information at planning/permits department about the protection area
- Encourage groundwater and drinking water educational programs in local schools
- TV/Radio advertisement or Public Service Announcement
- Information booths at community events

Goal: *Technical Assistance and Training Opportunities*

- Coordinate on-farm assessment of irrigation and fertilization practices
- Host workshops for private well owners (taught by OSU Extension Service)
- Annual meetings of water system operators in the area to identify common issues, share information, and stay informed

Goal: *Establish, Review, and/or Distribute Spill Response Procedures*

- Notify emergency response planners in the Drinking Water Protection Areas
- Construct spill containment/diversion structures at wellhead
- Ensure that the public water system is notified in the case of a spill

Goal: *Recognition Programs*

- Use Consumer Confidence Reports as a tool to protect drinking water
- Advertise groundwater monitoring results
- Promote hazardous waste collection programs
- Promote lawn management and landscaping practices that do not pollute drinking water

Goal: *Regulation and Enforcement*

- Request the county or city require businesses to disclose discharge data
- Review the county or city hazardous material transport regulations
- Request the state, county, or city enforce existing regulations (example: Hazardous Waste Reduction Act of 1989)

Table 1: Summary of Results from February 3rd Drinking Water Protection Workshop

Goal	Score
Outreach and Education	56
Technical Assistance and Training Opportunities	36
Establish, Review, and/or Distribute Spill Response Procedures	34
Recognition Programs	32
Regulation and Enforcement	30
Test and Model Management Practices	25
Public-Private Partnerships	25
Research	23
Zoning/Health Ordinances	21
Financial Incentives	16
Land Acquisition	6