RISK ASSESSMENT
Based on Managing Potential Contaminant Sources in the Source Water Protection Area

Risk assessments identify the risk to groundwater and prioritize risk reduction projects. Risk assessments, and their associated risk reduction efforts, are specific to individual sites within the Source Water Protection Area (SWPA) and the newly defined Water Resource Area (WR). For more information go to:

- www.daytonwater.org
- Under Business, click on Source Water Protection
- Click on Source Water Protection Area Map

The Source Water Protection Program (SWPP) Risk Assessment approach is to assess threats to the Great Miami Buried Valley Aquifer; the groundwater that supplies drinking water to the region. The results of the assessment will assist the SWPP and SWPA businesses in:

- Prioritizing efforts in identifying potential risk,
- Establishing processes to reduce risk,
- Determining the siting of early warning wells,
- Targeting potential contamination risks and mitigating the source.

Risk reduction in the SWPA is an effort taken to reduce the likelihood of groundwater contamination. Efforts can be taken by building owners, business owners, facility managers, safety managers, public officials, consultants, or any combination of those listed. Risk reduction efforts make the SWPA safer and reduce having to use valuable resources for expensive remediation projects.

Before risk reduction can take place, a risk assessment is needed. A business specific risk assessment starts by taking an inventory of all the materials being handled (stored/used). If a business handles something that if released can be a contaminant to groundwater, the risk assessment proceeds toward understanding the following:

Paths to Groundwater - How could a release get to the groundwater?

1. Directly Through the Ground
   a. What is the condition of outdoor surfaces? Are they paved? Are there curbs? Are there drains?
   b. Could the area geology be easily penetrated by a release (sand/gravel)?

2. Indoor Floor Drains
   a. Where do they go?
   b. Are they still needed or required?

3. Outdoor Drains
   a. Are they part of a municipal storm or sanitary sewer network?
   b. Do they drain directly to groundwater through dry wells?

4. Floor of a Building
   a. Is it liquid tight?
   b. Are there cracks and penetrations that lead directly to the groundwater?

5. Through Surface Water
   a. How close is the nearest river or stream?
   b. Is there a drainage pond nearby?

Risk means different things depending on perspective.
Risk Reduction

Contact your Jurisdictional Fire Department, the Montgomery County Solid Waste District, or your SWPA representative, for information concerning the storage of and the removal/disposal of Regulated Substances.

Your Risk Reduction project/efforts may be eligible for a grant from the Source Water Protection Board. Contact your Jurisdictional SWPA representative for information on funding opportunities.

The main objective throughout the Source Water Protection Area (SWPA) is risk reduction measures of Regulated Substances. The most effective way to reduce risk is at the source and by making an inventory reduction.

1. Can inventory reductions be made?
2. Are materials being stored in protective cabinets?
3. What can be done to improve spill protection or containment?
4. Do you have a spill prevention and response plan?
5. Do you have an employee training plan?
6. Does your facility meet fire codes for chemical storage and use?

Going through these questions with businesses that maintain a Regulated Substance inventory will be a primary objective during inspections throughout the SWPA this year.

Remember – Fire Inspectors look forward to forming lasting partnerships with SWPA businesses.

Last year, the Hot Tips column gave a basic overview of Regulated Substance safety from a fire code perspective. This year’s focus throughout the Source Water Protection Area (SWPA) continues with Regulated Substance risk reduction measures. A great start for business owners, facility managers, and all occupants is to consider the following:

1. Can inventory reductions be made?
2. Are materials being stored in protective cabinets?
3. What can be done to improve spill protection or containment?
4. Do you have a spill prevention and response plan?
5. Do you have an employee training plan?
6. Does your facility meet fire codes for chemical storage and use?

When moving any material off-site, remember to keep and maintain the material disposal manifest in order to track how the disposal relocation fits within the safety parameters prescribed by Federal, State, and Local regulations.
Groundwater Protection Control Enhancements -
Can any improvements to existing controls be made?
1. Lower Regulated Substance inventory
2. Seek out alternative environmentally friendly raw materials
3. Outdoor surfaces that are impervious
4. Indoor drains are connected to a municipal sanitary sewer system or engineered containment system
5. Indoor floors are liquid tight/sealed
6. Indoor storage areas have secondary containment or spill protection features
7. Have spill clean-up resources on site and proper training to use
8. Have a facility spill prevention and response plan
9. Provide employees training for the operations they perform
10. Controls are inspected on a regular basis?

Risk assessments are a tool to promote good communication between employers, employees, and public officials. If it is determined that there are groundwater risks public officials hope to work with businesses to make improvements where groundwater protection can be achieved.

Everyone has a role to play in protecting the valuable drinking water resource in this area. With proper planning and teamwork, this process can be efficient and cost effective. Groundwater protection controls are safety investments that can potentially save large expenses if an unfortunate accident were to occur at any given site.

Be a leader in the protection of the region’s drinking water!

DATES 2 Remember

June 1, 2016
Get Your Labeling System In Place

Under the HazCom GHS rules employers must have a workplace labeling system that is consistent with the GHS labeling system in place by June 1, 2016. Employers that store and use chemicals must have a workplace program and a system in place for communicating information to their workers.

Employers are responsible for maintaining labels on containers so the labels are legible and the pertinent information—such as hazards and directions for use—are not defaced or removed in any way. If labels are removed or defaced the containers must be relabelled.

**Employers were required to train workers on the GHS labels elements and the safety data sheet (SDS) format by December 1, 2013.**

Outdated Labels

Any time you become aware of any significant new information about the hazards of a chemical, the labels for the chemical must be revised within 6 months of becoming aware of the new information.

July 15, 2016
Clean Sweep

Take to the Great Miami River and CLEAN IT UP!
Get Involved – Rain or Shine.
9am – 12pm
For more information on clean up locations and registration go to: www.greatmiamirivercleanup.org.
What is risk assessment?
A risk assessment is a careful look at your workplace surroundings, processes, and conditions that may cause harm. After identifying the risks, a determination is made on how serious the risks are, and then decisions are implemented that control or prevent the harmful situation from occurring. Therefore a risk assessment is a process that:
- Identifies potential risks
- Evaluates the risk
- Determines actions to reduce the risk

What is the purpose of risk assessment in the Source Water Protection Area (SWPA)?
The purpose of risk assessment is to evaluate and rank the risk posed from potential contamination sources within the 5-year time of travel area to the Well Fields. This area includes the Water Protection Area (WP), the Water Operations Area (WO), and the Water Resource Area (WR).

How will risk to groundwater be determined?

| The Risk posed by a use is determined using the classic risk equation: |
|--------------------|--------------------|
| Risk = Likelihood of Contamination + Severity of the Contamination |

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Release</td>
<td>Quantity of Release</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Likelihood of Reaching Well Field</td>
<td>Toxicity of Contaminant</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Amount of Chemical on Site</td>
<td>Mobility &amp; Persistence in Groundwater</td>
</tr>
</tbody>
</table>

How does risk assessment relate to groundwater protection?
By identifying processes, situations, and conditions that could have a negative impact to groundwater, actions can be taken to protect our drinking water source by eliminating or reducing the impact of the identified cause.

What does risk assessment mean to businesses located in the Source Water Protection Area?
When businesses become more aware of procedures and processes that potentially pose a risk to groundwater proactive actions can then be implemented to reduce or eliminate liability.

What resources are available to businesses in the SWPA to assist in reducing risk to groundwater?

- **Funding:** The Source Water Fund provides grants to support risk reduction efforts. Examples include: Risk Point Buy Downs, secondary containment options, spill kits, storage upgrades. All projects must be approved prior to any work being performed or purchases being made.
- **Business Consultant:** In order to perform a risk assessment of your site, determine risk reduction projects, and enhance employee training, a business consultant is being provided at no cost to assist businesses in these efforts.
- **Training:** Lunch & Learn and on-site presentations will soon be offered to businesses for their employees. These training sessions will be offered free of charge. Topics will include: spill prevention and response, emergency contact procedures, chemical handling and labeling, and Blue-Gold Certification.
- **Personnel:** Please contact your jurisdictional representative (see back page) with any questions or to discuss how the funds, consultant, and training may be of benefit to your business in reducing risk to groundwater – the source of the regions drinking water.
OCAPP
The Office of Compliance Assistance and Pollution Prevention (OCAPP) provides free and confidential assistance to Ohio businesses to help them comply with Ohio's environmental requirements, focusing on the needs of small business. The office helps local customers identify and implement pollution prevention measures that can save money, increase business performance and benefit the environment. OCAPP's recycling and litter prevention grant program provides funding to local businesses for a variety of recycling, litter clean-up and scrap tire management projects. Services of the office include a toll-free hotline, on-site compliance, workshops/training, and an online training catalogue.

What are the benefits to you in working with OCAPP?
Many businesses that have worked with OCAPP have said that they were glad they contacted OCAPP and received assistance. Benefits include:

- Saving money and improving business performance
- Achieving environmental compliance
- Reducing liability and potential for violations or penalties
- Protecting your workers' health and safety
- Helping preserve natural resources

Subscribe to the Ohio EPA for more information:
http://ohioepa.custhelp.com/ci/documents/detail/2/subscriptionpage
For more information: www.epa.ohio.gov/ocapp/ComplianceAssistanceandPollutionPrevention.aspx

RECYCLE
REDUCE COSTS
The City of Dayton Department of Water will expand and update its lime reclamation facility providing a new resource for water utilities throughout southwest Ohio and resulting in reduction of waste sent to landfills. The lime reclamation facility is located at the Ottawa Water Treatment Plant. Lime is used to treat the “hard” water drawn from Dayton’s wellfields. When the water treatment process is completed, surplus lime remains. The expansion will allow for the sale of an increased amount of excess lime to utilities and businesses for their own use.

POLLUTION PREVENTION
Ohio EPA has a new program to recognize organizations committed to environmental excellence at all levels; it is open to a wide variety of participants. The Encouraging Environmental Excellence (E3) program has a three-level approach that recognizes Ohio businesses completing environmentally beneficial activities and escalates to higher levels of recognition for those who exceed regulatory requirements or commit to future environmental stewardship efforts.

For more information: www.epa.ohio.gov/ocapp/ComplianceAssistanceandPollutionPrevention.aspx
MULTI-JURISDICTIONAL SOURCE WATER PROTECTION

Source Water Protection Board
City of Dayton
320 W. Monument Ave.
Dayton, Ohio 45402

www.daytonohio.gov

This newsletter is printed using soy-based inks on recycled paper.

WHAT’S INSIDE:
Risk Assessment – 1, 2, 3
Business Bin – 4
Risk Reduction – 5

CONTACTS

City of Dayton Economic Development
Mary Faulkner, Senior Development Specialist
333-3819
mary.faulkner@daytonohio.gov

City of Dayton Department of Water
Gayle Galbraith, Environmental Scientist
333-8480
gayle.galbraith@daytonohio.gov

Harrison Township
Justin Riley-Olszewski, Zoning Manager
890-5611
Jolszewski@harrontownship.org

City of Huber Heights
Russell Bergman, City Engineer
237-5816
rbergman@hhoh.org

City of Riverside
Robert Murray, Director, Planning & Economic Development
233-1801
murray@riverside.oh.us

City of Vandalia
Amber Holloway, City Planner
415-2301
aholloway@vandaliaohio.org

Public Health - Dayton & Montgomery County
Kenton Domer-Shank, Sanitarian Supervisor
225-4443
KDomerShank@phdmc.org

CityWide Development
Janet White, V.P., Housing and Economic Development Services
853-2541
jwhite@citywidedev.com

Wright Patterson Air Force Base

The SWPP is a 1995 – 2015 Recipient of the Groundwater Foundation Award

Promoting Regional Opportunities for Growth Recognizing Environmentally Sensitive Settings