

water

one source

Regional • Reliable • Renewable

*City of Dayton
Harrison Township
City of Huber Heights
Public Health – Dayton &
Montgomery County
City of Riverside
City of Vandalia
Wright-Patterson Air Force Base*



**SOURCE
WATER
PROTECTION
PROGRAM**



Dayton's Multi-Jurisdictional Source Water Protection Program

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We're About Water

The boundaries of environmental responsibility are limitless. Prevention, education, and participation can guarantee a safe and abundant water supply for our future – a future for our residents and visitors, for businesses and organizations, for recreation and commerce.

The goal of Dayton's Multi-Jurisdictional Source Water Protection Program is to balance continued economic growth with a safe, abundant drinking water supply.



A Great Blue Heron
in flight in Dayton's
Source Water
Protection Area.

CREATING

Dayton's Multi-Jurisdictional Source Water Protection Program

Water is our region's most precious resource, and we are blessed to have it in abundance in the Great Miami Buried Valley Aquifer (GMBVA). Federal, state, and local scientists and planners recognized this underground water supply as a renewable resource and of great value to this region. The GMBVA:

- Is one of the most productive aquifers in North America
- Has been designated by the U.S. Environmental Protection Agency as a Sole Source Aquifer
- Provides a source of drinking water for nearly 400,000 citizens regionally
- Helps to drive a healthy economy



In 1987, the City of Dayton sought participation in building a Source Water Protection Program (SWPP). Community, business and environmental leaders gathered to develop this internationally acclaimed program, including representatives from:



- City of Dayton
- Ohio EPA
- Harrison Township
- City of Huber Heights
- City of Riverside
- City of Vandalia
- Wright-Patterson Air Force Base
- Public Health – Dayton & Montgomery County
- Dayton Area Chamber of Commerce
- Priority Boards and citizens' groups
- Environmental Advisory Board
- Sierra Club
- Citizen Action
- Citizens Against Pollution

SUCCESSING

City of Dayton's Multi-Jurisdictional SWPP Milestones Through the Years

1988

First Legislation Enacted

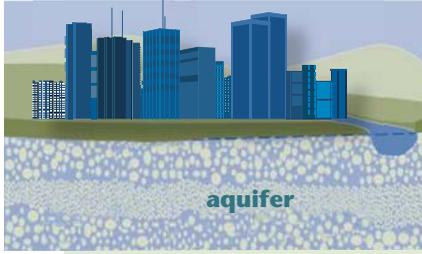
The City of Dayton adopted well field protection legislation.

1989

Legislation Adopted by Two Additional Communities

Harrison Township and the City of Riverside became the first communities outside of Dayton to adopt well field protection legislation.

The Great Miami Buried Valley Aquifer



Our commitment is to ensure this irreplaceable resource is continuously valued and protected.

The Great Miami Buried Valley Aquifer is a vast, 3-trillion-gallon reservoir created through tens of thousands of years of glacial activity. The water is contained in the spaces between the enormous sand and gravel beds that underlie our valley. The aquifer is replenished by water from rivers, streams, lakes, rainfall, and runoff that seep into the ground.

Like many cities, much of Dayton's commerce and industry grew along our rivers, and our region benefited from these waterways.

The SWPP works with businesses to the benefit of the environment using business-friendly strategies that protect this water supply.

In 1988, the City of Dayton was the first to adopt legislation enacting a SWPP. Our jurisdictional partners – Harrison Township, the cities of Huber Heights, Riverside, and Vandalia, and Wright-Patterson Air Force Base (WPAFB) – soon followed suit. Today, Dayton's Multi-Jurisdictional Source Water Protection Area (SWPA) encompasses more than 6,200 acres.

This multi-jurisdictional program was the first to be endorsed by Ohio EPA and includes:

1. **Delineation** – establishment of a boundary line protecting the well field area
2. **Potential Pollution Source Inventory** – identification of Regulated Substances and activities in and around the area
3. **Management Plan** – measures that reduce threat to ground water, including:
 - a. Source Control Strategies
 - b. Contingency and Emergency Plans
 - c. Public Participation and Education
 - d. Ground Water Monitoring



1990

Legislation Adopted by Remaining Communities

The cities of Vandalia and Huber Heights adopted well field protection legislation.

1990

WPAFB Memorandum of Understanding Signed

Wright-Patterson Air Force Base signed a Memorandum of Understanding – the first agreement of its kind in the United States.



1993

PROGRESS Formed to Promote Program

Promoting Regional Opportunities for Growth Recognizing Environmentally Sensitive Settings (PROGRESS) was initiated to assist businesses in reducing risk to ground water and to promote economic growth.

1994

Risk Point Buy Down Program Created

The Well Field Board established the Risk Point Buy Down (RPBD) program in which businesses receive grants in exchange for the permanent removal of chemical inventory.

PROTECTING

The SWPP uses a combination of preventive, protective, and economic development strategies.

Preventive Strategies

- A unique zoning overlay district
- Monitoring wells that serve as an early warning detection system
- Partnering with zoning and economic development departments in the City of Dayton, the City of Riverside, and Harrison Township; Wright-Patterson Air Force Base; Public Health – Dayton & Montgomery County; and the City of Dayton Fire Department
- Educational programs for businesses, citizens, schoolchildren
- Facility inspections and monitoring of chemical inventories
- Drinking water monitoring
- Municipal Separate Storm Sewer System monitoring
- SWPA signage



Protective Strategies

- Air strippers that remove volatile organic compounds (VOCs) from the water supply
- 24-hour emergency response
- Contingency plans
- Ground water investigations
- Partnering with HazMat and Ohio EPA
- Well abandonment programs



Air strippers in the SWPA.

1995-Present

The Source Water Protection Program and PROGRESS have been awarded the Groundwater Guardian award from the Groundwater Guardian Foundation each year since 1995.



1996

First in State Endorsed by Ohio EPA

The SWPP became the first in Ohio to be endorsed by the state Environmental Protection Agency.

Delineation is a first step in creating a SWPP. The SWPA boundaries of the Miami River and Mad River well fields are superimposed over an aerial image of the Dayton region.

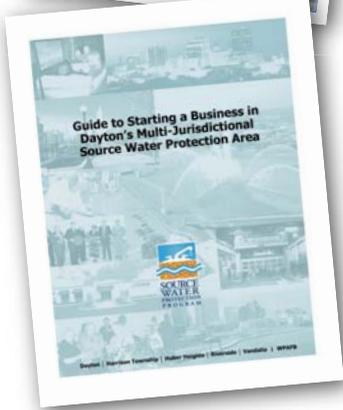


CityWide assists businesses with funding for risk-reduction projects.



Economic Development Strategies

- The Risk Point Buy Down Program, which encourages businesses to permanently reduce chemical inventory through financial incentives
- Economic development specialists who facilitate environmentally friendly economic development
- Grants and zero-interest loans for risk-reduction projects
- Partner with CityWide Development Corporation for SWPA funding liaison assistance
- *Guide to Starting a Business in the SWPA*, which assists businesses with locating in the SWPA



Dayton's SWPA maintains a business occupancy of greater than 90 percent.



1996
The City of Dayton and Harrison Township Joined the SWPP's Economic Development Assistance Program

1996 - Present
PROGRESS News, a Newsletter Published Each Year for SWPA Businesses

SUSTAINING

Making a difference starts with the little things, like switching from harsh cleaning substances to eco-friendly products. It can also involve such things as reporting spills and potential threats, implementing pollution-prevention and risk-reduction activities, and getting involved in community programs.

SWPP Successes and Best Practices

- Assisting environmentally friendly businesses to move into the SWPA
- Encouraging businesses to reduce their risk
- Providing ground water emergency response funding
- Providing for economic development specialists in SWPP jurisdictions
- Removing underground storage tanks and dry wells
- Engineering and building storm-sewer systems
- Creating a GIS database
- Collecting and organizing hydrogeologic data
- Developing a regional ground water flow model
- Performing remediation activities
- Developing a SWPA ground water flow model
- Performing ground water investigations
- Removing more than 17 million pounds of chemical inventory through the Risk Point Buy Down Program
- Providing financial assistance for risk-reduction projects



The SWPP provides funding and funding assistance for risk-reduction projects such as ground water studies and removing underground storage tanks.



The City of Riverside redeveloped an area into the Center of Flight. The business park already contains a new hotel that serves tourists visiting the U.S. Air Force Museum across the street.



1997 – Present

Region's Children's Water Festival Held Annually

More than 25,000 children from Montgomery and Greene counties have attended the Children's Water Festival on the University of Dayton campus to learn about water and how to protect this precious resource. The City of Dayton and many other organizations and community leaders coordinate the annual event.

Dayton's SWPP has been featured in:

- U.S. EPA video (1995) - "Protecting Your Groundwater Supply: Putting the Pieces Together"
- U.S. EPA publication (1996) - "Business Benefits of Wellhead Protection"
- AWWA Research Foundation publication (2004) - "Demonstrating Benefits of Wellhead Protection Programs"
- Ohio EPA publication (2008) - "Developing Local Drinking Water Source Protection Plans in Ohio"
- U. S. EPA Web site (2008) - "Promoting Safe Drinking Water: Communities Share Success Stories"

Dayton's Multi-Jurisdictional Source Water Protection Program has been honored by:

- The Groundwater Foundation
- American Water Works Association
- Ground Water Protection Council
- International City and County Management Association
- The National Civic League

SWPP Education

- Pollution- and spill-prevention workshops
- Producing the Children's Water Festival
- Using ground water educational exhibits
- Educating businesses via the *PROGRESS News* newsletter and workshops
- Educating the public through community meetings and workshops
- Presenting at local and national seminars and conferences



CityWide personnel meet with businesses to encourage ground-water-friendly growth in the SWPA.

1999

The City of Riverside Joined the Economic Development Assistance Program

2002

Ohio EPA Certification of Approval Received



2004

Tenth Anniversary Celebrated as a Groundwater Guardian Community

2006

SWPP Ordinance and Risk Point Buy Down Program Amended

GROWING

Only Tap Water Delivers ...

Dayton's water has been lauded as among the best in the country – and we have a nationally recognized SWPP to protect this precious resource.

Only Tap Water Provides ...

1. Public Health Protection

A safe water supply is the first obligation of all water suppliers, and Dayton takes pride in producing high-quality drinking water that meets all Safe Drinking Water Act standards.



2. Fire Protection

Reliable water and reliable water pressure help to suppress fires, which impacts insurance rates and business location decisions.



3. Quality of Life

Reliable, high-quality, safe drinking water is used for recreation, bathing, cooking and more – and, it tastes great.



2008
Marked
20 Years
as a
Successful
SWPP



2009
Take Back the Tap Campaign Launched



Together, we can protect our water and our future.

4. Support for the Economy

Tap water is critical to business operations and commercial and residential developments. It is the primary ingredient in hundreds of thousands of everyday products that are manufactured, distributed and sold. Businesses must consider cost, availability, and quality of water when deciding where to locate or develop land.



Ribbon-cutting celebrating a new business in the SWPA.

“Dayton’s efforts to protect the quality of the drinking water ... is a model for the nation.”

*Carol M. Browner,
Former U.S. EPA Administrator*

Participants/Contact Numbers for SWPA Partners



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Department of Water
937-333-3725



Harrison Township
937-890-5611



City of Huber Heights
937-233-1423



City of Riverside
937-233-1801



City of Vandalia
937-898-5891



Public Health – Dayton
& Montgomery County
937-225-5909



CityWide Development
Corporation
937-853-2541



Wright-Patterson
Air Force Base

The Source Water Protection Area is a good place to locate an environmentally friendly business.

The area is ideally located near Interstates 70 and 75 and State Route 4 and just 10 minutes from both downtown Dayton and WPAFB. It’s just 15 minutes from Dayton International Airport.

Top 7 reasons businesses locate in the SWPA

1. Creative financing
2. Strategic location
3. Affordable land
4. Available facilities
5. Low water and sewer rates
6. Great labor force
7. Existing infrastructure



"The story of Dayton is really the story of ground water."

*Susan Seacrest, Founder,
The Groundwater Foundation*



Well Field Protection Board
City of Dayton
320 W. Monument Avenue
Dayton, Ohio 45402
www.cityofdayton.org



A Groundwater Guardian Community since 1995.