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Collecting the Drops:

A Water
Sustainability
Planner

Case Example

Pfizer Inc: Protecting the Source: Ann Arbor Watershed Improvement

When local development affected a community's watershed, Pfizer combined sound on-site practices with leadership, community partnering, and long-term planning—and saw successful outcomes for the company and the community.

Watersheds—the areas of land that allow rain, sleet and snow to soak into the ground or run off into rivers and lakes—play an important role in replenishing drinking water sources, preventing flooding, and supporting wildlife. Watershed areas are sensitive to changes in the way that the land is used. For example, paving over natural surfaces prevents rainwater from percolating into the ground to replenish groundwater and also increases the potential for flooding and changing natural drainage routes, e.g., during development of an area the cutting down of trees exposes bare land and can cause flooding and soil erosion during subsequent heavy rainfalls. In 2002, a team from Pfizer's Ann Arbor, Michigan research and development facility decided to understand the impact local development was having on their local watershed.

Running through Pfizer's Ann Arbor facility is Miller's Creek, a tributary of the Huron River, which is one of the fastest flowing creeks in the Huron watershed. Development along the creek had resulted in bank erosion and periodic flooding. When the Pfizer facility began to experience flooding and erosion, the company approached the County Drain Commissioner and the Huron River Watershed Council for assistance.

While shoring up its portion of Miller's Creek could have solved the problem for Pfizer, continued flooding and erosion in the surrounding area still would affect local residents and businesses. With this concern in mind, Pfizer opted for an approach that would address the watershed's overall problems. Pfizer worked with a local watershed group, the Miller's Creek Action Team (MCAT), to encourage broad participation in the watershed management process.

MCAT, which is led by a Pfizer facility environment, health and safety leader, includes partnerships with local businesses, government, and community members.



From the beginning, Pfizer and the other MCAT members sought to obtain community participation and buy-in. The team set up public meetings to introduce the watershed problems and asked the community to provide comments on what environmental, public health, and recreational aspects of the Creek should be preserved or changed in the following ten years. Plans for a Pfizer-funded study of the three-square mile Miller's Creek watershed incorporated these public responses. This study identified the watershed's water quality and quantity problems. For example, it was found that the Creek suffered from poor water quality caused by fertilizer runoff and that the flooding resulted from impermeable soil and a changing creek bed.

Pfizer Inc: Protecting the Source: Ann Arbor Watershed Improvement (Cont.)

MCAT is establishing and implementing a ten-year management plan that encompasses socially, environmentally, and economically sustainable watershed management standards and practices that have grown out of the study and community involvement. The plan also includes a variety of projects to be undertaken over the ten-year period.

Pfizer has implemented several watershed improvement projects on its facility grounds. These projects include upgrading the facility's storm water management system, replacing grass in lawn areas with native prairie grass, restoring a wetland, and implementing a phosphorus-free fertilizing program. The grassland and wetland initiatives, initiated in 2004, have already helped to reduce water flow and prevent flooding in the area. The wetlands are also helping to manage the nutrients flowing into the river by providing a barrier to prevent fertilizers from running directly into the Creek.

The facility is also committed to creating learning opportunities to raise awareness of watershed ecology and management. For example, Pfizer helps to organize and participate in walks along the Creek and monitoring events sponsored by the Huron River Watershed Council. Additionally, Pfizer Ann Arbor's Science Education Task Force—part of a company-wide effort to promote science education among elementary and high school students — leads science demonstrations, classes, and student teams and provides water sampling equipment to classes participating in the U.S. Environmental Protection Agency's National Water Quality Monitoring Day.