

Introduction

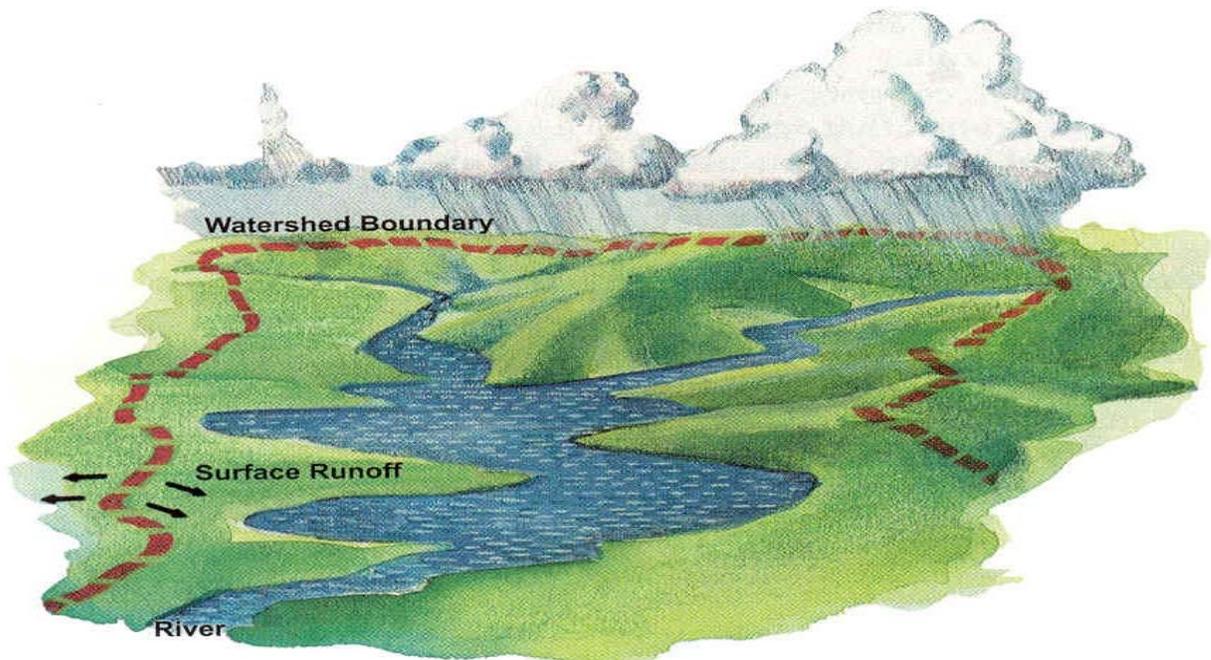
The city of Sault Ste. Marie has always been grounded in natural resources. Founded through the early fur trade, roots developed by the lumbering era, and now sustained in part by the shipping of minerals and other natural resource commodities through its locks, the Sault owes its infrastructure to the utilization of the area's natural resources. Unfortunately, this dependence upon natural resources has shown signs of degradation of our most important natural resource--clean water.

The Sault Ste. Marie Area Watershed Management Plan is a guide to help the Sault Ste. Marie community and other stakeholder, including local units of government, nonprofit organizations, and local residents protect water quality and aquatic resources in the Sault area watershed. Furthermore, similar communities facing similar concerns can use the guide to protect their aquatic resources.

Protecting Water Quality by Managing Watersheds

Imagine a typical landscape with hills, valleys, rivers, wetlands, as well as development like houses, parking lots, etc. that you find all across America. The characteristics of our water quality begin with our first experience with water as rainfall and/or snow falling to the landscape. Right away, that precipitation either percolates into the soil to recharge groundwater, or it evaporates, or it takes the path of least resistance downhill as runoff and collects at common low points, usually lakes, ponds, rivers, and wetlands. Each landscape can be delineated into watersheds based on the low point which creates the water body with the runoff water collected from all the land surrounding it. The water body is defined by these common low points. The watershed is all the land that drains to a common water body.

Figure I-1 Watershed



A watershed is an area of land that drains to a common body of water.

Precipitation carries pollutants¹ through the watershed to the water bodies. Therefore, water quality in lakes, streams, and underground is dependent upon pollution characteristics of the surrounding watershed from where these water bodies collect their supply. This is the rationale for managing water quality on a watershed scale. Almost every activity on the land has the potential to affect water quality. Watershed management is an attempt to eliminate sources of pollution on land by empowering local partners within the watershed regardless of private property boundaries or political boundaries to properly manage land use in order to protect the water quality in our lakes, ponds, rivers, and underground.

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The Partnership

The concept of watershed management doesn't just end with managing the land. Management must also incorporate the people who have a *stake* in protecting water quality. The Sault Project *stakeholders* included a steering committee consisting of professionals from City government and administration, Lake Superior State University, Regional Planning, Sault Area and Soo Township Schools, Chippewa-Ottawa (Native American Tribes) Resource Authority, Chippewa County, as well as local citizens from the watershed project area. Steering Committee members volunteered water quality concerns and provided guidance into ways to address those concerns. The design of aquatic resource protection activities outlined in this plan were directed by input from these community representatives.

Chemical and biological assessments of surface waters were completed by Lake Superior State University faculty and students. City (Sault Ste. Marie) officials provided planning information, maps, and historical information as well as insight into residents' desired uses for the watershed. Michigan Department of Environmental Quality provided administrative guidance as well as information regarding local contamination sites. The Chippewa County Health Department was a wealth of information about septic system conditions as well as contamination sites throughout the city. Little Traverse Conservancy helped with technical information regarding land protection. Local citizens provided historical information as well as representation of public sentiment about water quality issues and improvement ideas.

The United States Environmental Protection Agency provided funding for this project through Section 604 (b) of the Clean Water Act.

Technical advisors included a compilation of citizens and environmental professionals knowledgeable about the historical degradation of the area's natural resources,

The Sault Ste. Marie Area Watershed Management Project is a partnership of local citizens and environmental professionals concerned over water quality in the Sault Ste. Marie area. This resulting watershed management plan is an assessment of current conditions and characteristics of water quality in the creeks and groundwater within the watershed of the city of Sault Ste. Marie. The assessment also takes into account historical and social perspectives that have helped shape water quality conditions.

"The Gathering Place"

Sault Ste. Marie is the oldest city in Michigan, and the third-oldest city in the United States. It's history has been shaped by the wealth of adjacent aquatic resources. Over 2,000 years ago, Native Americans began to gather here for the wealth of fish and fur found along the rushing

¹ Non-point source pollution is water pollution caused by stormwater runoff, air deposition, groundwater infiltration and altered hydraulic flow. Sediment, fertilizer, bacteria, toxic chemicals, oils and other byproducts of poor land use degrade water resources. Roads, driveways, parking lots, farms, lawns and septic systems are common non-point sources. All are widespread throughout the watershed making non-point source pollution a cumulative problem that cannot be solved on a site-by-site basis (Harrison 2002).

waters of the wide, turbulent river that linked the Great Lakes of Superior and Huron. They called the area “Bahweting,” or “The Gathering Place.” The river below the rapids provided an abundance of fish for native peoples, as well as for several tribes from throughout the region, which migrated here during the peak fishing season. To this day, it remains a world-class spot for sport fishing.

Unfortunately, the water quality that attracted settlement has been degraded by the forces required to sustain that development. Hundreds of years ago the treacherous rapids and cascades that fell over 20 feet from the level of Lake Superior to the level of the lower lakes prohibited boat traffic and necessitated an overland portage (*now Portage Avenue*) from one lake to the other. With the coming of the industrial age and the discovery of copper and iron ore in western Lake Superior, it was necessary to construct the first “Lock” in the St. Marys in 1837 to enable ships to pass between Lake Superior and Lake Huron to transport ore to the industrial centers to the south. This historical time passage evolved the significance of the Sault from a “gathering place” based on natural features to a gathering place based on industrial importance.

Water quality attracted settlement and has been degraded by the forces required to sustain it.

The focus on sustaining this industrial importance has impacted the ecological landscape and the quality of aquatic resources in the watershed and St. Mary’s River. Several developments have occupied the Sault area watershed and degraded the environmental quality and continue to pose a threat to the community’s water quality.

Nonetheless, an appreciation for the area’s natural resources is evident. Stakeholders are becoming aware of the value of *greenspace* in the city limits. City officials have developed plans for additional recreation opportunities centered around the area’s natural features. Environmental professionals have teamed up to put natural resource protection at the forefront of work plans.

These examples of community participation are the impetus for the Sault Ste. Marie Area Watershed Management Project.