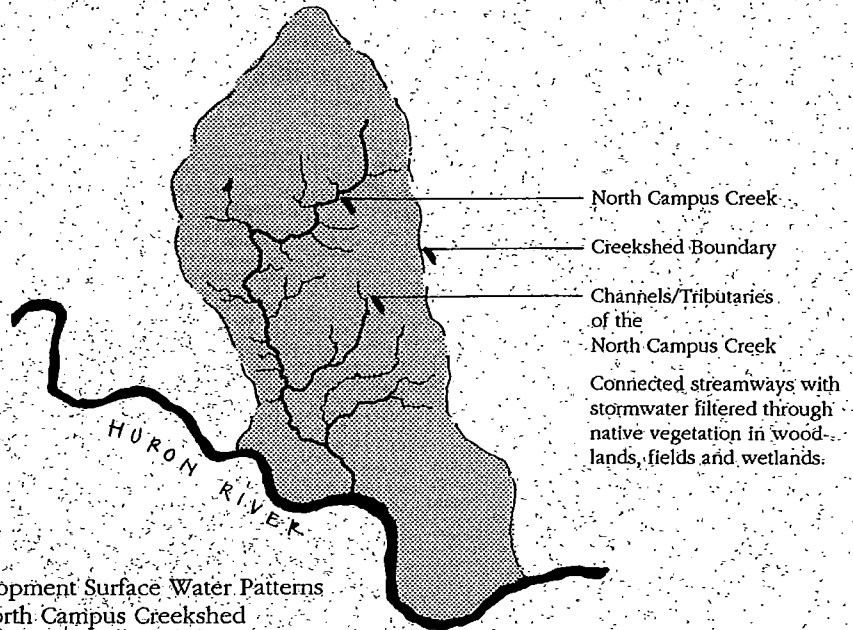
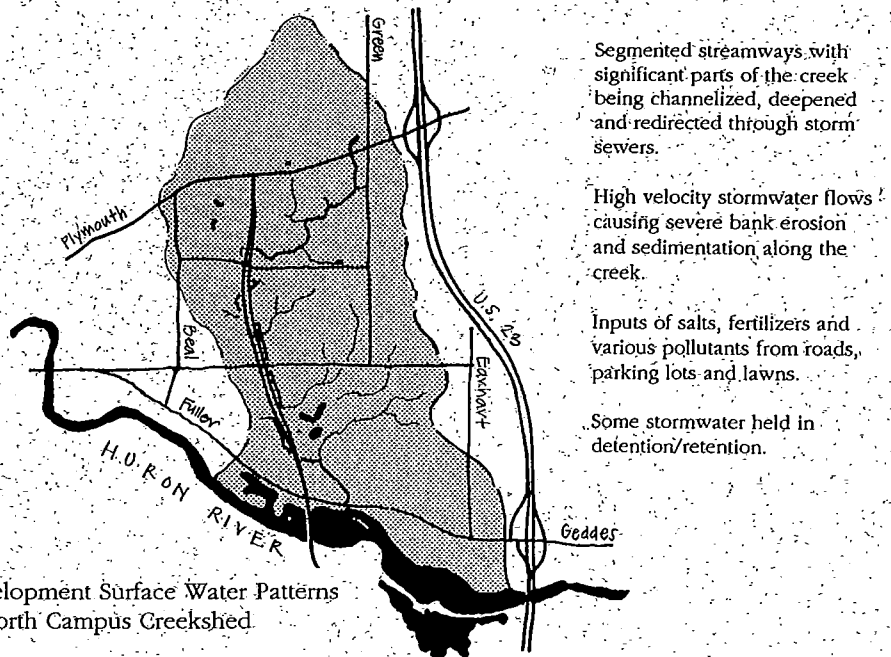


# North Campus Creekshed Planning Meeting @ ERIM

1968 Green Road, Ann Arbor - Kiva Meeting Room  
Thursday, 27 May 1993 at 10 AM



Pre-development Surface Water Patterns on the North Campus Creekshed



Post-development Surface Water Patterns on the North Campus Creekshed

## The Huron River Basin and the North Campus Creekshed



### **Introduction**

As major landholders in the headwaters of the North Campus Creekshed, corporations and institutions have the ability to play a significant leadership role in improving conditions within the North Campus Creek drainage basin. Coordinated efforts to plan and manage surface water and to restore nature's rain-to-runoff cycle can enhance northeast Ann Arbor's working and living environs. The resulting system of rich and functioning greenways can minimize the future costs of solving problems that otherwise follow inadequate creekway protection. Unified watershed planning efforts can provide our community with yet another opportunity for earning, learning, enjoyment, service and wise use. The North Campus Creekshed Planning meeting on 27 May 93 is intended to produce an initial forum for discussing the how/what/when/where/why of a watershed planning initiative for this area.

### **Background to Watershed Planning in the United States**

The importance of watershed planning is summarized well in the Winter 1993 issue of Water Connection, the New England Interstate Water Pollution Control Commission newsletter. The names of watersheds and rivers have been changed to fit the context of the Huron River Basin and the North Campus Creekshed.

"Today, we are at what may be the turning point of environmental management. Throughout the country, people in both the public and private sectors have begun to look at their rivers, lakes, streams, ponds, and groundwaters with a growing understanding and appreciation, with an evolving realization that everything is [interconnected]-hydrologically, geologically, biologically.

Hydrologically speaking, a "watershed" is a geographic area that is bounded by an elevation or divide which creates what amounts to a "drainage basin". Within this basin, water, sediments, and dissolved materials all drain to a common outlet--a point on a larger stream, a lake, an underlying aquifer, an estuary, or an ocean. Watersheds can be subdivided into smaller and smaller hydrologic units; from [Lake Erie to the Huron River and on to North Campus Creek]."

The article goes on to cite an historical reference,

"When John Wesley Powell explored, surveyed, and mapped the lands of the Rockies and the vast western plateaus during the later half of the 1800s, he saw that within this natural system of watersheds and river valleys, there existed the most viable framework for the systematic and controlled settlement of the west. Powell was prophetic in his grasp of the consequences of the wasteful, destructive, and random exploitation and settlement of the west..

With 20/20 hindsight, had Congress stepped back and considered the bigger picture when drafting the Clean Water Act legislation of the 1970s, perhaps a natural hydrologic basin-wide approach to water resources protection would be today's modus operandi. Instead, federal and state regulatory programs have traditionally been directed at point sources of pollution. Municipal and industrial wastewater treatment facilities together with the NPDES [National Pollutant Discharge Elimination System] have brought about an unprecedented improvement in the quality for the nation's surface waters..

However, water quality problems persist. Limiting point source discharges is just one part of a larger more unwieldy problem: nonpoint source pollution and the destruction of wetlands and other vital habitats. Pollution [from] leaking underground storage tanks, failed septic systems, poorly sited landfills, filled or polluted wetlands, illegally disposed hazardous wastes, stormwater runoff, agricultural runoff, pesticides, herbicides, soil erosion, [and] stream sedimentation affect the system, as a whole, far worse than the sum of each part."

The point of the article, and the opportunity we have today is summarized as follows:

"To manage these more elusive sources of pollution and environmental degradation, a system-wide watershed approach that, according to EPA, "takes into account the dynamic relationships that sustain natural resources and their beneficial uses" has evolved as the new focus of federal, state, and local agencies. However, the success of this approach rests squarely with the level of commitment and involvement at the local level and coordination at some regional level. At the heart of any successful effort at watershed protection is the support and hands-on participation on the part of the people who live and work in that place."

#### **North Campus Creekshed Management Opportunities**

Recent investigations on the Huron River, conducted by the Michigan Department of Natural Resources, indicate that the Huron River is currently in good health, supporting diverse and plentiful populations of aquatic species. There are chinks in the river's armor however. Beneath its surface currents, the river hides contaminated sediments, is losing fish and mussel species to sedimentation, and is, at certain times and in some areas, unsafe for swimming. Added to these water quality concerns are growth projections indicating that up to 40% of the remaining open space within the Huron River basin may be developed within the next two decades. Such growth, if improperly planned for, brings increased frequency of flooding and flood volumes, increases sedimentation and pollutant transport, and frequently results in further losses of biological diversity and limitations on human use of rivers, streams and lakes.

As indicated above, trends clearly show that there will be increasing emphasis on watershed management practices with regulations at federal, state and local levels. Rather than focussing on regulations and responding to them once they are instituted, however, land owners in the North Campus Creekshed have the opportunity to leap ahead of both existing and future regulatory mandates by conceptualizing new developments as well as managing existing ones and evaluating how they fit into the watershed as a whole. Efforts to plan, design and implement new developments, and renovate, manage and operate existing ones in concert with watershed processes, such as slowing, holding and filtering urban stormwater runoff, can have tremendous economic and environmental benefits, reducing costs and negative environmental impacts through time.

The land is the responsibility of each of us. Working together, we can produce an improved environment for all, and in turn, enhance the special qualities and value of the Plymouth Road and Huron Parkway corridor.

Pollack Design Associates-LRS/ewp