SECTION 3: UNDERLYING WATERSHED CHARACTERISTICS

Drowned River Mouth

Spring Lake is one of many drowned river mouths located along Lake Michigan’s eastern shoreline. These systems are remnants of the most recent Ice Age, when retreating glacial ice melted and submerged (or flooded) the mouth of these rivers where they entered Lake Michigan.

Effects on the Stormwater Infiltration and Runoff

The young, relatively recent landscape features and soils in Michigan’s Lower Peninsula that were left behind by the glaciers are mainly comprised of loose and unconsolidated glacial drift. These are typically sands, gravels, silts, and clays and/or combinations of these materials, which can be hundreds of feet thick. Generally speaking, the vast majority of soils within the Spring Lake Watershed are of a sand or sandy texture, which have the properties of high to moderately high rainfall infiltration rates and low runoff potential. This results overall in a very pervious landscape which is well-suited to handle natural precipitation. Alterations to this pervious material through the introduction of hardened, impervious materials, such as concrete, asphalt and metal, remove these natural stormwater control benefits.
Hydrography

Major Hydrographic Features:
52.8 sq. miles or 33,792 acres in the watershed
1,210 acres of lake and pond surface area
57.8 miles of perennial streams and creeks
34.9 miles of drains and intermittent streams

Data Sources: Hydrologic Base Information - MDEQ watershed boundaries; 1:24,000 scale - Michigan Center for Geographic Information, Department of Information Technology, 2008
Base Information - Michigan Center for Geographic Information, Department of Information Technology, 2008

Information, Department of Information Technology, 2008

Map Prepared: March 2009
Glacial Drift Aquifer Characteristics

Legend

Glacial Drift Aquifer Characteristics

IIa - Drift usually unconfined at or near surface, generally consists of interbedded aquifers, aquicludes, and aquitards at depth

IIb - Drift unconfined at or near surface, generally consists of interbedded aquifers, aquicludes, and aquitards at depth, but drift may not be an aquifer in small discontinuous areas

IIb - Drift may or may not be aquifer at or near the surface. Drift generally consists of interbedded aquifers, aquicludes, and aquitards at depth

Base Information

- Drains and Intermittent Streams
- Rivers and streams
- Lakes and ponds
- Highway
- Primary County Road

Data Sources: Groundwater Inventory and Mapping Project, Water Bureau - MDNR, USGS - Michigan Water Science Center and Michigan State University - Institute of Water Research, RS&GIS and Biosystems and Agricultural Engineering.

Base Information - Michigan Center for Geographic Information, Department of Information Technology, 2008

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Map Prepared: March 2009