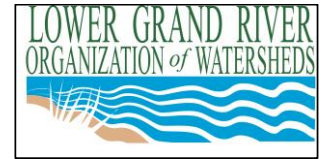


SUBWATERSHED MANAGEMENT UNIT SUMMARY SHEET

Subwatershed

Management Unit: Coldwater River
Major Watershed Name: Thornapple River
Hydrologic Unit Code: 04050007-0301



WATERSHED DESCRIPTION:

Size (acres):	120,739	Land Use (% of total)	
Counties:	Kent, Ionia, Barry	<i>Agricultural</i>	74%
Cities, Villages & Townships:	Freeport, Clarksville, Lake Odessa, Woodland, Lowell, Boston, Berlin, Bowne, Campbell, Odessa, Sebewa, Irving, Carlton, Woodland, Hastings, Castleton	<i>Forest Land</i>	14%
Critical Area for Restoration:	Medium	<i>Lakes</i>	1%
Priority Area for Preservation:	Low	<i>Open Land</i>	2%
		<i>Urban</i>	3%
		<i>Wetlands</i>	8%
Pollutant Loadings			
Sediment (tons/yr)	1,620		
Phosphorus (lbs/yr)	21,846		
Nitrogen (lbs/yr)	129,374		

Priority Pollutant	Pathogens		
Priority Sources	Cropland	Livestock	Septic tanks
Priority Causes	Over or improper application of manure	Uncontrolled livestock access	Aging systems
Trout Streams/Miles	Coldwater River from Brown Road to Little Thornapple River; Lower Lake split; Coldwater River; Duck Creek; Pratt Lake Creek; Bear/Tyler Creek and unnamed tribs; Three unnamed tribs south of the Coldwater River/ 26.1		
Streams with Total Maximum Daily Loads & Dates of Implementation	Coldwater River TMDL E. Coli 2005, Tyler/Bear Creek TMDL E. Coli 2020, Little Thornapple River & Woodland Creek TMDL Unknown 2016		
Wellhead Protection Area(s)	YES		

PLANS & STUDIES:

Watershed Management Plan	Thornapple River, WCLMI Resource Plan/Coldwater River
Other Studies	Ionia Drain Commissioner SWMP, Bowne Township (Kent County) SWMP, Kent County Stormwater Ordinance
MDNRE Surface Water	25300/25300, MI/DEQ/SWQ-97/085, MI/DEQ/SWQ-00/051, MI/DEQ/SWQ-02/001/25300, MI/DEQ/SWQ-97/048, MI/DEQ/SWQ-97/085
MDNRE Hydrologic Studies	Thornapple River Watershed Flashiness Report (MDEQ 2008)/ICDC Road Crossing Study
Local Water Quality Monitoring / Inventories	Yes, by Coldwater River Watershed Council (CRWC) for many parameters; by Michigan State University – Water Quality & Health Laboratory for Pathogens,

WATERSHED PARTNERS:

Watershed Organization(s)	Coldwater River Watershed Council, LGROW
NPDES Municipal Separate Storm Sewer System	None