

Section 3

Source Water Protection Area

The United States Geological Survey (USGS) prepared a Source Water Assessment for the Ira Township Water system under contract to the MDEQ. The final report was completed in December 2003 and is included as Appendix B. The figures presented in this section are from the USGS report.

3.1 Source Water Area

The source water for the Ira Township water system is Anchor Bay, a part of Lake St. Clair. Lake St. Clair is fed by the St. Clair River, Lake Huron, and minor tributaries. Extensive chemical and other industries are located along the St. Clair River on the US and Canadian sides of the St. Clair River. There is a long history of chemical spills to the river that could impact water systems downstream of these industrial sites. In addition, the St. Clair River, Lake St. Clair, Detroit River system is heavily used for commercial shipping.

The watershed and tributaries that terminate in Anchor Bay proximal to the Ira Township water system intake are shown in the USGS figure to the left.

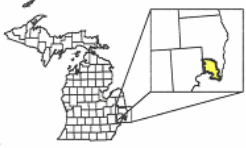
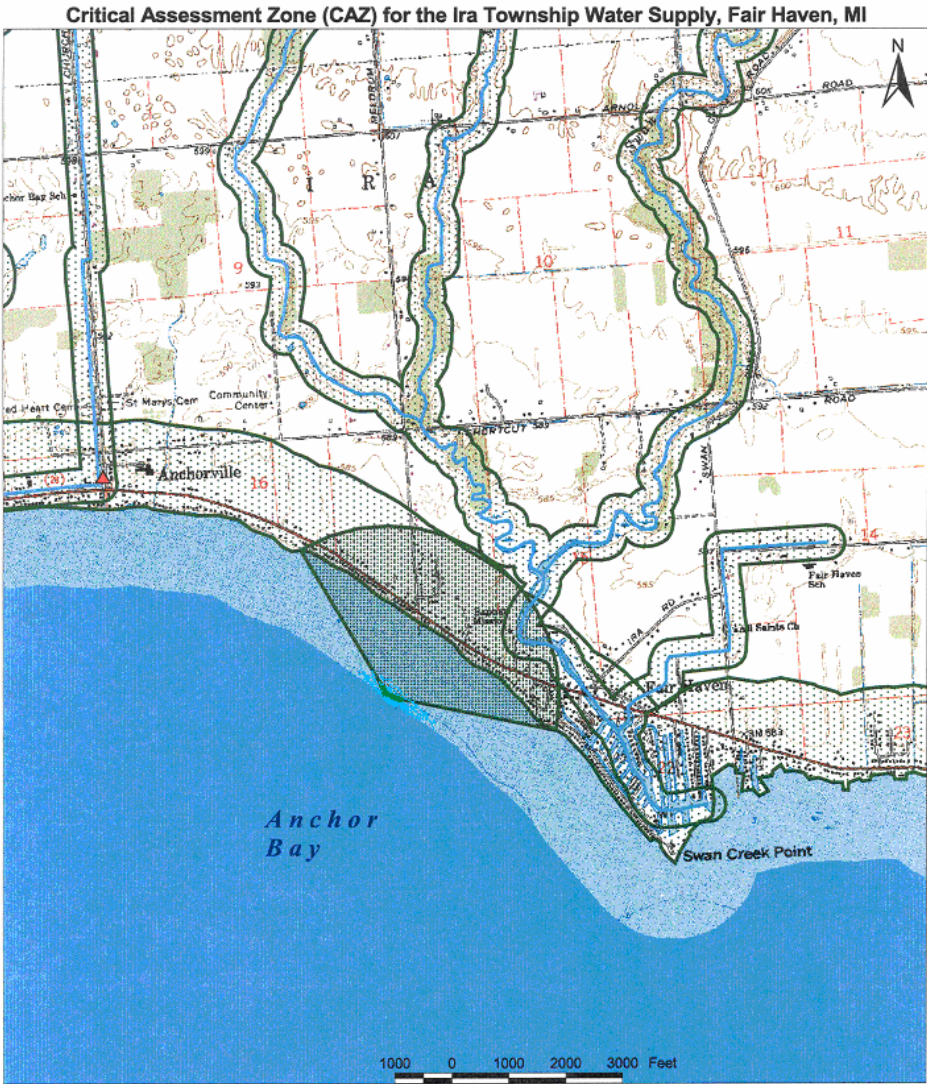
3.2 Critical Assessment Zone

In addition, USGS developed a Critical Assessment Zone (CAZ) using the Great Lakes Protocol (see Appendix B) and developed a CAZ map as presented on the following page. The CAZ is the area where releases to the environment have the greatest potential to impact the Ira Township water intake. This Source Water Protection Program focuses on facilities and potential spills to this zone and seeks to reduce or eliminate the opportunity for impacts to the Ira Township system.

Source-water Area (SWA) for the Ira Township Water Supply, Fair Haven, MI



Ref: USGS



Ref: USGS

- Explanation**
- Critical Assessment Zone
 - Susceptible Area
 - Potential Contaminant Source within Susceptible Area
 - Rivers and Creeks
 - SWA Boundary

3.3 Potential Sources of Contamination

CDM reviewed a variety of regulatory databases to determine potential sources of contamination for the Ira Township water supply. A summary of the databases, responsible agency, information covered and whether any listings were found is presented in Table 3.3.

Table 3.3: Databases Searched for Existing Sources of Contamination

Database	Agency	Information	Listings Found?
Total Daily Maximum Load (TMDL)	MDEQ, Surface Water Quality Assessment Section, Water Bureau	TMDL Regulated Watersheds	No
Part 201 of Act 451 - Sites of Environmental Contamination	MDEQ, Remediation and Redevelopment Division (RRD)	Contamination Sites	Yes
Brownfields - USTfields Database	MDEQ, Waste and Hazardous Materials Division (WHMD), Underground Storage Tanks	Brownfields and UST sites	No
Underground Storage Tank List (UST)	MDEQ, WHMD, Underground Storage Tanks Unit	Registered Underground Storage Tanks	Yes
Leaking Underground Storage Tanks (LUST)	MDEQ, RRD, LUST Program	Leaking Underground Storage Tank Sites - Open, Closed	Yes
Waste Data System (WDS)	MDEQ, WHMD	Solid Waste, Scrap Tire, Liquid Industrial Waste, Hazardous Waste	Yes
Hazardous Waste Treatment, Storage, and Disposal Facilities Directory (TSD) - Part 111 Hazardous Waste Management	MDEQ, WHMD	Hazardous Waste Treatment, Storage, or Disposal Facilities	No
Toxic Release Inventory	MDEQ, SARA Title III Program	SARA Title III Toxic Releases	Yes
NPDES Permits	MDEQ, Water Bureau, Permits Section	Wastewater Dischargers	Yes
Stormwater Permits	MDEQ, Water Bureau, Permits Section	Stormwater Permits	Yes
Federal National Priority List (Superfund)	EPA Region 5	Superfund Sites	No
CERCLIS Database	EPA	Superfund Sites	No
Envirofacts Data Warehouse	EPA	NPDES Permits, Waste Handlers, Toxic Releases Reports	Yes
Sanitary Sewer Overflow Report (2004)	MDEQ, Water Bureau	SSO discharges into surface waters	No
Combined Sewer Overflow Report (2004)	MDEQ, Water Bureau	CSO discharges into surface waters	Yes

NOTE: Zip Codes searched included 48001, 48023, 48028, 48039, 48054, 48064

Appendix D contains the maps of the located sites within the Ira Township Source Water Area. Figure D-1 presents the registered stormwater permit holders, Figure D-2 presents facilities that are registered on the MDEQ Waste Data System, Figure D-3 presents the leaking underground storage tanks (LUSTs) located in the Source Water Area, Figure D-4 presents currently registered underground storage tanks (USTs), and Figure D-5 presents the location of NPDES (wastewater) permit holders. Following the figures is a complete table of all facility names and addresses for the figures.

3.4 Storm Water Conveyance

In addition to these point sources, storm water runoff is a common pathway of contaminant transport that could impact the Ira Township drinking water system. Each of the potential source maps in Appendix D shows the county drains and natural streams that are tributary to Anchor Bay and therefore possible conduits of spills and discharges to the CAZ. The township does not have a municipal storm system, as surface ditches, county drains and natural streams are the primary means for storm water conveyance. The township

and emergency response personnel have an established county drain map that can be used in the event of a spill to cutoff and contain polluting materials. In addition, township and county public works staff are aware of the environmental impact of drainage ways and are vigilant in reporting any sheens or dumping observed during the course of their standard duties throughout the source water protection area.

3.5 Potential Source Evaluation

Each of these potential sources of contamination, and their location relative to the CAZ, susceptible area and storm water conveyances, will be reviewed by Ira Township staff to determine if the subject facilities pose a potential threat to the Ira Township Source Water Intake. Those facilities determined to have the potential to contaminate the source water intake will be notified of their status. Township staff will inform each facility of their role in protecting drinking water and provide MDEQ information material to ensure they are aware of their regulatory reporting obligations in the event of a release to the environment.