

### 5.1.2 Urban Pollutant Sources Based Critical Areas

The UMRW Steering Committee voiced several concerns regarding urban land use issues that affect water quality, and urban pollutants including, combined sewer overflows, an increase in imperviousness, urban contamination sites such as industries and commercial areas, structures located within the flood plain and general stormwater management.

Urban pollutants can be much different than those found throughout the agricultural community. For example, fertilizer from urban lawns, golf courses, parks and cemeteries often contains nutrients that are in excess to what the grass typically requires and are more likely to runoff during wet weather events than fertilizers used in agriculture. It is also common to have runoff of sediment, oil, gas and other substances from automobiles, and salts from the roads. Pet waste left on lawns can make its way into the sewer system or open water and increase *E. coli* and nutrient levels, as can wildlife and bird waste, which is often a problem at urban retention ponds. Finally, excess stormwater, due to the increase in imperviousness within urban areas, can become a pollutant itself by causing surface and stream bank erosion.

A significant issue in the UMRW is the presence of 21 CSOs located within the watershed, as well as an additional 28 CSOs located upstream of the Maumee River in the St. Joseph and St. Marys Rivers. The increase in impervious surfaces in urban areas, specifically within Fort Wayne, has increased the number of CSO events each year. Fort Wayne's Long Term Control Plan includes plans to construct an underground storage tunnel to convey combined sewers to the waste water treatment plant prior to being discharged back into the river, thus limiting the number of CSO events to four annually (construction to begin in 2017). While this is a significant decrease in the amount of untreated combined sewage entering the river, raw sewage and other urban pollutants will still be discharged directly into the river and effect water quality, aquatic life, and recreational opportunities in the rivers. The cities of New Haven and Hicksville also have an approved LTCP, though they lack the funding and resources of the larger city of Fort Wayne and are not able to control the excess stormwater issue to the same degree. Therefore, additional stormwater management measures will need to be implemented at the individual homeowner level, as well as at commercial sites and new developments that go above and beyond any state mandated stormwater management measures. Fort Wayne's LTCP also includes plans to separate some of the combined sewers so that raw sewage from those areas will never enter the river. However, that also means that stormwater still will not be treated prior to being discharged into the river which indicates an increase in urban polluted runoff entering open water.

The windshield survey conducted in 2012 in the UMRW revealed more than 14,860 linear feet of stream bank erosion along streams within the urban landscape in the UMRW. This streambank erosion may be due to a lack of adequate riparian buffer to slow the velocity and erosive power of stormwater exacerbated by the increase in imperviousness. Management measures will need to be taken to address areas identified during the windshield survey, and any future bank erosion sites identified in the urban community to prevent further erosion and sedimentation of the stream.

It was common to see residential properties and industrial sites with little to no riparian buffer throughout the urban areas within the UMRW during the windshield survey conducted in 2012. It was observed that most homeowners mow their lawns directly up to the streambank to maximize their lawn space, and many commercial and industrial facilities did not have a stream buffer as the land is used for parking, or another aspect of the business. The desktop riparian buffer inventory identified residential and commercial property that is located directly adjacent to open water to help focus implementation efforts.

Based on the windshield survey, riparian buffer inventory, and CSO events, the UMRW steering committee has decided to make all CSO communities critical for education and outreach, as well as implementation of stormwater management measures to decrease urban pollutants that are typically found in stormwater runoff such as nutrients, sediment, and *E. coli* from reaching open water.

While all of Fort Wayne is not located within the UMRW, the Steering Committee believes that implementation efforts should extend beyond the UMRW in Fort Wayne to include the entire Maumee River Basin since Fort Wayne is located at the headwaters of the Maumee River and contributes significantly to the impairment of water quality in the Maumee River through surface flow of storm water carrying pollutants and CSO discharges. Figure 5.2 is a map showing the location of all CSOs within the UMRW and all critical urban areas to focus implementation efforts. (Refer to figure 2.19 on page 59 to see all of Fort Wayne's CSOs).

Figure 5.2: Critical Areas for Urban Land Uses and Combined Sewer Overflows

