

**TABLE 3**  
**ESTIMATE OF MS4 CONVEYANCE**  
**SEGREGATED BY PIPE DIAMETER**  
**CITY OF ELKHART**  
**STORMWATER QUALITY MANAGEMENT PLAN**  
**PART C: PROGRAM IMPLEMENTATION**  
**GREATER ELKHART COUNTY MS4 AREA**

Pipe Diameter (in.)	Pipe Length (Ft)
8	1,285
10	3,053
12	31,565
15	31,532
18	43,964
20	810
21	7,914
24	52,675
27	5,826
30	15,626
33	1,212
36	17,522
42	10,348
48	14,559
54	9,228
60	5,882
66	853
72	870
78	1,940

**TABLE 4**  
**ESTIMATE OF MS4 CONVEYANCE**  
**SEGREGATED BY PIPE MATERIAL**  
**CITY OF ELKHART**  
**STORMWATER QUALITY MANAGEMENT PLAN**  
**PART C: PROGRAM IMPLEMENTATION**  
**GREATER ELKHART COUNTY MS4 AREA**

Pipe Material	Pipe Length (Ft)
ADS	1,960
Cast Iron Pipe	293
Corrugated Metal Pipe	50
Ductile Iron Pipe	674
PVC	11,057
Reinforced Concrete Pipe	215,902
ST	80
Vitrified Clay Pipe	26,648

**TABLE 5**  
**ESTIMATE OF MS4 CONVEYANCE**  
**SEGREGATED BY PIPE DIAMETER**  
**CITY OF GOSHEN**  
**STORMWATER MANAGEMENT PLAN**  
**PART C: PROGRAM IMPLEMENTATION**  
**GREATER ELKHART COUNTY MS4 AREA**

Pipe Diameter (in.)	Pipe Length (ft.)
6	667
8	9,313
10	6,803
12	84,331
15	45,323
18	38,319
21	6,052
24	34,538
27	840
30	9,633
36	15,942
42	3,826
48	5,700
54	744
60	150

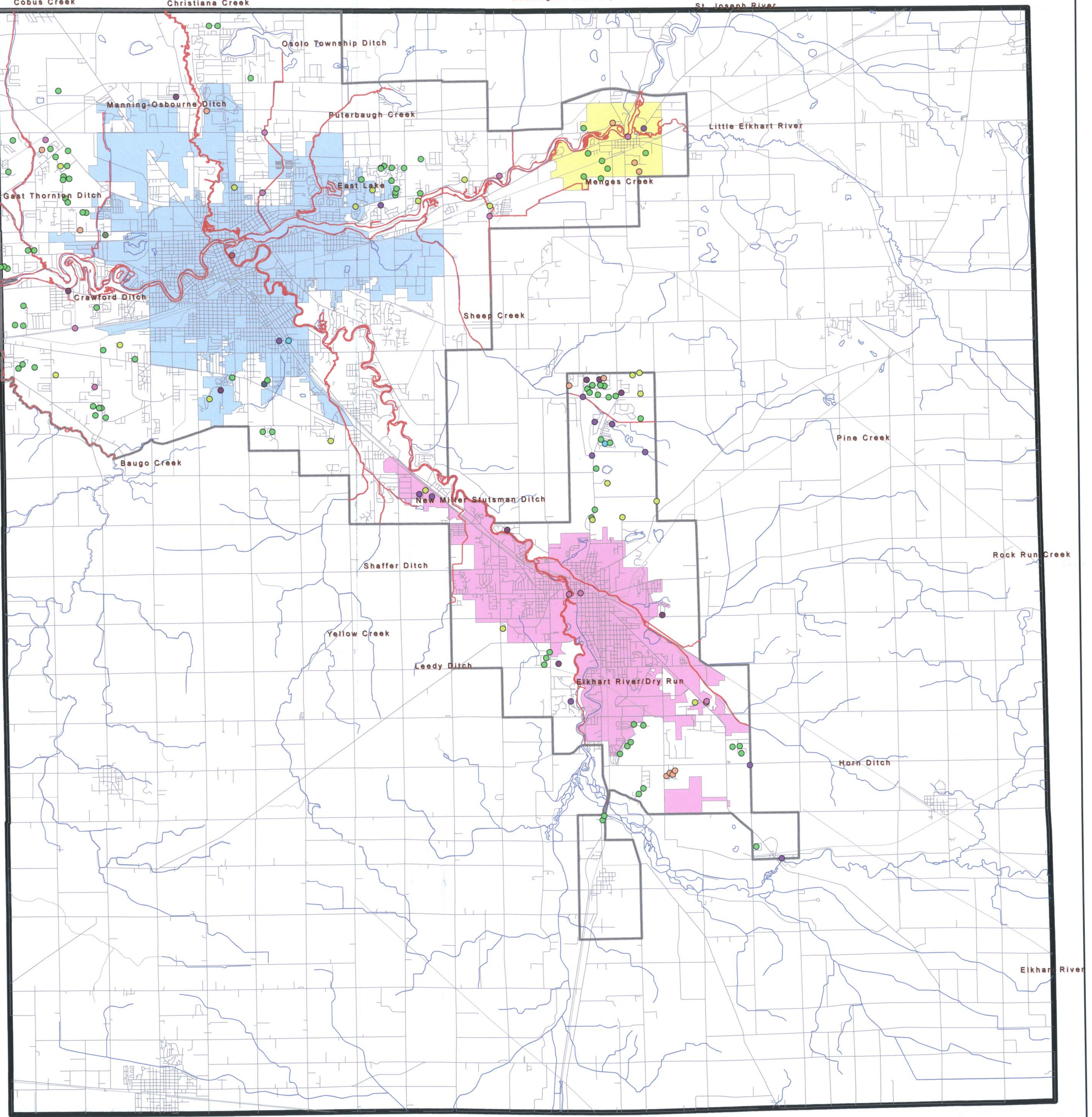
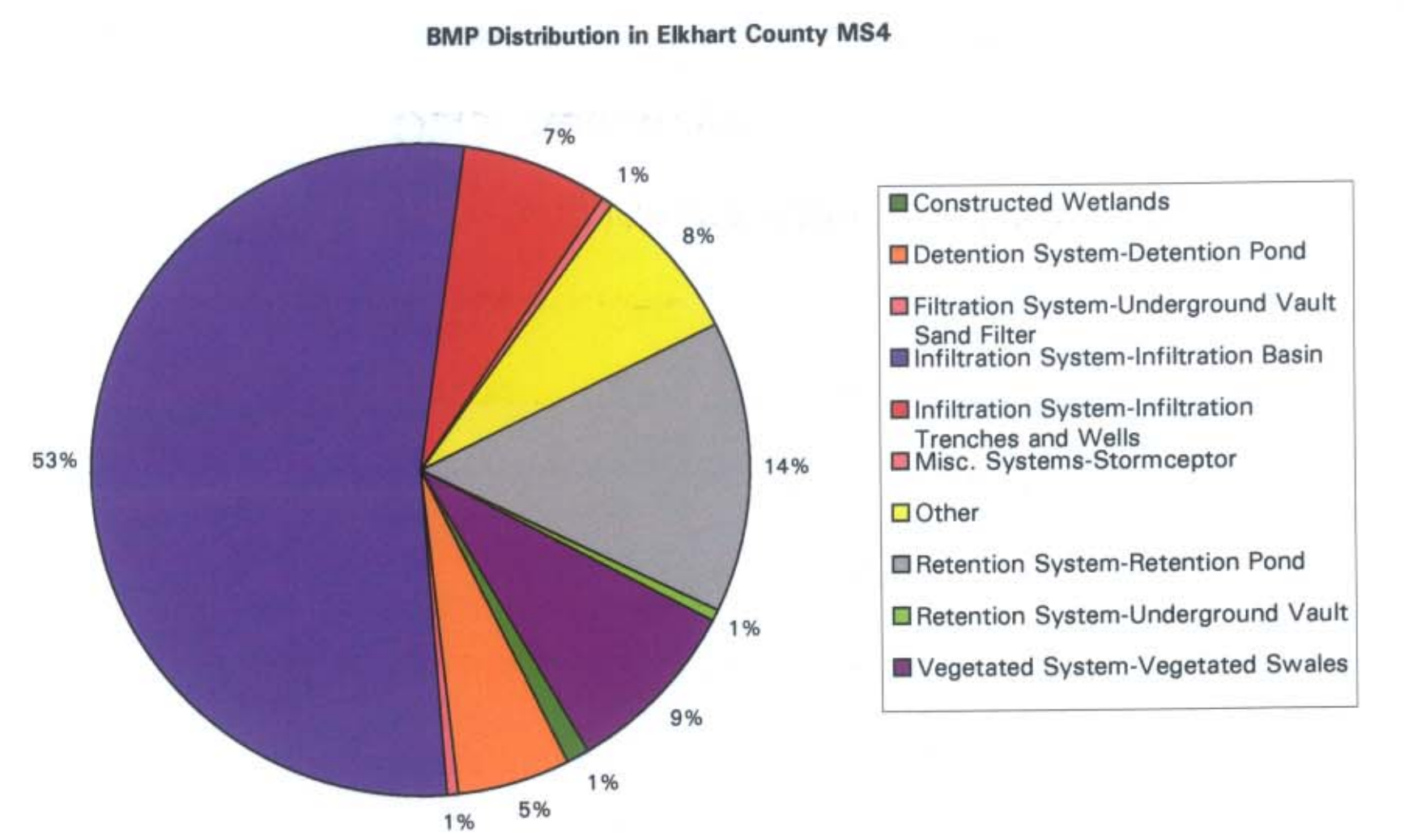


Figure 1  
Structural and Nonstructural BMPs  
and Receiving Waters within Elkhart County



- Legend**
- Structural and Nonstructural BMPs**
- Constructed Wetlands
  - Detention System-Detention Pond
  - Filtration System-Underground Vault Sand Filter
  - Infiltration System-Infiltration Basin
  - Infiltration System-Infiltration Trenches
  - Misc. Systems-Stormceptor
  - Other/Nonstructural BMPs
  - Retention System-Retention Pond
  - Retention System-Underground Vault
  - Vegetated System-Vegetated Swales
- Surface Waterbodies**
- Receiving Waters Within the MS4 Area
  - Other Waterways
- MS4 Entities**
- MS4 Area
  - Town of Bristol
  - City of Goshen
  - City of Elkhart
  - Roads
  - Elkhart County Boundary

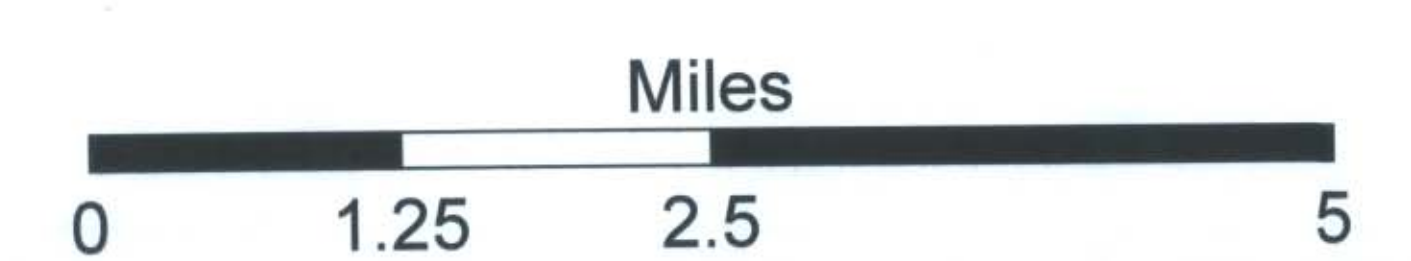
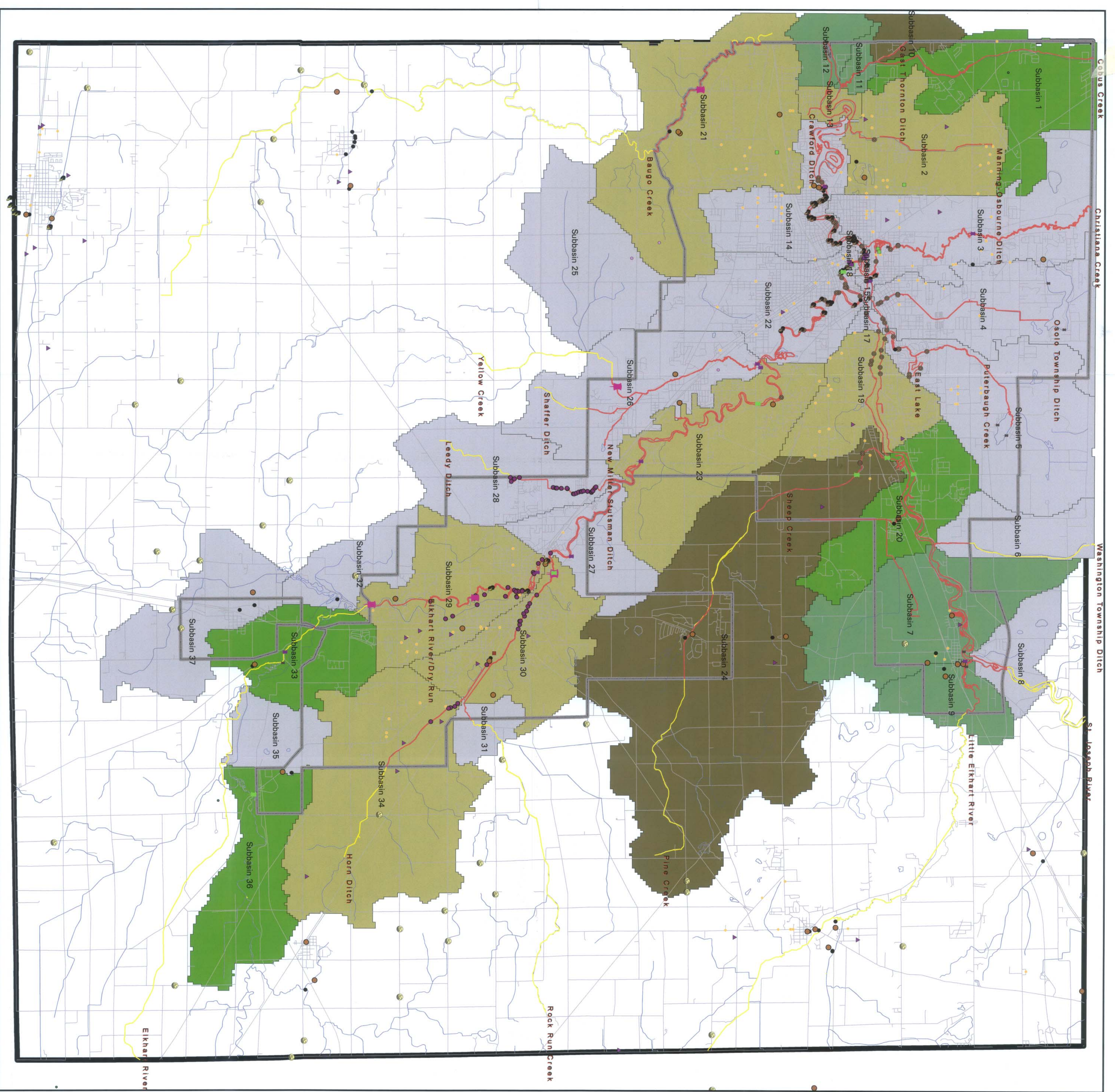




Figure 2. Impervious Area, BMPs, and Potential Pollutant Source Impacts on Surface Water Quality on a Subbasins Level in Receiving Waters of the Elkhart MS4 Area



**Legend**

- Potential Pollution Sources**
- Other CSO Locations (EPA Envirofacts, 2004)
  - City of Elkhart CSOs (City of Elkhart)
  - NPDES Facility (EPA Envirofacts, 2004)
  - NPDES Pipe Locations (EPA Envirofacts, 2004)
  - Stormwater Outfalls (City of Elkhart)
  - Stormwater Dischargers Locations (Triad Part B Submittal)
  - Corrective Action Sites (IDEM, 2004)
  - Superfund (IDEM, 2004)
  - Waste, Industrial (IDEM, 2004)
  - Waste, Solid Active Permitted (IDEM, 2004)
  - Waste, Septicage Sites (IDEM, 2003)
  - Confined Feeding Operations (IDEM, 2004)
  - Goshen Pipe Inventory (Triad, 1998)
- 5 year Median E. Coli Concentration**
- 6 - 53 Colony Forming Units per 100 milliliter (CFU/100ml)
  - 54 - 120 CFU/100ml
  - 121 - 234 CFU/100ml
  - 235 - 1414 CFU/100ml
- MS4 Subbasins**
- 0 - 3 Best Management Practices (BMPs) Per Square Mile Impervious area
  - 4 - 12 BMPs Per Square Mile Impervious area
  - 13 - 25 BMPs Per Square Mile Impervious area
  - 26 - 38 BMPs Per Square Mile Impervious area
  - 39 - 90 BMPs Per Square Mile Impervious area
- Surface Water Bodies**
- Receiving Water Within the MS4 Area
  - Waters of the State Outside MS4 Area
  - Other Waterways
  - Roads
  - MS4 Area
  - Elkhart County Boundary



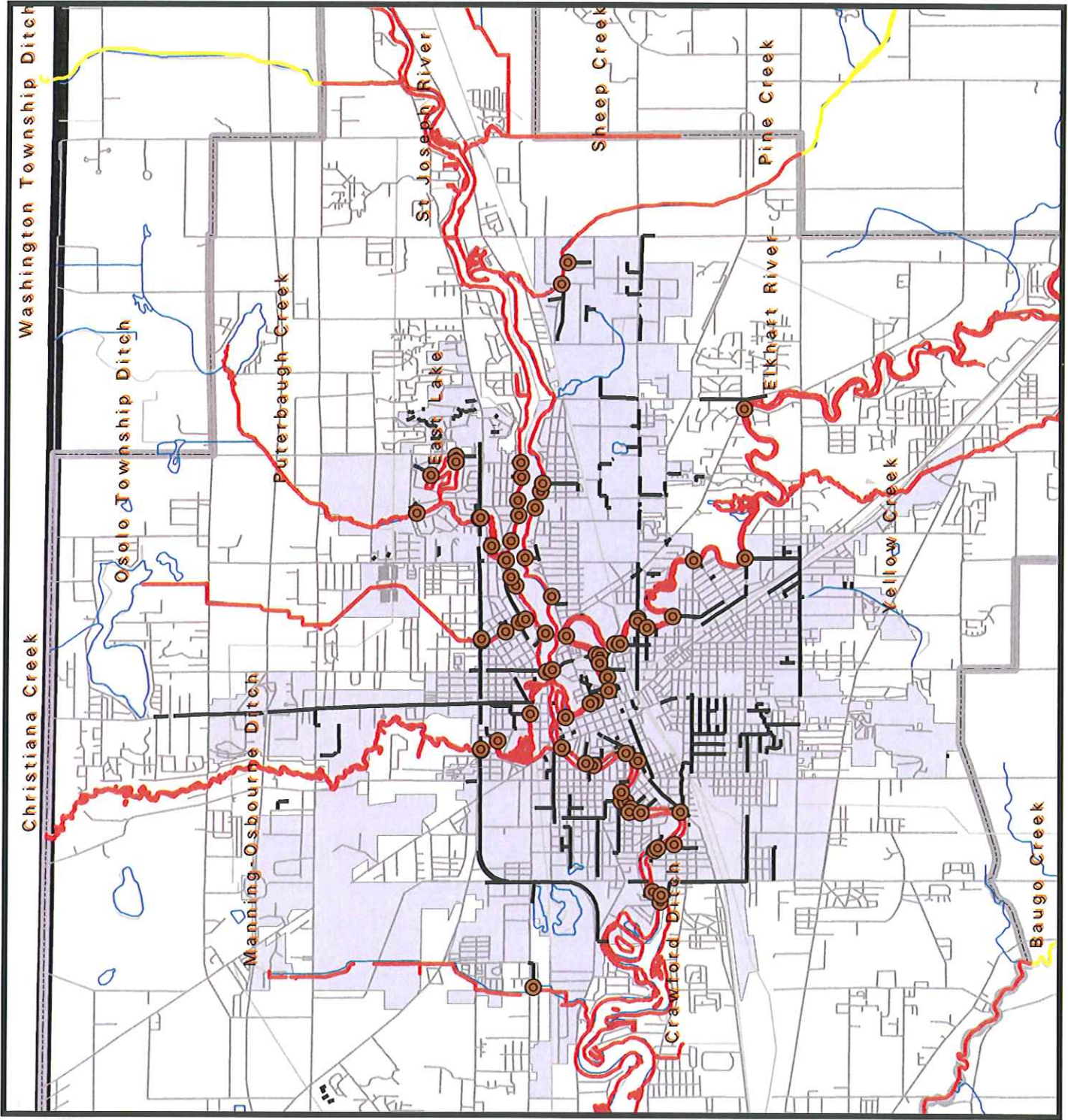
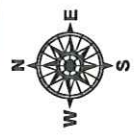


Fig 3. Receiving Waters, MS4 Conveyance, and Stormwater Outfalls in the City of Elkhardt



**Legend**

- MS4 Conveyance System**
  - Stormwater Conveyance System
  - Stormwater Outfalls
- Surface Water Bodies**
  - Receiving Waters within the MS4 Area
  - Waters of the State Outside MS4 Area
  - Other Waterways
- Roads
- City of Elkhardt
- MS4 Area (11/24/04)

