2018 MONITORING RESULTS

PRESENTED BY ANDREA PAINE
• Collect water quality information from Downriver waterways to evaluate sources of problems and measure the degree of management success.

• Paid for with stormwater funds from the ADW.
PARAMETERS MEASURED

- Nutrients
  Phosphorus, Nitrogen
- Sediments
  Total Suspended Solids
- Bacteria
  E. coli
- Dissolved Oxygen
- Temperature
- Conductivity
2018 ADW MONITORING SITES

12 sites
4 investigative sites
9 creeks, 1 river sites
SUMMARY OF RESULTS

• TP concentrations stagnant/maintaining at most sites.
  – Improving: Woods Creek
  – Declining: Blakely Creek

• E.coli concentrations increasing at Blakely, Brownstown, S. Ecorse & N. Ecorse Creeks.
  – Additional investigation needed.
  – E.coli concentrations maintaining at half of sites.
  – No significant improvements in E.coli.

• Sediments/TSS remains below target, low at all sites.
TOTAL PHOSPHORUS BY YEAR

TOTAL MAXIMUM DAILY LOAD (TMDL) TARGET INDICATED BY RED LINE
TP MAINTAINING AT MOST SITES

FRANK AND POET

BROWNSTOWN CREEK

S. ECORSE CREEK

N. ECORSE CREEK
TP MAINTAINING AT MOST SITES

SILVER CREEK

SMITH CREEK

HURON RIVER
(ROCKWOOD)
INCREASING TP CONCENTRATIONS

Total Phosphorus (mg/l)

BLAKELY CREEK
DECLINING TP CONCENTRATIONS

WOODS CREEK

Graph showing declining total phosphorus concentrations (mg/l) in Woods Creek from 2012 to 2018.
TP at N. BRANCH ECORSE CREEK
July 31st through August 2nd

Total Precip: ~1 in.
E. coli maintaining at some sites

FRANK & POET

WOODS CREEK

SILVER CREEK

SMITH CREEK
INCREASING E.COLI CONCENTRATIONS

BLAKELY CREEK

Partial Body Contact Single-Sample Standard
Full Body Contact Single-Sample Standard

E. coli (#/100 ml)


Partial Body Contact Single-Sample Standard
Full Body Contact Single-Sample Standard
INCREASING E.COLI CONCENTRATIONS

BROWNSTOWN CREEK

E. coli (#/100 ml)

Partial Body Contact Single-Sample Standard
Full Body Contact Single-Sample Standard
INCREASING E.COLI CONCENTRATIONS

S. ECORSE CREEK
INCREASING E. COLI CONCENTRATIONS

N. ECORSE CREEK

E. coli (#/100 ml)

Partial Body Contact Single-Sample Standard
Full Body Contact Single-Sample Standard
INVESTIGATIVE SITE – SEXTON & KILFOIL

ADW10
2016 Investigative
-5% difference in E. coli
-7% difference in TP

ADW20
2015 Investigative
-28% difference in E. coli
-43% difference in TP

ADW29
2018 Investigative
-35% difference in E. coli
43% difference in TP

ADW04
Long Term
INVESTIGATIVE SITE – SILVER CREEK

ADW26 2018 Investigative
Silver Creek
-32% difference in E. coli
38% difference in TP

ADW27 2018 Investigative
Hand Drain
27% difference in E. coli
-24% difference in TP

ADW24 2017 Investigative
-83% difference in E. coli
27% difference in TP

ADW17 2016 Investigative
52% difference in E. coli
-8% difference in TP

ADW08 Long Term
MACROINVERTEBRATES

SPRING SQI - ECORSE CREEK

FALL SQI - ECORSE CREEK
MACROINVERTEBRATES

SPRING SQI - COMBINED DOWNRIVER

FALL SQI - COMBINED DOWNRIVER
NEXT STEPS

- Follow up on findings
- Develop online monitoring report.
- Prepare for 2019 season
- Identify new investigative sites.

2019 Chemistry & Flow Monitoring
SEASON ORIENTATION

Saturday, March 30, 2019, 1-2:30 PM
Riverview Library, 14330 Sibley Rd.
Register At: hrwc.org/chemflow

PROMOTE TO YOUR RESIDENTS!