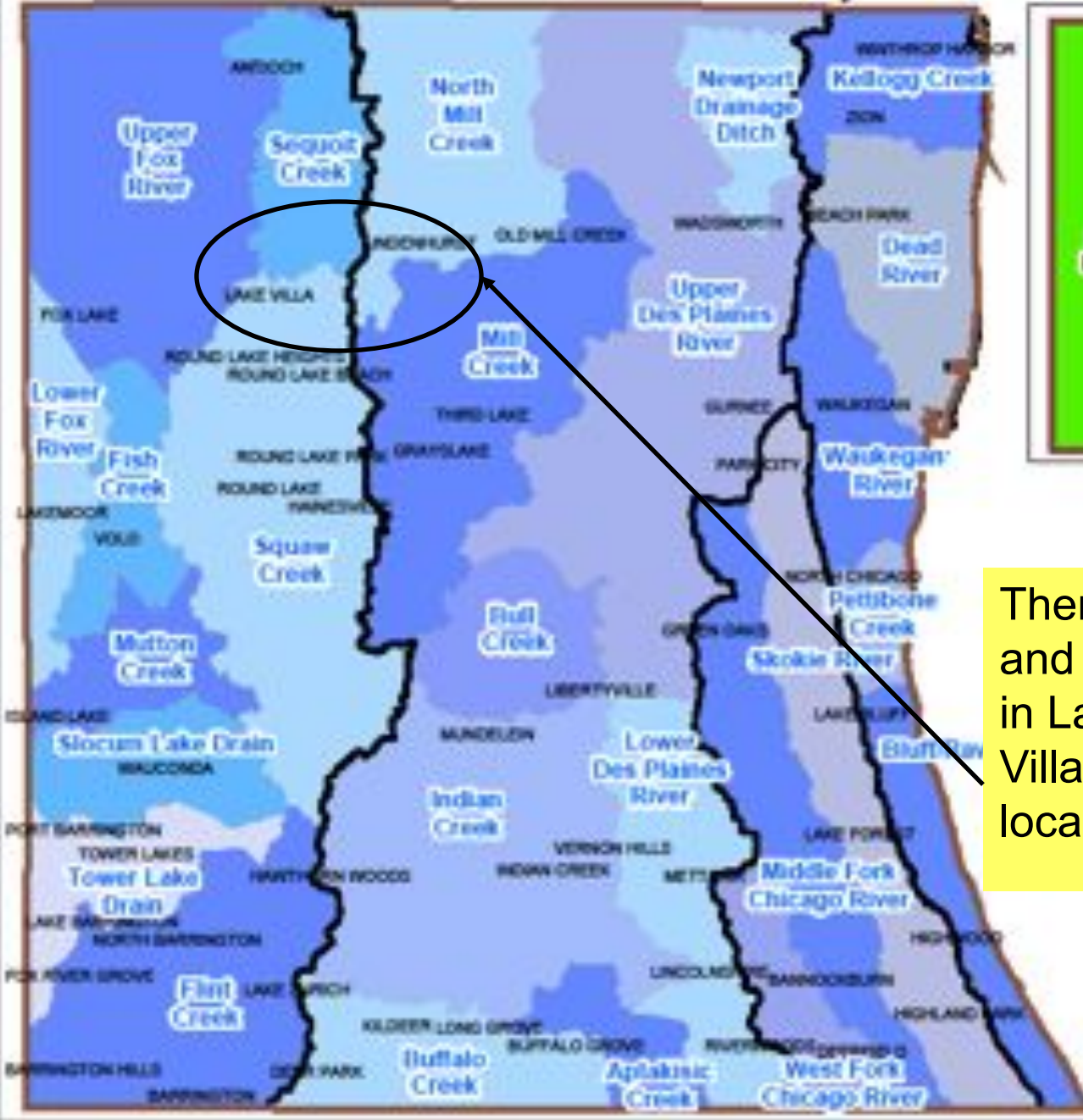


The Bigger Picture

Lake Villa
Township HWY
Department



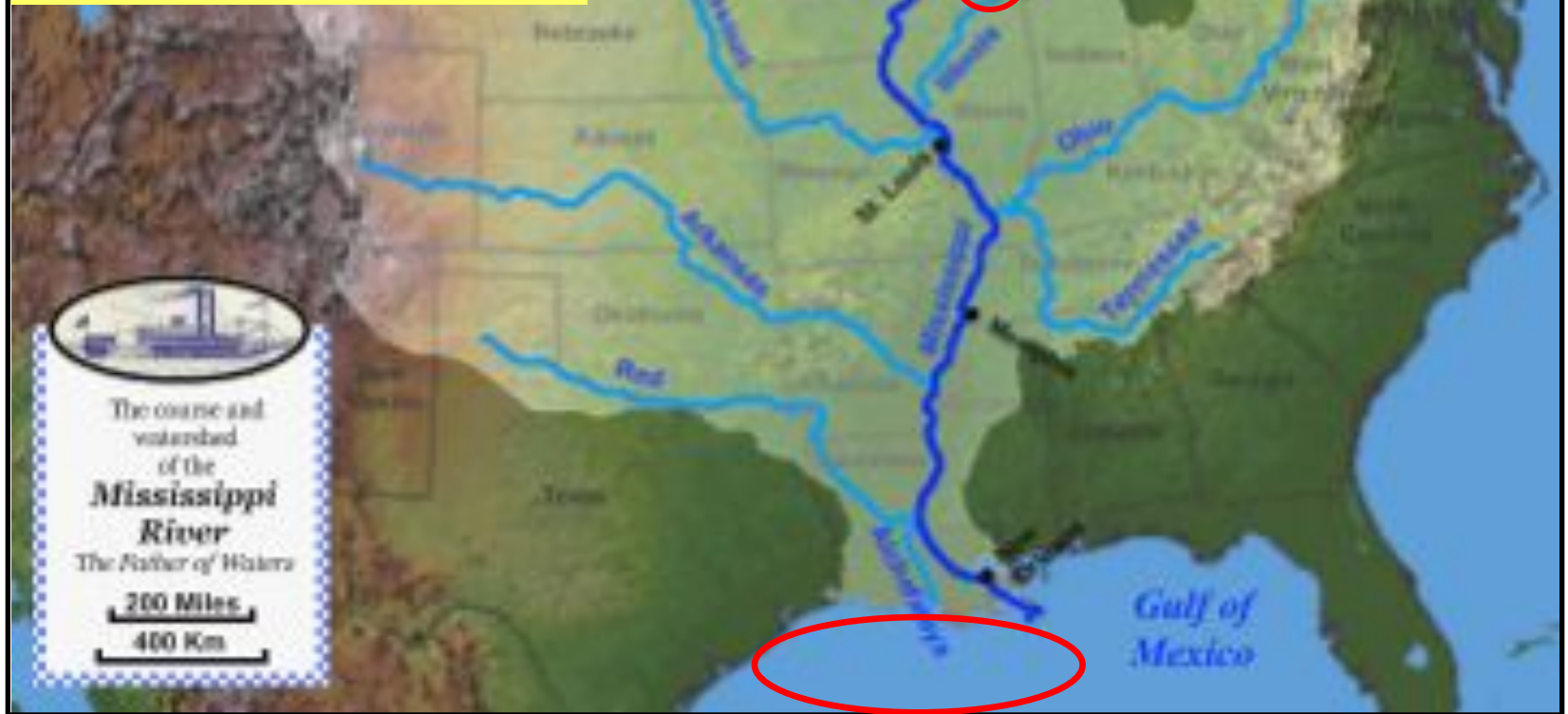
The 26 Subwatersheds in Lake County



The 4 Watersheds in Lake County

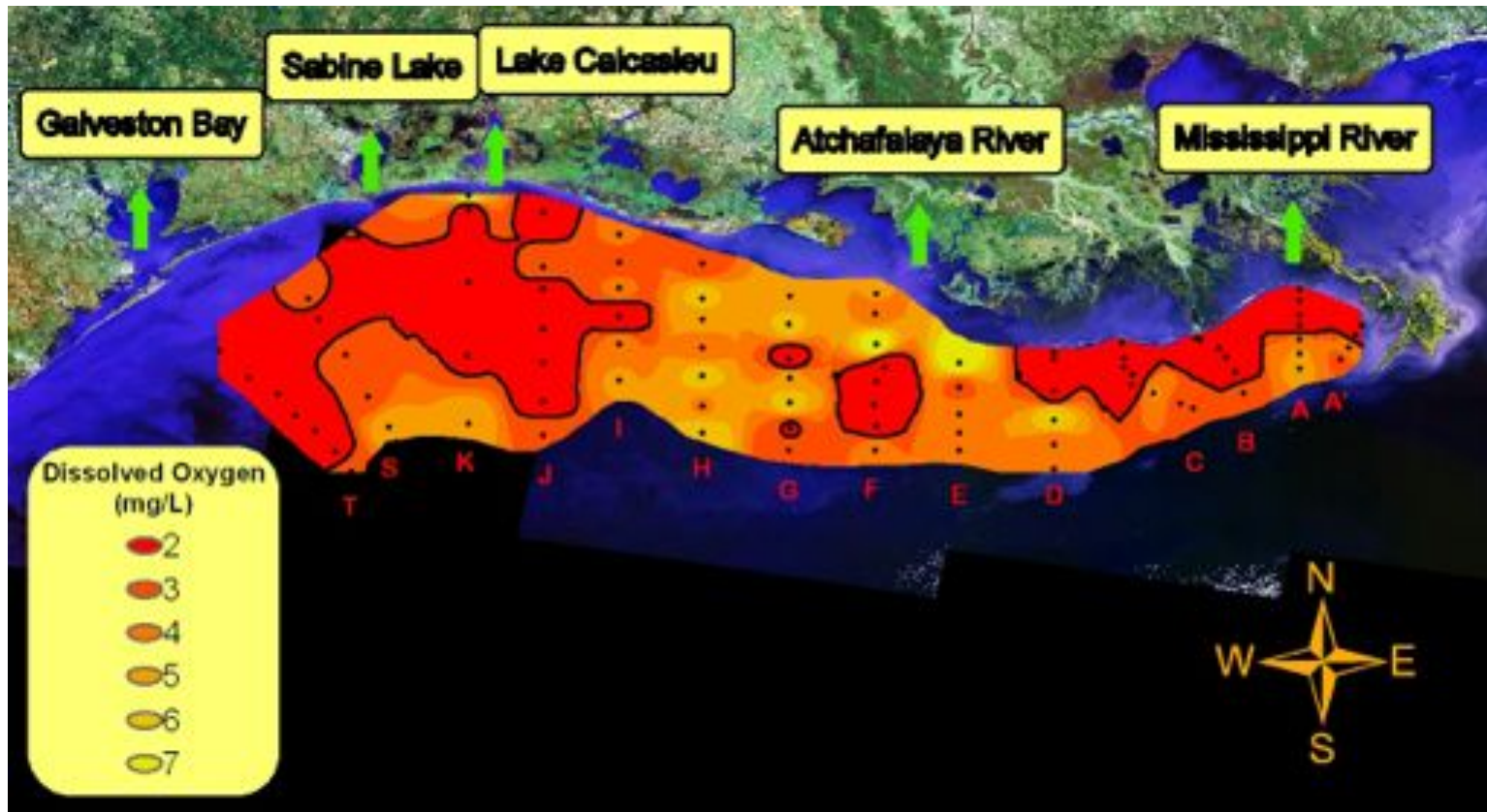
There are 4 watershed and 26 subwatersheds in Lake County. Lake Villa Township is located here.

All stormwater runoff from the Township discharges into the Illinois River, a tributary to the Mississippi River. The Mississippi River eventually discharges into the Gulf of Mexico.



Gulf of Mexico Dead Zone (2010)

A portion of the Gulf of Mexico has been referred to as the “dead zone” because of low Dissolved Oxygen levels.



What causes the “Dead Zone?”

Fueled by nutrient runoff in Mississippi River WS

Nutrients stimulate overgrowth of algae

Algae sinks, decomposes & consumes oxygen supply in bottom waters

Threatens commercial & recreational gulf fisheries (\$2.8 billion industry annually).

Nutrients (such as nitrogen and phosphorus) can come from fertilizers, failing septic systems, water fowl etc.



Federal Water Pollution Control Act was enacted in 1949

Between 1949 and 1969 the Cuyahoga River in Ohio caught fire 10 times



Cleveland Plain E



James Thomas
Cleveland Press Collection
Cleveland State University Library

To better protect these public assets, the 1949 Act was amended in 1972

The Act was amended
again in 1977

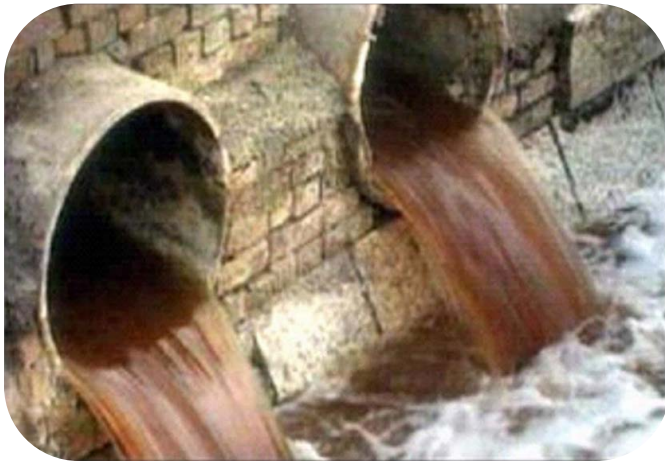
1977 became
Clean Water Act
(CWA)

To preserve, protect
and improve the
Nation's water
resources



Regulatory History CWA (1972 – 1987)

Beginning of the National Pollutant Discharge Elimination System (NPDES) permit program



Required NPDES permitting of point-source discharges (primarily industrial and waste water treatment plants).

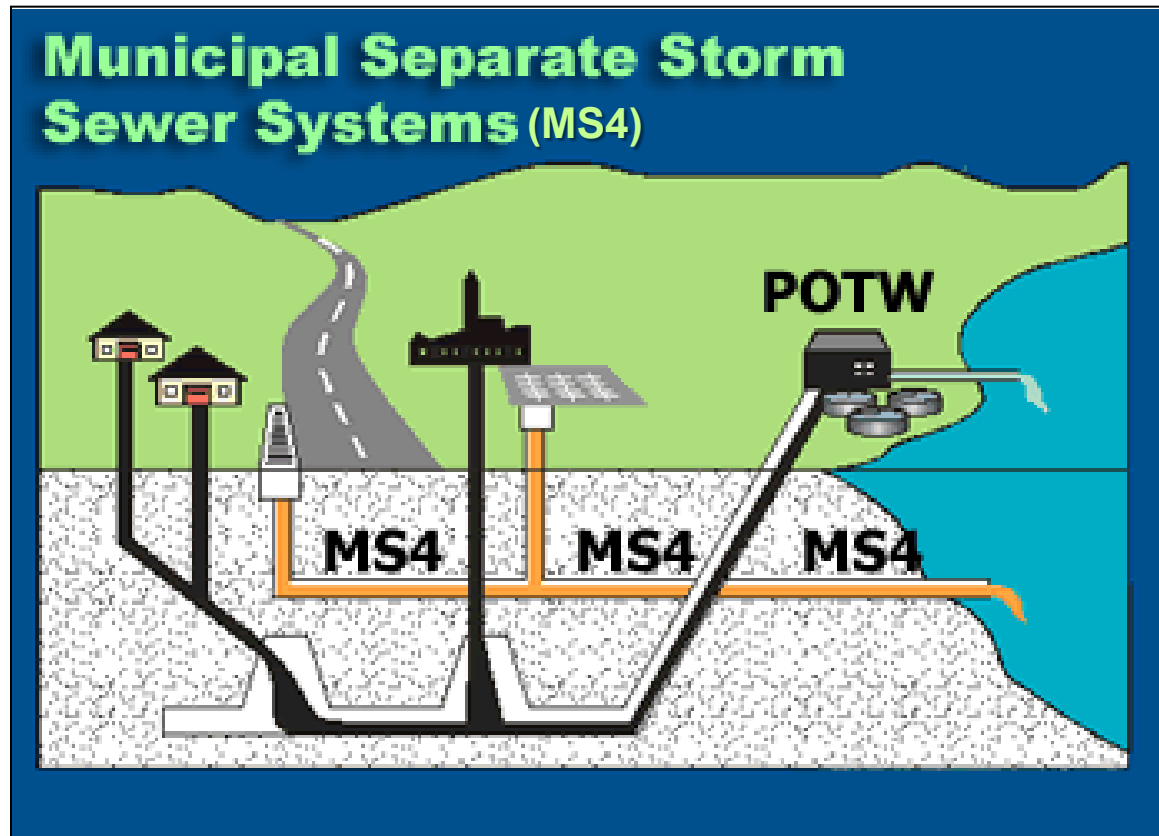


Did not regulate stormwater (considered a non-point source).



Regulatory History CWA (1987– present)

Water Quality Act (1987) required NPDES permitting of certain stormwater discharges and construction sites



MS4 stormwater discharges considered point discharges the same as industrial and waste water treatment plant discharges.

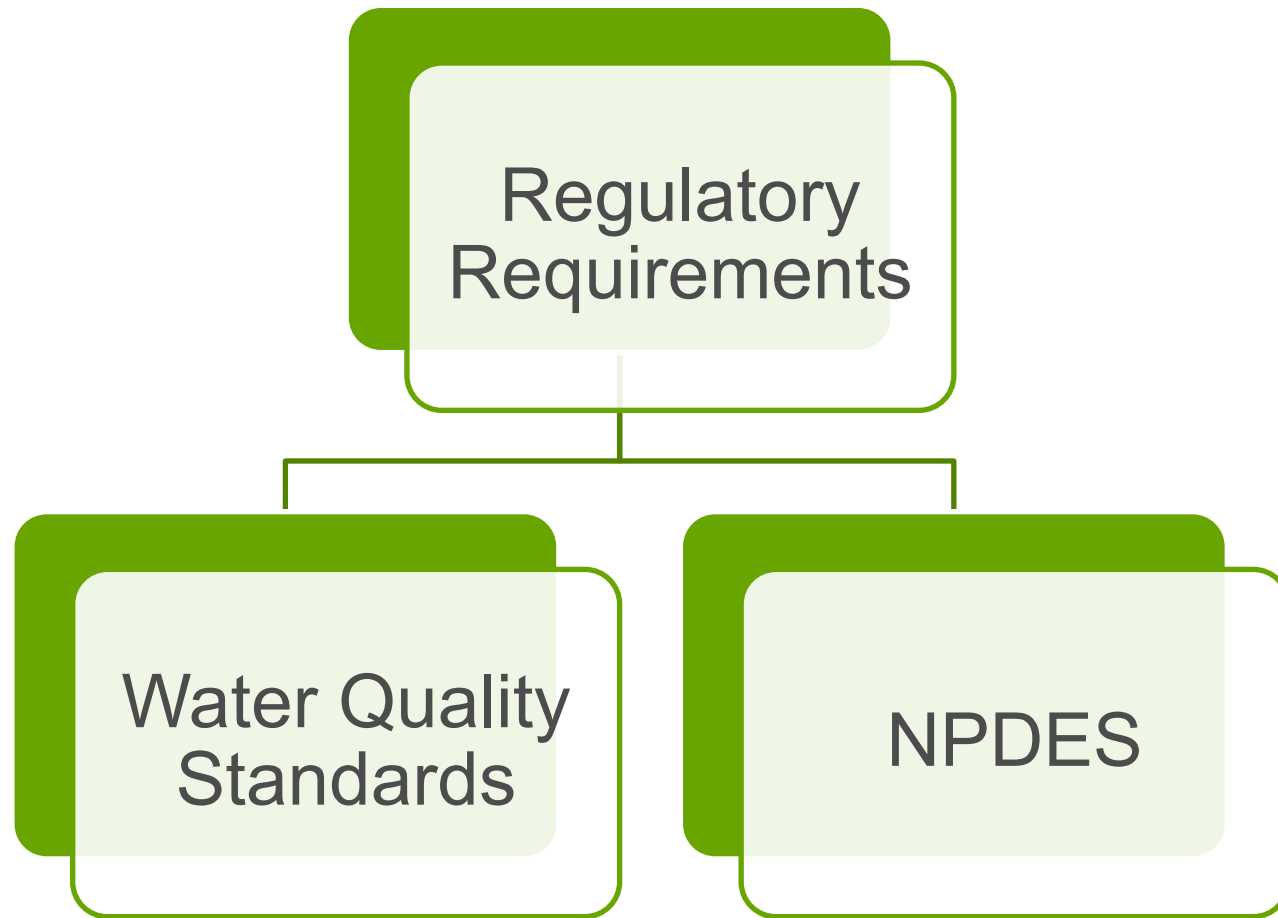




Credit: Ft. Meyers, FL

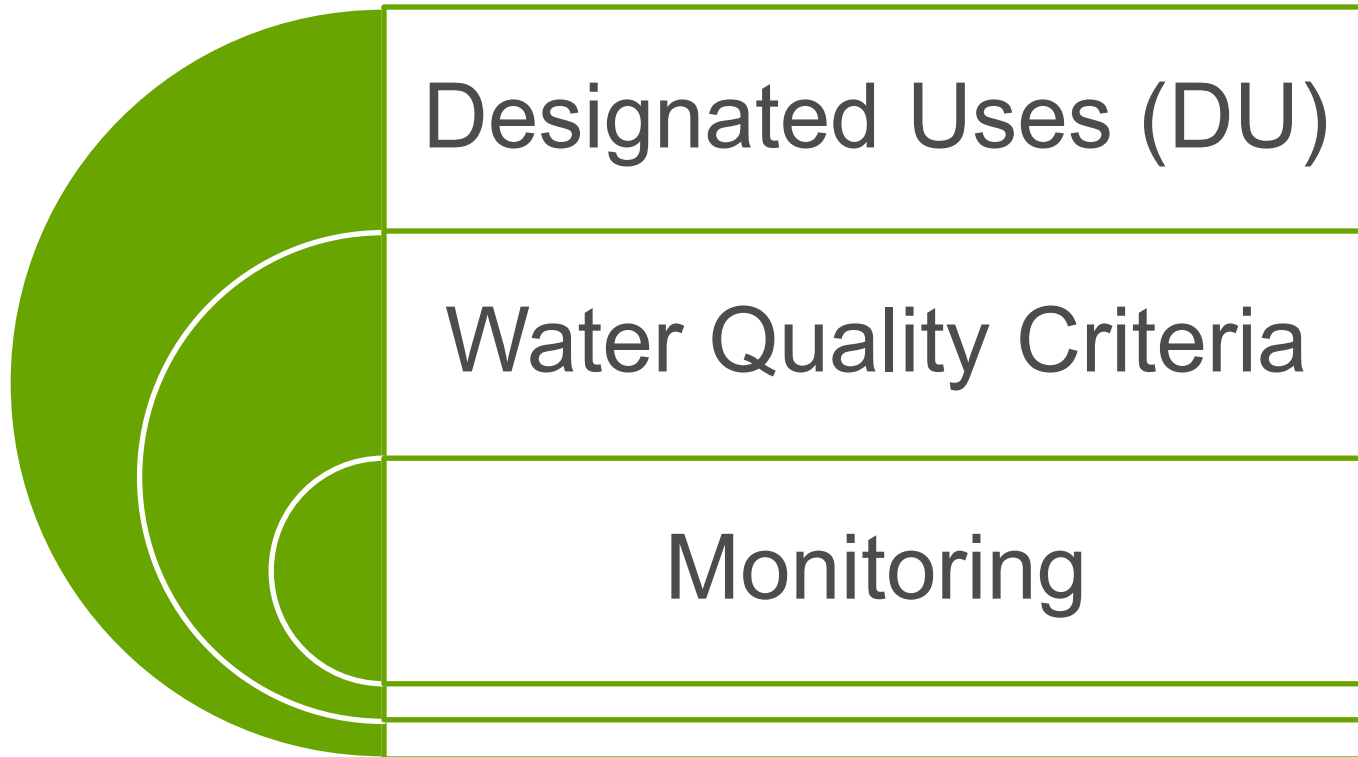


Some regulations are intended to translate the goals of the Clean Water Act into actions.



Water Quality Standards (WQS)

The Illinois Environmental Protection Agency (IEPA) created a program to comply with the Federal WQS regulations



There are 3 parts to this branch of the regulations



Water Quality Standards (WQS) Part 1

Designated Uses in Illinois

IEPA identified all uses its waters should support



Aquatic Life



Public and Food Processing Water Supply



Aesthetic Quality



Fish Consumption



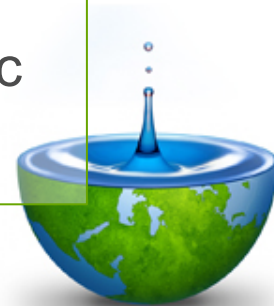
Primary Contact



Secondary Contact

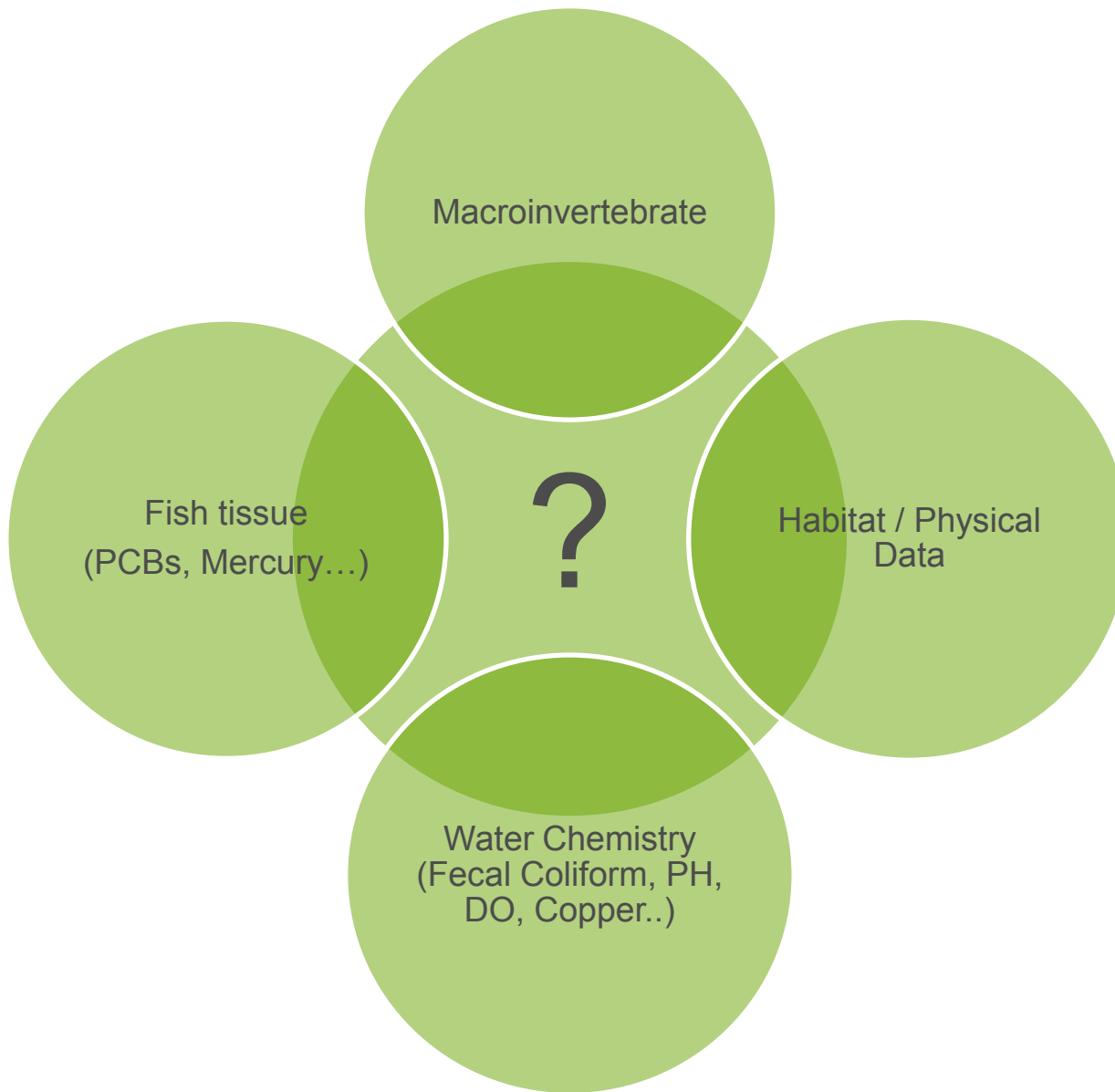


Indigenous Aquatic Life



Water Quality Standards (WQS) Part 2

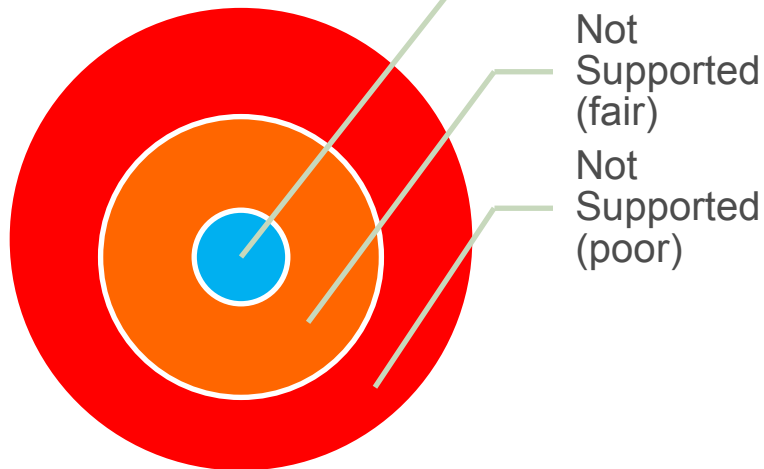
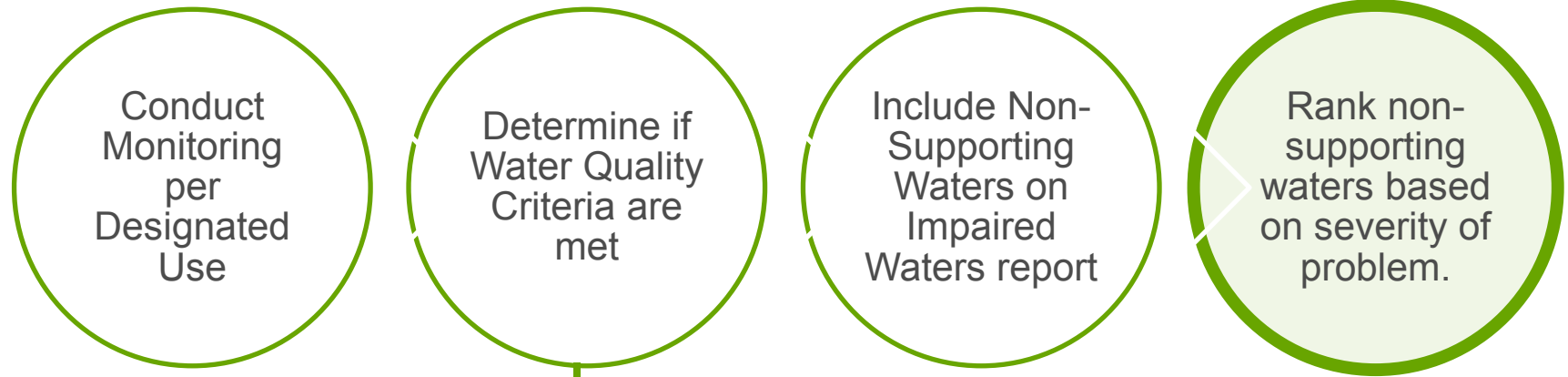
Water Quality Criteria



IEPA determined a set of water quality criteria that waters needed to meet based on each of the 7 designated uses. Some criterion are applicable for multiple Designated Uses.



Water Quality Standards (WQS) Part 3 Monitoring



IEPA is required to submit the monitoring results [305(b) report] to USEPA every 2 years. The impaired waters report [303(d) report] and ranking are part of this report.



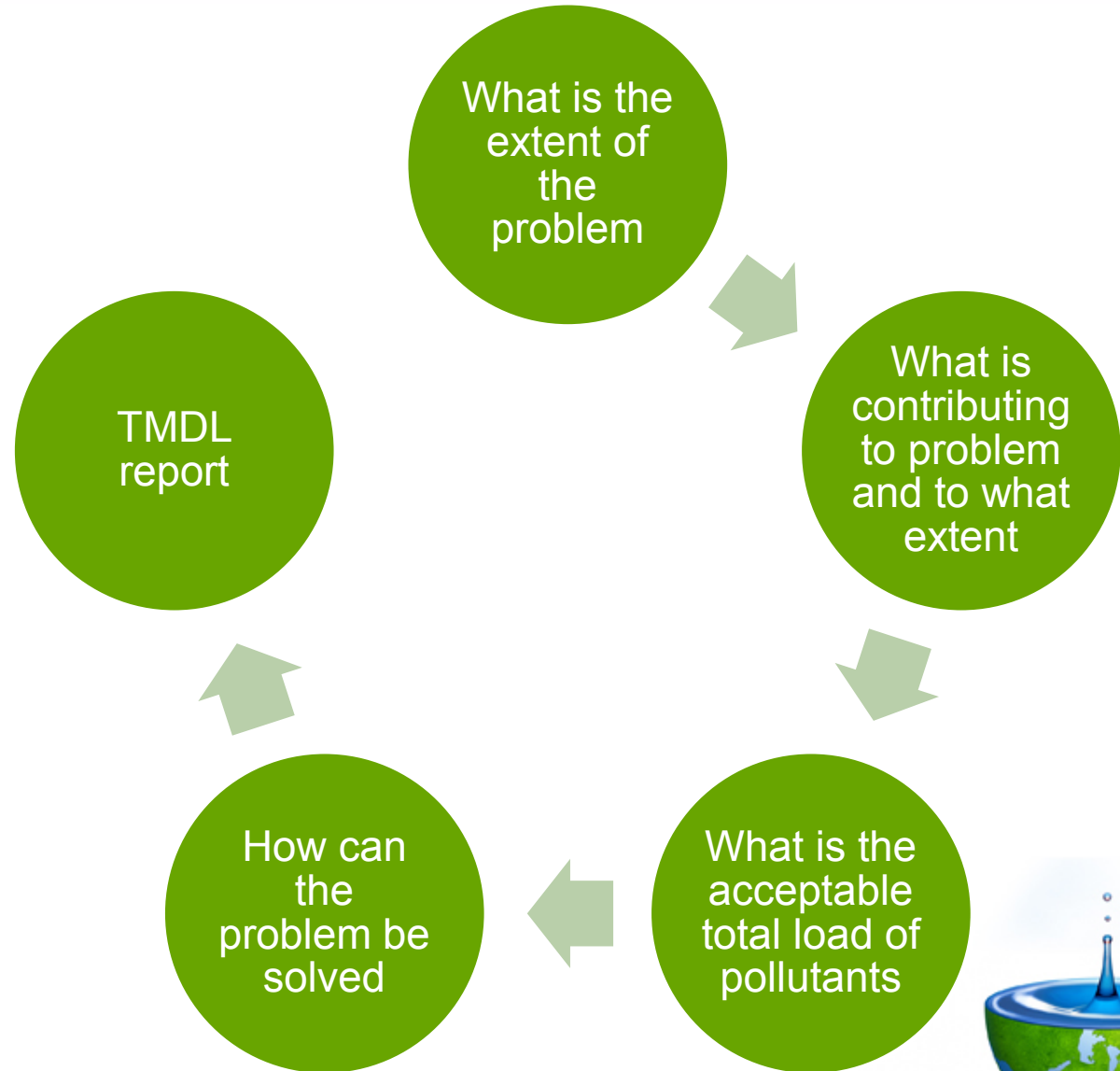
Water Quality Standards (WQS) Part 3

Monitoring

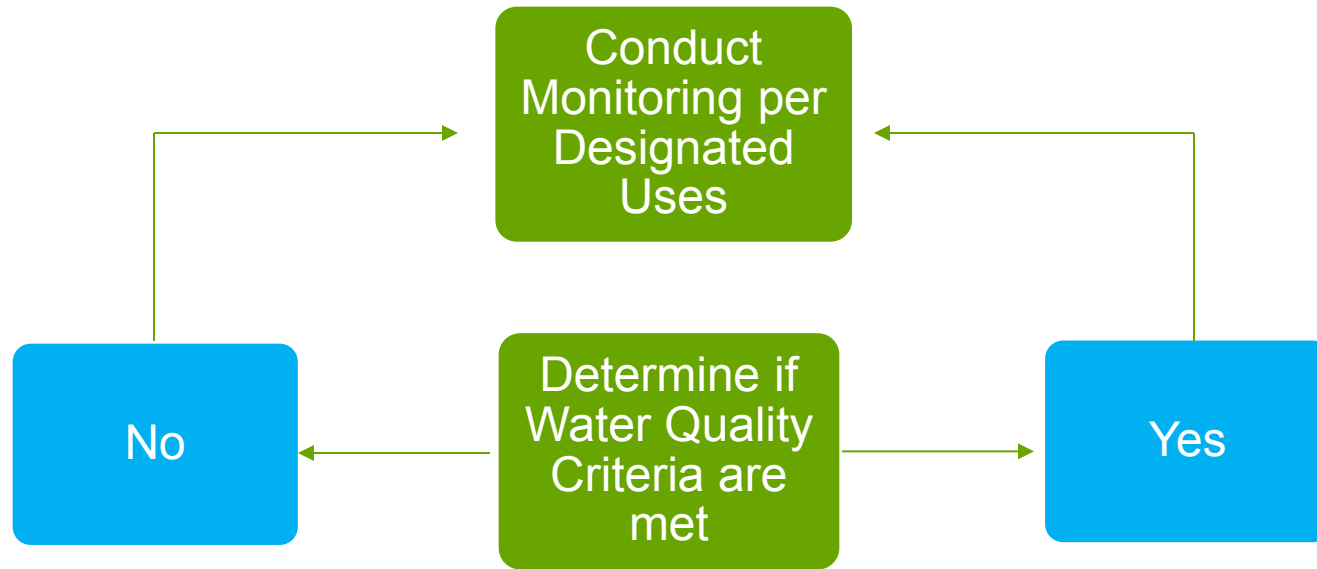
Total Maximum Daily Load (TMDL) reports are created by IEPA for impaired waters.

The following are pieces of a TMDL report.

Once the report is approved by USEPA, the recommended strategies should be implemented by affected MS4.



What is the status of waters in Lake Villa Township?



□ Lake Villa Township

▨ Unincorporated
Lake Villa Township



● Impaired Lakes
& Streams

— Streams meeting Water
Quality Standards

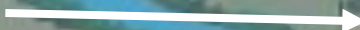
— Streams not yet
assessed

NPDES Stormwater Program

Industrial



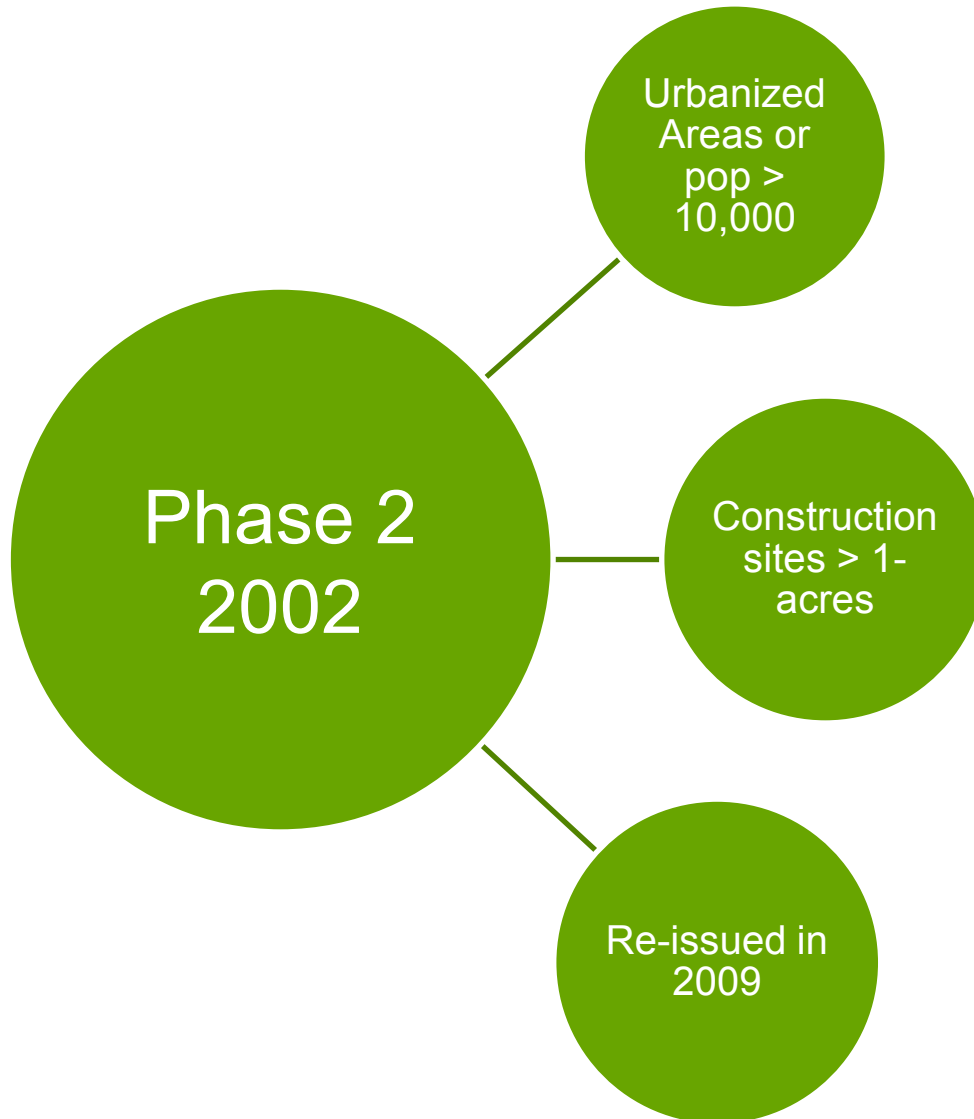
Municipal



Construction



NPDES



Stormwater Management Program Plan

Lake Villa Township
Highway Department



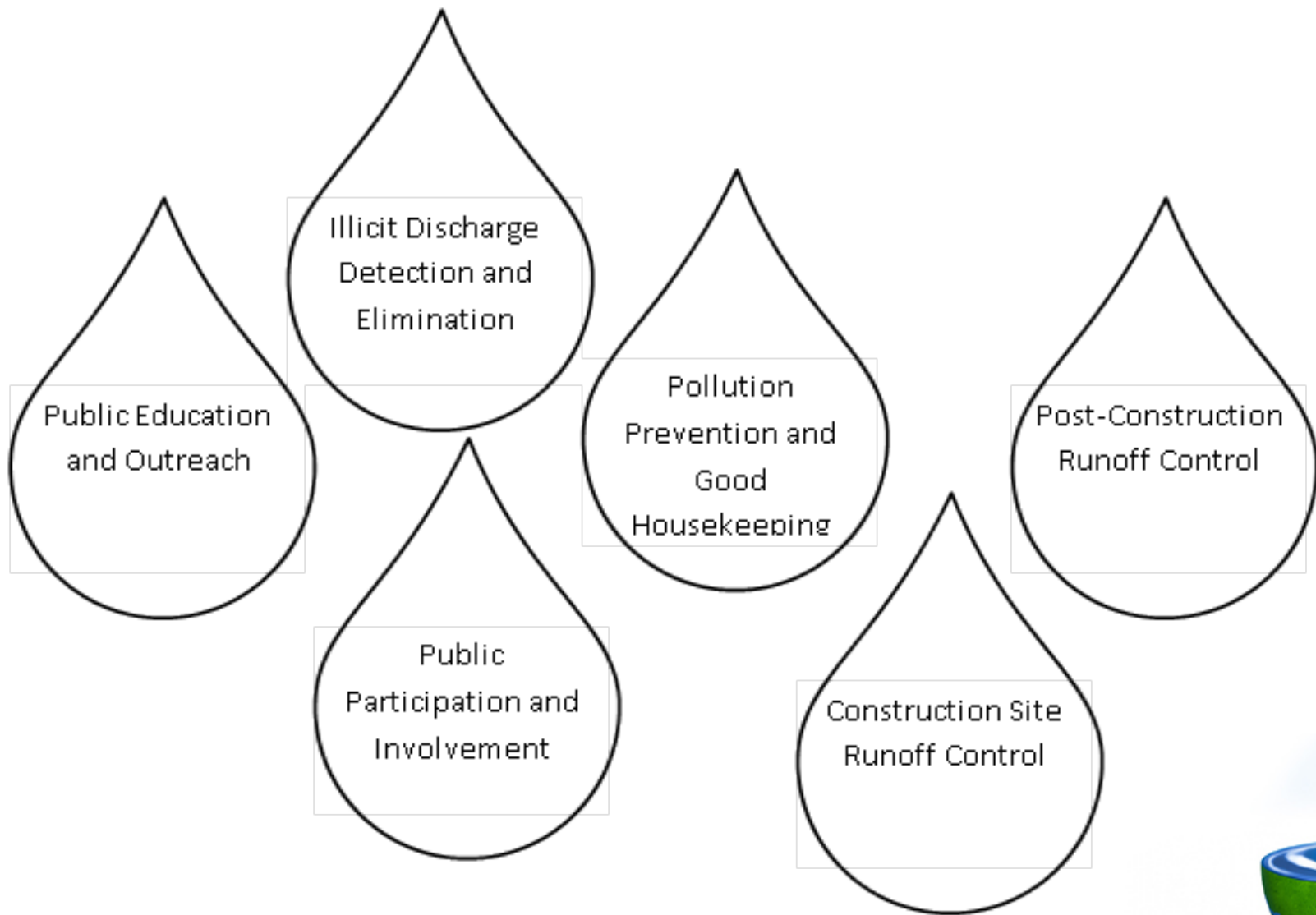
Stormwater Management
Program Plan (SMPP)

February 2013

LVTHD created a plan to address six minimum control measures.



6 minimum control measures



I Spy...



Presentation created by Joy Corona, PE with
Bleck Engineering Co., Inc. on behalf of LVT HD

jcorona@bleckeng.com