


The background features abstract, overlapping green geometric shapes in various shades of green, creating a modern and dynamic look. The shapes are primarily located on the left and right sides of the slide, framing the central text.

# 2018 Accomplishments/Current Work

TMACOG

Water Quality Planning Department

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- ▶ Areawide Water Quality Management Plan “208 Plan”
  - ▶ Nutrient Source Inventory - Septic Systems and Package Plants
  - ▶ Portage - Toussaint Watersheds Cost-Share Program
  - ▶ Septic System Mapping

# Areawide Water Quality Management Plan (Regional Wastewater Planning)

- ▶ Requirement of the Clean Water Act (Section 208)
- ▶ Identifies treatment works necessary to meet anticipated municipal and industrial waste treatment needs for a 20-year period
- ▶ Identifies priorities for capital improvements
- ▶ Major goal is to eliminate Critical Sewage Areas
- ▶ Updated annually and approved by TMACOG's Board of Trustees and Ohio EPA
  - ▶ Major updates: Burgoon (Sandusky County) Facility Planning Area (FPA) extended  
Critical Sewage Areas reduced in Wood and Ottawa Counties  
Capital Improvements identified for FPAs

# TMACOG "208" Areawide Water Quality Management Plan

## Sanitary Sewage Facility Planning Areas

June 2018

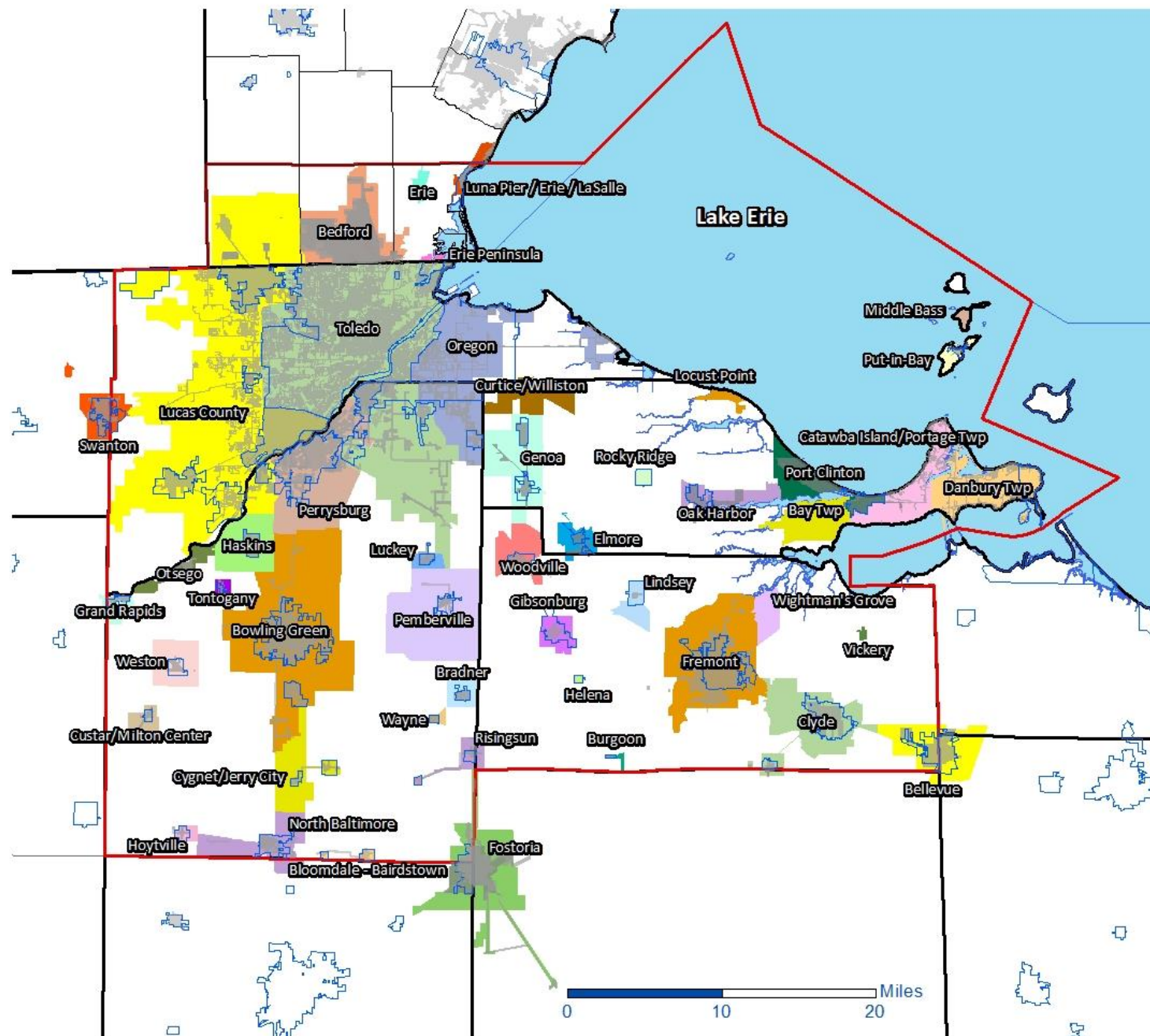
Colored areas are individual Facility Planning Areas (FPA) for public wastewater treatment. Each FPA corresponds to an existing or planned wastewater treatment facility.

Shaded areas are where sanitary sewage service is presently available.

TMACOG's "208" area covers Lucas, Ottawa, Sandusky, and Wood Counties in Ohio, and Bedford, Erie, and Whiteford Townships in Monroe County Michigan.

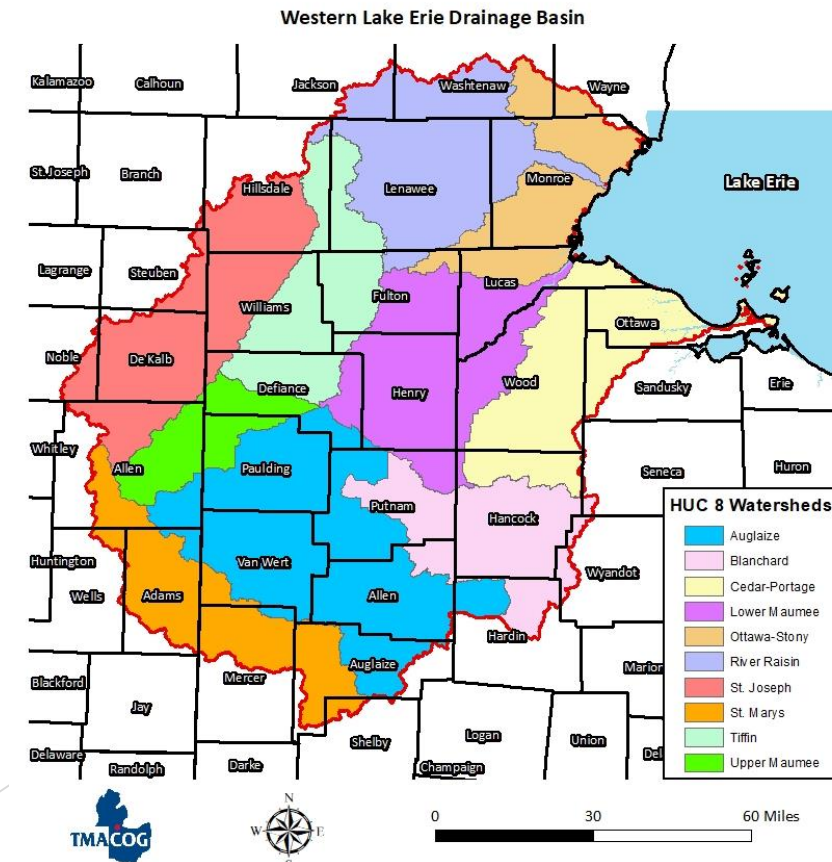
Bordering areas are recommendations to Ohio EPA. The balance of Monroe County Michigan is covered by SEMCOG.

The entire TMACOG 208 Plan is available at <http://www.tmacog.org>



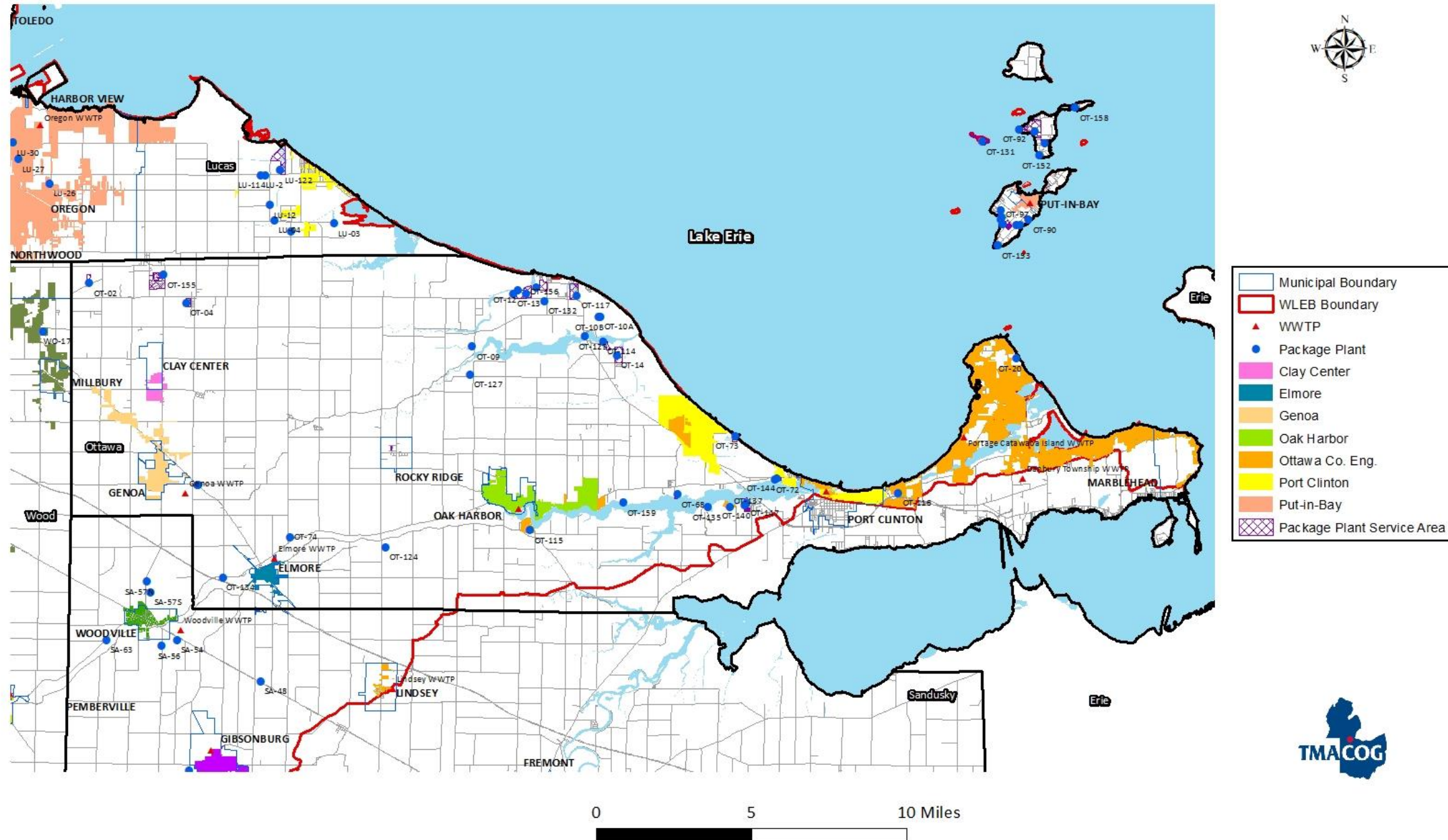
# Nutrient Source Inventory: Septic Systems and Package Plants

- ▶ Purpose: Identify wastewater infrastructure improvements to reduce the phosphorus load in the Ohio portion of western Lake Erie basin (WLEB)
  - ▶ To be used as a resource for planning and studies
- ▶ Products:
  - ▶ Shapefiles for sanitary sewer service areas
  - ▶ Estimated nutrient loads (nitrogen and phosphorus) from septic systems
    - ▶ County, HUC-8 and HUC-12 watersheds
  - ▶ Updated inventory of package plants with phosphorus loads
  - ▶ Identified critical sewage areas





# Ottawa County Sanitary Sewer Areas



Sanitary sewer service maps available for all counties

# Population and Nutrient Loads

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County	Population	Households	Based on Mass	
			TP Load (mta)	TN Load (mta)
Allen*	26,339	10,510	7.25	70.68
Auglaize*	13,670	5,431	3.76	36.68
Defiance	20,896	8,686	5.75	56.07
Fulton	23,824	9,481	6.56	63.93
Hancock*	18,397	7,432	5.07	49.37
Hardin*	6,138	2,618	1.68	16.47
Henry	14,499	5,818	3.99	38.91
Lucas	35,530	14,011	9.78	95.34
Mercer*	6,321	2,560	1.74	16.96
Ottawa*	17,172	9,265	4.73	46.08
Paulding	12,462	5,389	3.43	33.44
Putnam	22,350	8,509	6.15	59.97
Sandusky*	4,900	1,738	1.35	13.15
Seneca*	349	136	0.10	0.94
Shelby*	987	341	0.27	2.65
Van Wert	15,620	6,538	4.30	41.91
Williams	17,067	7,085	4.70	45.80
Wood*	34,678	14,290	9.55	93.06
Wyandot*	1,136	461	0.31	3.05
<b>Totals</b>	<b>292,335</b>	<b>120,600</b>	<b>80.49</b>	<b>784.45</b>

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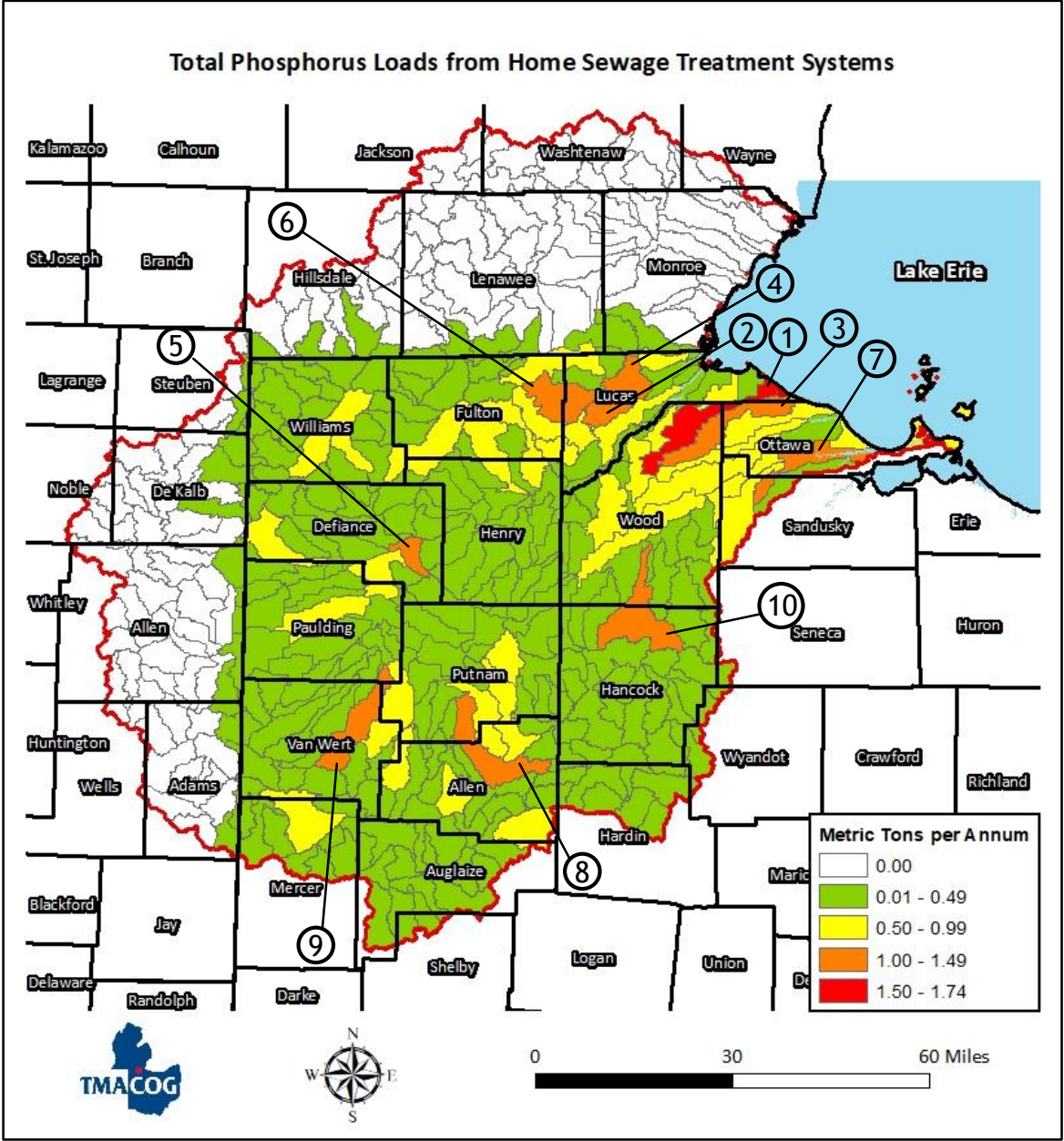
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HUC 8	Based on Mass	
	TP Load (mta)	TN Load (mta)
Ottawa-Stony*	3.70	36.04
River Raisin*	0.31	3.01
St. Joseph*	2.17	21.11
St. Marys*	4.10	39.96
Upper Maumee*	2.19	21.31
Tiffin*	6.24	60.83
Auglaize*	19.31	188.24
Blanchard	8.49	82.74
Lower Maumee	18.57	180.95
Cedar-Portage	15.42	150.27
<b>Totals</b>	<b>80.49</b>	<b>784.45</b>

Nutrient loads estimated using equation developed by Ohio EPA in Nutrient Mass Study

\* County / watershed is partially located within the WLEB



HUC-12 Watershed	Counties	TP Load (mta)	Map I.D.
Cedar Creek-Frontal Lake Erie (04100010 07 03)	Lucas, Ottawa, Wood	1.74	1
Wolf Creek (04100009 08 03)	Lucas	1.40	2
Crane Creek-Frontal Lake Erie (04100010 07 02)	Lucas, Ottawa, Wood	1.40	3
Heldman Ditch-Ottawa River (04100001 03 07)	Lucas	1.39	4
Preston Run (04100009 02 01)	Defiance	1.33	5
Ai Creek (04100009 07 01)	Fulton, Lucas	1.25	6
Portage River (04100010 05 02)	Ottawa, Sandusky	1.15	7
Sugar Creek (04100007 05 01)	Allen, Putnam	1.12	8
Dog Creek (04100007 08 01)	Paulding, Putnam, Van Wert	1.07	9
Rocky Ford (04100010 01 03)	Hancock, Wood	1.01	10

Assist with identifying priority HUC-12 watersheds!



# Portage - Toussaint Watersheds Cost-Share Program

- ▶ Great Lakes Restoration Initiative Grant (\$497,257)
  - ▶ April 2016 - October 2020
- ▶ Purpose: Reduce phosphorus loads from agricultural fields in the Portage and Toussaint River Watersheds
- ▶ Working with Ottawa and Wood Soil Water & Conservation Districts to implement best management practices
- ▶ TMACOG's Communication Department is developing education/outreach materials.

BMP	Goal	Status
Cover Crops	12,000 acres	4,762 acres implemented
Variable Rate Technology	6,000 acres	1,398 acres implemented
Water Control Structures	45 structures	21 structures installed



Installation of a water control structure.



Brendyn George demonstrating how to use a structure.



Strip fertilizer that minimizes soil disturbance of soil and young cover crops.



Computer with GPS for applying fertilizer at variable rate.



# Septic System Mapping - Current/Future Work

- ▶ Purpose: Map the location of 8,400 septic systems in Ottawa County
- ▶ Objectives:
  - ▶ Provide information to the public
  - ▶ Get septic system locations online
    - ▶ ArcGIS Online, Health Department website, Ottawa County Auditor
- ▶ Future - Sandusky and Wood Counties

