

**Appendix K.**  
**Implementation through the NPDES Program**

## Tables

Table K-1. Recommended implementation actions through the NPDES program for total phosphorus .....	K-3
Table K-2. Recommended implementation actions through the NPDES program for nitrate plus nitrite .....	K-6
Table K-3. Recommended implementation actions through the NPDES program for TSS .....	K-8
Table K-4. Recommended implementation actions through the NPDES program for regulated MS4s .....	K-11

## Abbreviations and Acronyms

CSS	combined sewer system
MHP	mobile home park
MS4	municipal separate storm sewer system
NPDES	National Pollutant Discharge Elimination System
Ohio EPA	Ohio Environmental Protection Agency
TMDL	total maximum daily load
WAU	watershed assessment unit
WLA	wasteload allocation
WTP	water treatment plant
WWTP	wastewater treatment plant

## Units of Measure

lb/d	pounds per day
mgd	million gallons per day
mg/L	milligrams per liter
ton/d	tons (short) per day

Table K-1. Recommended implementation actions through the NPDES program for total phosphorus

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (lb/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
21C00011	Kyklos Bearing <sup>a</sup>	Mills Creek	01 03	storm water <sup>b</sup>	$3.5 \times 10^{-3}$ - 1.2	0.10	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21C00013	Ventra Sandusky LLC	Schowe Ditch	01 03	storm water <sup>b</sup>	$3.9 \times 10^{-3}$ - 2.5	0.10	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21E00011	Church & Dwight Co. Inc.	Indian Creek	13 02	0.060 <sup>e</sup>	1.3	2.0	Monitor monthly <sup>c</sup>	2 mg/l <sup>f</sup>	--
				storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21J00021	Sandusky Quarry	Caswell Ditch	01 02	4.35	3.6	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>f</sup>	Facility data will guide implementation
21F00026	POET Plant Management	unnamed tributary <sup>g</sup>	13 01	0.185	0 <sup>h</sup>	0	--	--	--
				storm water <sup>b</sup>	$1.8 \times 10^{-3}$ - 1.6	0.10	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21J00032	Carmeuse Lime Inc.	Muddy Cr. & R.W. Ditch <sup>i</sup>	14 02	1.81	1.5	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>f</sup>	Facility data will guide implementation
21J00094	Precision Aggregates III LLC	unnamed tributary <sup>j</sup>	13 02	0.4032	0.34	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>f</sup>	Facility data will guide implementation
21J00099	MGQ., Inc. Liberty Quarry	unnamed tributary <sup>k</sup>	10 03	storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21N00051	Carmeuse Lime Inc.	East Branch Wolf Creek	10 03	0.0025	1.5	2.0	Monitor monthly <sup>c</sup>	2 mg/l <sup>f</sup>	--
				storm water <sup>b</sup>	0.065 - 14	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21N00136	Sunny Farms Landfill, LLC	unnamed tributary <sup>l</sup>	10 04	storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21N00209	Buckeye Partners LP	E. Br. E. Br. Wolf Cr. <sup>m</sup>	10 01	storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21N00211	IAR Land Fostoria LLC	unnamed tributary <sup>l</sup>	10 04	storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21S00017	Atlas Industries Inc.	E. Br. E. Br. Wolf Cr. <sup>m</sup>	10 01	storm water <sup>b</sup>	0.032 - 6.8	0.30	Monitor seasonally <sup>c</sup>	Evaluate <sup>d</sup>	--
21S00035	Webster Industries Inc.	Houck Ditch	10 01	-- <sup>n</sup>	0	0	No change	No change	--

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (lb/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2IW00011	Bellevue WTP	Snyder's Ditch	01 03	0.090	0.30	0.5	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
1IW00050	Clyde WTP No. 1	Norris Ditch	02 04	0.027	0.20	0.9	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PA00024	Lindsey WWTP	Muddy Creek	14 04	0.215	0.018	0.1	1 mg/l <sup>t</sup>	Evaluate <sup>d</sup>	Implement and re-assess biology <sup>o</sup>
2PA00072	Bettesville WWTP	Wolf Creek	10 04	0.175	1.5	1.0	1 mg/l <sup>t</sup>	Evaluate <sup>d</sup>	--
2PA00097	Helena WWTP	Muddy Creek	14 02	0.04	0.033	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PD00004	Clyde CSS	Raccoon Creek	02 04	0.0402 <sup>p</sup>	0.30	0.9	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PD00004	Clyde WWTP	Raccoon Creek	02 04	1.9	1.59	0.1	0.5 mg/L & 1.0 mg/L <sup>q</sup>	Evaluate <sup>d</sup>	Implement and re-assess biology <sup>o</sup>
2PD00037	Bellevue WWTP	Snyder's Ditch	01 03	2.4	2.0	0.1	0.5 mg/L & 1.0 mg/L <sup>q</sup>	Evaluate <sup>d</sup>	Implement and re-assess biology <sup>o</sup>
2PG00011	HH Estates WWTP <sup>r</sup>	Wolf Creek	10 04	0.030	0.50	2.0	Monitor monthly <sup>c</sup>	2 mg/l <sup>t</sup>	--
2PG00023	Westwood Subdivision	unnamed tributary <sup>i</sup>	13 01	0.02	0.017	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PG00082	Adam's Acres Subdivision	Muskellunge Creek	13 01	0.035	0.029	0.1	Monitor weekly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PG00118	Bascom WWTP	East Branch Wolf Creek	10 02	0.080	0.067	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PP00041	Castalia Maintenance Building	drainage ditch	01 03	0.0015	0.013	1.0	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	--
2PR00114	PJ's Brickhouse	East Branch Wolf Creek	10 02	0.00245	2.0 x 10 <sup>-3</sup>	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PR00142	Meadowbrook Park WWTP	East Branch Wolf Creek	10 02	0.01	0.017	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PR00170	Club Rog	South Creek	02 05	0.002	0.050	3.0	Monitor monthly <sup>c</sup>	3 mg/l <sup>t</sup>	--
2PR00186	FPM Tooling and Automation	ditch <sup>s</sup>	14 04	0.004	3.3 x 10 <sup>-3</sup>	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (lb/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
	WWTW								
2PR00193	Sycamore Hills Golf Club	Muskellunge Creek	13 01	0.0075	6.3 x 10 <sup>-3</sup>	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PT00044	Hopewell Loudon School	East Branch Wolf Creek	10 02	0.025	0.021	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PT00053	Lakota High School	unnamed tributary <sup>t</sup>	14 02	0.020	0.017	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PY00006	Hopewell Estates MHP	Harrison Creek	10 04	0.016	0.27	2.0	Monitor monthly <sup>c</sup>	2 mg/l <sup>t</sup>	--
2PY00032	Poplar Village MHP	Keckler Ditch	10 04	0.019	0.31	2.0	Monitor monthly <sup>c</sup>	2 mg/l <sup>t</sup>	--
2PY00043	Broopark Estates MHP	Davidson Ditch	10 01	0.010	0.039	0.47	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation
2PY00055	Fostoria Mobile Estates	Muddy Creek	14 02	0.020	0.017	0.1	Monitor monthly <sup>c</sup>	1 mg/l <sup>t</sup>	Facility data will guide implementation

Notes

Abbreviations, acronyms, and units of measure are presented on page K-2.

a. Kyklos Bearing International Inc.

b. These facilities discharge storm water and their WLAs are calculated based upon flow condition in the receiving stream. The range of WLA loads is displayed; for individual WLA loads per flow conditions.

c. A new monitoring requirement is recommended. The frequency is monthly or weekly for non-storm water discharges and seasonally for storm water discharges.

d. Evaluate the discharge over the previous permit cycle and determine if modifications to the permit limit are necessary.

e. No design flow was reported in the facilities' permits. The 75<sup>th</sup> percentile of monthly flow records for outfall 001 in the DMR was used to develop the WLA.

f. A new average monthly permit limit is recommended.

g. Facilities discharge to unnamed tributaries of Muskellunge Creek.

h. POET Plant Management stopped discharging in 2011 and moved to a whole water recovery system.

i. Carmeuse Lime Inc. (2IN00032) discharges to Muddy Creek and Rosa Walby Ditch.

j. Facilities discharge to unnamed tributaries of Muskellunge Creek.

k. MGQ, Inc. Liberty Quarry discharges to an unnamed tributary of East Branch Wolf Creek.

l. Facilities discharge to unnamed tributaries of Wolf Creek.

m. Facilities discharge to East Branch East Branch Wolf Creek.

n. Webster Industries is permitted to discharge non-contact cooling water free from process water and sanitary waste.

o. Facility data will guide implementation. A permit limit of 0.5 mg/L will likely be a significant reduction. Biology should be re-assessed after a permit limit of 0.5 mg/L is implemented.

p. The Clyde CSS anticipates a long-term goal of four CSOs per year. The flow of 0.0402 mgd was calculated using the largest four CSO volumes each from 2011 and 2012 and converting to a daily flow.

q. Two new permit limits are recommended: a1 mg/l daily limit and a 0.5 mg/l seasonal average limit during the May-November season.

r. Hammer Heinsman Estates WWTP

s. FPM Tooling and Automation WWTW discharges to a ditch along state route 523.

t. Lakota High School discharges to an unnamed tributary to Big Mud Creek.

Table K-2. Recommended implementation actions through the NPDES program for nitrate plus nitrite

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (lb/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2IE00011	Church & Dwight Co. Inc.	Indian Creek	13 02	0.060 <sup>a</sup>	2.0	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--
				storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IJ00099	MGQ., Inc. Liberty Quarry	unnamed tributary <sup>f</sup>	10 03	storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IN00051	Carmeuse Lime Inc.	East Branch Wolf Creek	10 03	0.0025	0.063	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--
				storm water <sup>d</sup>	0.60 - 90	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IN00136	Sunny Farms Landfill, LLC	unnamed tributary <sup>g</sup>	10 04	storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IN00209	Buckeye Partners LP	E. Br. E. Br. Wolf Creek <sup>h</sup>	10 01	storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IN00211	IAR Land Fostoria LLC	unnamed tributary <sup>g</sup>	10 04	storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2IS00035	Webster Industries Inc.	Houck Ditch	10 01	-- <sup>i</sup>	0	0	No change	No change	--
2IS00017	Atlas Industries Inc.	E. Br. E. Br. Wolf Creek <sup>h</sup>	10 01	storm water <sup>d</sup>	0.30 - 45	2.0	Monitor seasonally <sup>b</sup>	Evaluate <sup>e</sup>	--
2PA00072	Bettesville WWTP	Wolf Creek	10 04	0.175	4.4	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--
2PG00011	HH Estates WWTP <sup>j</sup>	Wolf Creek	10 04	0.030	0.75	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--
2PG00118	Bascom WWTP	East Branch Wolf Creek	10 02	0.080	1.3	2.0	Monitor monthly <sup>b</sup>	2.0 mg/l <sup>c</sup>	--
2PR00114	PJ's Brickhouse	East Branch Wolf Creek	10 02	0.00245	0.041	2.0	Monitor monthly <sup>b</sup>	2.0 mg/l <sup>c</sup>	--
2PR00142	Meadowbrook Park WWTP	East Branch Wolf Creek	10 02	0.01	0.33	2.0	Monitor monthly <sup>b</sup>	2.0 mg/l <sup>c</sup>	--
2PT00044	Hopewell Loudon School	East Branch Wolf Creek	10 02	0.025	0.42	2.0	Monitor monthly <sup>b</sup>	2.0 mg/l <sup>c</sup>	--
2PY00006	Hopewell Estates MHP	Harrison Creek	10 04	0.016	0.40	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (lb/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2PY00032	Poplar Village MHP	Keckler Ditch	10 04	0.01875	0.47	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--
2PY00043	Brookpark Estates MHP	Davidson Ditch	10 01	0.010	0.25	3.0	Monitor monthly <sup>b</sup>	3.0 mg/l <sup>c</sup>	--

*Notes*

Abbreviations, acronyms, and units of measure are presented on page K-2.

a. The design flow for Church & Dwight Co. Inc. was estimated as the median of 2011-2012 flows from the discharge monitoring records.

b. A new monitoring requirement is recommended. The frequency is monthly for non-storm water discharges and seasonally for storm water discharges.

c. A new average monthly effluent limit is recommended.

d. These facilities discharge storm water and their WLAs are calculated based upon flow condition in the receiving stream. The range of WLA loads is displayed; for individual WLA loads per flow conditions.

e. Evaluate the discharge over the previous permit cycle and determine if modifications to the permit limit are necessary.

f. MGQ, Inc. Liberty Quarry discharges to an unnamed tributary of East Branch Wolf Creek.

g. Facilities discharge to unnamed tributaries of Wolf Creek.

h. Facilities discharge to East Branch East Branch Wolf Creek.

i. Webster Industries is permitted to discharge non-contact cooling water free from process water and sanitary waste.

j. Hammer Heinsman Estates WWTP

Table K-3. Recommended implementation actions through the NPDES program for TSS

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (ton/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2IC00011	Kyklos Bearing <sup>a</sup>	Mills Creek	01 03	storm water <sup>b</sup>	$9.4 \times 10^{-5}$ - 0.15	24	24 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
2IC00013	Ventra Sandusky LLC	Schowe Ditch	01 03	storm water <sup>b</sup>	$1.9 \times 10^{-4}$ - 0.30	24	24 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
2IE00011	Church & Dwight Co. Inc.	Indian Creek	13 02	0.080 <sup>e</sup>	0.010	30	No change	No change	--
				storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IF00026	POET Plant Management	unnamed tributary <sup>g</sup>	13 01	0.185	0 <sup>h</sup>	0	--	--	--
				storm water <sup>b</sup>	$4.0 \times 10^{-4}$ - 0.20				
2IJ00021	Sandusky Quarry	Caswell Ditch	02 01	4.35	0.44	24	24 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
		Pipe Creek	01 02	3.17	0.26	20	20 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
2IJ00094	Precision Aggregates III LLC	unnamed tributary <sup>f</sup>	13 02	0.4032	0.025	30	No change	No change	--
2IJ00099	MGQ., Inc. Liberty Quarry	unnamed tributary <sup>i</sup>	10 03	storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IN00051	Carmeuse Lime Inc.	East Branch Wolf Creek	10 03	0.0025	$1.3 \times 10^{-4}$	18	No change	No change	--
				storm water <sup>b</sup>	0.019 - 2.8	60	No change <sup>f</sup>	No change	--
2IN00136	Sunny Farms Landfill, LLC	unnamed tributary <sup>j</sup>	10 04	storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IN000193	Cornerstone Industrial Group	unnamed tributary <sup>k</sup>	12 03	0.003	$1.5 \times 10^{-4}$	12	No change	No change	--
2IN00209	Buckeye Partners LP	E. Br. E. Br. Wolf Creek <sup>l</sup>	10 01	storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IN00211	IAR Land Fostoria LLC	unnamed tributary <sup>j</sup>	10 04	storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IS00017	Atlas Industries Inc.	E. Br. E. Br. Wolf Creek <sup>l</sup>	10 01	storm water <sup>b</sup>	$9.3 \times 10^{-3}$ - 1.4	60	No change <sup>f</sup>	No change	--
2IS00035	Webster Industries Inc.	Houck Ditch	10 01	-- <sup>m</sup>	0	0	No change	No change	--

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (ton/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2IT00010	Bellevue Terminal	Pipe Creek	01 02	0.08 <sup>e</sup>	0.023	20	20 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
				storm water <sup>b</sup>	$2.0 \times 10^{-4} - 0.086$	24	24 mg/L <sup>c</sup>	Evaluate <sup>d</sup>	--
2IW00011	Bellevue WTP	Snyder's Ditch	01 03	0.090	$9.0 \times 10^{-3}$	24	24 mg/L <sup>c</sup>	No change	--
1IW00050	Clyde WTP No. 1	Norris Ditch	02 04	0.027	$3.4 \times 10^{-3}$	30	No change	No change	--
2PA00072	Bettesville WWTP	Wolf Creek	10 04	0.175	$8.8 \times 10^{-3}$	12	No change	No change	--
2PB00026	Green Springs WWTP	Flag Run Creek	12 03	0.24	0	0	No change	No change	--
2PD00004	Clyde CSS	Raccoon Creek	02 04	0.0402 <sup>n</sup>	0.010	30	Monitor overflows	30 mg/l <sup>n</sup>	--
2PD00004	Clyde WWTP	Raccoon Creek	02 04	1.9	0.24	30	No change	No change	--
2PD00037	Bellevue WWTP	Snyder's Ditch	01 03	2.4	0.30	30	No change	No change	--
2PG00011	HH Estates WWTP <sup>p</sup>	Wolf Creek	10 04	0.030	$1.5 \times 10^{-3}$	12	No change	No change	--
2PG00023	Westwood Subdivision	unnamed tributary <sup>g</sup>	13 01	0.02	$1.0 \times 10^{-3}$	12	No change	No change	--
2PG00082	Adam's Acres Subdivision	Muskellunge Creek	13 01	0.035	$1.8 \times 10^{-3}$	12	No change	No change	--
2PG00118	Bascom WWTP	East Branch Wolf Creek	10 02	0.080	$4.0 \times 10^{-3}$	12	No change	No change	--
2PP00041	Castalia Maintenance Building	drainage ditch	01 03	0.0015	$7.7 \times 10^{-5}$	12	No change	No change	--
2PQ00001	Erie Islands WWTP	Pickrel Creek	02 03	0.15	$7.5 \times 10^{-3}$	6.8	No change	No change	--
2PR00114	PJ's Brickhouse	East Branch Wolf Creek	10 02	0.00245	$1.2 \times 10^{-4}$	12	No change	No change	--
2PR00142	Meadowbrook Park WWTP	East Branch Wolf Creek	10 02	0.01	$1.0 \times 10^{-3}$	12	No change	No change	--
2PR00147	Leaky Oaks RV Parks	Westerhouse Ditch	12 02	0.10	$5.0 \times 10^{-4}$	12	No change	No change	--

Ohio EPA ID	Permittee	Receiving stream	WAU	Design flow (mgd)	WLA (ton/d)	WLA (mg/L)	Recommended permit conditions (1 <sup>st</sup> phase / 2 <sup>nd</sup> phase)		Explanation for difference
2PR00170	Club Rog	South Creek	02 05	0.002	$1.1 \times 10^{-4}$	12	No change	No change	--
2PR00193	Sycamore Hills Clubhouse	Muskellunge Creek	13 01	0.0075	$3.8 \times 10^{-4}$	12	No change	No change	--
2PR00206	Fremont Baptist Temple	unnamed tributary <sup>q</sup>	12 03	0.003	$4.0 \times 10^{-3}$	12	No change	No change	--
2PT00044	Hopewell Loudon School	East Branch Wolf Creek	10 02	0.025	$1.3 \times 10^{-3}$	12	No change	No change	--
2PY00006	Hopewell Estates MHP	Harrison Creek	10 04	0.016	$8.1 \times 10^{-4}$	12	No change	No change	--
2PY00032	Poplar Village MHP	Keckler Ditch	10 04	0.01875	$9.9 \times 10^{-4}$	12	No change	No change	--
2PY00043	Broopark Estates MHP	Davidson Ditch	10 01	0.010	$5.0 \times 10^{-4}$	12	No change	No change	--

Notes

Abbreviations, acronyms, and units of measure are presented on page K-2.

a. Kyklos Bearing International Inc.

b. These facilities discharge storm water and their WLAs are calculated based upon flow condition in the receiving stream. The range of WLA loads is displayed; for individual WLA loads per flow conditions.

c. A new average monthly permit limit is recommended.

d. Evaluate the discharge over the previous permit cycle and determine if modifications to the permit limit are necessary.

e. No design flow was reported in the facilities' permits. The 75<sup>th</sup> percentile of monthly flow records for outfall 001 in the DMR was used to develop the WLA.

f. WLAs were calculated based upon TMDLs on the Sandusky River LRAUs. Permit limits are smaller than the WLAs because the permits are protective of the headwaters and wading streams that the facilities discharge to.

g. Facilities discharge to unnamed tributaries of Muskellunge Creek.

h. POET Plant Management stopped discharging in 2011 and moved to a whole water recovery system.

i. MGQ, Inc. Liberty Quarry discharges to an unnamed tributary of East Branch Wolf Creek.

j. Facilities discharge to unnamed tributaries of Wolf Creek.

k. Cornerstone Industrial Group discharges to an unnamed tributary to Green Creek.

l. Facilities discharge to East Branch East Branch Wolf Creek.

m. Webster Industries is permitted to discharge non-contact cooling water free from process water and sanitary waste.

n. The Clyde CSS anticipates a long-term goal of four CSOs per year. The flow of 0.0402 mgd was calculated using the largest four CSO volumes each from 2011 and 2012 and converting to a daily flow.

o. A new average monthly effluent limit is recommended.

p. Hammer Heinsman Estates WWTP.

q. The Fremont Baptist Temple discharges to an unnamed tributary to Ferguson Ditch.

**Table K-4. Recommended implementation actions through the NPDES program for regulated MS4s**

Ohio EPA ID	Permittee	Receiving stream	WAU	Total phosphorus WLA (lb/d)	TSS WLA (ton/d)
2GQ00027	Erie County and Others	Mills Creek	01 03	$1.9 \times 10^{-4}$ - 0.36	$1.1 \times 10^{-3}$ - 0.45
		Pipe Creek	01 02	--	$7.8 \times 10^{-4}$ to 0.034
4GQ00000	Ohio Department of Transportation	Mills Creek	01 03	$1.9 \times 10^{-4}$ - 0.36	$4.7 \times 10^{-5}$ - 0.075
		Pipe Creek	01 02	--	$.8 \times 10^{-4}$ to 0.043

*Notes*

Abbreviations, acronyms, and units of measure are presented on page K-2.

These regulated MS4s discharge storm water and their WLAs are calculated based upon flow condition in the receiving stream. The range of WLA loads is displayed; for individual WLA loads per flow conditions.