

Lake Wingra Watershed Management Plan Section 6–Conclusions and Recommendations

### 6.01 GENERAL

Specific recommendations are presented here for achieving the goals of the watershed management plan that include the following.

- 1. Chlorides–Work toward changing the Lake Wingra chloride concentration from 120 mg/l to 40 mg/L that existed in the early 1970s.
- 2. Infiltration–Recover 10 percent of the 742 million gallons of lost infiltration because of development in the Lake Wingra Watershed.
- Phosphorus–Of the 1,900 pounds of phosphorus generated in the watershed each year, reduce the phosphorus load reaching Lake Wingra by 50 percent compared to no controls.

### 6.02 RECOMMENDATIONS

The following recommendations are based on the discussion and analysis in the preceding sections.

- 1. Chlorides—Create and initiate an active Chloride Catalyst Team to work toward chloride reduction goals with actions identified in Section 2 of this plan.
- Infiltration—Create and initiate an active Infiltration Catalyst Team to work toward infiltration goals with actions identified in Section 3 of this plan; 12 specific projects are identified for implementation.
- 3. Phosphorus—Create and initiate an active Phosphorus Catalyst Team to work toward infiltration goals with actions identified in Section 4 of this plan. At this time, five alternatives have been identified. It is recommended that the Steering Team choose one of these alternatives to move forward with into implementation.
- 4. The City of Madison should budget a yearly dollar amount for implementation of both infiltration and phosphorus-based projects seeking to implement all the projects recommended for construction in this plan.
- 5. Track yearly Catalyst Team activities and progress.
- 6. Consistently pilot new programs and initiatives for potential expansion of programs to larger geographic areas.
- 7. Periodically review the City's Stormwater Utility Rate Adjustment Policy for effectiveness in incentivizing construction of stormwater BMPs.
- 8. Maintain the City's P8 model to track progress on phosphorus reductions.
- 9. Maintain the chloride mass balance spreadsheet.

# DRAFT FINAL-(06/05/15)

City of Madison, Wisconsin in Cooperation with Friends of Lake Wingra

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- Apply for grant opportunities through WDNR's Urban Nonpoint Source and Stormwater Program, Dane County's Urban Water Quality Management Program, Yahara WINs Phosphorus Reducing Grant Program, among others.
- 11. The City of Madison should budget for yearly assistance by a consultant (as recommended by the Steering Team) to support Catalyst Team activities.

### 6.03 IMPLEMENTATION PLAN

For purposes of an implementation timeline, Table 6.03-1 is presents an initial look at how catalyst teams and projects could be implemented. It is intended to change and it is recommended that it be updated from time to time. It is envisioned that the City of Madison and the Friends of Lake Wingra will lead the Catalyst Teams and recruit/appoint team members.

## Table 6.03-1 Implementation Plan

Addressed In			Provides				1	Example	Action	Schedul	е										
Community			Both	Required																	
Engagement	City		Infiltration	To Meet											Muni Depts		Muni Gov		Residents	Co	ommer
nplementation	Incentives Possible?	Grant Eligible?	and TD Control	Short-Term Goal		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	) 20
Plan?	POSSIBIE:	Eligible :	TP Control	Goai		2013	2010	2017	2018	2019	2020	2021	2022	2023	2024	2023	2020	2027	2028	2029	9 20
					Endorsement of Plan																
					Commitment to Plan Implementation																
					0.1.7												-				
					Catalyst Team Initiation		X X	v	v	х	v		V	v	v	х	- v		Х	v	v
					Catalyst Team 1/4ly Meetings Catalyst Team Annual Tracking Report		X	X X	X X	X	X X	X X	X	X	X	X	X	X	X	X	X
					catalyst campains							-									
					Chlorides																
Yes					Certification for Applicators																
Yes					Municipal incentives for certification																
Yes Yes				Yes	Salt Use Guidelines Salt Use Ordinance												-				
Yes				165	Reduce Municipal Salt Use Pilot																
				Vac			_														
Yes				Yes	Reduce Municipal Salt Use Expanded  Alt deicers, reduce mileage, expand anti-icing,																
					reduce # applications																
					Phosphorus																
Yes					Modified leaf collection pilot project																
Yes				Yes-Option 1	Expanded modified leaf collection														İ		
				100 <b>Op</b> (1011 2										1							
					Modified street sweeping Wetland harvesting pilot project																
				Yes-Option 5	Expanded wetland harvesting																
Yes	Maybe			Yes-Option 4	Expanded Erosion Control Enforcement																
No	,				Waterfowl management																
No					Pet waste enforcement																
V N4				Van Ontina 2	Capital Improvements:		\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00k
Yes-Muni Yes-Muni				Yes-Option 3 Yes-Option 2	Alum Marion Dunn Pond Alum Manitou Pond													-			-
Yes-Muni		UNPS & DC		Yes-Option 5	Wingra Park Wet Pond											10					
Yes-Muni		UNPS & DC		Yes-Option 1 , 3, & 5	Basin Diversion into Manitou Pond			\$277,000							-010	110					
Yes-Muni		UNPS-Awarded		Yes-Option 1 , 3, & 5	Thoreau School streambank restoration		\$299,000								2012						
Yes-Muni		UNPS & YW		Yes-Option 3 & 5	Cherokee Dr streambank restoration								R	M.Co.	1000						
					Infiltration								1								
Yes	Yes		No	Yes	Private commercial rain gardens																
Yes		UNPS	Yes		Commercial porous pavement pilot																
Yes	Yes	UNPS	Yes	Yes	Commercial porous pavement expanded																
Yes Yes	Yes Yes		No Yes	Yes Yes	Downspout disconnection program  Expanded Rain barrel program																
Yes	Yes	UNPS & YW	Yes	Yes	Terrance rain gardens			\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K	\$X0K
Yes			No	Yes	Private residential rain gardens																
100				1.03	Capital Improvements:		\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00K	\$X00H
Yes-Muni		UNPS, DC, & YW		Yes	Arbor Hills infiltration Facility*						\$884,000										
Yes-Muni		UNPS, DC, & YW	Yes	Yes	Grandview Blvd Bioswales								\$612,000			4					
Yes-Muni Yes-Muni		UNPS, DC, & YW UNPS, DC, & YW	Yes Yes	Yes Yes	Glenway Golf Course Wet Pond & Infiltration  Green Monroe St Reconstruction			\$532,000								\$1,819,400	-				-
Yes-Muni		UNPS, DC, & YW	Yes	Yes	Devolis Park Bioretention Facility*			<i>γ</i> υυν,000	\$331,000												
Yes-Muni		UNPS, DC, & YW	Yes	Yes	Westmorland Park Bioretention Basin				+-02,000	\$249,000											
NIDC DITTO	n Nonnoint Co	urce and Stormwater	r Grant Program			1							1	1							
NPS = DNR Urba C = Dane County		Quality Grant Progra																			