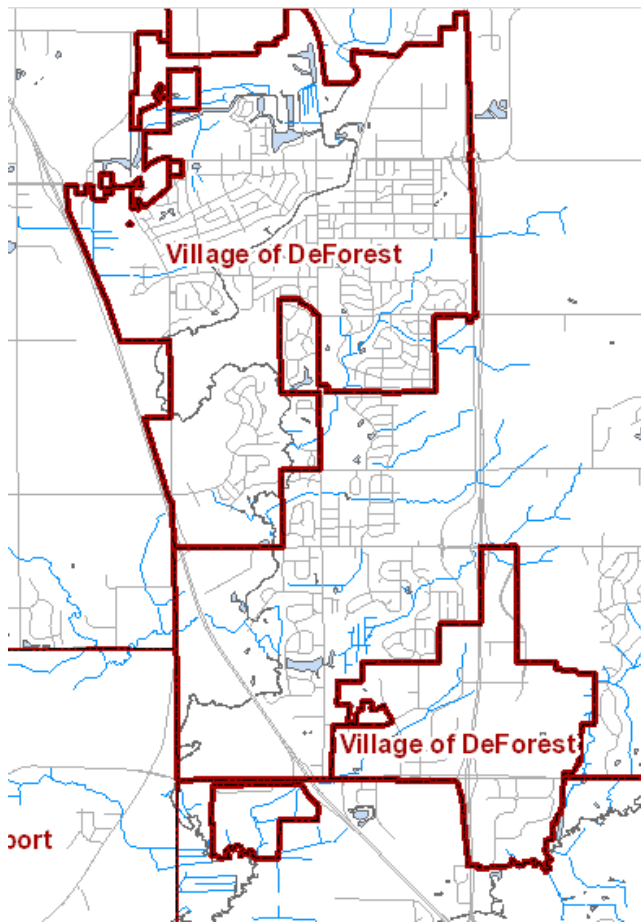




DeForest Leaf-Free-Streets Pilot



January 2016

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OVERVIEW

Introduction

The Village of DeForest is a community of approximately 9,000 people and 3,400 households located within the headwaters of the Yahara River watershed in north-central Dane County. In the interest of protecting and improving water quality, the Village awarded Clean Lakes Alliance (CLA) a 2015 Stormwater Grant, for which \$5,000 was earmarked to design and implement a homeowner leaf-raking pilot. An additional \$4,000 grant from Yahara WINs (Adaptive Management) and \$1,000 from the Natural Resources Foundation (C.D. Besadny) were also received to support this effort. The purpose of the pilot is to test a phosphorus-reduction strategy targeting the voluntary removal of fall leaf litter that collects along the street gutter.

This effort builds upon a 2014 benchmarking survey that polled residents within the Yahara River watershed. The online survey collected baseline information from each watershed community on current yard-care practices related to managing stormwater and fall leaf litter. From this survey, involving 1,623 watershed participants, benchmarks were established about resident actions and challenges. Surveys completed from the DeForest area were then used in the development of this street-raking pilot.

Results from the 2014 survey, summarized in Appendix A, revealed that most respondents from the DeForest area either do nothing with the leaves that fall into the street, or they assume that the Village takes care of them through street sweeping. However, most respondents also identified “protecting lake health” as a primary factor influencing their leaf-raking decisions. These results suggest a high potential of success if area residents can be convinced that maintaining leaf-free streets will directly benefit our lakes.

Goals and Objectives

The aim of the “**Rake-for-the-Lake Challenge Days**” pilot is to improve overall community participation in leaf management within the Village of DeForest, with the goal of reducing phosphorus runoff in accordance with the *Yahara CLEAN Strategic Plan for Phosphorus Reduction* (CLA, 2012). This initiative involves motivating homeowners to voluntarily maintain leaf-free street gutters in front of their properties. It is partially modeled after a similar leaf-raking pilot implemented in 2014 by the City of Madison, Strand Engineering, Friends of Lake Wingra and UW-Extension near Lake Wingra. If

proven cost-effective, the program is designed to be replicable and scalable so it can be expanded to other residential communities throughout the Yahara River watershed.

Table 1: Explanation of individual goals

GOAL	DESCRIPTION
Leaf-free street gutters*	Leaves are largely absent from the street within up to five (5) feet of the curb
Participation	Evidence inferring homeowner action (i.e., pledging, yard sign display, and/or evidence of street raking)
Attitude change	Homeowners accept responsibility for removing leaves from the street in front of their properties, and they feel empowered to make a difference
Awareness	Residents understand the connection between leaves in the street and phosphorus reaching and harming the lakes. They are also aware of leaf-management options available to them.
Communication	Homeowners talk to their neighbors about the issue and importance of taking action, and/or seek out additional information.

* The “gold standard” among the identified goals and evaluative metrics.

METHODS

Background

To motivate and measure behavior change, a Community-based Social Marketing (CBSM) approach was used. CBSM draws heavily on research in social psychology, and employs a combination of proven, community-level tools that involve direct contact with people to remove barriers to participation. The emergence of CBSM can be traced to a growing understanding that programs that rely largely or exclusively on media advertising can be effective in creating public awareness and knowledge of issues related to sustainability, but are limited in their ability to foster actual behavior change. The basic premise is as follows, for which this project focuses on the first two steps.

1. Identify the motivators and barriers to participating in the desired behavior.
2. Develop and pilot a program to leverage motivators and diminish barriers.
3. Evaluate, refine, and implement the program across the larger community.

To test this approach, approximately 820 households in the Village of DeForest (22% of total) were asked to clear leaves from the street within five feet of the curb in front of their

property as part of a pilot. The “ask” was preceded by baseline surveying and neighborhood canvassing to identify what were likely to be the main incentives and barriers to participation. For outreach purposes, the pilot households were then split into three zones defined by varying levels and types of communications. The following combination of outreach and incentives were, in turn, directed to each zone as guided by pre-implementation market research:

Table 2: Outreach descriptions by zone

Outreach	Zone 1 (Low touch) *	Zone 2 (Med touch)*	Zone 3 (High touch)*	Purpose
Letter with action request	✓	✓	✓	Encourage commitment
Pledge-for-prizes invite		✓	✓	Encourage commitment
Email reminders, tips and prize announcements		✓	✓	Provide prompt to act
Yard sign (optional)		✓	✓	Provide prompt to act
Leaflet reminder to pledge		✓	✓	Provide prompt to act
Personal visit			✓	Encourage commitment
Raking assistance (optional)			✓	Establish convenience
Exit survey (delivered and online)	✓	✓	✓	Evaluate incentives and barriers to participation
Leaflet reminder to complete survey	✓	✓	✓	Provide prompt to act

* Households are split into three groups: low-touch, medium-touch and high-touch. Low-touch households receive the least amount of encouragement and contact, and high-touch households receive the most.

Encouraging Public Commitment

Research suggests that when individuals are encouraged to publicly express commitment to a behavior, they are more likely to adopt an identity that is consistent with that behavior. Building on this social marketing strategy, the following tools will be utilized: Letter with action request; pledging and prize-drawing opportunity; visit by canvasser; and optional yard sign displaying commitment to act.

Providing Prompts to Act

Social marketing emphasizes the benefits of providing prompts, or reminders about what target audience members have agreed to do. Prompts have explicit, self-explanatory instructions, and are employed as close as possible to when people are likely to practice a particular behavior. The following tools will be utilized to leverage this concept: Email and leaflet reminders about pledging and completing surveys; and optional yard signs displayed next to the street curb.

Establish Convenience

For residents who may be interested and willing to participate but cannot personally perform the desired action, success could hinge on whether there are opportunities to

delegate or “outsource” to a service provider. Raking assistance through a volunteer or paid arrangement will be offered to enhance participation by absentee or physically impaired residents.

Pilot Location and Zones

Two discrete pilot areas were selected to correspond with comparatively similar demographics and tree-canopy densities within the Village. They were also selected based on a maximum number of involved households (820) for the project budget. Each area was then divided into three zones, with each zone receiving a different mix of outreach intervention and participation incentives.

Two control areas, representing an additional 211 households, were established outside of the pilot boundaries. These locations were selected to contain tree-canopy densities and demographics similar to the pilot areas, but remained “untouched” as far as direct outreach and appeals to take action.

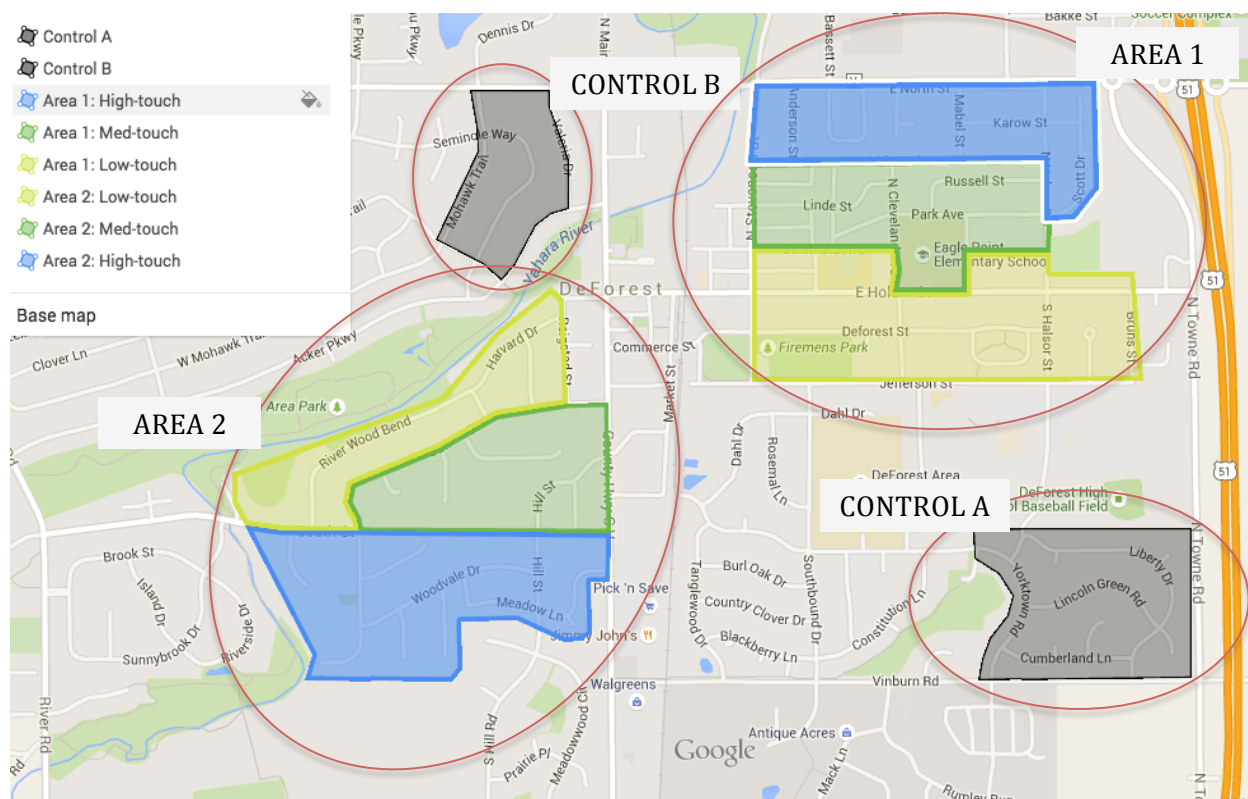


Figure 1: Pilot areas, outreach zones, and control areas

Table 3: Properties and monitored curbs within each pilot and control area

Pilot Outreach Zones	Lots/Number of Curbs	Unique Mail Addresses	Total Curb Length (ft.)
Area 1: Low Touch	169/146	223	16,860
Area 1: Medium Touch	124/130	124	14,868
Area 1: High Touch	<u>150/159</u>	<u>149</u>	<u>17,624</u>
<i>Subtotal</i>	443/435	496	49,352
Area 2: Low Touch	89/90	91	11,048
Area 2: Medium Touch	93/99	92	11,196
Area 2: High Touch	<u>141/151</u>	<u>141</u>	<u>18,868</u>
<i>Subtotal</i>	323/340	324	41,111
TOTAL (all pilot areas):	766/775	820	90,464
Control A	71	71	7,338
Control B	<u>142</u>	<u>142</u>	<u>16,494</u>
<i>Subtotal</i>	213	213	23,832

Pre-Implementation Canvassing

Twenty (20) DeForest residents were interviewed on the afternoon of Friday, July 24, 2015. Face-to-face interviews were conducted with those who were observed outside their homes during a drive through the Village. This random polling was intended to collect baseline information on general awareness levels, current leaf-management attitudes and behaviors, and any potential participation barriers or motivators that warranted consideration when developing outreach strategies. A summary of the findings can be found in the Results section.

Outreach

The following outreach was employed to gather information or encourage participation:

1. Pre-pilot interviews to identify participation barriers and motivators. Interviews were conducted through door-to-door canvassing prior to finalizing outreach content (see Appendix B for script).
2. Letter with action request that is unique to each zone (see Appendix C).
3. Postage-paid pledge card with pre-printed resident address included with letters sent to zones 2 and 3 (see Appendix D).
4. Optional “Love Your Lakes, Don’t Leaf Them” yard signs offered to zones 2 and 3 (see Appendix E).
5. Leaflet soliciting pledges from non-respondents in zones 1 and 2 (see Appendix F).

6. Weekly emails to interested pledge signers containing project updates, action reminders, leaf-management tips, and prize announcements (see Appendix G).
7. Exit survey to evaluate participation and social metrics (see Appendix H).
8. Leaflet distributed to all zones with reminder to complete survey (see Appendix I).

Evaluation Metrics

Table 4: Metrics for quantifying leaf debris and participation rates

<p>Leaf-free street gutters</p> <p>→ Number of street gutters cleared of leaves</p> <p>→ Amount of leaf debris removed from the street</p>	<p>Weekly, visual spot checks performed within the pilot and control areas</p> <p><u>Formula:</u> [Average weight of leaves per foot of street curb as quantified in the control areas]] X [curb length of households confirmed to be clearing leaves each week in the pilot area] = total weight of leaves removed.</p>
<p>Participation</p> <p>→ % of homeowners who <i>pledge</i> to clear leaves from the street in front of their property</p> <p>→ % of homeowners who <i>actively clear</i> leaves from the street in front of their property</p>	<p>Based on the number of online, canvassed, and mail-in pledges received</p> <p>Based on weekly, visual spot checks that record evidence of leaves being cleared within five feet of the street curb.</p> <p>Scoring for all households: 0 = no evidence of leaf clearing 0.5 = questionable or partial evidence of leaf clearing 1.0 = evidence of full leaf clearing</p>
<p>Attitude change</p>	<p>“Getting leaves out of the street gutter is my responsibility, and I feel empowered to take action that will make a difference.” These and other attitude changes may be measured through self-reporting using exit surveys.</p>
<p>Awareness</p>	<p>“I am more aware that leaves left in the street release algae-producing phosphorus that washes down storm sewers and harms our lakes and streams.” These and other indicators of heightened awareness may be measured through self-reporting using exit surveys.</p>

Communication

"I have talked to my neighbors about the issue, such as the importance of keeping leaves out of the street and/or where to find additional information." These and other communication attempts may be measured through self-reporting methods using exit surveys.

Leaf Debris and Phosphorus Quantification

Leaves were raked, bagged and weighed at weekly intervals along the curbs of randomly selected properties in the control areas. The purpose of this exercise was to determine an average amount of leaf litter per linear foot of street curb for each week. This number (represented as pounds of leaf litter per foot of curb) was then applied to measured participation rates and street-curb lengths in the pilot areas, resulting in an estimated total weight of leaves removed.

An adjustment factor was then applied to the weight of leaves removed to derive the amount (in pounds) of leachable phosphorus. This number, in turn, was multiplied by a delivery factor to compute the amount of phosphorus that would have otherwise reached the lakes. The formula for computing phosphorus diversion: (participation rate) X (relevant curb length) X (pounds of leaves per curb foot) X (0.00023 leachable P fraction) X (0.9 delivery factor to the lakes).

Participation rates were based on a 0-1 scoring system applied to each property during weekly monitoring. A score of "1" was assigned to sites with clear evidence of leaf clearing at the time of monitoring. Sites with partial or questionable evidence received a score of "0.5," while sites with no evidence of leaf clearing received a "0" score. Finally, sites received a "NA" and were not scored if it did not appear that a source of leaves was available to result in gutter accumulations.

It should be noted that during the performance of all fieldwork, both a flashing emergency vehicle light and a "Village of DeForest" magnetic logo were used to make the monitoring crews easily identifiable.

Exit Surveys

Surveys were hand distributed and taped (along with mini chocolate bars) to the front door of every home, townhouse and duplex within the pilot area, with a few exceptions. Exceptions included larger apartment complexes that often have restricted access to the doors of individual units, and where leaf-raking responsibilities are generally conferred to an off-site landlord or property manager. In addition, surveys were not distributed to homes that lacked a discernable walkway or front door access, where loose dogs were present, or that displayed "no soliciting" signs. Survey findings are summarized in the Results section and can be found in Appendix J.

Timeline

Table 5: Project timeline

Jan – April	Conceptualize the pilot and acquire necessary funding
May - June	Hire support staff and design the program
July 7 – July 22	Create a draft implementation plan with input from key partners (i.e., Village of DeForest, MMSD, Dane County, UW Extension, Friends of the Upper Yahara River Headwaters)
July 23 – Aug 15	Finalize implementation plan; canvass neighbors to collect baseline information (behaviors, attitudes, awareness levels); begin recruiting local volunteers to serve as trusted messengers; identify service groups that can assist with leaf raking
Aug 15 – Sept 5	Secure prize incentives; create online pledging system; develop and begin conducting outreach campaign
Sept 7 – Sept 11	Mail letters; prepare for door-to-door canvassing
Sept 14 – Sept 25	Perform canvassing; distribute compost bin sale announcements (10/24); distribute yard signs to interested homeowners
Oct 2 – Nov 9	Monitor leaf fall and participation through weekly spot checks and photographic documentation; photograph, collect and quantify leaf debris accumulations from control areas; distribute email reminders with tips and prize announcements
Nov 13 – Nov 17	Administer exit survey through door-to-door distribution and retrieval
Nov 19 – Nov 20	Distributed reminders to houses that had not yet completed a survey; evaluate survey and project results
Nov 30 – Dec 31	Distribute prizes; prepare final report

SEPTEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
			Letters mailed			
13	14	15	16	17	18	19
	Canvassing	Canvassing				
20	21	22	23	24	25	26
	Canvassing, Distribute yard signs				Canvassing, Distribute yard signs	
27	28	29	30			
	Distribute yard signs, Final preparation for monitoring					

OCTOBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
					Photos, scoring, leaf quantification	
4	5	6	7	8	9	10
					Email 1, photos, scoring, leaf quantification	
11	12	13	14	15	16	17
	Photos, scoring, leaf quantification				Photos, scoring, leaf quantification	
18	19	20	21	22	23	24
	Photos, scoring, leaf quantification			Email 2	Photos, scoring, leaf quantification	Compost Bin Sale
25	26	27	28	29	30	31
	Photos, scoring					

NOVEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
	Photos, scoring, leaf quantification				Email 3	
8	9	10	11	12	13	14
	Photos, scoring, leaf quantification			Email 4	Survey distribution	
15	16	17	18	19	20	21
	Survey retrieval, photos	Survey retrieval		Leaflet reminder to complete survey	Leaflet reminder to complete survey	Prize awards
22	23	24	25	26	27	28
29	30					

Figure 2: Three-month implementation calendar

RESULTS

Pre-Pilot Opinions and Behaviors

Twenty (20) DeForest residents were interviewed on the afternoon of Friday, July 24, 2015. The purpose of this random, door-to-door canvassing was to assess general attitudes and leaf-management behaviors prior to the start of the pilot. Findings were then used to aid in the development of outreach materials.

1. What do you currently do with your leaves each fall?

Nearly 60% of residents polled claimed to take their leaves to the yard waste collection site. Village officials confirmed the popularity of the drop-off site, and said a majority of residents utilize the facility. In addition, 47% mulch at least some of their leaves, and 23% utilize some combination of mulching, composting and hauling leaves to the yard waste collection site.

2. Do you rake leaves out of the street gutter?

Fifty eight percent (58%) of residents said that they do currently rake leaves out of the street gutter. Of the 42% that do rake leaves out of the street gutter, a main motivation was to help prevent flooding by keeping storm sewers from clogging.

3. Were you aware that leaves left in the street impact the health of our lakes?

Of the residents polled, 39% were aware of the negative impact on the health of our lakes. However, only 40% of those who were aware of the issue admitted to clearing leaves from the street in front of their homes.

4. What will encourage more people to rake leaves out of the street gutter?

An overwhelming majority of residents polled (87%) felt that greater awareness of the issue was enough to prompt action. Some residents said their reason for not raking leaves from the street gutter was because they thought it was the responsibility of the Village, but were willing to clear leaves from the street gutter if asked. Other suggestions included linking water quality impacts to the Yahara River that flows through the Village, posting information on the DeForest website, writing an article in the DeForest newsletter, or posting signs in local parks.

5. Would you like more information about ways to manage leaves around the yard?

A number of people thought that it would be useful to learn about the range of options for managing or reusing leaves.

Participation

In response to social-marketing outreach, average participation rates rose from 7% in the control areas to 18% in the high-touch pilot zones. This equates to an 11% difference in observed participation based on estimates made during weekly street inspections.

As expected, average participation rates were positively correlated with outreach intensity: control areas (7%), low-touch zones (12%), medium-touch zones (17%), and high-touch zones (18%). However, it is noteworthy that the degree of change was minimal between medium- and high-touch zones. This suggests that the added door-to-door canvassing and the offer of raking assistance had negligible impact in this case.

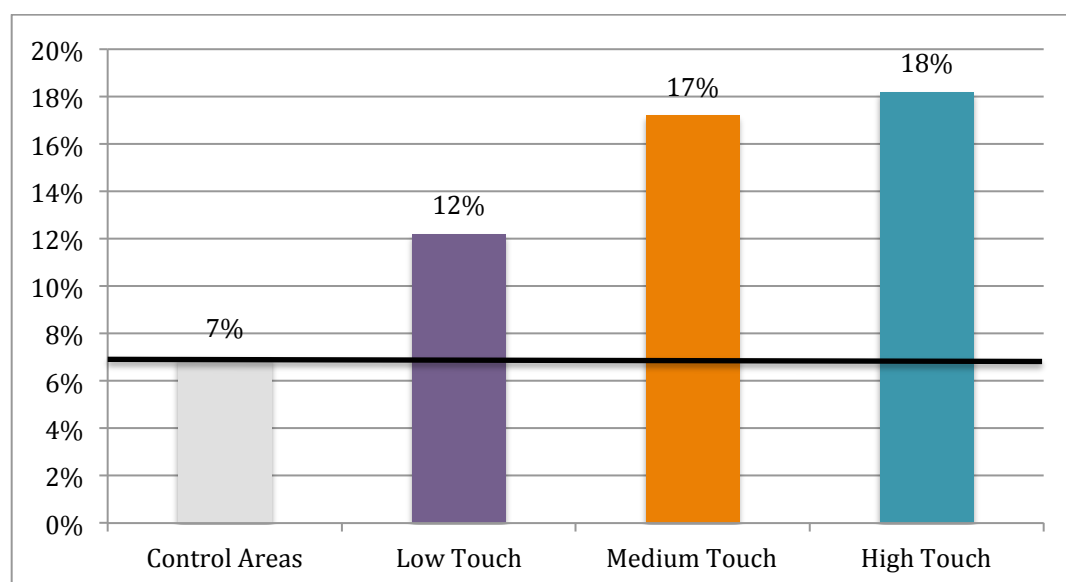


Figure 3: Average participation rates by area

Area	25-49% Participation (light blue)	50-74% Participation (medium blue)	75-100% Participation (dark blue)	Total Households by Area
Controls	20 (10%)	8 (4%)	1 (0.5%)	211
Low Touch	28 (12%)	13 (6%)	6 (3%)	236
Medium Touch	40 (18%)	23 (10%)	8 (3%)	229
High Touch	51 (17%)	35 (11%)	12 (4%)	310

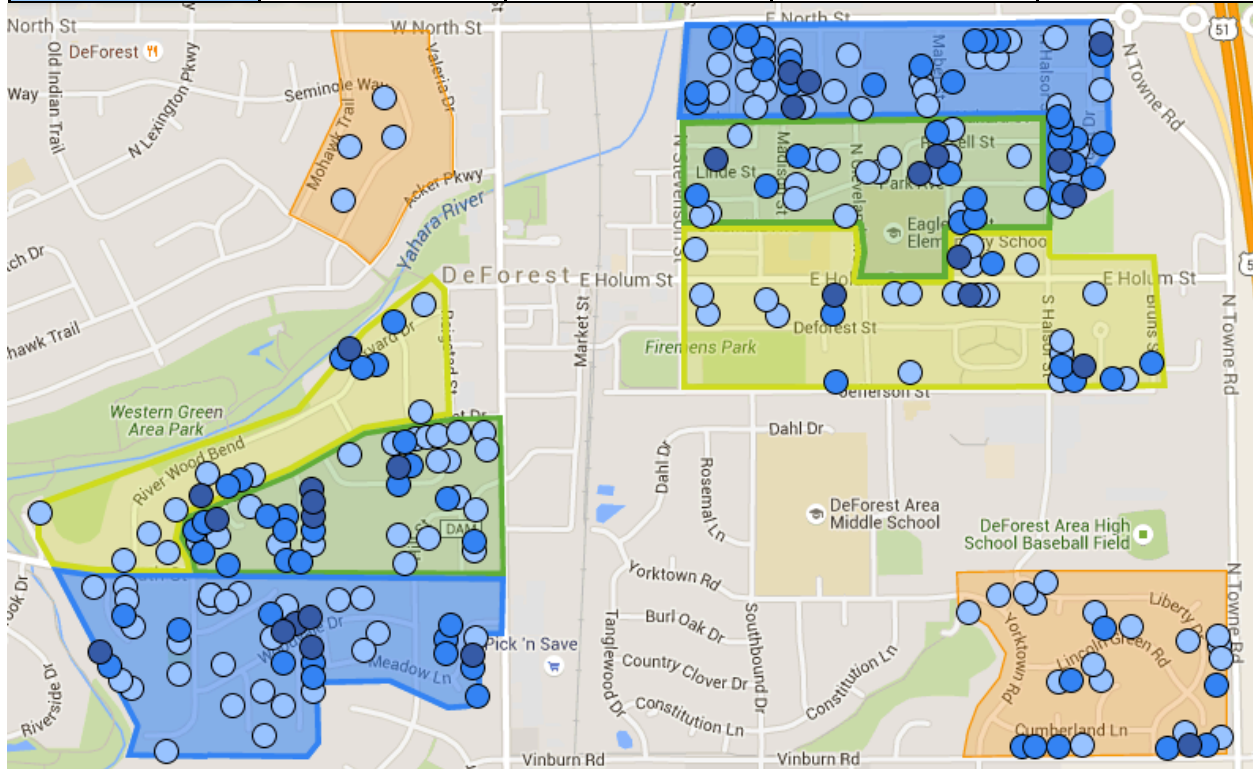


Figure 4: Level of household participation by area

Area	Pledge Signers	Pledge Signers at 25-100% Participation	Total Households by Area
Low Touch	---	---	236
Medium Touch	27 (12%)	44%	229
High Touch	43 (14%)	56%	310

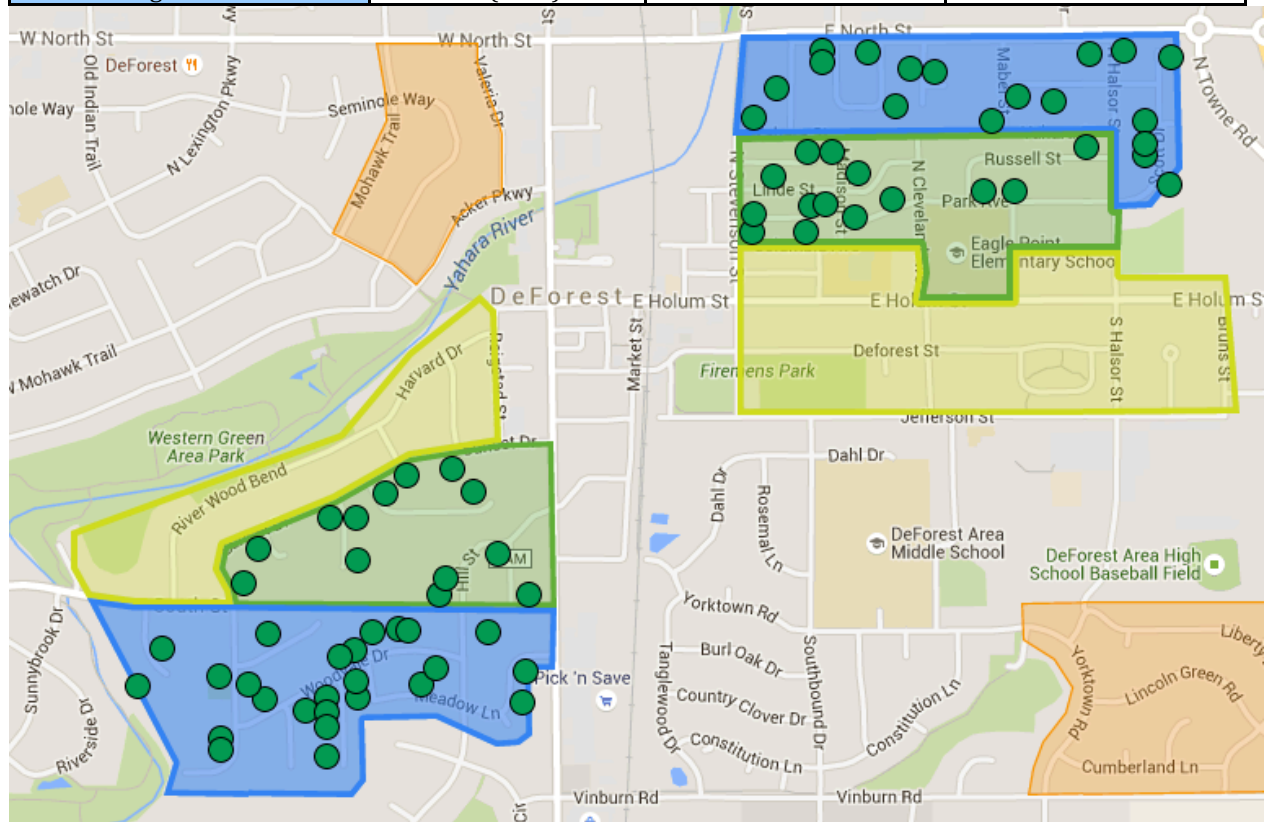


Figure 5: Pledge signers by area (zones 1 and 2 only)

Area	Pledge Signers Receiving E-mails	E-mail recipients at 25- 100% Participation	Total Households by Area
Low Touch	---	---	236
Medium Touch	19 (8%)	42%	229
High Touch	28 (9%)	68%	310

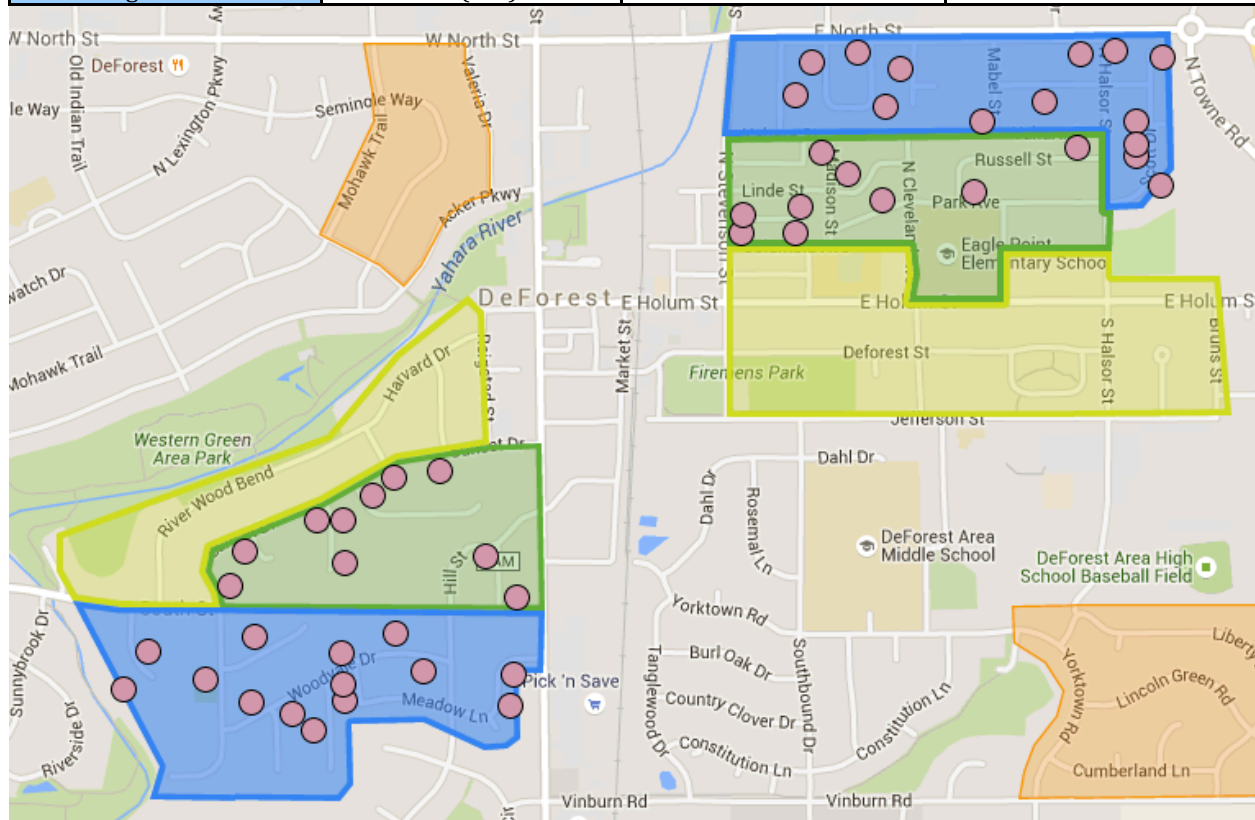


Figure 6: Pledge signers opting to receive emails (zones 1 and 2 only)

Area	Sign Displayers	Sign Displayers at 25-100% Participation	Total Households by Area
Low Touch	---	---	236
Medium Touch	15 (6.6%)	53%	229
High Touch	13 (4.2%)	46%	310

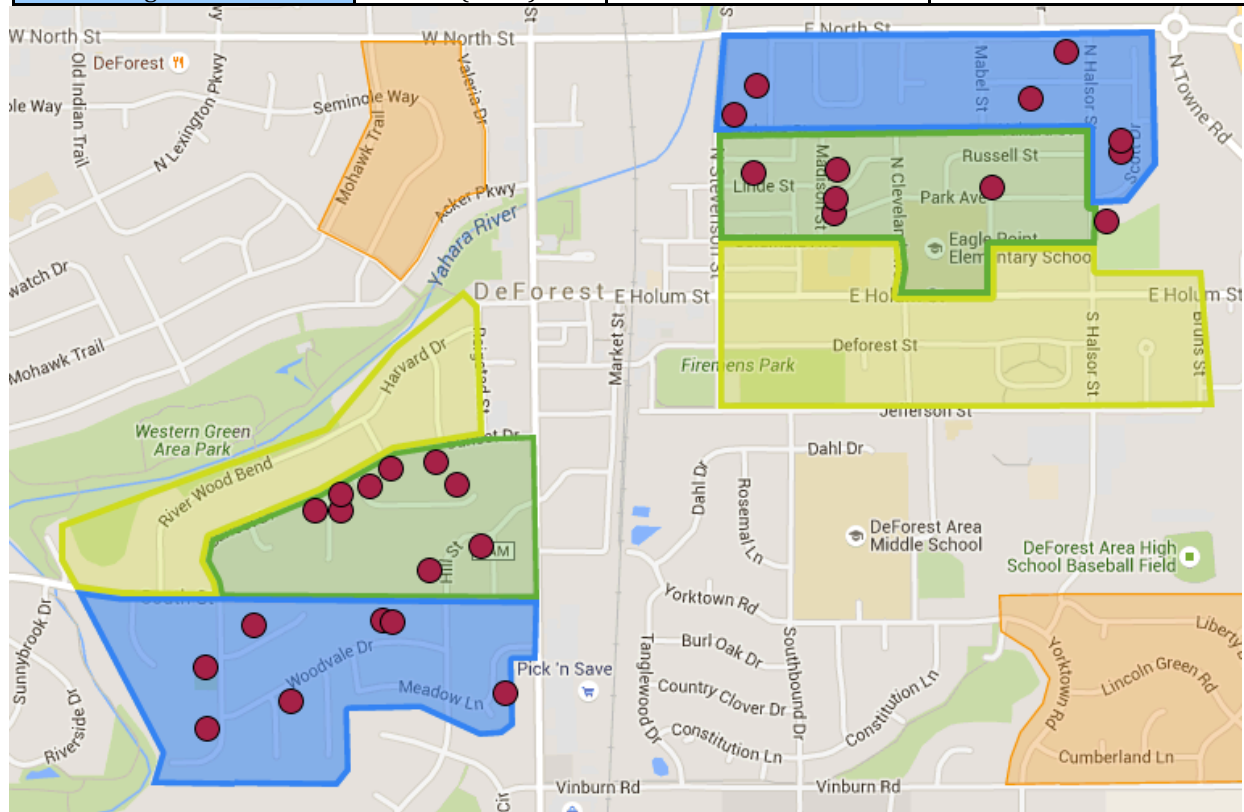


Figure 7: Yard signage

Area	Exit Surveys Returned	Survey Respondents at 25-100% Participation	Total Households by Area
Low Touch	55 (21%)	18%	236
Medium Touch	48 (21%)	38%	229
High Touch	50 (16%)	46%	310

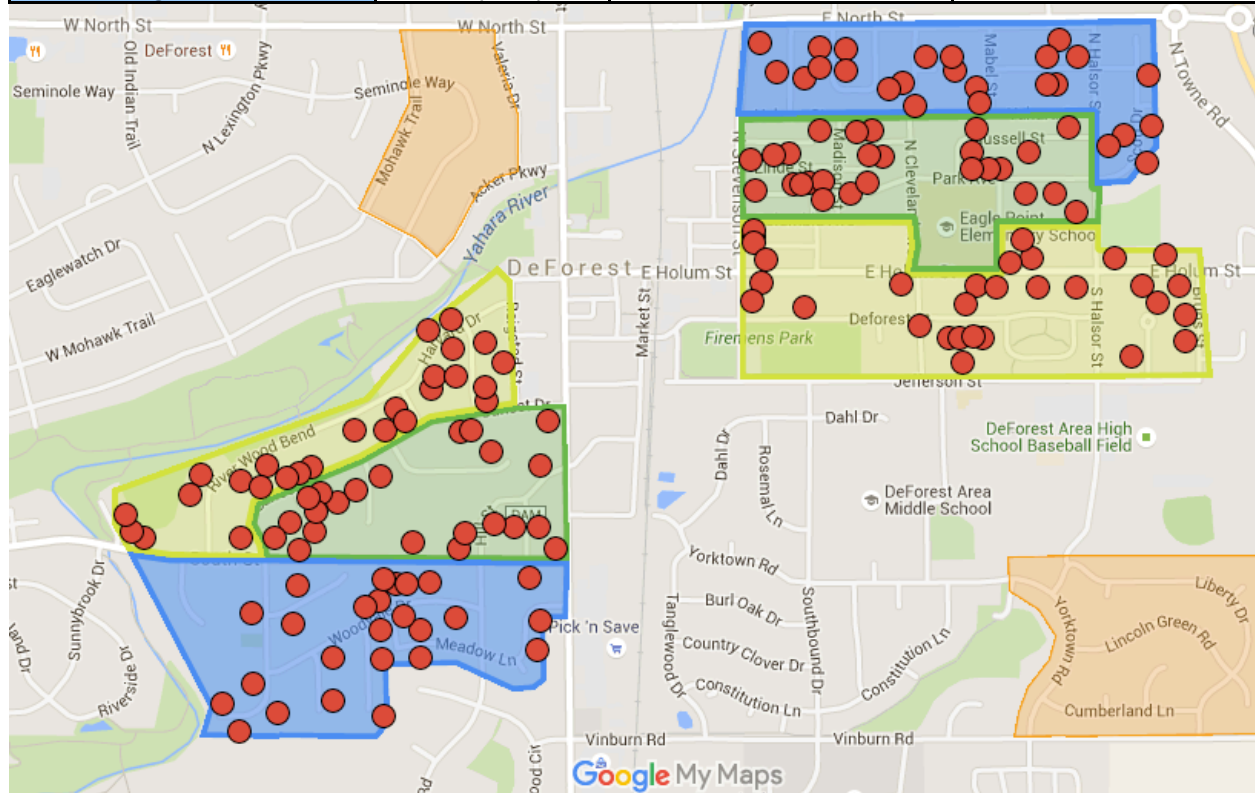


Figure 8: Exit survey participation

Leaf and Phosphorus Quantification

Pilot Areas

Using the average “control” participation rate of 7%, approximately 3,723 pounds of leaves would normally be cleared from the street within the pilot areas each fall as a result of resident action, diverting 0.77 pound of phosphorus from the lakes. If these same pilot areas all received up to a “medium-touch” level of outreach, about 9,042 pounds would be cleared (17% participation), resulting in 1.87 pounds of phosphorus diverted. This represents 2.4 times what could otherwise be expected in terms of phosphorus reductions during the first year of effort.

Table 6: Leaves removed and phosphorus diverted by area

Area	Overall, Averaged Participation ¹	Leaves Removed ² (lbs.)	Leached P diverted* (lbs.) ³	Potential leaves removed if 100% Participation (lbs.)	Potential leached P diverted if 100% Participation (lbs.)
Controls	7%	1,171	0.20	14,085	2.55
High Touch	18%	3,406	0.78	21,567	4.96
Medium Touch	17%	2,444	0.56	15,404	3.54
Low Touch	12%	1,475	0.34	16,219	3.73
H+M+L	16%	7,326	1.68	53,190	10.43

¹Participation values based on dates monitored (10/12, 10/16, 10/19, 10/23, 10/26, 11/2, and 11/9)

² $\left(\frac{\text{Avg. lbs of leaves removed}}{\text{ft. of curb}}\right) \times (\text{ft. of participating curb}) = \text{lbs. of leaves removed}$

³ $\left(\frac{\text{Avg. lbs of leaves removed}}{\text{ft. of curb}}\right) \times (\text{ft. of participating curb}) \times (0.00023 \text{ leachable P}) \times (0.9 \text{ delivery factor}) = \text{lbs. of P diverted from the lakes}$

Village-wide

Given that the pilot areas represent about 24% of all households in the Village, it is conservatively estimated that the up to 222,000 pounds of leaf litter collects in the street gutters each fall. This means about 15,540 pounds of leaf debris is cleared by residents if the average “control” participation rate of 7% is applied, diverting 3.22 pounds of phosphorus from the lakes. If the entire Village were to receive up to the “medium-touch” level of outreach, about 37,740 pounds would be cleared (17% participation), resulting in 7.81 pounds of phosphorus diverted.

Exit Survey Findings

A 22% completion rate was achieved for exit surveys (116 hard copy, and 46 online). Based on population size and return rate, there is a 99% confidence level that the responses fall within less than a 9-point margin of error.

Before the pilot, 44% of respondents self-reported that they were “usually” or “always” clearing leaves from the street gutter. (However, it is noteworthy that actual participation monitoring in the control areas estimates a much lower rate of 7%.) During the pilot, the self-reported percentage jumps to about 66%. Looking strictly at survey results, the difference (22%) is the level of added participation that might be expected if the effort was expanded to other areas of the community. (Alternatively, weekly street monitoring estimates an added participation of 11%, or half of what was gleaned through exit surveying.)

Looking to the future, 83% of respondents indicate they will “usually” or “always” attempt to maintain a leaf-free street gutter. This suggests the likelihood of increased participation over time (from 22% up to 39% over prior conditions) as a consequence of improved awareness and new social norms. Survey respondents reported the following:

Factors that contributed the most to participation

- Desiring a tidy appearance
- Belief that actions are helping the lakes and streams
- Belief that actions are helping to reduce street flooding
- Belief that maintaining leaf-free street gutters is each resident’s responsibility

Factors that contributed the least to participation

- Receiving a letter that asked you to clear the leaves
- Being reminded with a flyer
- Seeing a “Love your lakes don’t leaf them” sign
- Chance to win prizes
- Personal request from a neighbor
- Personal request from a project manager
- Knowing what to do with extra leaves
- Ability to manage extra leaves
- Your neighbor’s level of participation
- Believing that leaves in the street are the Village’s responsibility

Select comment themes

- It should be the Village’s responsibility to clear leaves from the street
- It would be helpful if the Village could pick up leaves if we rake and bag them
- The drop-off site should be open longer and during more accessible hours
- My neighbors should take care of their leaves
- It would be helpful to get leaf-raking reminders via Facebook

Costs

An actual-to-budget table summarizing all income and expenses is contained in Appendix K. Expenses include a number of one-time costs, such as staff time to design a pilot, research phosphorus-quantification methods, create data-management systems, and generate a final report. Now that these models and templates are developed, significant cost savings would be realized for future applications.

DeForest Actual Costs Per Household (direct implementation only)

Letter:	\$1.55
Postage-paid pledge card:	\$0.75
Mileage:	\$0.73
Staff time:	\$4.00
TOTAL:	\$7.03

For DeForest, it is reasonable to estimate that \$7,000 in direct implementation costs can yield about 2.0 pounds of phosphorus from reaching the lakes in year one. This would be for a high-touch level of outreach and a 20% resulting participation rate. From a 20-year-present-value perspective (assuming 3% inflation, no change in participation rate or seasonal leaf accumulations, and only follow-up reminder letters in all subsequent years), the cost would be \$533 per pound of phosphorus diverted. Much of this cost is front-loaded, and includes labor-intensive participation monitoring and leaf quantification.

The estimated cost would fall to under \$500/lb. if less intensive, randomized monitoring methods were used. For example, a much smaller but statistically significant number of residential properties (or curb stretches) could be randomly selected for performance monitoring. Street gutter accumulations in monitored areas may be compared against a photometric index, providing a rapid estimate of pounds of leaves and associated phosphorus removed based on a range of visual possibilities.

Cost per pound would fall even further with any increased participation over time due to improved social norms, or if it is found that the frequency of reminder letters can be reduced without negatively impacting participation levels. For example, cost would decline to \$276/lb. if 1) the mailing of reminder letters was done every other year, 2) more cost-efficient monitoring was employed, and 3) participation increased to 50% by year 10. All these potential costs per pound are consistent with other urban P-reduction strategies recommended in the Yahara CLEAN Engineering Report, which range from \$25 to \$860/lb. and average \$216/lb. (Strand, 2012).

Publicity Links

The following print and electronic news releases were generated as a result of the project:

http://www.hngnews.com/deforest_times/opinion/columns/article_44cf0f76-638f-11e5-bb0c-4f49b4011fb7.html

http://www.vi.deforest.wi.us/index.asp?Type=B_BASIC&SEC={3B15E4B6-459A-441E-BBED-60CADAD13AF4}&DE={8E1A06B7-7CE9-4BC4-BFD1-3730E1967522}

<http://lakeogram.org/volunteer/help-needed-leaf-project-in-deforest/>

https://www.facebook.com/DeFoFarmersMarket/?fref=ps_result

<http://www.guidestar.org/organizations/27-3917243/clean-lakes-alliance.aspx>

DISCUSSION

Summary Assessment

The act of resident participation in keeping leaves out of the street gutter, while meaningful, is not billed as a “silver bullet” to achieving Yahara CLEAN water quality goals. However, pilot results are encouraging and do indicate that voluntary action can be increased at least 2.5-fold using a fairly simple and cost-effective combination of CBSM-guided outreach strategies. Results also show that both the amount of leaves removed and associated phosphorus reduced can be quantified. Consequently, municipalities have a potential tool for establishing baselines and tracking metrics, meeting stormwater permit requirements, and documenting progress over time toward the attainment of water quality goals.

Below is a summary of lessons learned as they relate to various components of the 2015 pilot. It is recommended that these observations and suggestions for improvement be considered before replicating and expanding the initiative to other areas in DeForest or within the larger Yahara watershed.

Outreach

- Targeting outreach to areas with denser and more mature urban tree canopies will yield the biggest phosphorus reductions for the dollar. For municipalities with existing collection programs, any efforts to improve awareness of the water quality issue and the need for shared action along the street edge should prove useful.
- If expanded to other watershed communities, integrated messaging will be important to achieve clarity of purpose and a consistent, clear call to action.
- Requiring email addresses on the online pledge form may have dissuaded a number of people from pledging. This suspicion is supported by the fact that comparatively few pledgers (46 out of 162) used the online pledging option.

- Emails can be a very cost-effective means of engaging with residents. However, if email is to be used as the primary means of follow-up communication, a more effective approach is needed to acquire email addresses. For this pilot, significant time was spent developing emails that reached relatively few recipients (47).
- Prompting is needed to start clearing leaves from the street gutter before yard raking becomes necessary. It was observed that most people wait to clear leaves from the street until they feel the need to rake their yards.
- A blog or Facebook posts might be a good complement to emails, and could be used to share photos, links, stories, leaf-management tips and other information that can help drive participation.
- Engaging schools, houses of worship, and various community groups to take part in related service projects could further raise the level of awareness and increase participation rates.
- Local champions could be recruited to host informational “house parties” to bring more attention to the issue. Another option would be to host a public forum at a library or community center.

Participation Incentives

- Consideration should be given to fostering competitions among different neighborhoods, blocks or streets. Winners can be announced via blog or email each week, with prizes randomly drawn at the end for the area with the highest overall participation.

Monitoring

- Some properties have both front and backyard street gutters, making it challenging to assess participation. For example, it appeared that some street gutters were neglected due to their more “natural” and difficult-to-access backyard locations.
- In some cases, it is difficult to assess whether leaves are being raked out of the street since they get blown around.

Community Comparisons

Table 7: Potential impacts and costs if results are extrapolated to other villages and cities draining to the Yahara lakes

Municipality ¹	Assumed total curb length (ft.) ²	Assumed weight of leaves per ft. of curb (lbs.) ³	P diverted from 8 rakings at 100% particip. (lbs.) ⁴	P diverted from 8 rakings at 20% particip. (lbs.)	P diverted from 8 rakings at 10% particip. (lbs.)	Total 20-yr present worth cost based on 20% particip. ⁵
Village of	340,000	0.126	72	14	7	\$77,280

DeForest						
City of Madison	7,688,700	0.126	1,608	322	161	\$1,777,440
		0.200	2,544	509	255	\$2,809,680
		0.400	5,088	1,018	509	\$5,619,360
City of Middleton	602,775	0.126	128	26	13	\$143,520
		0.200	200	40	20	\$220,800
		0.400	400	80	40	\$441,600
City of Fitchburg (3/4)	560,400	0.126	117	23	12	\$126,960
		0.200	186	37	19	\$204,240
		0.400	372	74	37	\$408,480
City of Monona	292,350	0.126	64	13	7	\$71,760
		0.200	96	19	10	\$104,880
		0.400	192	38	19	\$209,760
Village of Waunakee	335,400	0.126	72	14	7	\$77,280
		0.200	112	22	11	\$121,440
		0.400	224	44	22	\$242,880
City of Stoughton	400,125	0.126	80	16	8	\$88,320
		0.200	136	27	14	\$149,040
		0.400	272	54	27	\$298,080
City of McFarland	238,500	0.126	48	10	5	\$55,200
		0.200	80	16	8	\$88,320
		0.400	160	32	16	\$176,640
Village of Maple Bluff	44,400	0.126	8	2	1	\$11,040
		0.200	16	3	2	\$16,560
		0.400	32	6	3	\$33,120
Village of Shorewood Hills	46,500	0.126	8	2	1	\$11,040
		0.200	16	3	2	\$16,560
		0.400	32	6	3	\$33,120
City of Sun Prairie (1/3)	290,625	0.126	61	12	6	\$66,240
		0.200	96	19	10	\$104,880
		0.400	193	39	20	\$215,280
Village of Cottage Grove (3/4)	124,350	0.126	26	5	3	\$27,600
		0.200	41	8	4	\$44,160
		0.400	82	16	8	\$88,320
Above Communities Combined	10,879,125	0.126	2,270	454	227	\$2,506,080
		0.200	3,603	721	360	\$3,979,920
		0.400	7,206	1,441	721	\$7,954,320

¹ Municipalities include villages and cities that drain to the Yahara lakes. Towns are not included due to their (usually) lower populations and street densities, and absence of storm sewer infrastructure.

² Curb length is the number of households (2010 census number adjusted by % of community that is in watershed) x 75-ft. assumed average for all communities except for DeForest (measured at 100 ft.)

³ 0.126 = average weekly peak as measured from DeForest control areas; 0.200 = “moderate” coverage as measured in downtown Madison; 0.400 = “heavier” coverage as measured in downtown Madison

⁴ P Diversion = (avg. curb length) x (lbs. leaves/curb ft.) x (# of households) x (0.00023 leachable-P factor) x (0.9 lake-delivery factor). Leachable P factor is from a scientific literature review by R. Bannerman.

⁴ Cost-per-pound estimates based on direct, per-household expenses incurred during the DeForest pilot for first year, followed by cost of sending reminder letters in years 2-19. Assumes steady 20% participation rate and no change in amount of average seasonal leaf accumulations.

⁵ Based on \$276/lb. (see “Costs” in the “Results” section)

Table 7 illustrates the potential phosphorus-reduction contributions and costs for each village and city that drains to the Yahara lakes. Estimates are calculated for different participation levels (100%, 20%, 10%), and three different leaf-litter situations. Towns are not included in the analysis given their lower populations and street densities, generally sparse tree canopies, and absence of storm sewers. The analysis is based on number of households rather than individual properties since this information was more readily available. As a result, numbers should be adjusted to reflect that a certain percentage of households are part of multi-family complexes. In addition, an average curb length is assumed, which may need to be adjusted. Given that DeForest had a quantified average curb length of 100 feet, a 75-foot average for other communities was considered a conservative estimate. Another variable is the amount of accumulated leaf debris, which can vary widely among and even within different communities. In light of this fact, three tiers were used in the analysis to represent a range of scenarios. These pounds-per-curb-foot estimates were based on measured accumulations recorded during the pilot and within randomly selected areas in downtown Madison. Finally, approximate cost-per-pound estimates were provided, assuming similar methods and participation rates and a range of possible leaf-litter quantities.

Referencing the above table, a *watershed-wide* participation rate of 57% would be needed to meet the annual 4,100-pound-reduction goal in phosphorus delivery from leaves identified in the Yahara CLEAN Strategic Plan for Phosphorus Reduction. This would be the estimated level of participation needed under heavy leaf-litter scenarios (0.400 lbs. per curb foot), a situation that is not likely to occur in municipalities similar to DeForest with relatively younger and sparser tree canopies. This suggests that the Yahara CLEAN goal, which is derived from a tonnage of leaves collected by reporting municipalities, may be inflated and need adjusting. Even so, voluntary raking by residents can play a significant role in achieving the urban phosphorus reductions needed to meet permitting and water quality goals.

APPENDIX A: Results of 2014 Benchmarking Survey

Q1: *What is your zip code?*

53532: 100% (27 of 1,600 online surveys)

Q2: *What is your age bracket?*

Under 30: 0%
30-50: 58%
51-71: 38%
70+: 4%

Q3: *What type of resident are you?*

Single-family: 100%
Condo or townhouse: 0%
Mobile Home: 0%
Rental: 0%

Q4: *How long have you lived at your current location?*

0-3 years: 31%
Over 3 years: 69%

Q5: *What is your opinion of rainwater that runs off your home's roof or paved areas?* (Select all that apply)

Get it off property: 11%
Capture and/or reuse it: 56%
Contributes to flooding: 26%
Can affect water quality: 56%
Send to storm drains: 11%
Direct to yard to infiltrate: 67%
Don't think about it: 7%

Q6: *Which of the following do you do around your home and yard? (Select all that apply)*

Rain barrel: 15%
Rain garden: 19%
Point downspouts to yard to infiltrate: 93%
Downspouts to driveway/sidewalk: 4%
Don't own or manage property: 0%
None of the above: 7%
Other: 4%

Q7: *If you were provided with a rain barrel, would you use it?*

Yes: 59%

No:	19%
Don't know:	21%

Q8: Which of the following reflects your opinions concerning leaves that fall around your home and yard? (Select all that apply)

Makes yard messy:	37%
Harms lawn:	30%
Harms lakes:	52%
Reused around yard:	44%
Difficult to manage:	0%
Not of concern:	11%
Other:	19%

Q9: Who deals with the leaves that fall onto your yard? (Select all that apply)

I do:	77%
Family members:	50%
Landlord:	0%
Yard-care service:	0%
Paid neighbor/friend:	0%
Unpaid neighbor/friend:	0%
Leaves aren't a problem:	0%
Other:	15%

Q10: What do you do with the leaves that collect on your property? (Select all that apply)

Nothing:	0%
Mow and let shredded leaves remain on lawn:	88%
Rake to designated compost area in my yard:	23%
Collect and deposit into a compost bin:	19%
Use as leaf mulch around plants:	35%
Haul to yard-waste drop off site:	38%
Rake to street terrace for collection:	0%
Contract with a service provider:	0%
Rake into street:	0%
Other:	15%

Q11: If you were provided with a compost bin, would you use it?

Yes:	56%
No:	32%
Don't Know:	12%

Q12: What do you do with the leaves that collect along the street edge, stormwater ditch or culvert in front of your home? (Select all that apply)

Nothing:	30%
Pile for collection:	4%
Compost:	19%

Mulch:	15%
Haul to drop-off:	30%
Service provider:	0%
Other:	33%

Q13: How much do the following influence whether or not you rake leaves from the street edge, stormwater ditch or culvert in front of your home?

Area is beyond my property and responsibility	29% Little or None 42% Some 21% A lot
Too many leaves for me to handle	71% Little or None 8% Some 8% A lot
Concerns about extra leaves harming my lawn before they get collected	67% Little or None 38% Some 0% A lot
Concerns with being charged more by leaf-removal service	79% Little or None 0% Some 8% A lot
Messy appearance if leaves are not removed	33% Little or None 33% Some 25% A lot
Concerns about harming nearby lakes and streams if they are not removed	21% Little or None 38% Some 33% A lot

Q14: How do the following influence how and when you deal with your leaves?

Knowledge of leaf-collection dates	38% Little or None 27% Some 19% A Lot
Concerns about harming my lawn grass	23% Little or None 58% Some 15% A Lot
Concerns about my yard looking messy	12% Little or None 69% Some 15% A Lot
Contracted service provider's availability or scope of work	80% Little or None 0% Some 0% A Lot
When I see my neighbors out raking	50% Little or None 27% Some 4% A Lot
Concerns about harming nearby lakes and streams	23% Little or None 31% Some 27% A Lot

Q15: How do you prefer to get information about yard-care strategies? (Select all that apply)

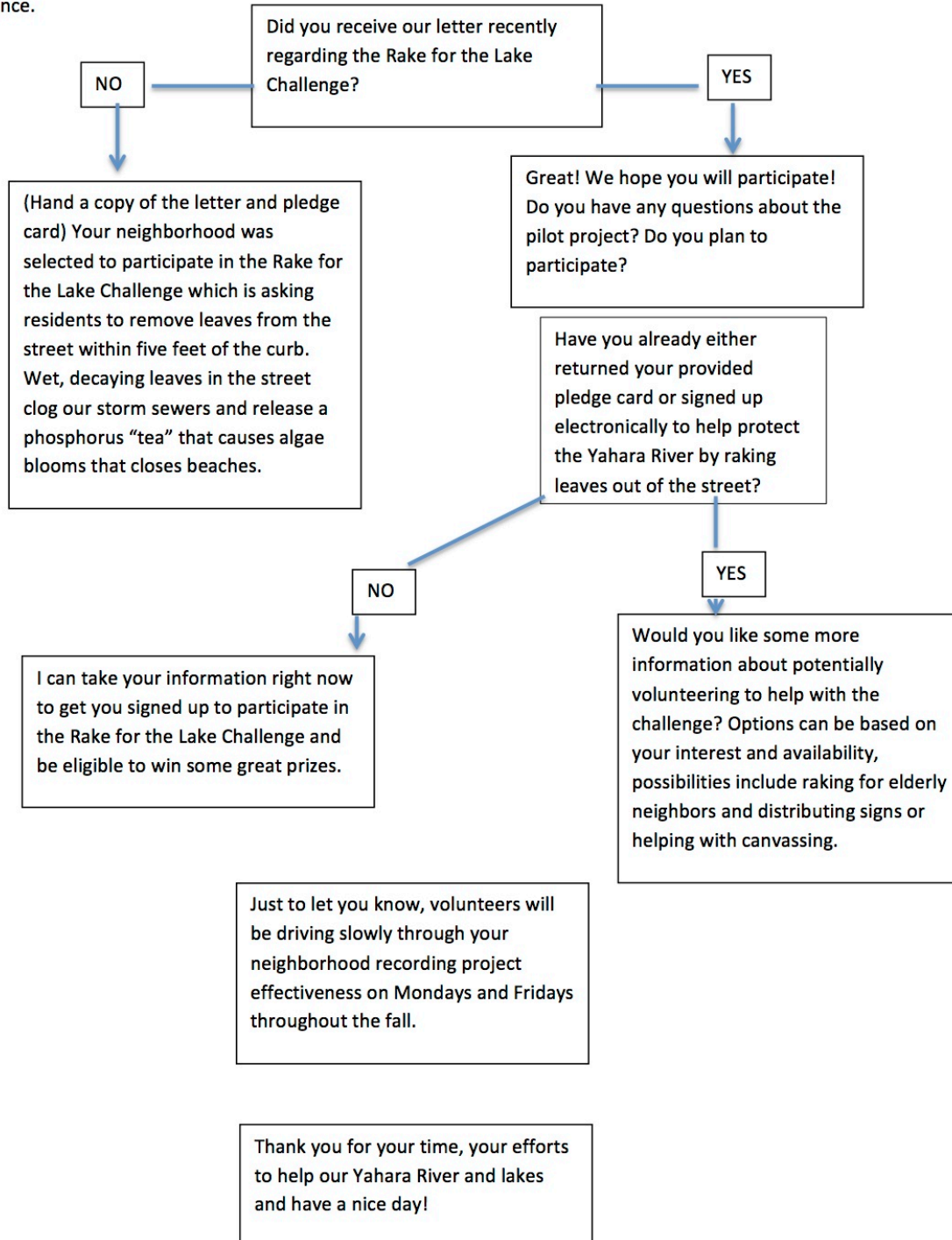
No interest:	15%
Website:	56%
E-letter:	44%
Newsletter:	4%
Workshop:	15%
TV or radio:	7%
Newspaper:	11%
Informed neighbor:	4%
Other:	7%

Q16: What topics, if any, do you want to learn more about? (Rain harvesting, leaf composting, rain gardens, lawn tips, sustainability score)

Rainwater collection and reuse	28% Little or None 60% Some 4% A Lot
Leaf composting	36% Little or None 52% Some 4% A Lot
Rain gardens for my yard	36% Little or None 36% Some 16% A Lot
Healthy lawn tips	12% Little or None 52% Some 24% A Lot
How to calculate my yard-sustainability score	44% Little or None 40% Some 8% A Lot

APPENDIX B: Post-Letter Canvassing Script

Hi I am _____ and I am here to talk to you about your neighborhood's Rake for the Lake Challenge on behalf of the Village of DeForest, Friends of the Yahara River Headwaters and Clean Lakes Alliance.



APPENDIX C: Introductory Letters

High- and Medium-Touch Zones

<<FirstName>> <<LastName>>
<<AddressLine1>>
<<AddressLine2>>
<<City>>, <<State>> <<ZipCode>>

September 3, 2015

Dear <<FirstName>>,

Your neighborhood was selected to participate in a fall pilot project to keep leaves out of the street (see map on reverse). The Village of DeForest, Friends of Yahara River Headwaters and the Clean Lakes Alliance ask that you demonstrate your commitment to cleaner rivers and lakes by joining our *Rake-for-the-Lake Challenge*. **Please join our community challenge by keeping leaves out of the street gutter in front of your home!**

Did you know that leaves in the street are a big problem for our Yahara River and lakes? Wet, decaying leaves clog our storm sewers and release a phosphorus "tea" that feeds algae blooms that can close beaches. The Village of DeForest uses a street sweeper to collect leaves, but the sweeper is limited in its capacity to keep up with the timing and quantity of leaves that accumulate.



How you can help:

1. PLEDGE to maintain leaf-free street gutters this fall. This can be done online (www.cleanlakesalliance.com/leaf-pledge) or by returning the enclosed, postage-paid card. Pledge by September 21st for your chance to win lots of great prizes.
2. DISPLAY an optional "Love Your Lakes, Don't Leaf Them" yard sign (while supplies last). See pledge card.
3. REMOVE all leaves from within 5 feet of the street gutter throughout the season.

What can I do with my leaves?

- o Compost leaves in your backyard
- o Use as groundcover to suppress weeds and retain moisture around plantings
- o Mulch them into your lawn using a mower to replenish nutrients
- o Drop off leaves at the yard waste collection site on North Stevenson Street (Mon: 5-7pm, Tue: 8-10am & 5-7 pm, Thur: 5-7pm, Sat: 8am-5pm)

Thank you for participating, and we hope you encourage others to do the same! For more information, please call (608)255-1000 or email info@cleanlakesalliance.com. Also, be sure to thank our hard-working volunteers and student interns as they make their way through your neighborhood answering questions, polling opinions, and tracking community participation.

In Partnership,

A handwritten signature in black ink, appearing to read "James Tye".

James Tye
Executive Director
Clean Lakes Alliance



A handwritten signature in black ink, appearing to read "Deane Baker".

Deane Baker
Director of Public Services
Village of DeForest



A handwritten signature in black ink, appearing to read "Vicky Porter".

Vicky Porter
President
Friends of Yahara River Headwaters



Low-Touch Zones

<<FirstName>> <<LastName>>
<<AddressLine1>>
<<AddressLine2>>
<<City>>, <<State>> <<ZipCode>>

September 3, 2015

Dear <<FirstName>>,

Your neighborhood was selected to participate in a fall pilot project to keep leaves out of the street (see map on reverse). The Village of DeForest, Friends of Yahara River Headwaters and the Clean Lakes Alliance ask that you demonstrate your commitment to cleaner rivers and lakes by joining our *Rake-for-the-Lake Challenge*. **Please join our community challenge by keeping leaves out of the street gutter in front of your home!**

Did you know that leaves in the street are a big problem for our Yahara River and lakes? Wet, decaying leaves clog our storm sewers and release a phosphorus "tea" that feeds algae blooms that can close beaches. The Village of DeForest uses a street sweeper to collect leaves, but the sweeper is limited in its capacity to keep up with the timing and quantity of leaves that accumulate.



DEMONSTRATE your commitment to keeping our Yahara River and lakes healthy by removing all leaves from within 5 feet of the street gutter throughout the season.

What can I do with my leaves?

- *Compost* leaves in your backyard
- *Use as groundcover* to suppress weeds and retain moisture around plantings
- *Mulch* them into your lawn using a mower to replenish nutrients
- *Drop off* leaves at the yard waste collection site on North Stevenson Street
(Mon: 5-7pm, Tue: 8-10am & 5-7 pm, Thur: 5-7pm, Sat: 8am-5pm)

Thank you for participating, and we hope you encourage others to do the same! For more information, please call (608)255-1000 or email info@cleanlakesalliance.com. Also, be sure to thank our hard-working volunteers and student interns as they make their way through your neighborhood answering questions, polling opinions, and tracking community participation.

In Partnership,

James Tye
Executive Director
Clean Lakes Alliance



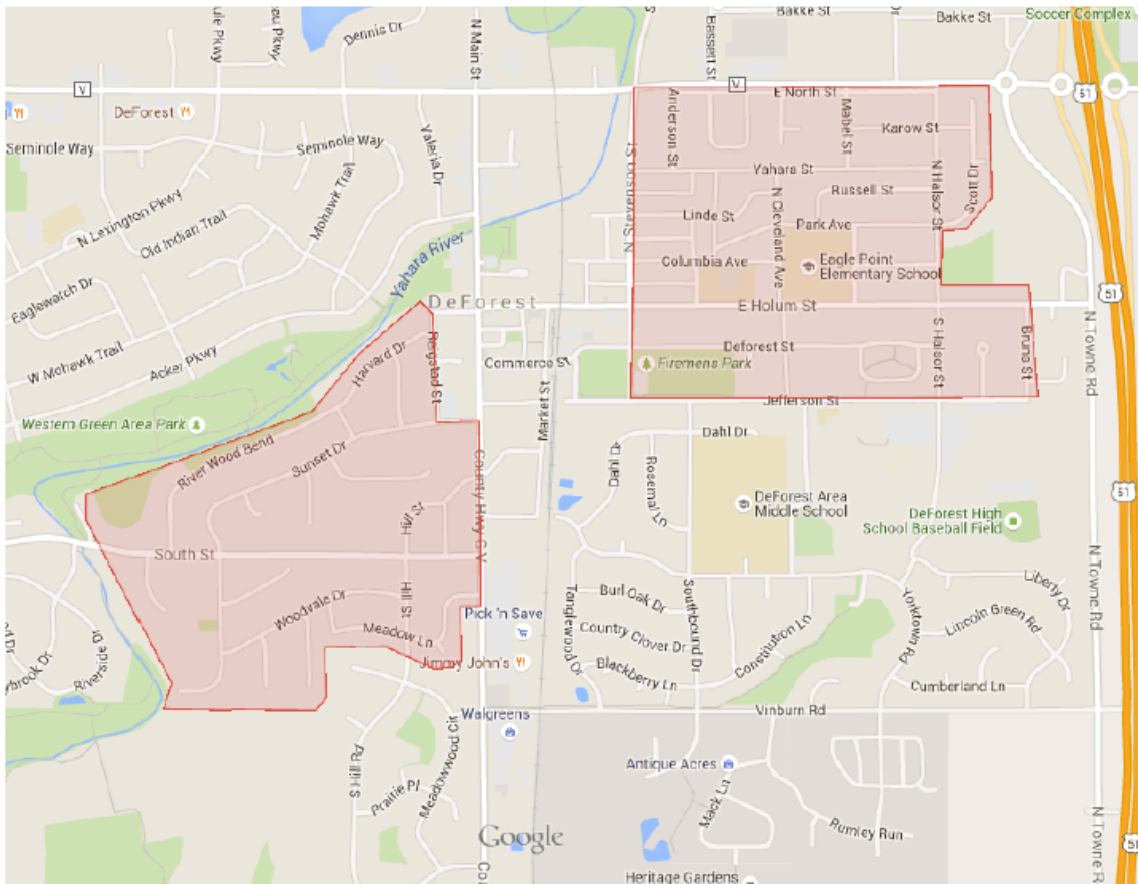
Deane Baker
Director of Public Services
Village of DeForest



Vicky Porter
President
Friends of Yahara River Headwaters



Page 2 of both letters:



The map above shows the DeForest neighborhood areas that were selected for this fall's leaf-raking pilot.

APPENDIX D: Pledge Cards

High-Touch Zones



Join our Rake-for-the-Lake Challenge!

☐

YES!

I pledge to keep leaves out of the street gutter in front of my home. By pledging, I will be entered into a drawing for fun prizes, and will receive periodic leaf-management tips and program announcements.

Additional Options:

☐

I want to demonstrate my commitment with a free "Love Your Lakes, Don't Leaf Them" yard sign (pictured).**

☐

I would like help connecting with a community-service volunteer or paid provider who can assist with the work.

☐

I want to volunteer to help with this effort!



Name: _____

Email*: _____

*Contact information will only be used for communication related to this fall's pilot and will not be released to any other party. You may remove yourself from the email list at any time.

**Available while supplies last. Signs will be delivered.

Medium-Touch Zones



Join our Rake-for-the-Lake Challenge!

☐

YES!

I pledge to keep leaves out of the street gutter in front of my home. By pledging, I will be entered into a drawing for fun prizes, and will receive periodic leaf-management tips and program announcements.

Additional Options:

☐

I want to demonstrate my commitment with a free "Love Your Lakes, Don't Leaf Them" yard sign (pictured).**

☐

I want to volunteer to help with this effort!



Name: _____

Email*: _____

*Contact information will only be used for communication related to this fall's pilot and will not be released to any other party. You may remove yourself from the email list at any time.

**Available while supplies last. Signs will be delivered.

APPENDIX E: “Love Your Lakes, Don’t Leaf Them” Yard Signs



APPENDIX F: Leaflet with Pledge Reminder



Keep raking your leaves out of the street gutter



Leaves left to decay in the street release phosphorus into storm sewers, causing algae blooms in the Yahara River and our lakes. There is still time to pledge to participate, so please visit cleanlakesalliance.com/leaf-pledge to sign up.

Thank you to those who have already pledged. Your clear street gutters set a good example for others. This week's challenge is to rake for a neighbor!

Questions? Call Clean Lakes Alliance at 608-255-1000.

APPENDIX G: Emails to Registered Pledge Signers

October 9, 2015

(54 recipients, 29 opened, 4 clicked a link)

DeForest Rake-for-the-Lake Challenge: Leaves are falling!

1 message

Clean Lakes Alliance <susan.frett@cleanlakesalliance.com>

Fri, Oct 9, 2015 at 12:03 PM

Reply-To: susan.frett@cleanlakesalliance.com

To: Paul <paul@cleanlakesalliance.com>

No Images? [Click here](#)



Rake-for-the-Lake Challenge

*Time to start clearing leaves from
your street gutter!*



Hello *Rake-for-the-Lake* Friends,

Thank you for your pledge to participate in clearing the leaves from the street in front of your home this fall! Your efforts are really important to the health of the Yahara River and our local lakes, and in preventing street flooding.



Although it may seem too early to start raking, it is important to begin clearing even the smallest leaves from the street gutter before they have a chance to get wet and release phosphorus. For small leaves, a broom may be an effective tool. **It's never too early to start!** Remember, even small amounts of phosphorus produce lots of algae and can turn our waterways green.

DANE COUNTY - LEAF MANAGEMENT TECHNIQUES

Our team was out last week for the first monitoring and leaf collection survey. Check out the before and after photos from a stretch of street in the control area where we collected all of the leaves within five feet of the curb. Can you see the difference?

This small amount of accumulated leaves (pictured) added up to 5 pounds. If even this small amount of leaves was removed from the curb throughout the pilot area (bounded by Stevenson Street, Scott Drive, North Street and Jefferson Street), ***we would be preventing over 300 pounds of algae growth in our lakes and streams!***

Before our Rake-for-the-Lake ACTION



After our Rake-for-the-Lake ACTION!



READ OUR OCTOBER LAKE-O-GRAM NEWSLETTER - LEAF ISSUE



Dane County's "Love Your Lakes Don't Leaf Them" signs have been popping up around our pilot area. Email [Susan](#) or call [608-255-1000](tel:608-255-1000) if you would like one and we will drop it off!

Interested in trying leaf composting? [Rain Reserve](#) is having a compost bin sale* at the yard waste collection site on North Stevenson Street Saturday, October 24th, from 8 a.m. to noon.

*No endorsement implied.

Congratulations to our first-round PRIZE WINNERS!!!

Pledge signer: Angeline K Prize: Hilldale Shopping Center Gift Card

Pledge signer: Sarah G Prize: Hotel Red Gift Card

Pledge signer: Roger N Prize: Aranda's Mexican Restaurant Gift Card

YOU could be next! **Stay tuned for future prize announcements.**

Look for our team every **Monday** and **Friday** (car with flashing light and Village of DeForest sticker) driving around monitoring participation and helping to rake leaves out of the streets!

Fun Fact: *So far we have 71 residents pledging to help rake the leaves out of the street!*

Thanks again,



October 22, 2015

(51 recipients, 20 opened, 2 clicked a link, no response on neighbor challenge)

This week's Rake-for-the-Lake challenge: Help a Neighbor!



Inbox x



Clean Lakes Alliance

to me ▾

4:24 PM (16 hours ago) ★



No Images? [Click here](#)



***Rake-for-
the-Lake
Challenge***

Weekly challenge: help a neighbor



Hello *Rake-for-the-Lake* Friends,

Thank you for clearing leaves from the street gutter in front of your home - keep raking. **This week, we're challenging you to help a neighbor and earn a prize!**

Spending 10 minutes helping out a neighbor can brighten someone's day and make a big difference for water quality. If you rake someone else's leaves out of the street gutter, **submit the address by email to [Susan](#)** for your chance to win a George Foreman Indoor/Outdoor Grill. Bonus points to those who submit photos of the good deed in action.



Everyone working together to keep our streets clear of leaves helps to improve the health of the Yahara River and our local lakes. Thanks for participating!

LEAF MANAGEMENT TIPS FOR HOMEOWNERS

Look for our team every **Monday** (car with flashing light and Village of Deforest sticker) driving around monitoring participation and helping to rake leaves out of the streets.

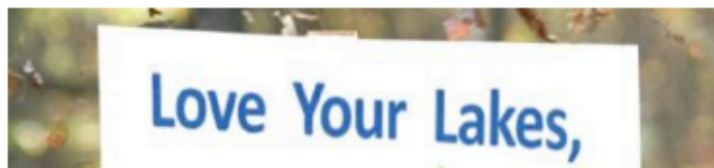
Fun Fact: In 2014, partners in the Yahara River watershed worked together to prevent over 7,400 pounds of phosphorus from reaching our lakes, an amount capable of producing 1,850 tons of algae.

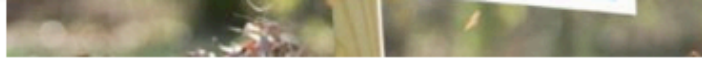
Thanks again,



More Tips and Events

Dane County Love your Lakes sign:





Dane County's "Love Your Lakes Don't Leaf Them" signs have been popping up around our pilot area. Email [Susan](#) or call [608-255-1000](tel:608-255-1000) if you would like one (or need a replacement) and we will drop it off.

DeForest compost bin sale:



Interested in trying leaf composting? [RainReserve](#) is having a compost bin sale at the yard waste collection site on North Stevenson Street this **Saturday, October 24th**, from 8 a.m. to noon. No endorsement implied.

Congrats, second-round prizewinners:

Pledge signer: Trish E

Prize: Hilldale Shopping Center: Gift Card

Pledge signer: Chris M

Prize: Maple Bluff: A Round of Golf for 4 with carts

YOU could be next! **Stay tuned for future prize announcements.**

To keep up-to-date on the latest watershed news and events, email Clean Lakes Alliance to sign up for our monthly e-newsletter, the Lake-O-Gram.

SIGN UP TO GET THE LAKE-O-GRAM

Clean Lakes Alliance
150 East Gilman Street #2600
Madison, WI 53703

This email was sent to paul@cleanlakesalliance.com securely.

[Preferences](#) | [Unsubscribe](#)

 Like

 Tweet

 Share

 Forward

November 6, 2015

(51 recipients, 23 opened, 2 clicked a link, no response on photo contest)



Clean Lakes Alliance

to me ▾

Nov 6 (9 days ago) ★



No Images? [Click here](#)



**Rake-for-
the-Lake
Challenge**



Weekly challenge: photo contest!



Hello *Rake-for-the-Lake* Friends,

Thank you for clearing leaves from the street gutter in front of your home - keep raking. **This week, our challenge is to submit a photo of your street gutter cleared of leaves!** Please include the date you raked in your entry.

To enter the contest to win a George Foreman Indoor/Outdoor Grill, **submit your photo and address by email to [Susan](#)**. Bonus points to those who submit action photos which may be used in reporting about the project.



What a difference the rain can make!

We had some rain this week. The photos below show what happens when leaves are allowed to remain in the street. The water in the second photo was collected from a stormwater outfall; this is the leaf "tea" that causes algae growth and nuisance vegetation in the Yahara River.

Everyone working together to keep our streets clear of leaves helps to improve the health of the Yahara River and our local lakes. Thanks for participating!





LEAF MANAGEMENT TIPS FOR HOMEOWNERS

Look for our team every **Monday** (car with flashing light and Village of Deforest sticker) driving around monitoring participation and helping to rake leaves out of the streets.

Next Week: We want to hear from you! We will begin distributing opinion surveys in your neighborhood starting Friday, November 13. More details in next week's email.

Congrats, third-round prizewinners:

Pledge signer: Malcom and Wendy S

Prize: Personal Chef Gift Card

Pledge signer: Ryan J

Prize: Steep and Brew Gift Card

YOU could be next! **Stay tuned for future prize announcements.**

To keep up-to-date on the latest watershed news and events, email Clean Lakes Alliance to sign up for our monthly e-newsletter, the Lake-O-Gram.

SIGN UP TO GET THE LAKE-O-GRAM

Clean Lakes Alliance
150 East Gilman Street #2600
Madison, WI 53703

This email was sent to
paul@cleanlakesalliance.com securely.
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 **Like**

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November 12, 2015

(51 recipients, 12 opened, 4 clicked on link and filled out the online survey)



Clean Lakes Alliance

to me ▾

Nov 12 (3 days ago) ☆



No Images? [Click here](#)



Rake-for-the-Lake Challenge



Weekly challenge:
share your opinions!

Hello Rake-for-the-Lake Friends,

Thank you for all your work this fall clearing leaves from the street gutter in front of your home. We are nearing the end of the pilot, but please keep raking as your last trees lose their leaves.

This week, our challenge is to complete your DeForest Leaf-Free Streets Survey. The survey is your opportunity to let us know what you think worked, what didn't and offer comments. We will be distributing the surveys door to door in DeForest starting tomorrow, Friday, November 13.



You have the option of filling out the survey online or via the paper form. If you choose to fill out the paper form please tape it to your front door *Monday, November 16 by 8AM* for us to pick up. **To fill out your survey online please click [here](#).**

Those who complete their surveys by **Monday, November 16** will be entered to win 1 of 2 George Foreman Indoor/Outdoor Grills!



LEAF MANAGEMENT TIPS FOR HOMEOWNERS

Congrats, fourth-round prize winners:

Pledge signer: Mel & Diane W

Prize: Scott's Pastry Shop Gift Certificate

Pledge signer: Julie A

Prize: Apple App Store Gift Card

Thanks again,



Clean Lakes Alliance

150 East Gilman Street #2600
Madison, WI 53703

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APPENDIX H: Exit Survey

DeForest Leaf-Free Streets Survey



Rake-for-the-Lake Challenge

This fall, the Village of DeForest, Friends of the Upper Yahara River Headwaters, and Clean Lakes Alliance worked with your neighborhood on a pilot effort to maintain leaf-free streets. Leaf-free streets are important because leaves decaying in the street release a “nutrient tea” that washes down storm drains and contributes to algal blooms in the Yahara River and local lakes. Please take a moment to share your opinions and experiences whether you participated or not. Your input will help us determine if and how we will engage in similar efforts in the future.

We will be collecting surveys on the morning of **MONDAY, NOVEMBER 16**, so please tape your completed survey to your door for easy retrieval. You can also complete the survey online at goo.gl/forms/t2w4ILDlLbm. To submit by mail, please use the mailing address on the back of this survey.

Those who return their survey by Monday, November 16 will be entered to win a George Foreman Indoor/Outdoor grill!

***Street Address:**

Age: ☐ <30 ☐ 31-50 ☐ 51-69 ☐ ≥70 **Gender:** ☐ Female ☐ Male

Are you the primary leaf raker? ☐ Yes

☐ No (If No, please choose from the following options)

☐ Service contractor

☐ Neighbor or friend

☐ Family member

*only used for project evaluation purposes

Q1. Please indicate the extent to which each method below was used to manage your leaves BEFORE and DURING this fall's "Rake-for-the-Lake" Challenge.

	BEFORE			DURING		
	Not at all	Some	A lot	Not at all	Some	A lot
No leaves were present	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were left where they fell	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were hauled to drop-off site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were composted on site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were used as groundcover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were mowed and left on lawn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leaves were cleared from street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2. This fall, how often did you (or a service provider) remove leaves from the street in front of your home when you raked?

☐ Not at all ☐ Rarely ☐ Sometimes ☐ Usually ☐ Always

Q3. Please indicate how much each of the following factors affected whether you (or a service provider) cleared leaves from the street in front of your home.

	Not at all	Some	A lot
a) Desiring tidy appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Receiving a letter that asked you to clear the leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Being reminded with a flyer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Seeing a "Love Your Lakes Don't Leaf Them" sign	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Chance to win prizes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Belief that actions are helping lakes/streams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Belief that actions are helping reduce street flooding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h) Personal request from a neighbor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i) Personal request from a project volunteer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j) Knowing what to do with extra leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k) Ability to manage extra leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l) Your neighbor's level of participation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m) Believing the leaves in the street are your responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n) Believing that leaves in the street are the Village's responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o) Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4. How often will you try to maintain a leaf-free street in front of your home in the future?

☐ Not at all ☐ Rarely ☐ Sometimes ☐ Usually ☐ Always

Other Comments:

Tape this survey to your front door on MONDAY NOVEMBER 16, submit it online at goo.gl/forms/t2w4ILDlbm, or mail to:

Clean Lakes Alliance, 150 E Gilman St, Suite 2600, Madison, WI 53703

Thank you for participating in the Rake-for-the-Lake challenge!



APPENDIX I: Leaflet with Survey Reminder

We still want to hear from you! You are part of two DeForest neighborhoods serving as a model for how residents can be part of the solution to cleaning up our lakes and rivers. Please share your opinions by returning the survey that was distributed to your home last week by mailing it to our office or by taking our online survey:



***Rake-for-
the-Lake
Challenge***

<http://bit.ly/leaf-survey>

Complete your survey by November 30th for a chance to win great prizes, including a limited supply of George Foreman Indoor/Outdoor grills. We will be sharing what we have learned from the pilot project in 2016. Thank you!

APPENDIX J: Exit Survey Results

Surveys distributed: 739
Returned: 162
Response rate: 22%

Male: 53.8%
Female: 46.2%

Age

<30: 2.7%
 31-50: 32.9%
 51-69: 40.9%
 70+: 23.5%

Are you the primary leaf-raker?

Yes: 78%
No: 22%

Q1: Please indicate the extent to which each method below was used to manage your leaves BEFORE and DURING this fall's "Rake-for-the-Lake" Challenge.

Likert Scale: (1) not at all >>> (5) a lot

METHOD OF LEAF MANAGEMENT	BEFORE	DURING
No leaves present	35% (1) 9% (2) 29% (3) 8% (4) 19% (5)	33% (1) 8% (2) 29% (3) 7% (4) 24% (5)
Leaves left where they fell	49% (1) 16% (2) 21% (3) 6% (4) 8% (5)	54% (1) 16% (2) 19% (3) 2% (4) 8% (5)
Leaves hauled to drop-off site	35% (1) 4% (2) 13% (3) 9% (4) 40% (5)	31% (1) 3% (2) 14% (3) 9% (4) 43% (5)
Leaves composted on site	50% (1) 9% (2) 15% (3) 3% (4)	46% (1) 6% (2) 16% (3) 7% (4)

	23% (5)	25% (5)
Leaves used as groundcover	55% (1) 10% (2) 19% (3) 5% (4) 12% (5)	52% (1) 9% (2) 20% (3) 7% (4) 13% (5)
Leaves mowed and left on lawn	24% (1) 13% (2) 30% (3) 6% (4) 27% (5)	29% (1) 12% (2) 21% (3) 8% (4) 30% (5)
Leaves cleared from street	23% (1) 9% (2) 24% (3) 14% (4) 30% (5)	11% (1) 6% (2) 14% (3) 18% (4) 51% (5)

NOTE: 51% cleared leaves from the street “a lot” during the pilot, representing an additional 21% of residents participating compared to before the pilot.

Q2: This fall, how often did you (or a service provider) remove leaves from the street in front of your home when you raked?

Not at all:	10%
Rarely:	12%
Sometimes:	16%
Usually:	27%
Always:	35%

NOTE: 62% usually or always removed leaves from the street in front of their house when they raked.

Q3. Please indicate how much each of the following factors affected whether you (or a service provider) cleared leaves from the street in front of your home.

Reasons that contributed the MOST to clearing the leaves in front of your home:

Factor	Affected decision to rake street: “A LOT”
Desiring tidy appearance	44%
Belief that actions help water quality	46%
Belief that actions reduce street flooding	42%
Belief that leaves in the street are personal responsibility	27%

Reasons that contributed the LEAST to clearing leaves in front of your home:

Factor	Affected decision to rake street: "NOT AT ALL"
Receiving a letter that asked you to clear the leaves	45%
Being reminded with a flyer	60%
Seeing a "Love your lakes don't leaf them" sign	48%
Chance to win prizes	67%
Personal request from a neighbor	94%
Personal request from a project volunteer	89%
Knowing what to do with extra leaves	41%
Ability to manage extra leaves	36%
Your neighbor's level of participation	56%
Believing that leaves in the street are the Village's responsibility	35%

NOTE: Was this response due to a personal request never being received, or because it was received but entirely ineffective?

Q4. How often will you try to maintain a leaf-free street in front of your home in the future?

Not at all:	3%
Rarely:	3%
Sometimes:	11%
Usually:	45%
Always:	38%

NOTE: 83% will usually or always try to maintain a leaf-free street in front of their homes in the future. This suggests an increased participation rate in post-pilot years.

APPENDIX K: Actual-to-Budget Report

REVENUES		Budget	Actual
	Village of DeForest grant	\$5,000	\$5,000
	Yahara WINs grant	\$4,000	\$4,000
	C.D. Besadny grant	\$1,000	\$1,000
	Volunteer time	---	\$1,072
	Business donations ¹	\$1,200	\$1,085
		\$11,200	\$12,157
EXPENSES			
Outreach and Incentives			
	Letters w/return pledge cards (postage-paid) ²	\$1,900	\$1,580
	Printing & supplies	\$ 50	\$ 156
	Incentive prizes	\$1,200	\$1,085
		\$3,150	\$2,821
Planning and Implementation			
	Travel ³	\$ 600	\$ 689
	Staff Time (manager) ⁴	\$3,570	\$4,320
	Staff Time (intern) ⁵	\$3,880	\$6,719
		\$8,050	\$11,728
TOTAL:		\$11,200	\$14,549

¹ Value of prize-drawing donations: Hotel Red (\$150); Aranda's Mexican Restaurant (\$15); Hilldale Shopping Center (\$100); Maple Bluff Golf Course (\$400); Steep & Brew (\$20); Sami Fgaier personal chef (\$100); Apple App Store (\$15); Scott's Pastry Shop (\$10); George Foreman Grills (\$80/each)

² Contracted printing and mailing of 820 letters (all areas) and 506 pledge cards with return postage (areas 2 & 3). In-house printing: 1,313 pages x \$0.05/page = \$66.

³ Travel to and from DeForest for partner meetings, canvassing, leaf litter quantification, performance monitoring and implementation at the federal mileage rate (\$0.575/mile). Actual: \$538 mileage (1,199 miles x \$0.575) + \$90 expenses (leaf bags, flashing emergency light for vehicle, survey treats)

⁴ Project manager time for program design, partner collaboration, outreach development, creation of survey instruments, performance evaluation, and reporting.

⁵ Intern time for volunteer recruitment and training, neighborhood canvassing, weekly performance inspections, weekly leaf debris quantification, yard sign delivery, and project support.