

# Stormwater Maintenance in HOA Communities

## *Summary of Survey and Focus Group Results*

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### Key takeaways

- **Lack of engagement.** A significant proportion of HOA board members lack deep understanding of and attention to stormwater issues. Those who possess a strong understanding of stormwater maintenance and the impacts of stormwater have typically pursued this knowledge based on their own interest in conservation. Therefore, turnover among board members results in a loss of knowledge related to stormwater maintenance.
- **Financial concerns.** Money is a primary concern among HOA board members, and study participants noted that residents do not want to pay for maintenance, and that residents are regularly concerned about fees or increasing dues. In particular, rapidly-rising HOA insurance costs present a critical barrier to implementing stormwater infrastructure upgrades.
- **Focus on brief, digestible materials.** Board members typically communicate with residents by newsletter and emphasized the importance of making information relevant to residents. Board members themselves expressed interest in infographics and easy-to-understand illustrations regarding stormwater maintenance education. They also expressed interest in a resource that could have cohesive, aggregated information in one spot.

### Background

Enhancing, protecting, and preserving natural resources per Minnesota Statutes Chapter 103C, is the primary aim of the Washington Conservation District (WCD). To achieve the aim, the WCD develops conservation projects in the region, provides support with natural resource management, and offers technical guidance and educational resources to county residents, local government units, and watershed organizations as well as other agencies and organizations.

In order to help the WCD better understand awareness and implementation of stormwater maintenance activities in communities with a homeowners association (HOA), Wilder Research conducted a survey and two focus groups. These data collection methods gathered information from HOA board members and leaders as well as property management companies about aspects of their landscape, contracted maintenance, and overall knowledge related to stormwater.

### Methods

The survey was administered online, and links to participate were sent directly to HOA community leaders as well as distributed to relevant networks. We distributed the survey initially through a mailed postcard to 732 addresses. The postcard provided a QR code and direct link to the virtual survey. Email invitations were also sent to 234 email addresses, along with reminder emails to complete the survey. Additionally, to provide both reciprocity and fulfill the aims of the organization, the postcard provided a link to multiple resources that HOA leaders could refer to for stormwater maintenance in their communities, including a green community guidebook, visual inspection checklists, and the Minnesota Stormwater Manual. These resources continue to be available.

A total of 63 individuals participated in the survey, most of whom were located in the Twin Cities metro area. Repeated attempts were made to recruit eligible participants, but the survey received a low response rate and the study team implemented additional measures (including an incentive to complete the survey) to encourage a stronger response rate. However, the study team experienced continued difficulty in engaging HOA board members; this low response rate and challenge with engagement indicates a lack of interest in and awareness of the importance of stormwater infrastructure among HOA board members. Data from the survey was cleaned and analyzed, and data tables with frequencies from the full data set are found at the end of this summary. The survey included two open-ended questions, both of which were coded using qualitative analysis.

Both 60-minute focus groups were held virtually and included a total of 12 individuals, all of whom were HOA board members in their communities. Participants were recruited directly via email based on interest expressed after completing the survey or by identification from WCD staff. All participants received a \$30 gift card as a thank you for their time. We used a mixed methods analytic approach to identify the findings from the survey. We then integrated the survey data with focus group outcomes to develop prominent themes. Quotes from participants are included in the summary below.

### Awareness and knowledge of stormwater issues

Many focus group participants had a good understanding of environmental conservation issues and how they connect to taking good care of the landscape in their communities. Stormwater maintenance was a priority topic for many of them, but participants were split on whether it was a priority for their board colleagues or residents of their community. Notably, less than one-quarter of survey respondents who were HOA residents involved in leadership said that stormwater was “very much a priority” (see Figure 13), while none of the survey respondents who were property managers identified this level of priority (see Figure 23). Some focus group participants mentioned that stormwater issues may be more prevalent for older communities, as newer builds have been taking into account better and more sustainable management practices.

*A business that's just to the west of us is on higher ground and they drain down to our property. So, it's a huge concern overall and judging by the amount of sediment that they dug out over the last few weeks, I can't begin to tell you how many pickup trucks they filled up. It's definitely something that we should keep in the front of our minds.*

*We've had a couple of instances where there was some flooding of the creek and the way the city and the builders graded it, it does not flood up into our property. So we are conscious of nitrates and all the stuff that goes on the ground that shouldn't, that drains into the water system, but it's not necessarily a priority for us.*

*If whatever is happening to the atmosphere continues, and we end up with more than the four or five inch rainstorms that we have... I mean, there is a chance we could, because it gets really close in our backyard when we're having these heavy rainstorms. So that, that's another reason why we're thinking about how we should be planning for the future.*

*There's a lot of apathy in our board. So one or two people end up doing all of the work. I think they're not as knowledgeable about the steps that need to be taken.*

*People who aren't part of the board tend to have tunnel vision to their own agenda and stormwater is not on most people's agenda.*

*[Being on a board means that] you're there to run a business and you're running it with volunteers.*

Participants in these discussions represent a sample of board members that are far more likely to be interested in the topic of stormwater; some participants called this out directly, explaining that they are the outliers when it comes to paying attention to stormwater. These participants have largely taken it upon themselves to research the topic and learn more about it based on their own interest in the issue.

Board members are especially aware of stormwater management as it relates to resident concerns or complaints. According to participants, many residents are unaware of or disinterested in stormwater until they take notice of an issue affecting their property, such as flooding. Participants further emphasized that residents do not want to make an effort to improve stormwater infrastructure unless it has been mandated; they would rather ignore suggestions from the board or property management company if it is not directly affecting their property.

**Key issue:** While participants in the focus groups have worked to build their knowledge of stormwater and educate themselves, this knowledge does not remain with the board when their term ends or when they move. Therefore, board turnover may act as a barrier to consistent or proactive management of stormwater in HOA communities.

*We have board turnover; we have three year terms. You know, we often are electing one or two new board members every year. It's difficult for somebody to stay really focused and understand all these stormwater issues [along with everything else].*

Relatedly, there can also be **confusion around who is ultimately responsible for managing stormwater** (i.e., what role is played by residents, by the board, by maintenance companies, by the city, etc.). Some participants expressed significant frustration about having to educate contractors on appropriate landscaping (e.g., mow length, clippings, or yard waste disposal), and noted that it can be **difficult to find quality services**. A few participants suggested that landscaping contractors may need education about the relationship between stormwater and their work. However, 64% of survey respondents felt that their HOA board did have adequate information to direct the maintenance work conducted by contractors, which suggests that a degree of miscommunication may exist between HOA leaders and contractors when it comes to implementation.

*I've dealt with lots of different contractors for doing grounds maintenance and it's a continual source of frustration. And I think part of the problem is that a lot of these people basically are just laborers, and they are used to a market which basically just wants to cut grass and shrubs and doesn't understand the implications of landscaping at all. We had a contract at one time [for] leaf removal. They piled leaves on top of a storm drain because that was a low spot where you could pile them up. [That contractor] has long since been fired. So, this is a constant struggle. I'm just at my wit's end with the low level of training and professionalism in grounds maintenance, you would never accept that with people who service plumbing or heating or roofing.*

*We have three different contractors that we use for grounds work. And we've made it explicit in the contract – the people who come and cut the grass and remove the leaves and plow the snow – that's all that they do. No pruning of the shrubs. That stopped after someone cut off the top of a Blue Beech Tree because they thought it was a shrub. So we have an arborist firm that we work with and then we have a higher end landscaping firm that does all the maintenance of the perennial beds. And I've actually had to chase some of the lawn contractors out of the perennial beds and tell them, "No, this is not in your contract." [It seems that the] only solution to this is you have to parcel this out among select vendors, and that way, try to get up some more expertise. Of course, that costs more.*

## Stormwater features and approaches

The following infrastructure types were discussed by focus group participants and identified by survey respondents (see Figures 4 and 17) as present in their communities:

- Holding ponds
- Catch basins
- Rain gardens and native landscaping (e.g. prairie grasses)
- French drains

Of these infrastructure types, holding ponds were the most commonly identified by participants from both the survey and focus groups. Some focus group participants commented on issues with algae and an unpleasant odor and explained that treatment is both expensive and harmful to wildlife; these board members also described a high level of complaints from residents regarding issues related to ponds.

Survey responses indicate ponds as a common feature, with 79% of HOA respondents and 100% of property managers indicating their presence; 82% of property managers said that ponds generate confusion among their HOA clients (see figures 4, 17, and 18, respectively). More than half of survey respondents (54%) said that stormwater pond maintenance is a very important topic for them (see Figure 24).

## Money is a primary concern

Financial issues were a frequent topic among focus group participants. They noted that residents do not want to pay for maintenance, and that residents are regularly concerned about fees or increasing dues. However, participants noted that residents also expect that everything related to landscaping is done for them when living in an HOA (a few participants called this a “landlord mentality”). All participants commented on the fact that **HOA insurance costs are increasing rapidly** and felt frustration about their ability to conduct their duties in the face of this increase.

*[The cost factor is] huge and it keeps growing, because not only does it cost us more to have the services like mowing the lawns and plowing the driveways, but the insurance costs nearly doubled last year. And the expectation is that it's going to go up at least 50% again for all of us this year. The insurance on townhouses is ridiculously expensive.*

*I can't get anybody to be interested in any kind of a proposal because of cost. Nobody wants to spend any money. We just put new roofs on the buildings and we just replaced all the roads. I mean, down to the base materials, 100% new. And we worked with the contractor to establish better drainage, you know, change the elevations on one end of the drive so that it would drain properly.*

*Homeowners are much more receptive to costs that directly apply to things that they use every day. So, you know, washing machines or boilers, heaters, that kind of thing. Stormwater is a bit abstract.*

This perspective is reflected in survey responses regarding the importance of specific factors for landscaping (see Figure 8). The top two ranked factors among HOA residents in leadership were both cost-related: 34% of respondents named annual maintenance cost and 24% of respondents named long-term maintenance cost. Further, more than half of survey respondents who were HOA residents said their HOA does not have any money dedicated to stormwater infrastructure annually (see Figure 9). More than half of property manager respondents said it was “very challenging” to help their clients understand the need to budget for maintenance and upkeep of stormwater infrastructure (see Figure 22).

Despite these concerns, some focus group participants suggested financial consequences for a lack of compliance to appropriate stormwater maintenance practices. One survey respondent echoed this sentiment, commenting that without mandates or consequences, “most HOAs will not comply as they don’t want to fund the upkeep.”

## Where HOA leadership seeks information

The most common resource mentioned by participants was “the city” – in other words, relevant staff and administrators in their local municipality. Other key resources listed by participants included the following:

- The University of Minnesota, including extension services
- Their property management company
- Master gardener services
- Their insurance company (One participant commented, “They’re happy to provide you information that will prevent anything they would have to pay out.”)

*The first person we go to is the city. And oftentimes, they don't always have the answers, but they might steer you to a county resource or a state resource or a university resource. We've used all of them and it would be nice if we could have a little clearer picture on whom to go to for specific questions.*

## Communicating with residents

When asked about how they reach residents with information or updates, most participants said that their HOA puts out a regular newsletter. Regarding approaches to communication, they noted the importance of making the information presented relevant to residents. When needed, they may appeal to resident concerns about property value to encourage action towards improving stormwater maintenance activities.

*We're self-managed, by choice, [so] the information is coming to the members from the members. I think maybe it has a little bit more power than coming from a management company.*

*I hit them where the money is and that's kind of the best way to get them to take it seriously. People need to understand what it will cost them.*

*When people buy into an association, the expectation is that they don't have to do anything – that everything is going to be taken care of for them. They don't understand that they are part of the solution, that they have to be advised and informed. I spend a lot of time at annual meetings talking about this.*

*[I explain to residents] Here's what we own, here's what we have to maintain. Here's how many square miles of this, how many square feet of that, to try to make sure that they do understand. And I'm not sure that that necessarily equates into helping them understand the expense of it, but it certainly softens the blow a little bit when we have to increase dues, which of course we do every year because of increased insurance and everything.*

## Outreach to HOA board members and communities

Focus group participants emphasized the importance of **materials being simple, clear, and easy to follow**. For homeowners, they recommended a resource that could act as a “101-level” reference, so that board members do not have to carry the full burden of educating homeowners on the importance of stormwater maintenance. Two survey respondents also identified homeowner education as a topic of interest, noting that homeowners need more information to understand the **purpose of stormwater infrastructure**, especially as it relates to the **long-term financial and environmental impact** of not having this infrastructure in place. One respondent specified environmental concerns and the connection to our local waterways.

Focus group participants mentioned the following approaches to material development:

- Infographics and simple illustrations (“like a child’s book”)
- Consistently distributed information that keeps the topic top-of-mind
- Fun, educational videos
- Presentations to board members and property management companies

Survey responses aligned with these suggestions, with the majority (81%) saying they would like downloadable fact sheets and more than two-thirds selecting short videos (65%); one-third of survey respondents also selected in-person trainings as a useful format (see Figure 25).

Because participants discussed having to seek out information from multiple sources, they expressed interest in a resource that could have **cohesive, aggregated information in one spot**. The more time it takes them to review many different resources (e.g., the city, the university, general Google searches), the less likely they are to access all the information they need or feel knowledgeable on the topic.

**Key issue:** Many participants would like information about grants they can apply for as well as guidance on completing grant applications in order to implement low- or no-cost stormwater infrastructure upgrades. For example, one participant described a grant their HOA received to upgrade their irrigation system. This board member also received technical assistance and training, including gaining knowledge about conservation, and identified these aspects as key benefits of the grant awarded.

*Metro Blooms helped me prepare a grant proposal to the Minnehaha Creek Watershed district. We were able to put in three rain gardens. I would have had no idea how to jump through those hoops [to get funding], but because I was able to find those resources, we were able to be very successful and I could make the case to my neighbors that, well, we got thousands of dollars to do this. So the amount of money that [residents] paid out was considerably less than what it would have been. And then everybody likes it because of the flowers and the butterflies.*

*We were able to actually make the case to the watershed district that if we put in rain gardens in this location, we would reduce the amount of suspended sediment and phosphorus and we could actually attach numbers to it. So it made a strong case to them and they actually gave us much more money than they would have otherwise.*

## Working with property management

Overall, focus group participants found their relationship with a property management company helpful and had received useful information or tips from these companies. That said, there are many management companies and there may be significant variability in the quality or types of service provided, and some participants had better experiences than others. Even among those who mentioned helpful management companies, participants typically elaborated that they needed to initiate communication about the topic; [management companies likely will not consider stormwater maintenance a priority](#) and therefore may not proactively provide information, educational materials, or resources.

## Concluding remarks

HOA communities face a number of barriers to successful implementation of stormwater infrastructure. The primary challenges expressed by participants in this study were financing upgrades and lack of buy-in and understanding among colleagues or residents. Difficulty sourcing contractors with knowledge of stormwater maintenance was also noted, and participants have had mixed experiences with implementing landscaping that addresses their needs. While participants in this study possess a strong understanding of stormwater maintenance, this likely does not reflect the typical level of awareness or knowledge among HOA leadership or property management.

To that end, WCD should focus on high-level fact sheets for HOA audiences (residents, board members, and key staff at property management companies) that contain simple language and infographics or illustrations; the messaging for these sheets should inform readers about why stormwater maintenance matters, and possible impacts that are relevant to them (e.g., flooding or property damage). Other fact sheets could further elaborate on the connection between stormwater infrastructure and environmental conservation. A list of knowledgeable contractors could also be a helpful resource to HOA leaders and property management companies. As much as possible, these resources should be cohesive and organized in one place, thereby establishing WCD as an important resource and removing the need to seek information from multiple sources.

## Survey data tables

### HOA leadership responses

**FIGURE 1. HOW OLD IS YOUR HOA DEVELOPMENT OR BUILDING? (IF MULTIPLE DEVELOPMENTS WITHIN A SINGLE HOA, CONSIDER THE APPROXIMATE YEAR ESTABLISHED) (N=63)**

	<b>Percent</b>
10 years or less	35%
Between 11-20 years	27%
21 years or older	38%

**FIGURE 2. HOW MANY UNITS ARE IN YOUR HOA? (N=63)**

	<b>Percent</b>
Duplex to eight-plex (small)	3%
10-20 unit dwelling (medium)	29%
20+ unit dwelling (large)	68%

**FIGURE 3. WHICH OF THE FOLLOWING HOUSING TYPES DO YOU HAVE IN YOUR HOA? (CHECK ALL THAT APPLY) (N=63)**

	<b>Percent</b>
Single-family detached homes	52%
Owner-occupied townhomes or condos	52%
Rental properties	14%
Designated housing for seniors	5%
Other: (Other responses included: Coop, detached homes but paired in twos, cooperative)	5%

**FIGURE 4. WHAT TYPES OF STORMWATER INFRASTRUCTURE DO YOU HAVE ON YOUR SITE? (CHECK ALL THAT APPLY) (N=57)**

	<b>Percent</b>
Stormwater ponds	79%
Designated buffer of native vegetation near a wetland, pond or lake (i.e., conservation easement)	51%
Rain gardens or infiltration basins	33%
Other: (Adjacent stormwater ponds and major runoff paths directly to storm sewer from adjacent golf course, creek flowing into stormwater pond, open space lot, private streets with storm drains that connect to city infrastructure, sewers)	9%
I don't know	7%

**FIGURE 5. CONSIDER THE FOLLOWING MAINTENANCE ACTIVITIES, AND SELECT THE GROUP RESPONSIBLE FOR EACH ONE. (N=43-58)**

	<b>Property management company</b>	<b>Private contract with an outside company</b>	<b>Community residents</b>	<b>City / Township</b>	<b>Watershed district or watershed management organization</b>
Inspecting stormwater infrastructure such as ponds and raingardens/infiltration basins (n=43)	14%	7%	19%	37%	23%
Maintaining stormwater infrastructure such as ponds and rain gardens/infiltration basins (n=43)	16%	16%	23%	35%	9%
Routine lawn and landscape maintenance (n=58)	16%	64%	19%	N/A	2%
Winter snow and ice removal (n=58)	16%	60%	16%	7%	2%

**FIGURE 6. HOW SATISFIED ARE YOU WITH THE QUALITY OF MAINTENANCE COMPLETED FOR THE FOLLOWING ACTIVITIES? (N=57-59)**

	<b>Very satisfied</b>	<b>Satisfied</b>	<b>Not very satisfied</b>
Inspecting stormwater infrastructure such as ponds and rain gardens (n=57)	12%	63%	25%
Maintaining stormwater infrastructure such as ponds and rain gardens (n=57)	7%	67%	26%
Routine lawn and landscape maintenance (n=59)	39%	46%	15%
Winter snow and ice removal (n=58)	31%	57%	12%

**FIGURE 7. DO YOU BELIEVE YOUR HOA BOARD HAS ADEQUATE INFORMATION TO DIRECT THE MAINTENANCE WORK CONDUCTED BY OUTSIDE CONTRACTORS AND/OR YOUR PROPERTY MANAGEMENT COMPANY? (N=58)**

	<b>Percent</b>
Yes	64%
No	36%

**FIGURE 8. WHEN YOU THINK ABOUT THE LANDSCAPE AT YOUR HOA COMMUNITY, HOW IMPORTANT ARE THE FOLLOWING FACTORS TO YOU? PLEASE RANK THE FOLLOWING FACTORS RELATED TO YOUR HOA COMMUNITY'S LANDSCAPE. (N=55-56)**

Factors	Level of importance, with 1 being the most important and 7 being the least important						
	1	2	3	4	5	6	7
Annual maintenance cost	<b>34%</b>	18%	15%	9%	15%	9%	N/A
Long term maintenance cost	14%	<b>24%</b>	20%	13%	15%	15%	N/A
Functionality	7%	9%	18%	15%	<b>29%</b>	18%	4%
Aesthetics – looks good	21%	13%	15%	<b>26%</b>	15%	9%	2%
Easy to maintain	5%	22%	<b>20%</b>	24%	16%	13%	2%
Avoids environmental harm	16%	15%	13%	15%	9%	<b>33%</b>	N/A
Webinars/Training	2%	N/A	N/A	N/A	2%	4%	<b>93%</b>

**FIGURE 9. HOW MUCH DOES YOUR HOA BUDGET ANNUALLY FOR STORMWATER INFRASTRUCTURE MAINTENANCE? (N=21)**

	Percent
\$0	57%
\$1,000 up to \$5,000	29%
\$5,000 up to \$10,000	10%
\$10,000 or more	5%

**FIGURE 10. HOW MUCH DOES YOUR HOA BUDGET ANNUALLY FOR LAWN AND LANDSCAPING MAINTENANCE? (N=32)**

	Percent
\$0	19%
Up to \$10,000	19%
\$10,000 up to \$20,000	16%
\$20,000 up to \$30,000	19%
\$30,000 up to \$40,000	9%
\$40,000 up to \$50,000	9%
\$50,000 up to \$60,000	3%
\$60,000 up to \$70,000	3%
\$70,000 or more	3%

**FIGURE 11. HOW MUCH DOES YOUR HOA BUDGET ANNUALLY FOR WINTER SNOW AND ICE REMOVAL? (N=32)**

	<b>Percent</b>
\$0	31%
Up to \$10,000	22%
\$10,000 up to \$20,000	19%
\$20,000 up to \$30,000	13%
\$30,000 up to \$40,000	3%
\$40,000 up to \$50,000	3%
\$50,000 up to \$60,000	3%
\$70,000 or more	6%

**FIGURE 12. HOW MUCH DOES YOUR HOA BUDGET ANNUALLY FOR IRRIGATION? (N=29)**

	<b>Percent</b>
\$0	38%
\$1,000 up to \$5,000	28%
\$5,000 up to \$10,000	10%
\$10,000 up to \$15,000	14%
\$15,000 or more	10%

**FIGURE 13. WOULD YOU SAY THAT FOR YOUR HOA, MAINTAINING STORMWATER INFRASTRUCTURE IS...(N=54)**

	<b>Percent</b>
Not a priority	41%
Somewhat a priority	39%
Very much a priority	20%

**Property management company responses**

**FIGURE 14. HOW MANY HOAS DOES YOUR COMPANY HELP MANAGE? (N=11)**

	<b>Percent</b>
5 or less	0%
Between 6-15	0%
Between 16-30	0%
31 or more	100%

**FIGURE 15. WHAT TYPES OF HOAS DO YOU MANAGE? (N=11)**

	<b>Percent</b>
Duplex to eight-plex (small)	64%
10-20 unit dwellings (medium)	82%
21+ unit dwellings (large)	91%
Commercial properties	55%
None of the above	N/A

**FIGURE 16. WHICH OF THE FOLLOWING HOUSING TYPES DO YOU MANAGE? (CHECK ALL THAT APPLY) (N=11)**

	<b>Percent</b>
Single-family detached homes	82%
Owner-occupied townhomes or condos	91%
Rental properties	27%
Designated housing for seniors	36%
Commercial properties	55%
None of the above	N/A

**FIGURE 17. WHAT TYPES OF STORMWATER INFRASTRUCTURE ARE SEEN MOST OFTEN ON YOUR PROPERTIES? (CHECK ALL THAT APPLY) (N=11)**

	<b>Percent</b>
Stormwater ponds	100%
Rain gardens/infiltration basins	73%
Designated buffer of native vegetation near a wetland, pond or lake (i.e. conservation easement)	73%
Other	N/A

**FIGURE 18. WHICH OF THE FOLLOWING DO YOU FEEL GENERATES THE MOST CONFUSION FOR YOUR CLIENTS? (CHECK ALL THAT APPLY) (N=11)**

	<b>Percent</b>
Stormwater ponds	82%
Rain gardens/infiltration basins	45%
Designated buffer of native vegetation near a wetland, pond or lake (i.e., conservation easement)	27%
Other	N/A

**FIGURE 19. CONSIDER THE FOLLOWING MAINTENANCE ACTIVITIES, AND SELECT THE GROUP RESPONSIBLE FOR EACH ONE. (N=10-11)**

	<b>Property management company</b>	<b>Private contract with an outside company</b>	<b>Community residents</b>	<b>City / Township</b>	<b>Watershed district or watershed management organization</b>
Inspecting stormwater infrastructure such as ponds and rain gardens/infiltration basins (n=10)	N/A	70%	10%	10%	10%
Maintaining stormwater infrastructure such as ponds and rain gardens/infiltration basins (n=10)	10%	70%	10%	10%	N/A
Routine lawn and landscape maintenance (n=11)	9%	91%	N/A	N/A	N/A
Winter snow and ice removal (n=11)	9%	91%	N/A	N/A	N/A

**FIGURE 20. HOW SATISFIED ARE YOU WITH THE QUALITY OF MAINTENANCE COMPLETED FOR THE FOLLOWING ACTIVITIES? (N=10)**

	<b>Very satisfied</b>	<b>Satisfied</b>	<b>Not very satisfied</b>
Inspecting stormwater infrastructure such as ponds and rain gardens (n=10)	20%	70%	10%
Maintaining stormwater infrastructure such as ponds and rain gardens (n=10)	30%	60%	10%
Routine lawn and landscape maintenance (n=10)	50%	50%	N/A
Winter snow and ice removal (n=10)	50%	50%	N/A

**FIGURE 21. WHEN YOU THINK ABOUT THE LANDSCAPE OF YOUR HOA CLIENTS' COMMUNITIES, WHAT FACTORS DO YOU FEEL ARE MOST IMPORTANT TO YOUR CLIENTS? PLEASE RANK THE FOLLOWING FACTORS. (N=11)**

Factors	Level of importance, with 1 being the most important and 7 being the least important						
	1	2	3	4	5	6	7
Annual maintenance cost	<b>55%</b>	27%	N/A	18%	N/A	N/A	N/A
Long term maintenance cost	N/A	9%	27%	<b>46%</b>	18%	N/A	N/A
Functionality	9%	9%	27%	18%	36%	N/A	N/A
Aesthetics – looks good	18%	<b>46%</b>	18%	9%	9%	N/A	N/A
Easy to maintain	9%	9%	27%	9%	36%	9%	N/A
Avoids environmental harm	9%	N/A	N/A	N/A	N/A	<b>91%</b>	N/A
Webinars/Training	N/A	N/A	N/A	N/A	N/A	N/A	<b>100%</b>

**FIGURE 22. HOW CHALLENGING IS IT TO HELP YOUR CLIENTS UNDERSTAND THE NEED TO BUDGET FOR THE MAINTENANCE AND UPKEEP OF STORMWATER INFRASTRUCTURE? (N=11)**

	Percent
Very challenging	55%
Somewhat challenging	36%
Not challenging	9%

**FIGURE 23. WOULD YOU SAY THAT FOR YOUR HOA CLIENTS, MAINTAINING STORMWATER INFRASTRUCTURE IS... (N=11)**

	Percent
Not really a priority	64%
Somewhat a priority	36%
Very much a priority	0%

## All respondents

FIGURE 24. WHAT TOPICS DO YOU FEEL WOULD BE MOST BENEFICIAL FOR YOUR HOA OR FOR YOUR HOA CLIENTS? (N=63)

	Very important	Somewhat important	Not at all important
How to know what types of stormwater infrastructure are on your property and where they are located (n=63)	51%	38%	11%
How to maintain rain gardens (n=63)	32%	30%	38%
How to maintain stormwater ponds (n=63)	54%	29%	17%
How to maintain native vegetation (n=63)	46%	44%	10%
How much to budget for annual and long-term stormwater infrastructure maintenance (n=63)	49%	37%	14%
How to reduce environmental impacts of lawn and landscape maintenance (n=63)	52%	41%	6%
How to reduce environmental impacts of snow and ice removal (n=63)	49%	37%	14%
How to reduce irrigation water use (n=63)	59%	25%	16%

FIGURE 25. WHICH OF THE FOLLOWING INFORMATION FORMATS WOULD YOU FIND USEFUL? (CHECK ALL THAT APPLY) (N=63)

	Percent
Downloadable fact sheets	81%
Short how-to videos	65%
In-person training workshops	33%
Full length how-to videos or webinars	22%
Other format	10%

## Demographics

FIGURE 26. WHAT IS YOUR GENDER IDENTITY? (N=59)

	Percent
Woman	51%
Man	46%
Transgender	2%
Nonbinary	2%

FIGURE 27. WHAT IS YOUR AGE? (N=58)

	Percent
18-34	9%
35-49	16%
50-64	22%
65+	53%

**FIGURE 28. WHAT IS YOUR CITY OF RESIDENCE? (N=75)**

	<b>Percent</b>
Left response blank	20%
Albertville	1%
Andover	1%
Bayport	1%
Blaine	1%
Champlin	3%
Chisago City	1%
Coon Rapids	1%
Eagan	1%
Eden Prairie	3%
Forest Lake	5%
Lake Elmo	1%
Lakeville	4%
Lino Lakes	2%
Mahtomedi	1%
Maple Grove	1%
Marine on St Croix	2%
MW	1%
Prior Lake	1%
Rosemount	3%
Shakopee	1%
St. Louis Park	1%
St. Paul	1%
Stillwater Township	17%
Stillwater	2%
White Bear Township	1%
Woodbury	4%

**Wilder Research**

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**For more information**

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