Solid Waste Management Plan Public Engagement Findings

Summary of Comments from Round One of Public Engagement

March 19, 2024

Contents

I. EXECUTIVE SUMMARY

A. CONTEXT

Minnesota counties have a role in achieving state-defined goals for waste management, per Minn. Stat. §473.803. Dakota County began updating its current Solid Waste Management Plan after the Minnesota Pollution Control Agency released the draft Metropolitan Solid Waste Management Policy Plan (Policy Plan) in 2023. The Policy Plan provides direction and objectives for all metropolitan county plans, and also emphasizes waste prevention, reuse, and improved management of building materials and tree waste.

The county plan update began with stakeholder engagement on waste management practices, issues, barriers, and possible solutions, as summarized in this report. Engagement focused on Policy Plan directives that are new or would expand current county initiatives. Audiences included residents, businesses, schools, public entities, waste industry, and organizations in involved in food rescue, deconstruction, reuse, and tree waste. Engagement methods included virtual and in-person activities, which reached nearly 1,000 participants.
Note: Findings are not considered to be statistically representative of the audiences engaged.

Audience	Participants	Online Survey	Intercepts	Meetings
Residents	897	♦	♦	
Businesses and Schools	15	♦		
Public Entities	23	♦		♦
Waste Industry	11	♦		♦
Food Rescue	-	♦		Offered
Deconstruction	3	♦		Offered
Reuse	2	♦		Offered
Tree Waste	4	♦		Offered

B. WHAT WE HEARD FROM PARTICIPANTS

This report provides predominant findings from the first round of stakeholder engagement. Participants identified barriers and potential solutions that provide context for developing new county strategies. The following take-aways were identified across multiple stakeholder groups:

1. Recycling

- More education is desired, especially on challenging/confusing materials such as large items, plastic film, construction materials, furniture, and batteries.
- More convenient recycling options are desired for materials that can't go in curbside recycling bins (e.g., no or low cost, curbside pickup).
- Greater manufacturer responsibility is desired for products and packaging that are reusable, recyclable, and repairable, and proper labeling of packaging according to its recycling type.

2. Household Hazardous Waste

- Top opportunities for improving proper household hazardous waste (HHW) disposal include extended operating hours at the Recycling Zone, HHW facilities that are closer to residents, and enhanced education on HHW materials accepted for drop-off.

3. Waste Reduction and Reuse

- More information is desired, including options for repair, local resale and donation, sustainable purchasing, free and low-cost curbside collection, and drop off locations.

- More convenient options are desired for donating or selling furniture, electronics, and household goods.
- Activities to support reuse include swap events and sharing/renting programs for yard equipment, tools, clothing, athletic gear, and other items.
- Training could help residents and businesses repair more items.
- Model language could help businesses and municipalities develop organizational policies that allow for greater reuse.
- Businesses and schools identified food waste prevention as the biggest opportunity for waste reduction, but they need more information on prevention methods and donation options, and they have concerns about liability.
- Businesses and schools expressed concerns about permission to donate edible food and may lack the resources required to do so.
- Financial incentives and assistance could potentially help organizations increase reuse.

4. Organics Management (Food scraps)

- Residents expressed stronger interest in weekly pickup of trash, recycling, and organics, compared to weekly organics and recycling pickup with trash pickup every other week.
- Information is needed about which food scrap materials to separate for curbside organics collection.
- Concerns exist about food scraps attracting pests and creating odors.
- Municipalities need information about use of finished compost in municipal projects.
- Waste industry concerns include labor and equipment supply, increased customer costs, processing capacity, insufficient route densities, and potential contamination of recycling and organics. Co-collection of food scraps with yard waste or using durable compostable bags with existing bins were possible solutions.

5. Tree Waste Management

- More education and assistance are needed to help people understand how to manage trees, how to know if trees are diseased, and how to handle dead or dying trees.
- Costs for tree management, treatment, and removal are barriers for many participants.
- More tree waste disposal options are desired.
- Waste industry identified barriers as lack of information, insufficient storage capacity, high costs for proper management, and lack of understanding about beneficial uses.
- Tree management organizations identified barriers as limited disposal capacity, limited reuse markets, distance to disposal sites, public perceptions that diseased wood is unusable, and delayed treatments.

6. Building Material Management

- More information is desired on opportunities to use or donate reusable building materials.
- Barriers cited by municipalities, businesses, and schools include: staff time/expertise to coordinate reuse or repair broken items, inadequate storage space, low demand for materials, changing product standards and preferences, restrictive contracts, prohibitions on government donations, reliance on contractor purchasing and waste management decisions, and liability concerns.
- Barriers cited by waste industry include: lack of knowledge about which materials to separate, limited space for separating materials or additional roll-offs, generator unwillingness to separate materials on-

site, market fluctuations, and the fact that building materials currently don't count toward the state's 75 percent recycling goal.

- Primary barriers cited by construction/demolition organizations is the lack of generator knowledge about what, where, and how to recycle building materials.

II. INTRODUCTION

Minnesota counties are responsible for developing projects and programs to achieve state goals for waste management. The 2018-2038 Dakota County Solid Waste Master Plan (County Plan) defined Dakota County's plan for managing solid waste and its role in supporting proper waste management by residents, businesses, industry, and government to meet County and State waste management goals.

The Minnesota Pollution Control Agency's (MPCA) Metropolitan Solid Waste Management Policy Plan (Policy Plan) provides the framework for solid waste management in the Metropolitan Area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties). State law (Minn. Stat. §473.149) directs the MPCA to revise their Policy Plan every six years. Dakota County is required to submit a revised solid waste management plan that follows Policy Plan waste policies and diversion objectives to the MPCA within nine months of the state's adoption of their revised Policy Plan (Minn. Stat. §473.803).

The MPCA released a draft Policy Plan in June 2023. The draft plan provides direction and objectives for each level of the waste management hierarchy (waste reduction, reuse, recycling, organics management, waste to energy, and landfilling), which must be incorporated into county waste management plans. The draft 2023 Policy Plan additionally emphasizes sustainable building waste management, tree waste management, and expanded prevention (waste reduction and reuse).

III. ENGAGEMENT PURPOSE

Dakota County initiated its 2024-2044 plan update by developing a broadly-based stakeholder engagement plan. The first round of engagement sought to identify issues, barriers, possible solutions, and implementation needs related to concepts in the draft 2023 State Policy Plan. Engagement focused on draft Policy Plan polices that are new or expanded from current county educational, financial, and regulatory initiatives. This report summarizes the key findings from the County's engagement efforts, which will be used in developing a comprehensive package of strategies for the updated County plan. A second round of stakeholder engagement will evaluate public response to the draft strategy package.

IV. ENGAGEMENT APPROACHES

A. TOPICS BY AUDIENCE

Primary audiences engaged in the first round included Dakota County residents, businesses and schools, public entities, and waste management industry representatives. New emphasis areas in the Policy Plan required engagement of new audiences including organizations involved in food rescue, deconstruction, reuse, and tree waste. The following matrix identifies which waste plan topics were addressed with each audience.

Waste Plan Topics	Residents	Businesses and Schools	Public Entities	Waste Industry	Food Rescue Organizations	Deconstruction Businesses	Reuse Organizations	Tree Waste Companies
Recycling	X	X	X	X				
Household Hazardous Waste	X							

Waste Reduction and Reuse	X	X	X	X			X	
Organics (Food Scrap) Management	X	X	X	X	X			
Tree Waste Management	X	X	X	X				X
Building Material Management	X	X	X	X		X		
Sustainable Purchasing		X	X					

B. OUTREACH METHODS BY AUDIENCE

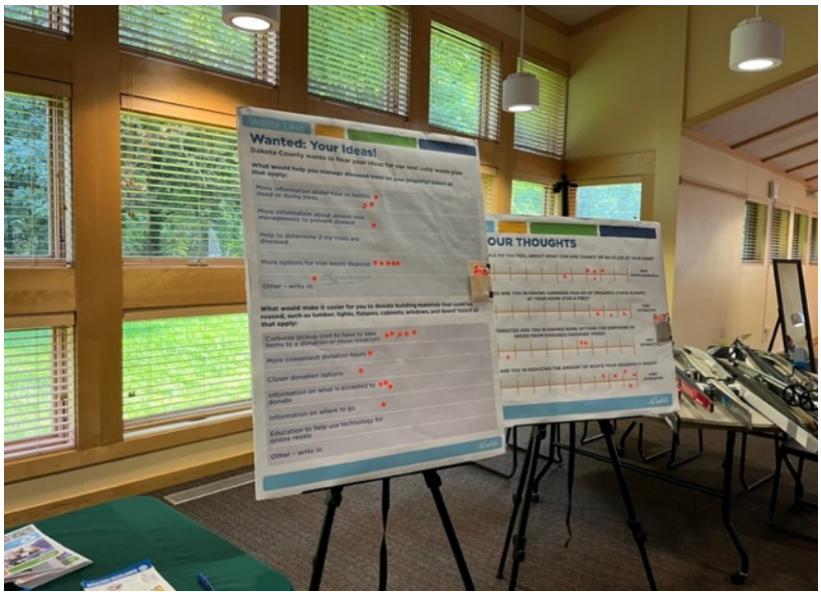
Surveys: A non-scientific online survey was prepared for each of the eight audiences, focused on the 2023 draft Policy Plan priorities. The intent of the surveys was to learn more about current practices related to specific waste management topics, such as recycling, as well as perceived barriers to and opportunities for enhancing proper waste management. Surveys included multiple choice and open-ended response questions. Surveys were open from early September to mid-October (six weeks) and promoted through a variety of communication avenues, such as County social media, E-news, and direct email messages. Because the surveys were not random-sampled scientific surveys, the findings cannot be considered representative of the audience populations as a whole.

Meetings: Facilitated meetings were offered to all audiences with the exception of residents. Meetings were held with members of the waste industry (waste haulers and solid waste facilities), and with public entities (city managers and staff).

Waste Industry Meeting: October 11, 2023, Western Service Center - group and break-out discussions

Public Entities meeting: October 5, 2023, virtual - instant polling with facilitated discussions

Intercepts: The project team hosted tables at the Burnsville Farmers Market (September 21, 2023, picture 1) and the Dakota County Parks Outdoor Gear Swap (September 25, 2023, picture 2). Staffed tables provided opportunities for event visitors to ask questions, share their interests and opinions on interactive "dot boards," and access the county residential survey in multiple languages. Unstaffed interactive displays (dot boards) were placed at Dakota County libraries in Burnsville, Inver Grove Heights, and West St. Paul, with simple multiple choice and rating questions and a supply of sticky dots. Library boards were in place for approximately ten days.



Outreach Promotion:

Residents: The survey was posted online and promoted through the project webpage, in-person intercept events, residential environmental newsletter, Recycling Ambassador e-news, Organics Drop-off Program e-news, Spanish advertisement in La Voz, and emails to East African Healing Services, HACER and Neighbors, Inc. Surveys were available in English, Spanish, Russian and Somali.

Businesses and Schools: The survey was posted online and distributed via email to 71 schools, multifamily properties, businesses, chambers of commerce regional and all local chambers), trade associations (i.e., BOMA, Hospitality MN, Care Providers of MN, MN Grocers Association). The survey was also promoted through the County's Business E-news (more than 300 subscribers), Multifamily Property Manager E-news, Dakota County's School Contacts List, and area Chambers of Commerce.

Public Entities: The survey and meeting invitations were provided to all 34 municipalities in the County.

Waste Industry: The survey and meeting invitations were provided to 114 waste facilities and haulers licensed in Dakota county, including MSW and non-MSW organizations and landfills, transfer stations, materials recovery facilities, and organics management facilities.

Specialty Groups: The survey and meeting invitations were provided to 19 Food Rescue organizations (food banks, food shelves, and food recovery groups), 14 Deconstruction and Salvage organizations, 103 Reuse organizations, and 14 Tree Management organizations (landscape, arborist, mulch, and compost operations).

C. PARTICIPATION RESULTS

The following table shows the numbers of people reached for each primary audience (blue), the engagement methods used (pink), and tools used to promote the plan update and encourage participation (orange).

Audience	Number Participating	Online Survey	Intercepts	Meetings	Newsletters, Emails	Social Media	Project Webpage
Residents	897	♦	♦		♦	♦	♦
Businesses and Schools	15	♦			♦		♦
Public Entities	23	♦		♦	♦		♦
Waste Industry	11	♦		♦	♦		♦
Food Rescue	-	♦		Offered	♦		♦
Deconstruction	3	♦		Offered	♦		♦
Reuse	2	♦		Offered	♦		♦
Tree Waste	4	♦		Offered	♦		♦

Because of the methods used (e.g., an online survey instead of a scientific random-sampled survey), the findings are not assumed to be representative of any audience as a whole. In addition, several online surveys had relatively low participation rates.

V. SUMMARY OF FINDINGS

A. RECYCLING

Minn. Stat. § 115A.551, Metropolitan counties are held to reaching a 75 percent overall recycling rate goal by 2030, including traditional materials (paper, plastic, glass, and metal) and organics (food scraps). Dakota County's last reported overall recycling and organics rate was 55 percent in 2022. Although Dakota County's most recent solid waste ordinance update requires recycling of designated materials by residents and commercial businesses (e.g., schools, municipalities, multi-family properties) and responsibilities by haulers

(e.g., weekly residential recycling collection, education to customers), time will be needed to fully realize the benefits of the policies.

Survey questions helped identify barriers and potential solutions to increase recycling.

1. Engagement Findings

Residents

The majority (666 out of 673) survey respondents recycle at home (99 percent), with 660 out of 673 (98 percent) stating that they recycle always or most of the time. Nearly all (98 to 99 percent) respondents recycle cardboard (663), plastic (661), metal (658), paper (656), and glass (654).

Question: For your household, what are the most challenging items to recycle or dispose of properly? (open-ended question)

Table 1 Most Difficult Materials to Recycle

Most Difficult Materials to Recycle (common themes identified)	**Count**	**Percent**
Molded plastics, including #4, black, produce trays, unlabeled, take-out, cups-lids-straws, plastic planters and pots, garden hoses	225	39%
Plastic film including bags and multilayer packaging	102	17%
Organics, food scraps, food, meat	62	11%
Styrofoam, shipping-packaging materials	53	10%
Batteries	53	9%
Electronics, cords	48	8%
Worn out clothing, textiles, shoes that aren't suitable for donation or reuse	35	6%

N=583

Other difficult-to-recycle materials included appliances, furniture, and mattresses (2 to 3 percent).

Question: What prevents you from recycling or properly disposing of more of these challenging items? (open-ended question)

Reasons for Not Recycling Challenging Materials (common themes identified)	**Count**	**Percent**
Knowing what can be recycled, how/where to do it, inconsistent info	191	35%
Materials are not recyclable, no options	115	21%
Having to drive to drop-off, lifting items, don't have trailer	101	18%
Distance to recyclers, hours, access	52	10%
Overall amount of effort, inconvenience	45	8%
Cost	36	7%
Time and effort to clean containers, not sure what to do with contents	36	7%
Having to temporarily store items until drop off	32	6%
Lack of pick-up service	31	6%

N=547

Additional reasons included fear of contaminating recycling batches or being charged for a wrong decision, having to use too many different methods to manage recycling, and a lack of belief that the materials are actually recycled.

Question: What would help you to properly recycle or dispose of these challenging items? (open-ended question)

Opportunities to Improve Recycling (common themes identified)	**Count**	**Percent**

Better education: communication, promotion, container labeling	134	27%
Curbside pickup: more items, large items	118	24%
More drop-offs in convenient locations, better hours	98	20%
Options for "unrecyclables:" all plastics, styrofoam, dirty cardboard, etc.	62	13%
Producer stewardship: less packaging, recyclable packaging, clear recycling labeling	52	11%
Reduced costs: free drop off, free pickup, incentives, no charge for large recycle bin	24	5%

N=492

Businesses and Schools

Survey respondents represented school districts, multifamily housing, health care, technical services, retail, and other businesses entities. With 15 responses, survey participation was less than anticipated. Just over half of respondents stated that recycling was a high priority (53 percent, 8 of 15 respondents). Nearly all said that they recycle paper (14 of 15), cardboard (15 of 15), plastic containers (14 of 15), glass containers (13 of 15), and metal cans (14 of 15). Nearly all also stated that their organization provides employees with information on what, where, and how to recycle in the workplace (14 out of 15). Half of respondents (8 out of 15) noted that there were opportunities to improve recycling of paper, cardboard, plastic, cartons, metals and glass in their organization.

Question: For your organization, what are the most challenging items to recycle or avoid putting in the trash? (open-ended question)

Challenging Materials to Recycle - Individual Responses

- Yard waste and construction materials
- Plastic food containers
- Large items of non-recycle materials from job sites
- Furniture items, unwanted medical equipment
- Residents who do not care about recycling constantly causing us to receive contamination charges from the waste hauler. Residents regularly dispose of non-recycling materials in recycling containers.
- How to help students sort their lunches correctly.
- Batteries
- We aren't staffed to support a high-functioning recycling program
- We are a school and have to package certain lunch options for students in plastic containers. The tops are clear and recyclable but the bottom is black plastic and goes in the landfill. Additionally, we have compostable silverware but without a composting program, they go in the landfill.
- All materials. No one is training students to recycle and compost.

Question: What prevents your organization from recycling or finding alternatives to disposing of more of these challenging items in the trash? (open-ended question)

Barriers – Individual Responses

Six responses to this question identified the following issues:

- Coop members want someone else to find a place for unwanted items
- Lack of appropriate transportation
- Employees who don't want to wash out containers to recycle them
- Items are not recyclable
- Lack of assistance and clear signage for recycling dumpster from hauler. Hauler has substantial charges for contaminated recycling dumpster.

Question: What would help your organization to recycle or find alternatives to disposing of these challenging items in the trash? (open-ended question)

Solutions – Individual Responses
Seven individuals had the following ideas to improve recycling:

- Pick up of more materials
- Install a sink in the break room (assumed to be for cleaning recyclable containers)
- More information or consulting assistance on alternatives for placing these items, e.g., where could our residents dispose of these items
- More drop off locations
- Resources allocated to support recycling
- A composting program
- The fine for not recycling in the county has to be more than the contamination fine from the hauler. The admin has said that the hauler charges money for contamination, so they stopped recycling. The school does not have an economic incentive to train staff and students to recycle.

Eleven of the 15 survey respondents indicated that their organization previously has partnered with Dakota County on waste matters. Several offered suggestions for future partnerships:

Suggestions for Future Partnerships, summarized

- Education and communications on recycling
- Assistance with checking compliance

Public Entities

Public entities participated in an online survey and a virtual meeting to discuss current waste management practices, barriers and solutions, and priority draft Policy Plan topics. The 7 survey responses were provided by staff from the cities of Burnsville, Empire, Farmington, Lakeville, and Mendota. The virtual meeting included 20 participants from the following 12 municipalities: Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul.

Survey Findings

From the survey (7 respondents), 86 percent (6 of 7) offer recycling at city public events and at city parks and 71 percent (5 of 7) offer recycling in city buildings and public space including downtown areas.

Question: Which of the following items does your municipality currently recycle? (multiple choice, select all that apply)

All respondents stated that they routinely recycle paper, cardboard, cartons, glass, metal, and plastics.

Question: What items that your municipal operations generate are the most difficult to recycle or dispose of properly? (multiple choice, select top three)

Building/construction materials (6 of 7) and office supplies and furniture (5 of 7) were identified as the top materials that are most difficult to recycle or dispose of properly.

Barriers, summarized
Challenges that prevent their organization from recycling include:

- Additional staff time required for recycling (5 of 7)
- Lack of space to store materials before recycling (4 of 7)
- Costs to recycle (3 of 7)
- Not sure how to recycle items (2 of 7)
- Too difficult to recycle (2 of 7)

Solutions, summarized

To overcome these challenges, four respondents identified the following solutions:

- Current information on how to deal with waste (1)
- Direction on where to recycle specific non-traditional recyclables (1)
- Having clear outlets and processes to best dispose of items (1)
- I am not sure how to make people put trash in the trash and recycling in the recycling (1)

Suggestions for Future Partnerships (four individual responses)

- Continue to promote and implement strategies. (1)
- Continue collaborating in the Community Waste Abatement Program. Research organized collection methods to increase recycling and create an effective curbside organics program. (1)
- Participate in other cities events. (1)
- Offer county staff time and expertise to help carry out these goals. (1)

Virtual Meeting Findings

The online meeting hosted discussion with 20 representatives of Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul. General points from the discussion included:

- Incentives for many of the draft policies can ease implementation.
- Education on new or changed policies will be critical to their implementation and success.
- Many municipalities would need additional implementation resources (staff, time, and/or money).

Waste Industry

Waste industry representatives participated in an online survey (3 responses) and an in-person meeting (9 participants out of 135 out of invited).

Barriers, summarized

Meeting participants offered the following comments on a range of recycling-related topics:

- Pre-processing (removal of recyclables from trash at a waste facility):
  - The Minnesota Pollution Control Agency is advocating this and needs to provide a better definition of what it includes, including intended priority materials to target.
  - Many waste facilities (transfer stations, landfills) lack sufficient space for proper sorting which could impact the safety of working staff.
  - At landfills - Items will be contaminated by that point in the process, reducing value of recovered materials.
  - Cost of new equipment to help with sorting is a barrier.
- Labor shortages are a barrier for the enhanced collection strategies. The waste industry is no exception to the general labor shortage among the trades.
- "Wishcycling" is an ongoing problem. People place non-recyclable materials in their recycling bins hoping they are actually recyclable when, in fact, they require additional management to avoid contamination.
- Extended Producer Responsibility and container deposit initiatives implemented elsewhere in the U.S. raised concerns that haulers would not be able to recover their costs in some of the program models.

Solutions, summarized

Participants suggested the following solutions:

- Greater pressure should be placed on manufacturers to use recyclable/sustainable packaging.

From the survey, two of the three waste industry respondents selected the response "bulky materials (e.g., mattresses and carpeting)" as items that generate the most inquiries from their customers. Similarly, batteries and electronics were cited as materials causing the most contamination and management concerns.

2. KEY POINTS

Points of Agreement

- Contamination of recycling streams is a shared concern across audiences.
- All audiences cite the need for increased and consistent education on what and how to recycle, including materials that don't go in curbside recycling bins.
- Audiences agree on the need for greater product stewardship and see manufacturers as responsible for using readily recyclable materials in products and packaging and properly labeling their products related to their recycling type.

Diverging Opinions

- Residents frequently cited curbside pickup of more items (e.g., periodic pickup of bulky items) as a solution to improve their management of waste. Waste hauler meeting participants expressed general support for material reuse and waste reduction, such as curbside pickups, but also expressed some uncertainty of how waste haulers can play a role.

B. HOUSEHOLD HAZARDOUS WASTE (HHW)

Dakota County currently operates The Recycling Zone, a HHW and recycling drop-off facility in Eagan. Dakota County is working in partnership with Scott County to develop a shared drop site that will supplement each county's existing site. Engagement efforts focused on how to increase proper management of HHW.

1. Engagement Findings

Residents

Residents participating in the online survey were the only audience asked about HHW issues and opportunities. Residents identified a need for better education on proper disposal of batteries, especially lithium ion batteries. The majority of respondents (86 percent, 578 out of 673 responses) indicated they have taken HHW materials to The Recycling Zone.

Question: What barriers do you have for taking household hazardous materials to The Recycling Zone? (Select all that apply)

Barriers to Use of The Recycling Zone (multiple choice)	**Number**	**Percent**
I don't know what I can drop off at the facility	29	32%
I don't produce household hazardous waste	29	32%
Didn't know the facility existed	25	27%
Facility is located too far away	18	20%
Facility hours are too limited	12	13%

N=91

Question: What would encourage you to drop off more household hazardous materials for proper disposal at The Recycling Zone? (Select all that apply)

Actions to Increase Use of The Recycling Zone (multiple choice)	**Number**	**Percent**
Extended hours	273	46%
Located closer to my home	268	45%
More education on what can be dropped off at the facility	255	43%

N=598

To a lesser extent, respondents also said that curbside pickup, more local drop off events and financial incentives would help them properly recycle HHW.

2. Key Points

Residential survey participants identified there is opportunity to increase proper management of HHW. The top opportunities for improving proper HHW disposal included 1) hours that better match their needs, 2) closer drop sites, and 3) enhanced education on accepted materials.

C. WASTE REDUCTION AND REUSE

Waste reduction and reuse are environmentally preferred methods at the top of the waste management hierarchy, but they can be difficult to document. The draft Policy Plan emphasized food waste prevention and rescue of edible food due to the prevalence of food waste in the U.S (estimated at 40 percent) and the environmental impacts of wasting food (e.g., land use, water and other resource consumption, and greenhouse gas emissions). Dakota County reached out to food rescue organizations, businesses, and schools on food waste prevention. For comments on managing food that does become waste, please refer to Section D., Organics Management.

Dakota County currently provides education, grant funding and resources to businesses entities (schools, businesses, municipalities) to implement waste reduction and reuse in their operations, including food waste prevention. Other initiatives include providing information and grant funding to support reuse (e.g., community swaps) and providing waste prevention activities (e.g., Fix-it clinics, swaps) in the community.

General waste reduction approaches discussed with audiences focused on repairing, sharing, and donating items that could be reused by others (most audiences) and sustainable purchasing (public entities). Comments on reuse of building materials are presented in section F., Building Materials Management.

1. Engagement Findings

Residents

Most survey respondents stated that it is extremely or very important to reduce waste at home (91 percent, of 620 respondents). Many respondents have participated in donation, purchase, and sale of used items, as shown in the following table.

Question: In the last year, have you participated in any of the following reuse activities? (all that apply)

Reuse Activities in the Past Year (multiple choice)	**Number**	**Percent**
Donated an item for reuse	643	96%
Reused an item that someone else gave to me	531	79%
Shared an item with someone else so they could avoid purchasing something new	484	72%
Purchased an item from a thrift store or reuse organization	449	67%
Borrowed an item instead of purchasing it	428	64%

N=673

Question: What challenges have you experienced with donating or selling reusable clothing and household items? (Select all that apply)

Challenges to Donation and Reuse (multiple choice)	**Number**	**Percent**
Haven't experienced any challenges	347	54%
Not sure what is accepted for donation	173	27%
Donation hours are inconvenient	66	10%
Not sure where to go	59	9%
Distance from the donation site	56	9%
Lacking a vehicle or transportation to take items to a donation or reuse location	39	6%
I don't understand the technology needed to participate in online donation or resale	31	5%

N=637

Question: What would help you to participate in more reuse activities to reduce the amount of trash created? (Select all that apply)

Services to Promote Reuse and Waste Reduction (multiple choice)	**Number**	**Percent**
Curbside collection of materials for reuse	484	81%
More education about local options for repair, donation, or resale	349	58%
More education about activities to reduce waste	228	38%
Training about how to repair common household items	197	33%

N=600

Additional suggestions included regulatory approaches (e.g., mandatory product stewardship initiatives for manufacturers, bans on disposal), financial incentives, developing more recycling markets for non-recyclable materials (e.g., Styrofoam, textiles), and venues for town "swap" events.

Question: What types of materials would you like to see more opportunities for donating or selling locally? (Select all that apply)

Items Residents Would Like More Opportunities for Selling or Donating (multiple choice)	**Number**	**Percent**
Building materials	325	58%
Furniture	268	47%
Electronics	251	45%
Household goods	208	37%

N=565

Question: What types of household items would you support sharing with or borrowing from others in your community? (Select all that apply)

Roughly 70 percent of 633 respondents expressed interest in programs for sharing or borrowing equipment from others in the community. The top items include:

Items for Sharing/Borrowing within Community (multiple choice)	**Number**	**Percent**
Yard and garden tools	346	55%
Tools for household repairs	290	46%
Carpentry/woodworking items	272	43%
Crafting tools and supplies	169	26%

N=633

Businesses and Schools

Reducing waste is a high priority for about half of the 15 online survey respondents. All reported that their organization participated in reuse activities (e.g., reuse, donation, repairs, borrowing, renting) in the past year. Two-thirds reported that they a) reused materials within their own organization and b) repaired items to avoid purchasing new versions. Respondents would like more reuse opportunities for furniture (1), medical equipment (1), and appliances (1). More than half of respondents promote sustainable purchasing.

Respondents identified challenges to and solutions for reuse/waste reduction, edible food donation, and sustainable purchasing.

General Reuse and Waste Reduction

Question: What challenges has your organization experienced with repairing, donating, or selling reusable items? (Select all that apply)

Challenges to Reuse (multiple choice)	**Count**	**Percent**
Limited staff time for repairing, donating, or selling reusable items	11	73%

Challenges to Reuse (multiple choice)	**Count**	**Percent**
Prohibitive policies	4	27%
Lack of storage space	3	20%
Lack of information on where/how to donate items	3	20%
Lack of a vehicle for transporting items	3	20%

N=15

Question: What ideas do you have to reduce the amount of trash in Dakota County, including and beyond your organization? (Open-ended, results summarized)

- Federal policy to reduce plastic bag use (1)
- Annual countywide free bulk pickup (1)
- Partnerships with Dakota County on waste reduction education and communication (1)
- Hold schools accountable. Need more enforcement and incentives (1)

Sustainable Purchasing

Question: What prevents your organization from making more sustainable purchases? (Open-ended, results summarized)

- Cost (2)
- Lack of staff concern (1)
- Lack of sustainable alternatives to needed products (1)
- Lack of supportive policies (1)

Question: What ideas do you have to increase more sustainable purchasing in Dakota County, including and beyond your organization? (Open-ended, results summarized)

- Education on sustainable purchasing (1)
- Impose a county tax on unsustainable purchases to make sustainable purchasing more competitive (1)

Food Waste Prevention

Roughly half (seven) of the respondents to the online survey indicated that their organization serves food, and one-third respondents indicated that separation and management of food scraps is one of the greatest opportunities for managing waste more sustainably.

Question: What prevents your organization from donating unneeded but still edible food? (Select all that apply)

Challenges to Food Donation (multiple choice)	**Count**	**Percent**
Organizational policy concerns about food donation	3	43%
Don't have unneeded edible food for donation	1	14%
Lack of staff time/resources for donation	1	14%
Not allowed per rules	1	14%

N=7

Question: What would encourage your organization to donate more edible food? (Select all that apply)

Encouraging Food Donation (multiple choice)	**Count**	**Percent**
Information about liability protections	2	28%
Not applicable to our organization	2	28%
Education/awareness about food donation options	1	14%
Convenient pick-up/drop-off options for donation of food	1	14%

N=7

Public Entities:

Public entity staff shared current practices and thoughts on reduction and reuse through the online survey and virtual meeting. Seven survey responses were provided by staff from Burnsville, Empire, Farmington, Lakeville, and Mendota. The virtual meeting included 20 participants from Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul.

Public Entity Survey Findings:

Three of the 7 survey respondents indicated that they have been involved in repair and reuse activities.

Question: What municipality-owned items do you currently repair, donate and/or sell? (Select all that apply)

Items Repaired, Donated, or Sold (multiple choice)	**Count**	**Percent**
Electronic equipment	3	43%
Office furniture	3	43%
Park equipment	2	29%
Tools	1	14%
Fixtures	1	14%

N=7

Question: What prevents you from repairing, donating, or selling usable items in good condition? (all that apply)

Barriers to Repairing, Donation and Selling Items	**Count**	**Percent**
Municipal policies prohibit/prevent such activities	4	57%
Lack of staff time or expertise to repair items	4	57%
Additional staff time required for such activities	4	57%
Concerns/policies related to potential liability for such activities	1	14%

N=7

Question: What ideas do you have to increase reuse, repair, donation, or sale of municipality-owned items that are in good condition? (Open-ended)

Ideas to Increase Repairing, Donation and Selling Items	**Count**	**Percent**
Alter state policy for flexibility in what can be donated and how	1	14%
Connect municipalities to organizations that repair, purchase, or accept items as donation	1	14%
Selling materials at an auction	1	14%

N=7

Question: Does your municipality have a sustainable purchasing policy?

Three respondents have a sustainable purchasing policy, although nearly half see an opportunity to sustainably purchase office supplies and office equipment and replace purchase of single-use disposable service ware.

Primary barriers to more sustainable purchasing include increased cost (3), lack of knowledge about how to purchase sustainable products (4), and to a lesser extent, lack of policy (1) and a lack of available sustainable alternatives (1). Suggestions to increase sustainable purchasing include increased awareness, additional information resources, and assistance in developing specifications and resource lists of sustainable options.

Question: Does your municipality promote food donation operations or food rescue organizations in your community? (Open-ended)

Three respondents reported that their municipality promotes food rescue options.

Question: What are the top seven Policy Plan strategies that should be considered by the County to increase reuse in your community? (Multiple choice, up to seven)

Policy Plan Reuse Strategy	Count	Percent
Promote existing free and low-cost curbside collections by reuse organizations.	6	86%
Offer grants to encourage waste reduction and reuse practices.	6	86%
Host swap events for clothing, athletic gear, gardening tools or other items.	5	71%
Promote reusables and dishware at city events.	5	71%
Educate the public on donation options.	4	57%
Educate the public on selling items.	4	57%
Develop share libraries for residents to share or rent items (e.g., gardening tools, household tools).	4	57%
Increase locations for drop off or pickup of reusable items.	4	57%

N=7

One respondent suggested federal or state laws that 1) reduce single-use plastics and 2) require manufacturers/producers to make their packing more sustainable (extended product stewardship).

Survey participants also considered how their municipality might partner with Dakota County on community waste reduction and reuse:

Question: In what ways might your municipality partner with the County to accomplish this? (open-ended, results summarized)

- Continue to promote and implement partnerships (1)
- Continue collaborating on the Community Waste Abatement grant program (1)
- Continue hosting and promoting swap events (1)
- Work with event coordinators and vendors to encourage reusable service ware (1)
- Participate in other cities' events (1)
- Offer County staff time and expertise to help carry out new waste management goals (1)

Public Entity Virtual Meeting Findings:

The virtual meeting included 20 participants from the following 12 municipalities: Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul, who further explored two reduction and reuse concepts in the 2023 draft Policy Plan:

1. **Draft Policy Plan strategy: Use of reusable service ware at municipal public events**

   Barriers, summarized
   - Cost
   - Lack of storage and dishwashing equipment
   - Potential disease concerns
   - Potential lack of public and vendor understanding

   Solutions, summarized
   - Grants or subsidies from the county
   - Sustainability fees added to event purchases
   - Potential penalties to those who don't participate

2. **Draft Policy Plan strategy: Adoption of an ordinance with a mandatory consumer charge for take-out single-use cups, containers, and utensils**

Barriers, summarized

- Cost for consumers
- Unintended negative impact on vulnerable populations
- Impacts to business and economic development
- Lack of information on success elsewhere
- Public and business objections

Solutions, summarized

- Modifying the policy
- Business tax breaks
- Offering incentives for reuse
- Adding costs for single use items
- Grants
- Education

Waste Industry

Waste industry representatives participating in the meeting were generally supportive of waste reduction and reuse initiatives but expressed uncertainty about how they could provide a direct role. Haulers expressed concerns about having to separately collect additional materials for reuse purposes.

Reuse Organizations

Participation in the online survey was limited (two responses). The following actions were suggested for County consideration to reduce waste in the community.

- More promotion of and collaboration with existing reuse organizations
- Greater educational emphasis on repairing items, recognizing that qualified repair technicians are in demand
- More emphasis by manufacturers on creating durable products that can be repaired, with better availability of repair parts
- Bring trades back into the high schools. Teach kids skills that they can use.

2. Key Points

Most audiences identified a need for intermediary services to facilitate waste reduction and reuse opportunities, whether provided by the public, private, or non-profit sectors. These intermediary services could include a variety of roles (e.g., education, promotion, hosting, coordination, technical assistance, and financial incentives), summarized below:

- Provide education on reuse and reduction opportunities, including how to purchase more sustainably.
- Provide education and training to assist residents and businesses with repairing items.
- Provide education on food donation options, how to address food donation liability concerns, and make the pick-up or drop-off process easier.
- Provide technical assistance with drafting organizational policies that allow for greater reuse.
- Promote existing free and low-cost curbside collections by reuse organizations.
- Promote reusable dishware at city events.
- Host swap events for clothing, athletic gear, gardening tools, and other items.

- Facilitate or develop share libraries for residents to share or rent items (e.g., tools).
- Increase locations for residential drop off or pickup of reusable items.
- Make reuse easier with collection of reusable goods, such as curbside collection of reusable goods, transportation assistance.
- Provide incentives, tax breaks for the Policy Plan single-use mandate, and financial assistance to help transition existing business systems to greater reuse.
- Advocate/develop stronger markets for reusable items.
- Advocate for manufacturers to be responsible for managing the products they produce (product stewardship), including for better quality items that have longer lifespans and can be repaired instead of being discarded.

D. ORGANICS (FOOD SCRAP) MANAGEMENT

As noted in the previous section, roughly 40 percent of food in the U.S. is wasted. Organic materials, including food, account for one quarter of Minnesota's waste stream. The draft Policy Plan includes a strategy for curbside organics recycling in municipalities over 5,000 in population.

Dakota County's current initiatives primarily focus on providing drop off sites for residential food scraps and implementing requirements for large commercial generators to collect back-of-house food scraps and send them to an industrial compost facility.

Residents, businesses, schools, public entities, and waste industry representatives were asked about their current practices for organics management and thoughts about adding options for curbside collection of food scraps for residents.

1. Engagement Findings

Residents

More than half of the online survey respondents (360 out of 673) report they have dropped off food scraps at a county-operated drop site and about 25 percent (167 out of 673) report that they have composted food scraps in their yards.

Question: What concerns or ideas do you have about possible future curbside pickup of food scraps for composting? (Open-ended)

Concerns About Curbside Organics (common themes identified)	**Responses**	**Percentage**
Attracting Pests – rodents and other animals, insects	124	35%
Unpleasant smell	103	29%
Collection frequency (weekly, not biweekly), options for storing scraps	73	20%
Cost	54	15%
Need for education on what is compostable, uses for compost	40	11%
Trucks - emissions, traffic, road wear	28	8%

N=354

Question: Which options would help you to separate food scraps for curbside collection if the service becomes available? (Select all that apply)

What Would Encourage Separation of Organics/Food Scraps (multiple choice)	**Responses**	**Percentage**
Weekly pickup of trash, recycling, and organics	386	57%
Education on acceptable materials	251	37%
Weekly pickup of recycling and organics, biweekly trash pickup	243	36%

What Would Encourage Separation of Organics/Food Scraps (multiple choice)	**Responses**	**Percentage**
Nothing	95	14%

N=673

Frequency of curbside pickup was identified as the most important element, with a stronger preference for weekly pickup of trash, recycling, and organics over weekly organics and recycling collection paired with biweekly (every other week) trash collection. Survey respondents identified education on acceptable materials as the second most important element to encourage them to separate their food scraps. Although it was a limited sampling, the interactive displays ("dot boards") placed at libraries and other locations also indicated greater support for weekly pickup of trash, recycling, and organics over weekly pickup of organics and recycling paired with bi-weekly trash pickup.

Businesses and Schools

Question: Where is the greatest opportunity for managing waste more sustainably?

Roughly half (7 out of 15) of the respondents to the online survey indicated that their organization serves food, and one-third (5 out of 15) respondents thought that separation and management of food scraps is one of the greatest opportunities for managing waste more sustainably.

Public Entities

Seven survey responses were provided by staff from the cities of Burnsville, Empire, Farmington, Lakeville, and Mendota. The virtual meeting included 20 participants from the following 12 municipalities: Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul.

Public Entities Survey Findings on Organics Collection and Compost:

Two of the 7 municipalities responding to the online survey indicate that they always separate food scraps for organics collection and four indicate that they sometimes separate food scraps. Survey respondents were asked what they thought would be barriers for residential curbside organics collection and to consider ways to encourage resident participation in organics separation.

Question: What are major barriers to curbside collection of organics for residents? (open-ended)

Barriers to Curbside Collection of Organics (common themes identified)	**Number**	**Percentage**
Possible increased contamination	4	80%
Too expensive for homeowners (open-hauling cities)	3	60%
Too confusing for people/resistance	2	40%
No staff/trucks/capacity for haulers to add	2	40%
Too many trucks on roadways burning fossil fuels and road wear and tear	2	40%
No space for bins	1	20%
Access to rural areas	1	20%
Who will handle and pay for it	1	20%

N=5

Question: What do you think would be effective in encouraging residents to participate in collection of organics if curbside organics (food scraps) collection were to become available? (Select all that apply)

Effective Methods to Encourage Participation in Curbside Organics (multiple choice)	**Number**	**Percent**
Information on the benefits of composting rather than landfilling organic waste	6	100%
Appropriately sized curbside collection containers for organics	5	83%

Effective Methods to Encourage Participation in Curbside Organics (multiple choice)	**Number**	**Percent**
Information on how to separate organics	5	83%
Information about odors, pests, and collection issues	5	83%
Receiving a smaller trash container (costs less than larger container)	4	80%
Weekly pickup of organics	3	50%
Zoned areas for hauler collection routes to reduce truck traffic	2	33%
Free resources like compostable bags and possibly kitchen containers	1	17%

N=6

Question: What are major barriers to biweekly trash with weekly recycling and organics for residents? (Open-ended, based on Policy Plan strategy)

Barriers to Biweekly Trash - Weekly Organics/Recycling (common themes identified)	**Count**	**Percentage**
Difficult for large families or home businesses who may produce more trash, households with diapers need weekly trash	2	40%
Too much wish recycling would occur	2	40%
Odor, perception of stinky trash bin	2	40%
Maybe less road wear and tear, but really just keeping it near current equal impact	1	20%
Haulers won't drop prices--residents will still be paying the same or more	1	20%
Overflow trash will end up in recycling or organics	1	20%
Every week collections on both recycling and garbage works	1	20%
Resident education needed	1	20%

N=5

Question: What are your municipality's practices regarding use of compost in projects? (Select all that apply)

Use of Compost in Municipal Projects (multiple choice)	**Count**	**Percentage**
Stormwater management projects	3	50%
City landscaping projects	3	50%
We need more information on the costs and benefits of compost use for city projects	3	50%
City road projects	2	33%

N=6

Additional comment: We use in city garden plots. Material is sometimes too nutrient dense, will not use in natural areas like ponds or buffers.

Solutions for Use of Finished Compost

Survey participants suggested providing free or discounted compost to residents (1), providing education on the benefits and using compost in appropriate areas (1).

Public Entities Virtual Meeting Findings:

The virtual meeting included 20 participants from the following 12 municipalities: Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul. In discussing curbside organics collection and considering potential perspectives of their residents, 20 virtual meeting participants discussed potential barriers and solutions.

Barriers to Residential Organics Collection, summarized

- Added cost for customers (4)
- Lack of staff or services (2)
- Odors and complaints (2)

- Public interest and understanding (1)
- Sufficient route density in rural areas (1)
- Road wear and tear with additional trucks (1)
- Hauler capacity and/or willingness to add this service (1)
- Contamination issues (especially with bi-weekly trash pickup and trash containers fill) (1)
- Confusion (with bi-weekly trash pickup) (1)
- Appropriately sized containers that will work for residents and haulers (1)
- Staff responsibilities for education (1)
- Raccoons (1)

Solutions for Residential Organics Collection, summarized

- Contract for hauling (City, County, or private haulers) (2)
- Find a way that existing hauler with existing trucks can pick up organics without adding another truck, e.g., have scraps in special bags in recycling and separate at recycling center (2)
- Incentivize participation (1)
- Add to existing haulers' responsibility/route (1)
- Keep/offer drop-off points instead of curbside collection. People generally like them. (1)
- "Everyone Pays" program like Minneapolis (1)
- Funding for staff (1)
- Education for residents (1)
- Free composting bins for attending a learn to compost program (1)
- Have restaurants compost their organic waste first (1)
- Supply more bin sizes (1)
- Use technology to remind people when pickup is (an app?) (1)
- Lower the cost for biweekly trash pickup (1)
- Don't make it required – those who are actually going to do it will participate (1)
- Sell the idea with reduced truck traffic (1)

Barriers to Organized Collection for Organics and Recycling, summarized

Respondents concerns include:

- Potential increased costs due to a lack of competition
- Not enough hauler capacity
- Responsibilities (e.g., location, supervision, collection, and invoicing)

Solutions for Organized Collection for Organics and Recycling, summarized

- Education to residents about the benefits of organized collection
- Clearly defining contractor expectations

Barriers to Use of Finished Compost, summarized

Nearly half of respondents indicated a need for better information on the use of finished compost in municipal projects. One respondent noted their concern that compost may be too nutrient-loaded and lead to greater issues with weeds.

Waste Industry

Representatives from waste companies participating in the survey (3) and the meeting (9) identified the following barriers and solutions related to residential curbside collection of organics, including weekly organics

and composting pickup paired with biweekly trash pickup.

Barriers, summarized

- Need for more labor, trucks, and carts
- Cost to customers for service and carts
- Seasonal concerns in cold winter months (material freezing in carts)
- Odors and sanitary concerns
- Lack of sufficient markets/processing capacity
- Low participation rate
- Route density concerns, especially in rural areas
- Impacts for multifamily housing
- Time needed and process for state permitting of new organics management facilities, especially new technology such as for anaerobic digestion facility, air quality issues and permitting requirements
- Bi-weekly trash collection with weekly recycling and organics pickup will likely result in more contamination in recycling and/or organics containers. Customers will object to odors and having their trash containers fill up.

Solutions, summarized

The following suggestions were offered as potential ways to overcome barriers:

- Co-collect food scraps with yard waste or trash using durable composable bags to use existing infrastructure (carts, routes, etc.)
- Offer larger or smaller bin options that meet customer needs, based on cost and/or available space
- Focus acceptable materials on "food scraps" (without other compostable items) to reduce confusion and minimize contamination
- Offer biweekly recycling pickup

2. Key Points

The majority of residential respondents noted that curbside pickup of all three services (compost, recycling, and trash) every week would help them separate food scraps for curbside collection (57%, 386 out of 673). Also, some respondents reported that weekly compost/recycling pickup and biweekly trash pickup would help them separate food scraps for curbside collection (36%, 243 out of 673).

The concept of trash pickup every other week with weekly organics and recycling pickup raised concerns among several audiences, although some residents indicated they would support either collection option to have organics collection. The statistically valid 2014 Dakota County Special Focus Residential Survey demonstrated support (strong or somewhat) from 50 percent of respondents.

Question from 2014 Special Focus Residential Survey

Table 25: Question 7

The State will soon require all counties to increase the recycling rate and divert food waste from landfills. To meet this requirement, please indicate how much you support or oppose each of the following options.	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Collecting food waste curbside in a separate cart	21%	273	29%	370	16%	210	25%	318	8%	103	100%	1,274
Backyard composting for single-family homes	25%	321	28%	363	14%	179	21%	261	12%	151	100%	1,274
Drop-off sites (similar to yard waste sites) for food waste	10%	126	23%	292	22%	284	32%	403	13%	158	100%	1,264
Requiring schools, hospitals, restaurants, etc. to separate food waste for collection	41%	521	33%	426	7%	91	9%	115	10%	126	100%	1,279

Shared concerns across audiences include potential odors, attraction of nuisance animals, increased costs, added containers and their sizes, expanded education needs, and hauler capacity to add the service.

E. TREE WASTE MANAGEMENT

New to the 2023 draft Policy Plan is the topic of tree waste, which is given prominence due to the anticipated peak in ash tree removals within the next five to ten years due to Emerald Ash Borer (EAB). In addition, removals of other tree species have increased due to climate impacts, such as successive drought years and severe storms, and insects and diseases that are new to Minnesota. Survey questions focused on current practices with wood waste and barriers and opportunities to reduce wood waste and improve its management.

1. Engagement Findings

Residents

More than half of the survey respondents (56%, 377 out of 673) have had dead or diseased trees of any species on their property. The top way respondents manage tree waste is through tree service company disposal of wood waste (28%, 186 out of 673). Respondents with larger properties also chip or leave wood in place. Respondents manage leaves and branches, through hauler collection, yard waste sites, composting, and burning.

Question: What barriers have you experienced, or do you anticipate, for managing diseased trees on your property? (Select all that apply)

Barriers to Managing Diseased Trees (multiple choice)	**Responses**	**Percentage**
Not enough options for tree waste disposal	94	33%
Not sure how to handle dead or dying trees	80	28%
Not enough information about proper tree management	78	27%
Don't know if my trees are diseased	69	24%

N=285

Question: What ideas do you have to help promote tree health and responsibly manage wood waste from diseased trees? (Open-ended)

Ideas to Promote Tree Health and Management (common themes identified)	**Responses**	**Percentage**
Education (tree selection, management, diseases and pests, removals)	66	31%
Guidance from a consulting city or county arborist	29	14%
Grants or incentives for tree trimming and removal	28	13%
Community drop sites, free	24	11%
City or county curbside pickup of tree waste, storm debris	23	11%
City or county tree removal service	14	7%
Grants or incentives for treatment	14	7%
Replanting assistance of appropriate trees	13	6%
City contracts for fixed rate tree services, facilitate getting bids	10	5%
Requiring public entities to remove dead trees in parks, boulevards, rights-of-way	8	4%
Requiring property owners to remove diseased trees	5	2%
Ways to repurpose tree wood waste	5	2%

N=214

Businesses and Schools

Just over half of responding businesses and schools (53%, 8 out of 15) have responsibility for managing trees on their property. Of those responsible for managing trees, more than half (5 out of 8) rely on contractors for

tree work and disposal of tree waste. Roughly one-quarter of respondents (4 out of 15) stated that they have diseased trees that will likely need to come down in the next few years.

Barriers, summarized

- Most respondents (10 out of 15) were not sure whether there are sufficient composting and disposal options for tree waste, 2 do not believe the current options are adequate, and 2 believe that current options are adequate.

Solutions, summarized

Business survey respondent suggestions for improving tree and tree waste management included:

- Cities providing low-cost options, especially to homeowners, for treatment or removal (1)
- Curbside pickup of tree wood waste by cities for composting (1)
- Chipping for mulch (1)

Public Entities

Online Survey Findings

Seven survey responses were provided by staff from the cities of Burnsville, Empire, Farmington, Lakeville, and Mendota. Fewer than half (3 of 7) reported that their city is prepared to handle tree waste. Most cities participating in the survey (6 of 7) report proactively removing EAB-infested trees on city property.

Question: What barriers make it difficult for your residents or businesses to manage diseased trees in a timely manner? (open-ended)

Cost of management was identified as the primary barrier to timely management of tree issues (5 out of 7). Most respondents (5 of 7) were unsure whether sufficient composting or disposal options for tree waste in the county.

Question: Which assistance options for managing dead or damaged trees does your municipality offer for Ash trees on private property (residential and business properties)? (Select all that apply)

Assistance Options Offered (multiple choice)	**Count**	**Percent**
Information about how to help protect living trees	4	57%
Information about where to dispose of wood waste from infected trees	3	43%
Cost assistance for treatments to protect living trees	2	29%
Cost assistance for removal of dead or dying trees	0	
Opportunities for the wood to be used to make to make items, such as furniture	0	

N=7

Question: What ideas do you have to encourage reuse of wood? (open-ended, results summarized)

Survey suggestions to encourage reuse of wood waste management included:

- Milling the wood for lumber and other uses (1)
- Setting up a centralized pickup and delivery system (1)
- Develop a process to offer a public resource to private-for profit companies in an equitable way (1)
- Setting up a wood source requirement for public projects, including locally milled lumber in building certification programs to create a larger demand that would then support other niche markets and wider wood use (1)
- Encouraging building of wood based structures/infrastructure using urban wood sources. This will only remove a portion of the wood waste as much of the tree debris is too small to mill or of low quality. (1)
- Residents who help neighbors remove dead trees may use the wood (1)

Waste Industry

Waste industry representatives participating in the meeting identified barriers and opportunities related to ash tree disposal and having access to sufficient wood waste capacity.

Barriers, summarized

- Lack of clarity and understanding of how to properly dispose of yard/tree waste, including EAB-infested wood
- Insufficient storage capacity (temporary and permanent) in the county/Metro
- High costs for proper management
- Lack of understanding on the potential beneficial uses (e.g., burning for fuel) of diseased tree wood waste

Solutions, summarized

- Use existing tree waste businesses and expand capacity.
- Identify and provide for more beneficial use, such as burning for fuel or RDF.
- Provide and promote funding assistance options for disposal and for expanded management capacity.
- Identify new reuse options, including woodchips if possible.

Tree Management Organizations:

Four of the 14 tree waste management organizations contacted responded to the online survey, representing diverse perspectives as a forester, tree waste disposal facility, and urban wood utilization service. Respondents identified barriers to managing wood/tree waste and opportunities to improve management.

Question: What are the major limitations or barriers for managing tree waste from businesses, the public sector, and residents in Dakota County? (open-ended, results summarized)

- Limited capacity at current disposal options (1)
- Limited options for disposal overall (burning, mulching, reuse) (1)
- Distance to current disposal options (1)

Question: What are the major opportunities to improve the long-term, sustainable management of dead or dying trees? (Select all that apply)

- Information for tree waste management companies about new opportunities for tree waste reuse or disposal (3)
- Ordinance changes to offer flexibility for tree waste temporary and long-term storage (1)

Question: What are the major challenges or barriers for using diseased wood as a resource? (open-ended)

- Limited markets for reuse of wood (1)
- Public perception that diseased wood is unsuitable for reuse. (2)
  EAB-killed trees (1 to 3+ or so years after dying) are ONLY damaged in the narrow portion of the tree closest to the bark. The remainder of the trunk is undamaged.
- Treating the trees while they are still viable would be more beneficial to the environment than cutting them down and planting young trees. (1)
- Large volumes make it expensive to handle and there is frequently poor quality which means there are limited reuse opportunities (1)

Solutions for Improving Management and Increasing Wood Reuse, summarized

- Education on tree loss prevention, wood waste management, and reuse. (2)
- Provide demonstrations on best-practice wood waste management at a local level. (1)
- Increase use of tree waste as a renewable energy source within the metro and within feasible haul distances. (1)
- Focus on the origin of the wood; this can have sentimental value for some people (1)
- Study what is already known about urban tree utilization. (1)
- Expand development of markets for "waste wood" (1)
- More small portable sawmill operations that can convert yard trees to useable lumber (1)
- Subsidies for kiln drying may help offset cost for sterilizing the wood. (1)
- More burn plants for energy production (1)
- A plan to reclaim/reuse as many trees as possible (1)
- Provide a yard waste site that allows for storage and sorting of materials (i.e., separate useable logs from lower-grade materials). (1)
- Train and provide incentives for tree care companies to identify quality logs and cut them appropriately (i.e., meet specs for milling). (1)
- Provide incentives to local small and mid-sized sawmills to take urban logs (allow pick-up at the yard waste site). (1)

2. Key Points

Constrained system capacity for wood waste is a problem, as is a general lack of resident knowledge on tree care and disposal options from survey audiences. Survey results and meeting discussions indicate that the county is not well-prepared for a dramatic increase in dead and dying trees. Finding an appropriate role for the county will be important, whether it is through funding, facilitation, education, increasing options for management, increasing options for disposal, or increasing reuse options.

F. BUILDING MATERIAL MANAGEMENT

The draft Policy Plan emphasizes better management of unneeded construction and building materials, which are typically land-disposed in demolition projects. The draft Policy Plan promotes a preferred hierarchy of 1) building preservation and renovation, 2) structural relocation of buildings (most preferred), 3) building deconstruction with reuse of materials, and 4) building demolition with destruction of materials (least preferred).

Because building material management recycling does not count towards the county's 75% recycling rate goal by 2030, the county does not currently have initiatives for reduction or recovery of construction and building materials. With the new emphasis on this topic in the draft Policy Plan, audiences were engaged on their current practices related to construction and remodeling projects, barriers to donating usable materials or using recycled materials, and suggestions for improving reuse and recycling of building materials.

1. Summary of Engagement Findings

Residents

Forty percent of the survey respondents (240 of 673) have done home construction or remodeling in the past year. A small minority (12 percent, 79 out of 673) have considered using recycled materials in home construction or remodeling projects. Lack of knowledge is the most frequently cited challenge in donating reusable materials.

Question: What challenges have you experienced with donating building materials that could be reuse, such as lumber, lights, fixtures, cabinets, windows, and doors? (Select all that apply)

Challenges with Building Material Donation (multiple choice)	**Count**	**Percent**
Not sure what is accepted to donate	110	49%
Not sure where to go	105	47%
Lack a vehicle to take items to a donation or reuse location	53	24%
Distance from donation site	49	22%
I haven't experienced any challenges	45	20%
Donation hours are inconvenient	17	8%
Don't understand the technology needed to participate in online resale	4	2%

N=224

Question: What ideas do you have to help increase reuse and recycling of unwanted building and construction materials in good condition? (Open-ended)

Ideas for Increasing Reuse of Building Materials (common themes identified)	**Count**	**Percent**
Create a drop-off site for this nearby	67	42%
Education	24	15%
Provide pickup and drop-off service	18	11%
Give incentives for deconstruction and use of recycled materials	16	10%
Promote building material reuse companies	14	9%
Create an online web community for this	14	9%
Post materials as free on existing web sites	6	4%
Have building material stores accept leftover materials	4	3%
Hold swaps or donation events	2	1%

N=158

Businesses and Schools

Roughly one-fifth of respondents (3 out of 15) indicate that they have used recycled or used building materials in projects. One-third (5 out of 15) indicated that they have donated reusable building materials.

Question: What challenges has your organization experienced with donating building materials that could be reused, such as lumber, lights, fixtures, cabinets, windows, and doors? (Select all that apply)

Challenges with Building Material Donation (multiple choice)	**Count**	**Percent**
Limited staff time for such activities	6	43%
Haven't experienced any challenges	6	43%
Lack of space to temporarily store	5	36%
Lack of information on where we can take items for donation	3	21%
Organizational policies prohibit such activities	2	14%
Lack a vehicle or transportation to take items for donation	2	14%

N=14

Public Entities

Online Survey Responses

Seven survey responses were provided by staff from the cities of Burnsville, Empire, Farmington, Lakeville, and Mendota. The majority of online survey respondents (5 out of 7) report that their contractors typically purchase the construction/building materials they need for projects.

Question: What prevents donation or sale of used building materials in good condition from municipal remodeling projects? (Select all that apply)

Challenges with Building Material Donation or Sale (multiple choice)	**Count**	**Percent**
Contractors are responsible for disposal of building materials	3	75%
Contractor limitations or not willing to donate or resell building materials	2	50%
Additional staff time needed for donation or resale of building materials	2	50%
Policies that prohibit donation or sale of building materials	1	25%
Not sure how to donate or sell building materials	1	25%

N=4

Solutions, summarized

- Easier processes (1)
- Current information and knowledge on reuse options (1)
- Having secure outlets (1)
- Clear organization policies and procedures for donation (1)
- Staff resources (1)

Virtual Meeting Discussion

The virtual meeting included 20 participants from the following 12 municipalities: Apple Valley, Burnsville, Eagan, Empire, Farmington, Inver Grove Heights, Lakeville, Lilydale, Mendota Heights, Ravenna Township, Rosemount, and West St. Paul.

Barriers, summarized

- Lacking staff time to coordinate reuse activities
- Lacking staff time to repair items
- Storage space for unneeded items
- The overall process
- No interest in their unneeded items
- New product standards and changing needs/preferences for equipment types
- Items are completely worn out
- Auction process is used due to legal requirements but it is a lot of work
- Needs time and forethought
- Regulations prohibiting government entities from donating certain items
- Potential liability concerns

Solutions, summarized

- Clear management steps
- Funding assistance
- Surplus material staff
- State-led checklists
- State and/or County guidance
- Promote deconstruction options
- Requiring an audit walk-through for properties wanting to demolish a building
- City council-approved policies

Waste Industry

Although survey response was limited, two respondents noted that the materials they currently recover include scrap metal and aluminum. Barriers and solutions listed below reflect the online survey responses as well as the in-person meeting discussion.

Barriers to Building Material Recovery, summarized

- Space for separate roll-offs
- Space to separate materials
- Education of crews on what to separate
- Generator unwillingness to separate materials at the work site without the threat of a fine or enforcement actions
- Market fluctuations impact recovery of materials
- Contaminated soil is the largest volume material received at Construction and Demolition landfills and raises concerns with per- and polyfluoroalkyl substances (PFAS)
- Construction and Demolition material recycling does not count towards state recycling goal of 75%
- Limited number of existing companies in reuse of C&D material
- Costs for collection, storage, and management

Solutions for Building Material Recovery, summarized

- Markets exist for clean wood waste.
- Strong reuse markets exist for concrete and asphalt.
- Consider the potential for residents to do separation before getting to haulers.
- Reusable building materials and cardboard are materials that currently go to landfill that could be recovered, recycled, or processed off-site.
- The highest priorities for recovery should be the items are the costliest to dispose of or the items that are hardest on the environment.
- To ensure that contractors separate reusable materials at the work site, consider education, funding, or pushing costs onto the project customer.
- Fines for generators who do not separate reusable materials at the work site.

Construction/Demolition Organizations

The online survey received three responses from one deconstruction organization and two building materials organizations. Materials commonly recovered or received and materials that are in demand include light fixtures, doors, furniture, appliances, bath fixtures, cabinets, flooring, lumber, windows, and tile.

Barriers, summarized

- Lack of resident and business awareness of existing places that accept materials
- Lack of resident and business awareness of how to drop off materials
- Materials that are damaged or incomplete
- Mixed materials, contaminants, hazardous materials, mold, lead, asbestos, nails in wood, lead paint, and items no longer meeting today's code like old electrical hardware or single pane windows
- Legal restrictions that limit the potential volume of recovered building materials, such as state and local requirements, individual business standards, and safety concerns or OSHA rules

Solutions, summarized

- Promote awareness of existing resources
- Strengthen markets for material reuse
- Increase demand for reclaimed materials
- Collaborative public-partnerships with reuse and deconstruction organizations
- Community swap events for materials (draft Policy Plan strategy)
- Financial assistance to offset the additional cost of deconstruction, use of used materials, and building moving (draft Policy Plan strategy)
- Trainings for residents on home and building repair (draft Policy Plan strategy)

Dakota County staff were provided a tour of Better Futures in south Minneapolis, to learn about their building deconstruction practice and reuse store.

2. Key Points

- Residents are largely unaware of options for reuse of construction material, whether by purchasing used materials or donating/selling them.
- Many businesses and public entities rely on contractors to select materials and dispose of unneeded materials.
- Greater awareness of opportunities and creation of additional opportunities could increase deconstruction and reuse of materials in all sectors.
- As with reuse activities in general, intermediary roles need definition to promote the concepts of reuse and facilitate material exchanges.