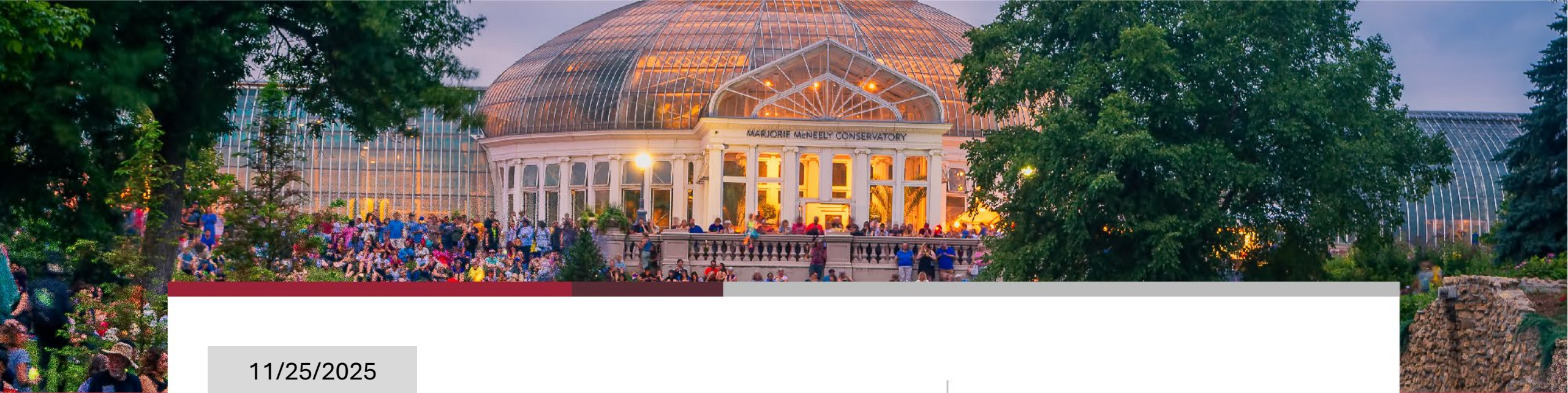




11/25/2025

Policy Discussion: Wood Waste Management Plan

Daniel Schmidt, Environmental Health Division Manager



The background of the slide features a scenic landscape. On the left, a dense forest of trees with yellow and orange autumn foliage is visible. On the right, a wide river flows, reflecting the bright light of the sun, which is positioned low on the horizon, creating a strong lens flare effect across the upper right portion of the image. A white rectangular box with a thin red and grey border is centered on the slide, containing the agenda text.

Agenda:

- **Development of a Wood Waste Management Plan**
- **Upgrades at County-Operated Yard Waste Sites**
- **Investments in Wood Waste Processing Equipment**
- **Questions**

TWIN CITIES

There's a huge pile of tree debris. It's growing. And there are no good solutions.

Dying and storm-felled ash trees are a major part of the 550,000 tons of annual wood waste in the metro area.

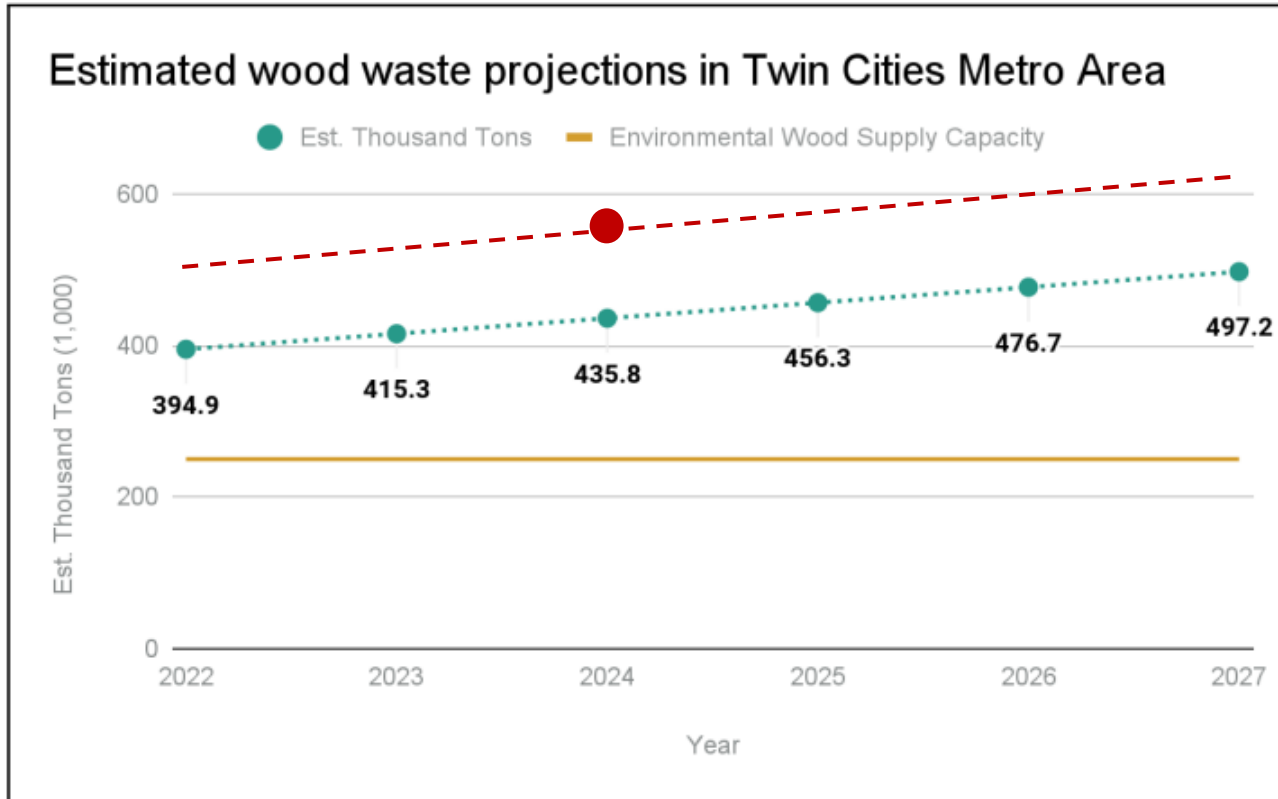
By Grace Henrie

For the Minnesota Star Tribune

OCTOBER 17, 2024 AT 1:47PM



The growing problem of wood waste



2024 EAB wood waste was much higher than projected.

- Wood waste volumes have surged:
 - Emerald Ash Borer (EAB) infestation
 - More frequent and stronger storms
- ~1 billion trees still under threat to EAB in MN with 99% mortality rate expected
- Current wood waste outlet is at capacity with an uncertain future
- Result: Open burning and resident self-management of wood waste

Developing a wood waste plan

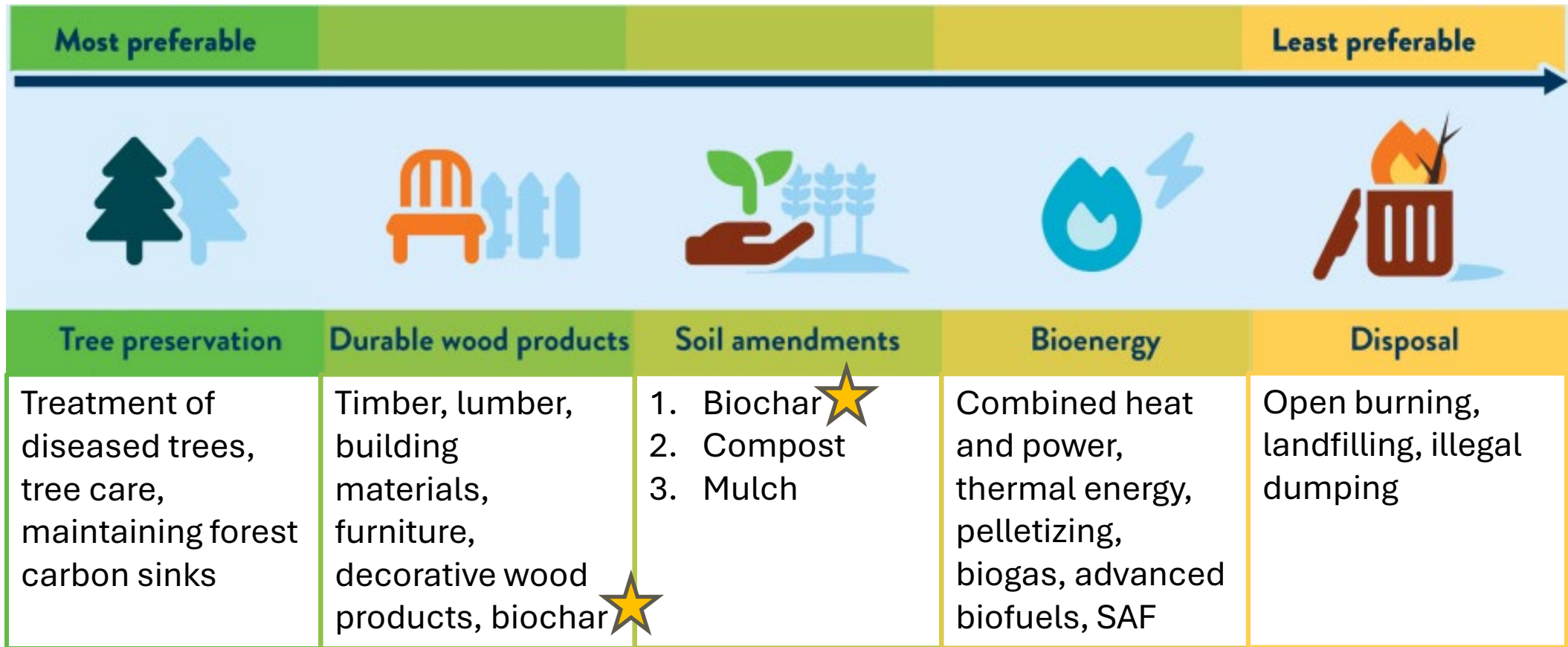
- Utilizing guidance from MPCA's Metro Policy Plan and aligning with Ramsey County strategic priorities.
- MPCA required topic areas within the wood waste plan:
 - Current state of wood waste management
 - Strategies to move toward preferred management methods
 - Data collection methods
 - Public education topics

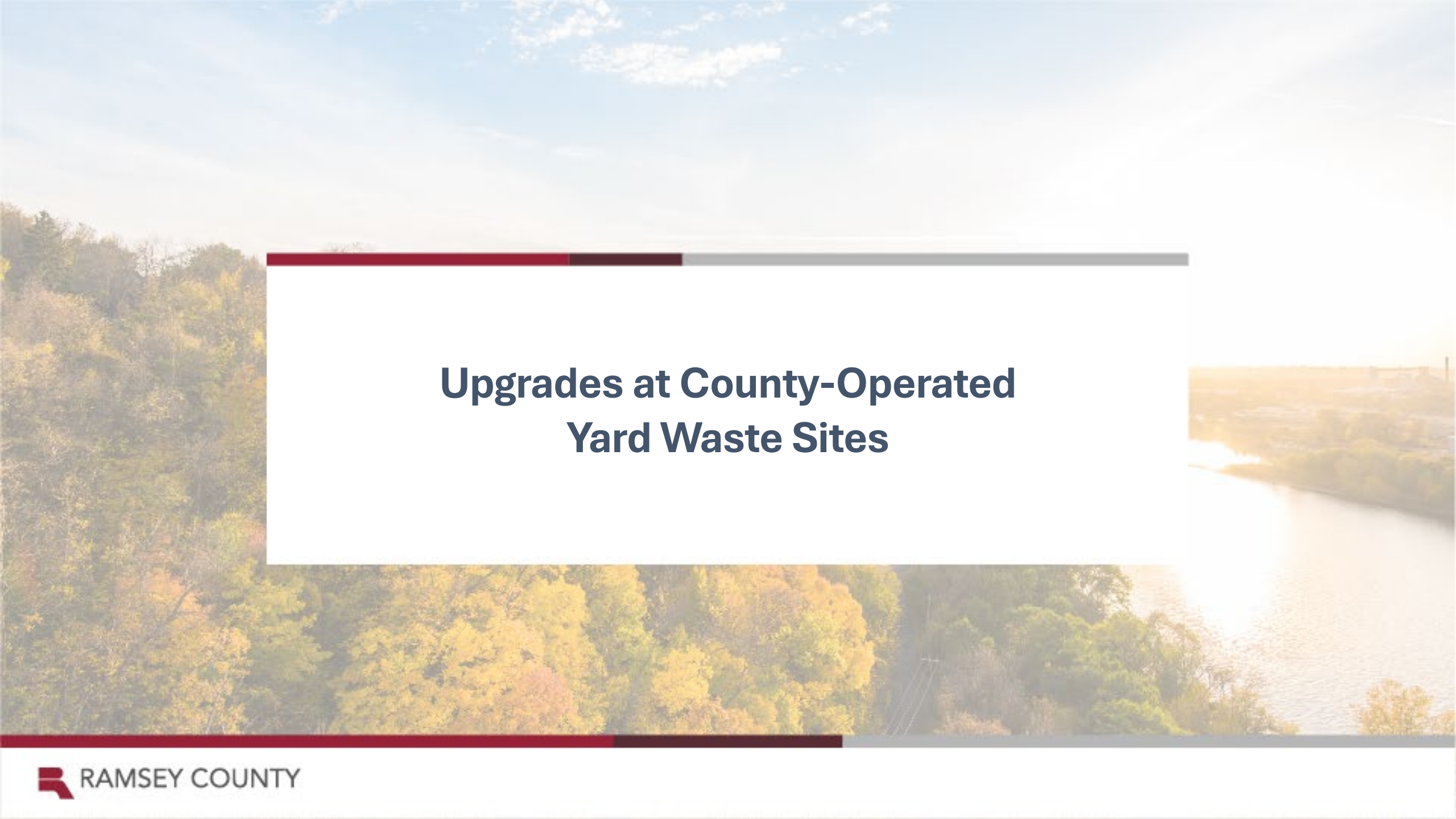


Wood waste management plan engagement and planning

- Engagement completed:
 - Identified interested parties (RC departments, municipalities)
 - Online survey of 105 professionals (public and private)
 - In-person engagement session (35+ attendees)
- Conducting resident input surveys
- Publish for public comment in Q1 2026
- Expect to have draft of Plan ready for board review during Q1 2026
- Ask for plan adoption by the end of Q1 2026

MPCA Wood Waste Management Hierarchy



The background of the slide features a scenic landscape. On the left, a dense forest of trees with autumn foliage in shades of yellow, orange, and green covers a hillside. To the right, a wide river flows, reflecting the bright light of the sun, which is positioned low on the horizon, creating a strong lens flare and a warm, golden glow across the scene. The sky is a pale blue with wispy white clouds.

Upgrades at County-Operated Yard Waste Sites



Photos of Arden Hills Yard Waste Site





Photo of Arden Hills Yard Waste Site



Photo of Midway Yard Waste Site



Photo of Mounds View Yard Waste Site



Photo of Midway Yard Waste Site

Paving upgrades at brush-receiving yard waste sites (\$3M)



Photo of Midway Yard Waste Site

Current attendant booths at yard waste sites

- Lack heating, A/C, and insulation
- Pose health and safety risks (e.g., heat-related incidents)
- Are targets for vandalism and unauthorized use
- Do not have Wi-Fi access



Photo of Midway Yard Waste Site



Photo of Midway Yard Waste Site



Photo of Battle Creek Yard Waste Site



Attendant booths at Midway Yard Waste Sites



Attendant booth at Environmental Center



Attendant booth at the Environmental Center

Attendant booth upgrades (\$1M)

- Replace outdated utility sheds with modern, secure attendant booths at all 7 sites
 - Offer safer, climate-controlled environments for employees
 - Improve site safety and visibility
 - Support paperless operations with Wi-Fi connectivity
 - Align with Ramsey County policies on employee well-being



Attendant booth at the Environmental Center

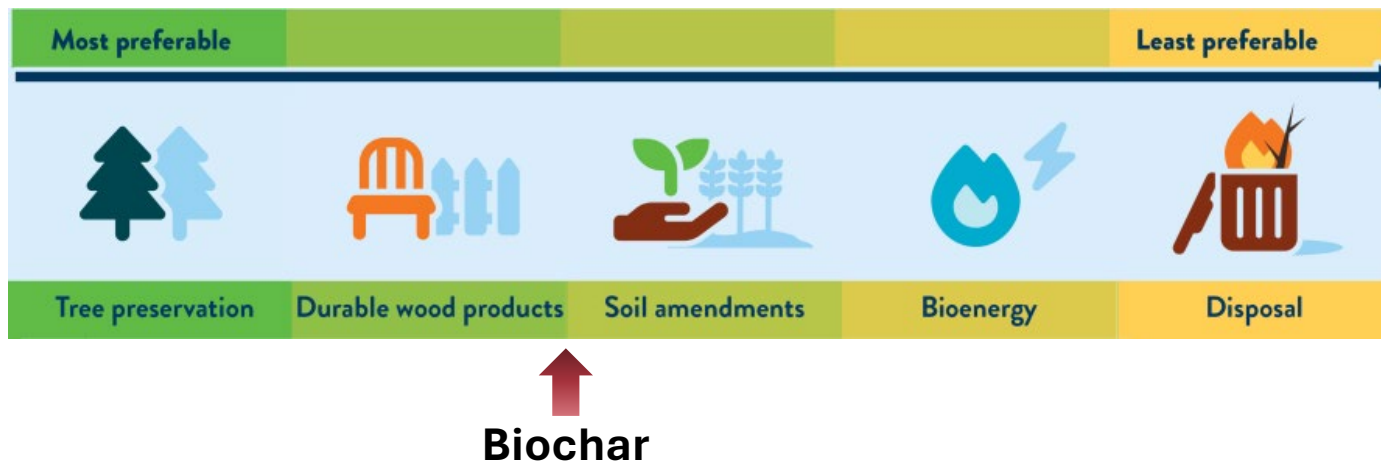
The background of the slide features a scenic landscape. On the left, a dense forest of trees with vibrant autumn foliage in shades of yellow, orange, and green covers a hillside. To the right, a calm river flows, reflecting the bright, hazy light of the sun, which is positioned low on the horizon, creating a warm, golden glow across the scene. The sky is a pale blue with wispy white clouds.

Wood Waste Processing Equipment

Wood Waste Equipment Capital Purchase (\$2M)

- Move toward producing biochar utilizing air curtain burner machines
- Biochar is a type of charcoal that can store carbon for thousands of years, helping reduce greenhouse gases
- Reduces the volume of wood waste by 90%

MPCA Wood Waste Management Hierarchy



Biochar

- Biochar is a type of charcoal made by heating plant materials (e.g., wood, crop waste) in a low oxygen process called pyrolysis
- Biochar is very stable and can store carbon in soil for thousands of years
- This long-term storage is called carbon sequestration and helps reduce greenhouse gases
- Biochar can also be used as a soil amendment improving soil health
- Reduces the volume of wood waste by 90%



Photo courtesy of Washington County



<https://www.tigercat.com/tigercat-releases-6040-carbonizer/>

Air Curtain Burner

- Efficiently turn wood waste into biochar
- Decreases reliance on District Energy
- Improves emergency response capability
- Estimated annual biochar production per burner = 1,700 tons



Photo courtesy of Washington County

Wood Waste Equipment Capital Purchase (\$2M)

- Air Curtain Burners currently cost ~\$800K - \$900K
- Annual operating costs for one machine: \$650K
 - Included in 2026 & 2027 proposed budget
- Operating costs can be reduced with more machines

Next steps

- Complete draft of Wood Waste Management Plan for board review
- December 2: Capital Investment RBA



Questions

Daniel Schmidt, Environmental Health Division Manager

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Yard waste site paving cost table

Location	Acres	Ft ²	Prep. @ \$1.50/ft ²	Paving @ \$7.50/ft ²	Engineering/ Survey Drawings	20% Contingency	Total
White Bear Township	1.23	53,698 ft ²	\$80,547	\$402,735	\$50,000	\$96,666	\$629,948
Frank Sims	2.37	103,124 ft ²	\$154,868	\$773,430	\$75,000	\$169,716	\$1,173,014
Midway	1.53	66,462 ft ²	\$99,693	\$498,465	\$75,000	\$134,631	\$807,789
Arden Hills	0.66	28,924 ft ²	\$43,386	\$216,930	\$50,000	\$62,063	\$372,379
Total	5.79	252,208 ft ²	\$378,494	\$1,891,560	\$250,000	\$463,076	\$2,983,130

Yard waste site attendant booths cost table

Location	Shed cost	Construction	Site Survey	20% Contingency	Total
Arden Hills	\$45,000	\$30,000	-	\$15,000	\$90,000
Battle Creek	\$45,000	\$30,000	\$25,000	\$20,000	\$120,000
Frank Sims	\$45,000	\$30,000	-	\$15,000	\$90,000
Midway	\$45,000	\$30,000	-	\$15,000	\$90,000
Mounds View	\$45,000	\$30,000	\$25,000	\$20,000	\$120,000
Summit Hill	\$45,000	\$30,000	\$25,000	\$20,000	\$120,000
White Bear Township	\$45,000	\$30,000	-	\$15,000	\$90,000
Total	\$315,000	\$210,000	\$75,000	\$120,000	\$720,000

Wood Waste Equipment Cost Table

	2025 – Actual	2026	2027	Total
EcoChar Phoenix 8000	\$791,966	\$815,000		
Tigercat 6040 Carbonizer	\$782,500		\$840,000	
Total	N/A	\$815,000	\$840,000	\$1,655,000