



MARATHON COUNTY SOLID WASTE MANAGEMENT BOARD AGENDA

Date & Time of Meeting: Monday, March 9th, 2026, at 2:00 pm

Meeting Location: Wisconsin Room, 1000 Lake View Drive, Wausau, WI 54403, or Webex

Marathon County Mission Statement: *Marathon County Government serves people by leading, coordinating, and providing county, regional, and statewide initiatives. It directly or in cooperation with other public and private partners provides services and creates opportunities that make Marathon County and the surrounding area a preferred place to live, work, visit, and do business. (Last updated: 12-20-05)*

Mission Statement: *To provide the residents, businesses, and organizations of the region with a cost effective, comprehensive integrated waste management system. The system consists of programming, education and consulting services on waste reduction, recycling, composting and hazardous waste management, along with landfill disposal, with landfill-gas-to-energy production.*

Members: Thomas Seubert – Chair, Jean Maszk - Vice-Chair, Tim Sondelski, Kerry Brimmer, Jason Wilhelm, Harlyn Woodward, Al Christensen, Allen Drabek and Marilyn Bhend

Persons wishing to attend the meeting by Webex/phone may call into the **telephone conference ten (10) minutes prior to the start time indicated above using the following number:**

Phone Number: +1-408-418-9388

Access Code/Meeting Number: 2488 427 8963

Please Note: If you are prompted to provide an “Attendee Identification Number” enter the # sign. No other number is required to participate in the telephone conference.

When you enter the telephone conference, **PLEASE PUT YOUR PHONE ON MUTE!**

- 1. Call Meeting to Order**
- 2. Public Comment**
- 3. Approval of the Minutes of the February 9, 2026, Meeting**
- 4. Educational Presentations / Outcome Monitoring Reports and Possible Action:**
 - A. Site Safety and Hauler Outreach
 - B. WCSWMA Open Policy Position
 - C. Website Updates and Compliance
 - D. Forestry Plan
- 5. Policy Issues Discussion and Committee Determination to the County Board for its Consideration and Possible Action - None**

- 6. **Next Regular Meeting Time, Location, Agenda Items and Reports to the County Board–**
Committee Members are asked to bring ideas for future discussion; next meeting April 13, 2026.
- 7. **Announcements / Requests**
- 8. **Adjournment**

Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk's Office at 715-261-1500 one business day before the meeting.

EMAILED TO:
 News Dept. at Daily Herald, TPP Printing, Marshfield News,
 Midwest Radio Group, Record Review
 Date: 03/04/26 _____
 Time: 3PM _____
 By: LM _____
 Date/Time/By: _____

SIGNED /s/  _____
 Presiding Officer or Designee

NOTICE POSTED AT COURTHOUSE:
 Date: _____
 Time: _____ a.m. / p.m.
 By: _____

Marathon County Solid Waste Management Board 2026-2030 Strategic Goals

- 1. Protect and enhance groundwater and air quality.
- 2. Maximize economic opportunities.
- 3. Build strong relationships.
- 4. Transition to resource management.
- 5. Sustain safe and productive operations.



**MARATHON COUNTY
SOLID WASTE MANAGEMENT BOARD
February 9th, 2026, MINUTES**

Attendance:

	<u>Present</u>	<u>Not Present</u>
Thomas Seubert - Chair	X	
Jean Maszk – Vice Chair	X	
Kerry Brimmer		X
Allen Drabek	X	
Tim Sondelski		X
Jason Wilhelm	X	
Harlyn Woodward		X (Excused)
Al Christensen	X	
Marilyn Bhend	X (Virtual)	

Also present: Dave Hagenbucher- (Solid Waste Director), Laurie Miskimins– (Director, Conservation, Planning, and Zoning), Phil Rentmeester (Emergency Management)

1. Call Meeting to Order-

The agenda being properly signed and posted, and the presence of a quorum, the meeting was called to order at 2:01pm by Chair Seubert in the Wisconsin Room, 1000 Lake View Drive, Wausau, WI 54403

1. Pledge of Allegiance to the Flag

2. Public Comment – Al Christensen thanked Director Hagenbucher for attending the January Eastern Towns, noting the Director provided an informative summary of Solid Waste Facility operations for attendees.

3. Approval of the Minutes of the December 8th, 2025, Meeting -

ACTION: Motion / second by Maszk/Drabek to approve December 8th, 2025, minutes. Motion carried by voice vote, no dissent.

4. Educational Presentations / Outcome Monitoring Reports and Possible Action-

A. Clean Water Fund Program Application – WDNR Response

Hagenbucher recapped the application that was submitted to WDNR in September. In November WDNR sent additional correspondence indicating the application was moving along. In January, the WDNR notified the county that the application would be denied at this time because it did not have 100% design and was not ‘shovel ready.’

The SWMB had discussion, including:

The amount of time and dollars invested in the application and design. Approximately \$400,000 is estimated to be invested by the time the re-submittal is done this year. Regardless of whether the loan is approved, the treatment plan will still be the most likely path for the county, meaning the investment in design will not be lost.

Appealing the WDNR decision is not advised at this point. It is recommended to do the additional work and re-submit. Consultation with other municipalities confirmed having the design specifications ready for bid is fairly standard practice with Clean Water Fund Loan projects.

Other landfills are also starting to pursue the route of getting onsite wastewater treatment plants for leachate.

The project would eventually require a discharge permit like other wastewater treatment facilities.

Some water treatment facilities are starting to push back on private rural septic haulers, stating they may not take the waste/sludge in the future. This may present opportunity for the Solid Waste

Department facility to play a role there too.

B. SB128 Amendment

A new amendment to SB128 provides qualifying information on exemptions. The landfill would be exempt from contamination liability if leachate pre-treatment is installed by December 31, 2028. If this law is passed, and Marathon County wants to safeguard against future liability, installation of the pre-treatment plant will be vital. Some landfills are asking the state to allow for more time.

The SWMB had clarifying discussion, including:

The availability of other state and federal funding. It was clarified that the county cannot apply for the Clean Water Fund loan and other federal money at the same time. SB128 also refers to providing grant funds to assist with compliance, but it is unclear where that would come from.

The bill language also seems to imply that if progress is made on the leachate treatment plant prior to December 31, 2028, extensions for compliance may be granted.

Clarification on how the landfill leachate is currently being treated at wastewater treatment plants and costs were also discussed, including how effluent and biosolid PFAs levels have different standards.

C. Landfill Gas to RNG Updates

Extreme cold temperatures have proven a challenge for gas management. Viridi has been struggling to maintain gas flow due to extreme cold temperatures, freezing pipes, etc. The county is still getting the guaranteed minimum, but the county has been in talks on how to increase level of success.

There has been an uptick in odors over the last month. Below zero temperatures cause the system not to work as expected, gas cannot be extracted as expected, and this does cause more odors. The gas sent to Viridi has to meet certain gas quality specifications related to methane, oxygen, and nitrate. Horizontal wells are good at flow but are prone to being infiltrated by atmospheric gases. Tricky balance to capture as much gas as possible and maintain the odor but not allow too much nitrogen or oxygen to ensure we meet the gas quality target. A higher concentration of wells will help the problem. SWD is planning to install more.

Flare was maintained during most of the cold weather.

5. Policy Issues Discussion and Committee Determination to the County Board for its Consideration and Possible Action- None

Future: Continue to monitor SB 128 and this may need to go to full board.

6. Next Regular Meeting Time, Location, Agenda Items and Reports to the County Board-

March 9, 2026, at 2pm in the Wisconsin Room of the Lakeview Conference Center

Committee Members are asked to bring ideas for future discussion; next regular meeting location, date and time are to be determined.

7. Announcements / Requests-

Director Hagenbucher gave an update about a hauler accident/rollover that took place at the landfill on February 9, 2026. No one was injured and no significant spill or clean-up was necessary. Tow trucks righted the vehicle and removed it from the facility. The Director has notified the hauling company that the driver has had too many safety concerns and will no longer be permitted to haul in the county facility.

A future meeting may need to discuss official policy for allowing or disallowing drivers on site.

8. **Adjournment-**

ACTION: Motion / second by Drabek/Maszko to adjourn the meeting at 2:48pm. Motion carried by voice vote, no dissent.

Respectfully submitted,
David Hagenbucher
Director- Solid Waste Department
DH: LM February 9th, 2026



Marathon County Solid Waste Department

172900 Hwy 29
Ringle, WI 54471

Director:	715-551-5864
Operations Manager:	715-297-0429
Business Office:	715-446-3101 X100
Scale Office:	715-446-3101 X103
Solid Waste & Recycling Info Line:	877-270-3989 toll-free

marathoncountysolidwaste.org

 marathoncountysolidwaste

Radio Communication at Marathon County Solid Waste

Dear Haulers,

Waste collection is ranked the 4th most deadliest job in North America. As high demand for services and distractions increase, safety becomes a critical component of what we do. But by working together, we can keep our operators and drivers safe, ensuring that they make it home at the end of every day.

One of the most important elements we have to keep everyone safe is our ability to communicate. Unfortunately, this can be very challenging at a disposal site; the active area moves around from day to day, and bulky loads are often tipped in specific areas to enhance driving surfaces to ultimately prevent truck damage. As you already know, we currently utilize lights, horns, signage, and hand movements, but even these can be confusing at times. Our ability to effectively deliver clear directions can have a major influence on hauler success and safety.

One of the most effective tools we've seen on site is the use of CB radios. CB's have been used for decades by the waste industry for clearly communicating information to incoming traffic. Not only is this incredibly convenient for the haulers, but it also creates an additional tier of safety. Our operations team regularly sees unsafe behavior at the active landfill; often times it's unintentional and due to inexperience. But without the ability to use a radio to communicate, the unsafe act can often go uncorrected, leading to habitual safety concerns. Most haulers who already have CB Radios have had nothing but positive feedback.

Above all else, it is without question that a CB radio could save someone's life. For this reason, the **Solid Waste Management Board of Marathon County will be making CB Radios mandatory for all trucks utilizing the facility on a daily basis.**

Effective July 1st, 2026, daily commercial users of the Solid Waste facility will be expected to have a CB radio equipped in the cab of their truck. CB channel 8 will continue to be utilized for communicating with the operations team. For trucks not equipped with a CB radio, they will receive a \$50 service fee for each occurrence that a driver needs to be redirected.

If you have doubts about the value of this change in our operation, we will support open discussions with our team, and furthermore encourage you to speak with other haulers who already have CB radios equipped in their vehicles.

We appreciate everyone's understanding in this matter. Please help us in our efforts to continue to keep our people safe, so that they can get home to their families at the end of each day.

Thank you,

David Hagenbucher
Solid Waste Director
Marathon County Solid Waste Dept



Wisconsin Counties Solid Waste Management Association

WCSWMA Executive Committee Member Nomination Form

The Executive Committee provides overall policy direction for the Wisconsin Counties Solid Waste Management Association (WCSWMA) and helps guide the long-term goals and priorities of the organization. Executive Committee members work collaboratively to support staff and committees while ensuring the Association serves its membership effectively.

Executive Committee members **serve a two-year term** and are expected to **attend at least three meetings per year**, with additional meetings as needed. Meetings are typically held in February, May, and November. Consistent attendance and active participation are expected. Members who miss two or more meetings during their term may be dismissed by a majority vote of the Committee.

The Executive Committee is composed of 6–8 members, with balanced representation between **policymakers** (elected or appointed officials) and **professionals** (staff responsible for planning or managing solid waste or resource recovery programs).

Executive Committee members **do not receive compensation**, but may be reimbursed for reasonable expenses related to meetings, conferences, workshops, or other activities that support the Association, as approved by the Committee.

Nominees must be **current members of WCSWMA** and should be willing to actively contribute their experience, perspective, and leadership to advance solid waste and resource recovery efforts across Wisconsin.

For more information please visit our website:

www.wcswma.org/about

**Marathon County Solid Waste
Department
Forest Inventory & Management
Recommendations**

**Prepared By: J. Tucker, Marathon County Forester
September 17, 2025**

General Property Overview

This property is in east central Marathon County in the Town of Ringle. The 576-acre property contains 265 acres of forested land, consisting of: Northern Hardwood – 165 acres (62%), Northern Red Oak – 47 acres (18%), Aspen – 46 acres (17%), and White Spruce – 7 acres (3%). The remaining acreage is non-forested, consisting of grasslands, wetlands, ponds, and the landfill itself. Primary soil type is Kennan Sandy Loam.

Forested areas are divided into 15 stands. A stand is an area that contains trees that are similar in type and age. After each stand is determined it is then given its own management prescription. The details of the current vegetation and the management recommendations are found under the stand headings. Refer to the map for location of each stand.

STAND # 1 NH 15+³/NH 5-11¹/NH 0-5² 58 acres

STAND DESCRIPTION:

This 96-year-old, two-aged Northern Hardwood stand consists primarily of Sugar Maple and Northern Red Oak in dominant/co-dominant class, with Red Maple, Basswood, White Ash, Bitternut Hickory, Aspen, and White Birch as a component. Intermediate and suppressed species consist primarily of Sugar Maple, with Red Maple, Basswood, Aspen, White Birch, and Yellow Birch as a component. The understory consists of Northern Hardwood seedlings, primarily Sugar Maple. Basal areas range from 80- 150 sq. ft./acre (121 sq. ft./acre average) and average diameter is 16 inches.

The northwest corner of this stand is dominated by Northern Red Oak and small aspen inclusions can be found within the stand. Several ephemeral ponds are present. Moderate to steep slopes are found in areas.

MANAGEMENT RECOMMENDATIONS:

2026: Intermediate Thinning
2046: Shelterwood-Seeding Cut
2052: Overstory Removal

STAND # 2 A 11-15³/NH 5-11¹ 3 acres

STAND DESCRIPTION:

This 60-year-old stand consists primarily of Aspen in the dominant/co-dominant class, with Northern Red Oak and Sugar Maple as a component. Intermediate and suppressed species are Northern Red Oak and Sugar Maple. Basal areas range from 110-160 sq. ft./acre (135 sq. ft./acre average) and average diameter is 14 inches. Moderate to steep slopes are found in areas.

MANAGEMENT RECOMMENDATIONS:

2026: Coppice

STAND # 3 NH 15+³/NH 5-11¹/NH 0-5² 44 acres

STAND DESCRIPTION:

This 85-year-old, two-aged Northern Hardwood stand consists primarily of Sugar Maple and Northern Red Oak in dominant/co-dominant class, with Red Maple, Basswood, White Ash, Hickory, Aspen, and White Birch as a component. Intermediate and suppressed species consist primarily of Sugar Maple, with Red Maple, White Ash, Northern Red Oak, and Bitternut Hickory as a component. The understory consists of Northern Hardwood seedlings, primarily Sugar Maple. Basal areas range from 70- 130 sq. ft./acre (121 sq. ft./acre average) and average diameter is 15 inches.

Decomposed stumps indicate that this stand was thinned some time ago.

A 20-year-old White Spruce/Red Pine plantation of less than 2 acres in size is combined with this stand, located on the western boundary of the north block.

MANAGEMENT RECOMMENDATIONS:

2026: Intermediate Thinning
2054: Shelterwood-Seeding Cut
2060: Overstory Removal

STAND # 4 A 11-15¹/A 5-11² 5 acres

STAND DESCRIPTION:

This 36-year-old stand consists primarily of Aspen in the dominant/co-dominant class. Intermediate and suppressed species are White Ash. Basal areas range from 70-100 sq. ft./acre (85 sq. ft./acre average) and average diameter is 10 inches. Stand ages differ slightly in areas (29-36 years), indicating several cuttings occurred.

MANAGEMENT RECOMMENDATIONS:

2039: Coppice

STAND # 5 NH 15+³/NH 5-11¹/NH 0-5² 24 acres

STAND DESCRIPTION:

This 84-year-old, two-aged Northern Hardwood stand consists primarily of Sugar Maple and Northern Red Oak in dominant/co-dominant class, with Red Maple, Basswood, White Ash, Hickory, and Eastern Hemlock as a component. Intermediate and suppressed species consist primarily of Sugar Maple, Northern Red Oak, and Red Maple, with White Ash, Basswood, and White Birch as a component. The understory consists of Northern Hardwood seedlings, primarily Sugar Maple. Basal areas range from 60-140 sq. ft./acre (104 sq. ft./acre average) and average diameter is 15 inches.

Decomposed stumps indicate that this stand was thinned some time ago.

MANAGEMENT RECOMMENDATIONS:

2030: Intermediate Thinning
2054: Shelterwood-Seeding Cut
2060: Overstory Removal

STAND # 6 A 5-11³ 3 acres

STAND DESCRIPTION:

This 28-year-old stand consists primarily of Aspen in the dominant/co-dominant class, with White Ash, White Birch, Yellow Birch, Northern Red Oak, and Sugar Maple as a component. Basal areas range from 40-110 sq. ft./acre (78 sq. ft./acre average) and average diameter is 8 inches.

MANAGEMENT RECOMMENDATIONS:

2047: Coppice

STAND # 7 SW 09-15⁴/SW 5-9¹ 7 acres

STAND DESCRIPTION:

This 54-year-old even-aged plantation consists entirely of White Spruce in the dominant/co-dominant class. Basal areas range from 100-190 sq. ft./acre (150 sq. ft./acre average) and average diameter is 11 inches. The understory consists of Upland Shrubs.

This stand was thinned for the first time in 2012. A small Red Pine plantation and Northern Hardwood stands are included within the western portion of this stand.

MANAGEMENT RECOMMENDATIONS:

As White Spruce stands age, mortality of residual trees with poor crowns increases. Rotting in the lower portion of the bole of trees also increases the risk of breakage during wind events. Overall growth is slower and routine thinning is not practical due to natural mortality. Therefore, it's recommended to clear-cut the stand to capture the value of the wood.

2026: Clear-Cut White Spruce

2028: Site Preparation for Planting (Herbicide and Disk Trench)

2029: Plant to White Spruce or Red Pine

OR

2026: Intermediate Thinning

STAND # 8 A 15+³/NH 5-11¹ 12 acres

STAND DESCRIPTION:

This 51-year-old stand consists primarily of Aspen in the dominant/co-dominant class, with Sugar Maple, Northern Red Oak, Basswood, Aspen, Red Maple, and White Birch as a component. Intermediate and suppressed species are primarily Sugar Maple. Basal areas range from 90-210 sq. ft./acre (157 sq. ft./acre average) and average diameter is 15 inches.

Northern Red Oak and Northern Hardwood inclusions are located within this stand.

MANAGEMENT RECOMMENDATIONS:

2026: Coppice

STAND # 9 A 5-11³/NH 15+¹ 23 acres

STAND DESCRIPTION:

This 26-year-old stand consists primarily of Aspen in the dominant/co-dominant class, with older Sugar Maple, Northern Red Oak, Red Maple, White Ash and Yellow Birch as a component. Basal areas range from 90-100 sq. ft./acre (93 sq. ft./acre average) and average diameter is 9 inches.

MANAGEMENT RECOMMENDATIONS:

2049: Coppice

STAND # 10 OR 15+³/NH 5-11¹ 18 acres

STAND DESCRIPTION:

This 93-year-old stand consists primarily of Northern Red Oak in the dominant/co-dominant class, with Red Maple, Sugar Maple, Bitternut Hickory, and Aspen as a component. Intermediate and suppressed species are primarily Red Maple, Sugar Maple, and Aspen. Basal areas range from 90-130 sq. ft./acre (11 sq. ft./acre average) and average diameter is 15 inches.

MANAGEMENT RECOMMENDATIONS:

2026: Intermediate Thinning

2046: Shelterwood-Seeding Cut

2052: Overstory Removal

STAND # 11 OR 15+³/NH 5-11¹ 17 acres

STAND DESCRIPTION:

This 96-year-old stand consists primarily of Northern Red Oak in the dominant/co-dominant class, with Red Maple, Sugar Maple, White Ash, White Oak, White Birch, and Aspen as a component. Intermediate and suppressed species are primarily Red Maple, Sugar Maple, Northern Red Oak, Yellow Birch and Aspen. Basal areas range from 90-150 sq. ft./acre (119 sq. ft./acre average) and average diameter is 17 inches.

MANAGEMENT RECOMMENDATIONS:

2026: Intermediate Thinning

2046: Shelterwood-Seeding Cut

2052: Overstory Removal

STAND # 12 NH 15+³/NH 5-11¹ 14 acres

STAND DESCRIPTION:

This 85-year-old Northern Hardwood stand consists primarily of Sugar Maple, Red Maple, and Northern Red Oak in the dominant/co-dominant class, with Eastern Hemlock, Yellow Birch, and Aspen as components. Intermediate and suppressed species are primarily Red Maple, Sugar Maple, White Ash, Northern Red Oak, Yellow Birch and Aspen. Basal areas range from 60-140 sq. ft./acre (102 sq. ft./acre average) and average diameter is 16 inches.

The overall quality of trees within this stand is moderate to poor. An Aspen inclusion is located within the northwest corner of this stand and is ready to be regenerated.

MANAGEMENT RECOMMENDATIONS:

2026: Shelterwood-Seeding Cut

2032: Overstory Removal

STAND # 13 OR 15+³/OR 5-11¹ 12 acres

STAND DESCRIPTION:

This 86-year-old stand consists primarily of Northern Red Oak in the dominant/co-dominant class, with Sugar Maple, White Ash, White Oak, White Birch, and Aspen as component. Intermediate and suppressed species are primarily Red Maple, Northern Red Oak, and Aspen. Basal areas range from 60-120 sq. ft./acre (102 sq. ft./acre average) and average diameter is 16 inches.

Younger inclusions of Northern Red Oak and Red Maple are found within the western portions of this stand. The west end has lower stocking with overmature Aspen as a component. Younger Aspen inclusions can be found within the stand.

MANAGEMENT RECOMMENDATIONS:

2026: Shelterwood-Seeding Cut and Coppice Aspen Inclusions
2032: Overstory Removal

STAND # 14 A 15+³/A 5-11¹ 3 acres

STAND DESCRIPTION:

This 65-year-old stand consists primarily of Aspen in the dominant/co-dominant class, with Red Maple, Northern Red Oak, and Eastern White Pine as components. Intermediate and suppressed species are primarily Aspen, with Red Maple, Sugar Maple, Northern Red Oak, and White Oak as components. Basal areas range from 80-140 sq. ft./acre (118 sq. ft./acre average) and average diameter is 14 inches.

Mature Oak Inclusions are found within this stand.

MANAGEMENT RECOMMENDATIONS:

2026: Coppice

STAND # 15 NH 15+¹/NH 5-11² 22 acres

STAND DESCRIPTION:

This two-aged Northern Hardwood stand consists of very poor quality, overmature, and dying Sugar Maple, Red Maple, Red Oak, Basswood, and White Ash in the dominant/co-dominant class. Trees are very poor quality and were unable to be aged due to interior rot. The second cohort of this stand consists of 37-year-old Northern Hardwood species, consisting primarily of White Ash, Bitternut Hickory, and Sugar Maple small sawtimber/poletimber, with Red Maple, Northern Red Oak, and Aspen as a component. Basal areas range from 70-130 sq. ft./acre (88 sq. ft./acre average) and average diameter is 11 inches.

The southern half of this stand is dominated by White Ash and White Birch and contains mature Aspen inclusions to regenerate.

MANAGEMENT RECOMMENDATIONS:

2026: Coppice Aspen
2040: Intermediate Thinning
2055: Intermediate Thinning
2070: Intermediate Thinning

SUMMARY OF RECOMMEND PRACTICES BY YEAR

<u>Year</u>	<u>Stand</u>	<u>Acres</u>	<u>Recommended Practices</u>	
2026	1	58	Intermediate Thinning	
	2	3	Regeneration Harvest-Coppice	
	3	44	Intermediate Thinning	
	7	7	Intermediate Thinning or Regeneration Harvest-Clear Cut	
	8	12	Regeneration Harvest-Coppice	
	10	18	Intermediate Thinning	
	11	17	Intermediate Thinning	
	12	14	Regeneration Harvest-Seeding Cut	
	13	12	Regeneration Harvest-Seeding Cut	
	14	3	Regeneration Harvest-Coppice	
	15	1	Regeneration Harvest-Coppice	
	2028	7	7	Site Preparation-Herbicide/Disk Trench (If Clear Cut)
	2029	7	7	Planting (If Clear Cut)
	2030	5	24	Intermediate Thinning
	2032	12	14	Overstory Removal
13		12	Overstory Removal	
2039	4	5	Regeneration Harvest-Coppice	
2040	15	22	Intermediate Thinning	
2046	1	58	Regeneration Harvest-Seeding Cut	
	10	18	Regeneration Harvest-Seeding Cut	
	11	17	Regeneration Harvest-Seeding Cut	
2047	6	3	Regeneration Harvest-Coppice	
2049	9	23	Regeneration Harvest-Coppice	
2052	1	58	Overstory Removal	
	10	18	Overstory Removal	
	11	17	Overstory Removal	
2054	3	44	Regeneration Harvest-Seeding Cut	
	5	24	Regeneration Harvest-Seeding Cut	
2055	15	22	Intermediate Thinning	
2060	3	44	Overstory Removal	
	5	24	Overstory Removal	
2070	15	22	Intermediate Thinning	

ADDITIONAL COMMENTS:

The Northern Hardwood stands are best suited for growing high quality Northern Red Oak, however, natural succession has led to a transition in cover type of non-oak species. If regenerating these stands to Northern Red Oak is desired, Sugar Maple seedlings will likely outcompete oak seedlings, unless scarification of most of the stand is completed.

The statewide National Heritage Inventory database and Archeological database shall be checked during the establishment phase of each harvest, ensuring that species and sites are protected under state and federal law. Each harvest shall follow Wisconsin Department of Natural Resources Best Management Practices for Water Quality and Best Management Practices for Invasive Species.

Key to Forest Cover Type Symbols:

Productive Forest

A	Aspen	NH	Northern Hardwood
BH	Bottomland Hardwoods	OR	Northern Red Oak
BW	White Birch	PR	Red Pine
C	Cedar	PW	White Pine
FB	Balsam Fir	PJ	Jack Pine
H	Hemlock	SH	Swamp Hardwoods
MD	Miscellaneous Deciduous	SW	White Spruce
MC	Miscellaneous Conifer	T	Tamarack
MR	Red Maple		

Non-Forest Types

CSG	Cool Season Grasses
EW	Emergent Wetland
F	Farmland
LM	Minor Lake (water less than 40 acres in area)
LMS	Stream (less than 1/8 mile in width)
US	Upland Shrub
WSA	Wetland Shrub - Alder
Z	Rock Outcrop/Sand Dunes

Developed Use

D	General Developed Use
IA	Parking Area
ICG	Campground
IP	Picnic Area
R	Recreational
ROW	Right-of-Way

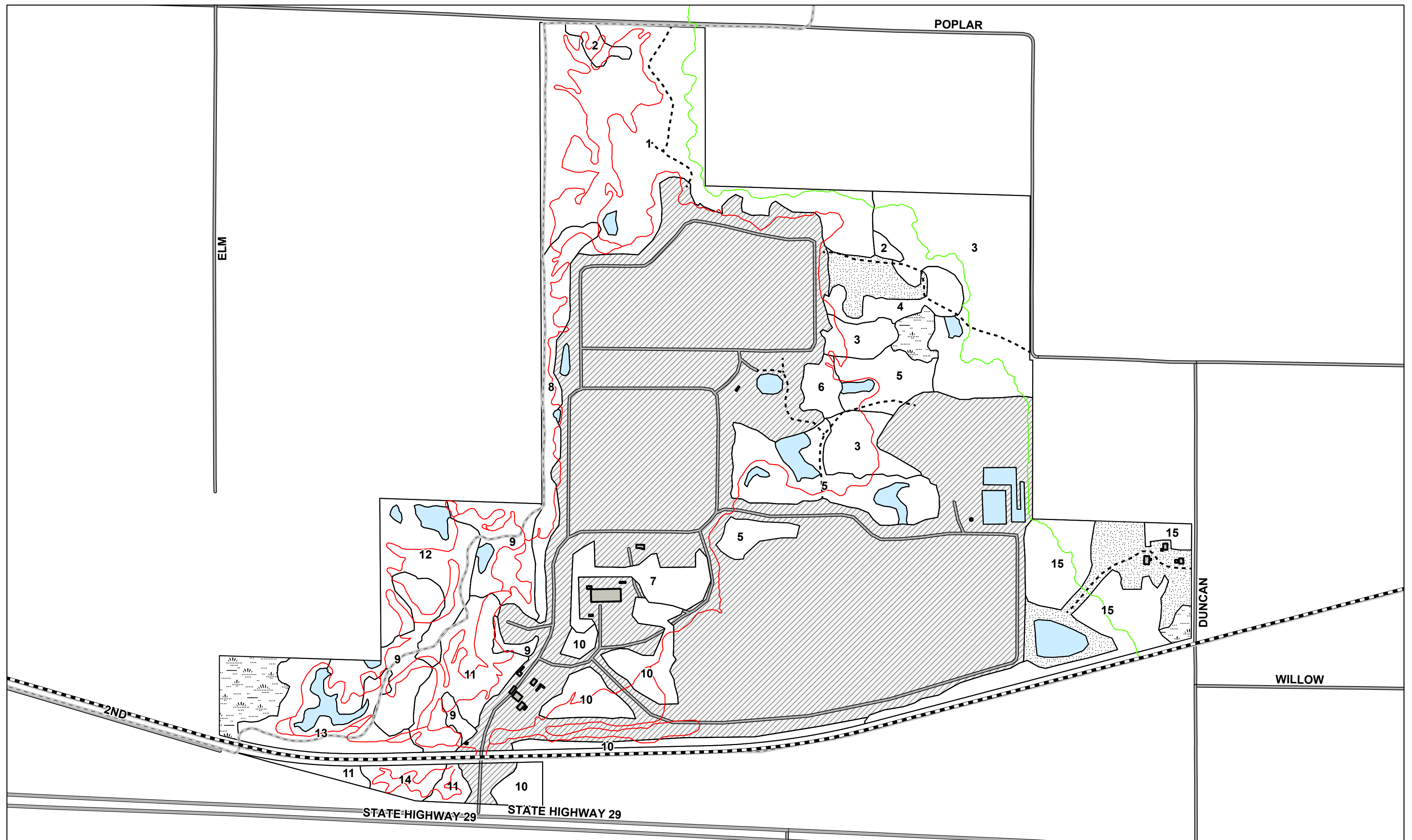
Key to Size Classes (DBH) - Diameter in inches at Breast Height):

0-5	Seedlings and Saplings	9-15/11-15	Small Sawtimber (Conifers/Hardwoods)
5-9 / 5-11	Pole timber (Conifers/Hardwoods)	15+	Large Sawtimber

Key to Stocking Levels (shown by superscripts after the size class):

<u>Density Class</u>	<u>Poles and Sawtimber</u>	<u>Saplings</u>	<u>Seedlings</u>
	(by basal area)	(by stems per acre)	
1	10 – 40 ft ² / acre	100-300	200-600
2	41 – 80 ft ² / acre	301-900	601-1500
3	81 – 130 ft ² / acre	900+	1500+
4	131 – 180 ft ² / acre		
5	180+ ft ² / acre		

Marathon County Solid Waste Department Recreational Trails



Legend			
	Forest Stands		Ice Age Trail
	Landfill		Snowmobile Trails
	Ponds		Woods Roads
	Grass		Mountain Bay Trail
	Buildings		Mountain Bike Trails (2021)

