

Packaging Extended Producer Responsibility Advisory Board

Wednesday, January 21, 2026

Start 1 p.m.-End 4 p.m.

MS Teams | Phone conference ID: 414 815 001# | Call in (audio only) +1 651-395-7448

Meeting Location: Room 100, MPCA St Paul Offices, 520 Lafayette Rd N., St. Paul, MN 55155

If attending in person, RSVP to packaging.mpca@state.mn.us by noon on Friday, January 16

Agenda:

Time	Topic	Speaker	Type	Page
1 p.m.	Call to order Meeting logistics Welcome and roll call / attendance Approve agenda Approve December 17 meeting summary	Chair Reinhardt	Action	2
1:10 p.m.	Updates from MPCA Updates from CAA	MPCA CAA	Information	
1:20 p.m.	Needs Assessment Overview	Eunomia	Information	4
1:50 p.m.	CAA's perspective of Needs Assessments	CAA	Information	
2:10 p.m.	Break			
2:25 p.m.	Discussion of Needs Assessment	Board	Information	
3:50 p.m.	Public comment			
4 p.m.	Adjourn			

Packaging EPR Advisory Board

Meeting Summary

Virtual via Microsoft Teams or in-person at the MPCA St. Paul Office | 1.5 hours

Wednesday, December 17, 2025 | Start 1 p.m. - End 2:30 p.m. CT

Recording available at: <https://www.pca.state.mn.us/events-and-meetings/packaging-extended-producer-responsibility-advisory-board-meeting-2025-12-17>

Attendance

Board Member Attendance

Present (7 members required for quorum)			Absent
Gabbie Batzko-Conley	Bill Keegan	Mac Sellars	Megan Daum
Sara Bixby	Kirk Koudelka	Jon Steiner	
Kate Davenport	Gregory Melkonian	Steve Vrchota	
Mike Griffin	Shoshana Micon		
Sydney Harris	Victoria Reinhardt (Chair)		
Miriam Holsinger (Vice Chair)	Maggie Schuppert		

Guest Presenters: Kris Coperine, CAA

Agency Staff: Tina Patton, Colleen Hetzel, Mallory Anderson, John Gilkeson, Quinn Carr, Molly Flynn

Participants: Stephanie Schuebel (MPCA), Peter Bierbaum, Shannon Pinc, Grace Altier, Lucy Mullany, April Vingum, Molly Blessing, Angiulo Damiani, Amos A. Briggs, Madeleine Partch, Amanda Erickson, Chandra Dee Her, Amber Backhaus, Hannah-Grace G. Henson, Susan Bush, Bridget Anderson, Dan Donkers, Brad Bowers, Julie Ketchum, Peter Hargreave, Kristyn Buetow, Drew Hatzenbihler, Annebelle Klein, Luke Edlund, Paul Gutkowski, Apurupa Gorthi, Alex Torres, Tony Kwlis, Chris Wandmacher, Mindy Kairis, Amanda M. Burke, Erinne Christman, Valerie Jerich, Frazier Willman, Geralyn Lasher, Todd Bergstrom, Julia Ahearn, Jeff Standish, Addison Tansom, Valerie Jerich, Kellie Kish, Matt Herman, Tim Wilkin, Justin, Alboury Ndiaye, Ana Miller, Ryan O'Gara, Kala Fisher, Khalid Alasadi, Darla Arians, Rick Zultner, Cathleen Hall, Taylor Loeber, Meagan Maxon, Brooks Andersen, Alexander Truelove, Garth Hickle, Leah Batstone-Cunningham, Josh Allen, Cafferty Alicia (BSH GCM-NA), Emily Sisk, Chinwendu Ozoh (MPCA), Phillip Shaffer

Meeting notes

Call to order

Mallory Anderson conducted a roll call vote.

Batzko-Conley, Bixby, Davenport, Griffin, Harris, Holsinger, Keegan, Melkonian, Micon, Reinhardt, Schuppert, Sellars, Steiner, Vrchota

Absent: Daum, Vrchota

Approval of agenda

Jon Steiner motioned, and Gabbie Batzko-Conley seconded. Mallory Anderson conducted a roll call vote.

Yes: Batzko-Conley, Bixby, Davenport, Griffin, Harris, Holsinger, Keegan, Melkonian, Micon, Reinhardt, Schuppert, Steiner, Vrchota

No: none

Absent: Daum and Sellars

Approval of November 2025 Meeting Summary

Miriam Holsinger motioned and Sara Bixby seconded. Mallory Anderson conducted a roll call vote.

Yes: Batzko-Conley, Bixby, Davenport, Griffin, Harris, Holsinger, Keegan, Melkonian, Micon, Reinhardt, Schuppert, Steiner, Vrchota

No: none

Absent: Daum and Sellars

Agency updates

Presented by Mallory Anderson, MPCA staff

In-process of filling two vacant board seats. Described plan for protecting proprietary and confidential data, legally “not public” data for the needs assessment.

CAA updates

Presented by Kris Coperine, CAA staff

Presented on what CAA is including its role and requirements in Minnesota as the registered producer responsibility organization.

Board Discussion: draft Preliminary Assessment

Facilitated by Miriam Holsinger

A discussion on the draft comments. A vote to approve comment letter as amended.

Yes: Batzko-Conley, Bixby, Davenport, Griffin, Harris, Holsinger, Keegan, Melkonian, Micon, Reinhardt, Schuppert, Sellars, Steiner, Vrchota

No: none

Absent: Daum

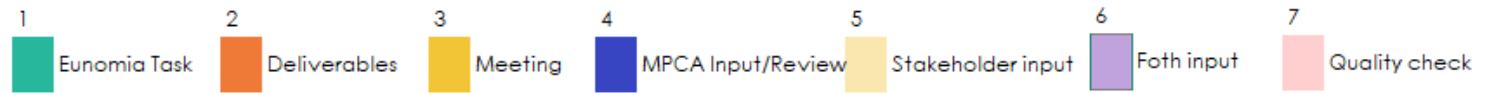
Public comment

None

Notes compiled by: Mallory Anderson

[Minnesota's Packaging Extended Producer Responsibility Advisory Board](#)

Minnesota Needs Assessment - Engagement Timeline



DRAFT - Outreach and Engagement Plan

Version 1.0

01/15/2026

1.0 Objective & Overview

1.1 Objective

The objective of this Outreach and Engagement Plan (OEP) is to set out what outreach will be carried out with different stakeholders and interested parties, when and for what purpose. The OEP focuses on the engagement needed as part of the Needs Assessment only.

This document will be a working document and at the end of the Needs Assessment it will be updated to reflect the outreach and engagement completed.

The purpose of the outreach and engagement will be:

1. To inform
2. To gather data, insights and information
3. To gather feedback

Engagement will be through:

- Surveys
- Interviews
- Site Visits
- Presentations at conferences and programmed events including webinars
- In person events
- Advisory Board meetings

At each step of the process, outreach and engagement allows entities outside the advisory board and the MPCA to provide input on the process and help to guide the assessment to then support implementation of the legislation.

1.2 Overview

The act requires the MPCA to complete assessments to gather critical information about covered material (packaging and paper products covered under the law) introduction, use and reuse, and management in Minnesota that will inform the development of the EPR program statewide.

Throughout the course of the needs assessments there is need to ensure that there are opportunities to engage stakeholders and interested parties. This plan maps out who engagement is happening with, what the outcome of the engagement is for, and when along the timeline the engagement will occur. It also provides information on who is going to own the engagement (the Eunomia Team or MPCA) There is an accompanying spreadsheet “engagement tracker” (see appendix 2) that will list stakeholders and interested parties that have either been identified or have come forward requesting to be involved. This list is to be updated regularly as new entities are identified and will be kept as a record of engagement that has occurred. There are many interested parties and as such this plan also sets out those that will be contacted to ensure that the Eunomia team can access the necessary data and insights to complete the Needs Assessment, and those for which engagement will be reactive.

1.3 Advisory Board

The Advisory Board meets regularly, at minimum monthly, to support the work of the Needs Assessment. The group is made up of 18 individuals representing a wide range of impacted parties under the Packaging Waste and Cost Reduction Act. Advisory board members will review activities conducted by the MPCA and the producer responsibility organization (PRO) and advise on program implementation. They are part of the report reviews and provide input on the data questions and other aspects of the process. Meetings with the Advisory Board are usually hybrid, offering both an in-person and virtual option.

The table below includes the planned engagement with the Advisory Board.

Table 1-1. Advisory Board Meetings and Proposed Subjects

Board Meeting Date	Meeting Subject Area – Draft
January 21	Consultation on the scope of the Needs Assessment.
February 18	How to measure recycling. Review of the major impacts and types of contamination in the recycling stream and organics stream.
March 18	Status and examples of refill and reuse programs. How to measure refill and reuse.
April 15	Postconsumer recycled content overview. Update on third-party certifications.
May 20	Awareness, education, and behavior change around waste reduction, reuse, recycling and composting.
June 17	Methodology to establish reimbursement rates.
July 15	Environmental health and public health considerations. Overview of toxics in packaging.
August 19	TBD
September 16	In-depth presentation on the draft Needs Assessment.
October 21	Working session: comments and feedback on Needs Assessment.

1.4 Stakeholders and Interested Parties

In conducting a Needs Assessment, the commissioner must: initiate a consultation process to obtain recommendations from the advisory board, political subdivisions, service providers, producer responsibility organizations, and other interested parties regarding the type and scope of information that should be collected and analyzed in the needs assessment required by this section (Minn. Stat. 115A.1450).

- "Political subdivision" means any municipal corporation, governmental subdivision of the state, local government unit, special district, or local or regional board, commission, or authority authorized by law to plan or provide for waste management.
- "Service provider" means an entity that provides covered services for covered materials. A political subdivision that provides or that contracts or otherwise arranges with another party to provide covered services for covered materials within its jurisdiction may be a service provider regardless of whether it provided, contracted for, or otherwise arranged for similar services before the approval of the applicable stewardship plan.
- "Producer responsibility organization (PRO)" means a nonprofit corporation that is tax exempt under chapter 501(c)(3) of the federal Internal Revenue Code and that is created by a group of producers to implement activities under sections 115A.144 to 115A.1463.
- "Interested parties" means individuals or organizations that have an interest in—or are affected by—the development, implementation, or operation of an EPR program. This can include those who are directly impacted by the program's outcomes; have stakes in decision-making or performance metrics; provide insight, feedback, or expertise during consultation processes.

There is no definition for interested parties, so for the purposes of this OEP it is assumed to be an organization that may be impacted and/or benefit from the eventual program that gets implemented, including associations that support activities related to source reduction, reuse, recycling, and/or composting.

The Wednesday, January 21 board meeting provides a consultation opportunity for advisory board members, and those who would like to provide more input or have a 1:1 meeting should request one of the MPCA.

2.0 List of Stakeholders and Interested Parties

At the start of both the Preliminary Assessment and Needs Assessment processes, discussion with the MPCA and Advisory Board will identify which specific stakeholder groups shall be engaged during that phase, on what topics they should be engaged, when in the process engagement should take place, and the structure of that engagement. It will be ensured that each stakeholder group has a clear objective and desired outcome for engagement and that the group is provided with any necessary pre-read material. Notes will be taken at each meeting and shared with MPCA and the relevant stakeholder group.

Table 1 includes examples of the various types of different stakeholder groups and interested parties. The organizations within this list are examples and may not be targeted. The engagement tracker sets out those that have been identified as priority (see Appendix 3).

Table 2-1: List of Stakeholder Types and Examples

Stakeholder/Interested Group	Examples
Industry Association – National Material Specific	Association of Plastic Recyclers, Glass Packaging Institute, Aluminum Association/Can Manufacturers Association, American Forest & Paper Association
Industry Associations – Waste, Recycling and Composting MN	AMC Solid Waste Working Group, SWANA, NWRA, Minnesota Composting Council
Recycling Organizations and Groups	Flexible Film Initiative, The Recycling Partnership,
Reuse Organizations and service providers	Upstream, Reuse Minnesota, Perpetual, Reuse service providers e.g. Loop, Ridwell
Producer Responsible Organization	Circular Action Alliance
Producers and producer related organizations	Ameripen, Consumer Brands Association,
Packaging manufacturers	Amcor, Sonoco, Ball, Ardagh
Political subdivisions	Counties, Cities and Townships
Haulers – Service Provider	See Appendix 3.
Transfer, recycling and composting service providers	See Appendix 3.
State Agencies	Department of Education, Department of Administration, Department of Natural Resources, and Department of Transportation

Environmental Justice Organizations and Community Organizations	Minnesota Center for Environmental Advocacy, Clean Water Action – Minnesota, Zero Waste Coalition
Other	Minnesota Chamber of Commerce

3.0 Engagement

Planned engagement refers to engagement with entities that will directly provide input into the process or the data for the Needs Assessment. This engagement may occur through regularly planned meetings, one-on-one interviews or general meetings with members of an entity. These engagements allow for transparency of the process and direct input into what data is collected, how the data will feed into the Needs Assessment, and an understanding of how the assessment will guide the legislation.

Meetings with key interested parties will be catered to each individual group to get feedback on topics of key interest to them, data survey questions for the Needs Assessment, and to help collect feedback on the vision for the future. Groups will be contacted directly to meet with them, or groups can request meetings by contacting the Packaging EPR coordinator via email to: packaging.mPCA@state.mn.us. Meetings will mostly be conducted by the MPCA with support from Eunomia and Foth to engage as many interested parties as possible.

Opportunities for engagement will be tracked on the Engagement Tracker (see Appendix 2) to keep track of entities as well as dates and commitments. Foth will assist the MPCA in the maintenance of the tracker.

3.1 Industry Associations – Material Based

Industry associations that are material based are entities that are directly involved in the recycling, packaging, paper, or solid waste industry and often represent a larger membership. They play a significant role in policy and legislation that affects the industry. Engagements with this group are likely to be achieved through interviews, meetings, emails, as well as surveys to understand how they are involved in the industry within the state, as well as what this legislation means for them.

Purpose of Engagement: Gather insights on:

- recycling, end markets relevant to MN
- feasibility of reuse
- recycled content use, barriers and opportunities

3.2 Industry Associations MN

Other industry associations that are not material based are entities that are involved in the recycling, packaging, paper, or solid waste industry, may also often represent a larger membership, but are indirectly involved. In many cases they still play a significant role in policy and legislation that affects the industry but are usually taking a stance for a certain aspect of the industry. Engagements with this group are likely to be achieved mostly through meetings managed by the MPCA to provide an overview of the Needs Assessment and receive guidance on what this legislation means for them.

3.3 Recycling Organizations and Groups

There are national, regional and Minnesota recycling organizations that will be able to provide information, views and insights into the needs assessment process e.g. on:

- Best practices in other jurisdictions to inform the future system under EPR
- Barriers and opportunities for recycling in Minnesota

Engagement with this group will in some cases be proactive, e.g. where it is known that a specific entity has information necessary to the study, or reactive. Proactive outreach will be managed by Eunomia and Foth, reactive by MPCA. Engagement is likely to be in the form of an interview or through email correspondence. All information gathered through these contact points will be summarized back to the organization to confirm accuracy and how it might be used in the Needs Assessment process.

3.4 Reuse and Refill Organizations and Service Providers

Reuse is an integral component of EPR in Minnesota. Targeted interviews will be carried out with service providers across the reuse ecosystem via email to gather data and insights building off of Eunomia existing data set. Information that we will aim to collect through different reuse and refill system parties includes:

- Food service establishment
 - Insights and data from own source reduction, reuse, and refill experiences/trials as well as participation in relevant working group efforts, including suppliers / supply chain
 - Key barriers and opportunities
- Fillers
 - Operational requirements to consider prefill in reusable containers
 - Challenges and opportunities
 - Costs and timescales to transition
- Reuse and refill program operators:
 - Insights and impact data from reuse and refill experience
 - Key barriers and opportunities
 - Costs (capital and operational), operational impacts, and timeline for implementing different solutions
- Costs (capital and operational), operational impacts, and timeline for implementing different solutions

3.5 PRO

Regular meetings will be held with the registered PRO, Circular Action Alliance, to inform the development of the needs assessment such that it can inform the Program Plan and meet the legislative requirements.

3.6 Producers and Producer related Organizations

A small number of interviews will be held with producers to gather insights, understandings, and lessons learnt related to:

- Supply chains
- Industry-wide insights and aggregate trends
- Specific reuse/refill initiatives, working groups, and data from relevant efforts
- Source reduction potential and challenges
- Key barriers and opportunities

3.7 Retailers

A small number of interviews will be carried out to gather insights and data:

- from own source reduction, reuse, and refill experiences/trials as well as participation in relevant working group efforts, including from their suppliers/supply chain
- on key barriers and opportunities

3.8 Packaging Manufacturers

A small number of interviews will be carried out with packaging manufacturers to gather:

- Insights and data from own source reduction, reuse, and refill experiences/trials as well as participation in relevant working group efforts
- Insights from current R&D (research and development) and innovation work
- Key barriers and opportunities

3.9 Counties, Cities and Townships

Surveys and interviews will be used to gather data to supplement relevant data already reported to the state on current service provisions including what services are offered and accessed to different property types and covered entities, and cost of service and contracting arrange. See Section 4.1 below for further details.

3.10 Haulers

Surveys and interviews will be used to access data on services provided by haulers and the cost of providing those services to covered entities, and to gather insights on future service provisions. See Section 4.1 below for further details.

3.11 Transfer, recycling and composting service providers.

Surveys, interviews and a select number of site visits will be carried out to gather data and insights on current services provisions and costs and what could be possible under EPR with additional findings. Further details are provided in Section 4.1 and 4.3

3.12 State Agencies

Emails and interviews will be held with state agencies including but not limited to:

- Department of Education to gain information on services to schools and specifically Green Ribbon Schools
- Department of Administration to gain information on existing recycling services at state-used buildings
- Department of Natural Resources and Department of Transportation to gain information on challenges with recycling in rural areas (at parks and rest stops)

3.13 Environmental Justice Organizations and Community Organizations

A small group meeting or a small number of interviews will be carried out with environmental justice organizations and community organizations to gather insights on priorities by these organizations and key opportunities and barriers.

4.0 Engagement Types

4.1 Surveys

Research for the Needs Assessment will begin with draft surveys and interview guides submitted to the MPCA/Advisory Boards. Following the review, research will begin and surveys, interviews, and site visits will be deployed throughout February and March 2026 with data continuing to be gathered and finalized into April/May 2026.

Entities will include but are not limited to:

- State, County, Municipalities
- Industry Associations
- Haulers
- Facilities

Best practice for survey engagement is contained in Appendix 1.

4.1.1 Survey Questions for Data Collection

Survey questions and interview guides will be developed for each target group for data collection. Questions will be evaluated and approved by the MPCA with input from the advisory board and interested parties before they are deployed.

The following target groups will be contacted for data for the Needs Assessment:

- Counties and Municipalities

- When surveys get deployed, they will engage counties before cities and townships. Some counties will want to be a part of collecting data from the cities and townships within their county to maintain relationships. This is particularly pronounced in metro counties. Consultants will work with the Counties to engage them when possible, to enhance data collection.
- Haulers
 - Surveys and Interviews
- Facilities
 - Surveys, Interviews, and Site Visits
- End Markets
 - Surveys and Interviews

4.1.2 Data Confidentiality

There is a need for data confidentiality for all stakeholders, particularly with haulers and facilities. The Packaging Waste and Cost Reduction Act outlines how and when data can be classified as not public data.

Responses to surveys or interviews that classify as not public data must be aggregated and anonymized and exclude location data, as necessary, to maintain anonymity. Reassurance will be given in introductions to surveys explaining how data will be used, how identity will be protected, which questions are confidential (not public data) versus public.

Responders will be given the opportunity to “opt-in” to classify certain information as not-public. This will be included in surveys and interview guides to provide a list of which responses can be classified as not-public and will be maintained as confidential by Eunomia, its subcontractors, and the MPCA.

4.1.3 Target Groups for Surveys

4.1.3.1 County Survey

In order to minimize the time required for counties to complete the surveys, we will simplify their survey to an Excel spreadsheet. Each spreadsheet will be customized (i.e., 87 total) to include a list of all cities and townships in the select county and ask the county respondent to indicate whether each city or township is organized or not.

These spreadsheets will then be analyzed to produce a list of organized and unorganized cities and townships. These spreadsheets will then feed into MPCA’s SnapSurvey software to produce unique IDs for each city/township.

4.1.3.2 City and Township Surveys

Cities and townships designated as “organized” in the county survey will then be sent a survey via MPCA’s SnapSurvey software. Unorganized cities and townships will not be contacted for surveys or interviews; instead, we will survey haulers operating in those areas.

Cities and townships will be surveyed to collect the following information:

- General information
- The cities and townships whose data is covered in the survey response.
- Service provisions by city or township
- Operational and performance data by city or township
- Contractual agreements
- Cost data
- City/township -specific questions

4.1.3.3 Hauler Survey

The aim for haulers is to gather as much data as possible on the type of services provided to covered entities (single and multifamily residences, schools, non-profit corporations, state agencies, political subdivisions, public areas) through surveys first to counties and then secondary research with the gaps being filled with data from haulers/registered service providers.

For this group we will establish a process to clarify what data provided will only be used in aggregate, what data may be supplied to the MPCA, and ensure that no single respondent can be identified in aggregated data.

Haulers will be surveyed in two groups:

- Residential haulers: Surveys in MPCA's SnapSurvey software will be sent to haulers operating in areas designated as unorganized in the county survey results.
- Commercial haulers: Surveys in MPCA's SnapSurvey software will be sent to haulers operating in the commercial sector across Minnesota.

4.1.3.4 Infrastructure Survey

The types of data that will be collected as part of the surveys:

- Capacity
- Tonnage of material managed for at least the previous year
- Pricing information – tipping fee and any other cost information
- Materials accepted
- Commercial/residential split
- Percentage of material coming from Minnesota
- Tonnage out by commodity
- Contamination levels and types of contaminants (likely as blended residue tonnage)
- Permitted and Design Processing capacity

- End markets for material
- Challenges faced by facilities, which could include (for example) finding secure and responsible end markets for specific material streams
- Opportunity for expansion to accept a broader range of covered materials

4.1.3.5 End Markets Survey

While some end markets will be local to Minnesota, many will be regional. Data from similar surveys and interviews for the needs assessments in Colorado, California, and Illinois will be leveraged.

The end markets survey and interviews will be designed to capture:

- Information on the total quantity of inbound material for each approximate material grade accepted
- Primary types of contamination in inbound material at the facility
- Techniques, technologies, and processes employed in the facility to remove contaminants from the final product
- Market conditions required for each facility to increase recycling capacities in Minnesota

4.2 Interviews

Interviews will be used:

- With interested parties that are likely to be able to provide a specific viewpoint, or insights that may be harder to access otherwise
- To clarify data provided through surveys

Interview process:

- Meetings will be scheduled at a time that is convenient for the interviewee for an appropriate duration
- Broad interview topics or specific questions will be provided ahead of the interview
- Notes from the interview will be provided after the meeting so that interviewee can approve information captured
- NDA's will be signed if that is requested by the interviewee

4.3 Site Visits

Facility site visits will be used to both follow up on survey provided data, but also to better understand what certain facilities are managing and how they are managing materials. The list of which facilities will be visited will be shared with the MPCA prior to site visits being enacted and an understanding of what information we are looking to achieve with each site visit will be clarified.

4.4 Presentations at Conferences and Programmed Events/Webinars or In Person Events

Presentations at conferences and events/webinars will be used to update stakeholders on the process, as well as illicit input and support of the survey and data collection process. The tracker will include more details on these opportunities.

5.0 Public Comment – draft Needs Assessment

The public comment periods of the draft Needs Assessment will follow the release of the drafts on the MPCA website out to the general public for all interested parties to review. There will be established public meetings associated with the release of each draft.

5.1 Needs Assessment Draft Open Comment Period and Informational Sessions

The open comment period will include a public notice, an open comment period of 60-days, and public meetings. The draft Needs Assessment will be completed in September 2026 with a 60-day open comment period mid-September to mid-November 2026, with Public Informational Sessions held in October 2026.

The agency will use its available GovDelivery outlets to notice these meetings and meeting notices will be shared out by the consulting team to those engaged during this work and compiled in the tracker described in section 2.0 to disseminate the announcements for public comment. Meetings are to be posted to MPCA's event page, shared out through the packaging EPR listserv (additionally shared out through any new contact lists developed as part of outreach/engagement and data collection), and the draft report posted to MPCA's Public Comment forum.

During each open comment period for the draft Needs Assessment, two 1-hour meetings via Zoom or another platform will be held for public comment for the public. Either two 1.5-hour meetings or one 3-hour meeting will be held during business-hours focused on input from impacted parties. During these sessions, a short presentation on the recommendations gathered during engagement sessions and the current draft of the Needs Assessment will be given by the consulting team.

For the public meetings, one meeting will be held on a weekday and another will be held either on an evening or a Saturday morning to enable maximum public involvement. Feedback will be collected through chat and polling during the virtual meeting. If the consulting team is unable to address all questions during the session, answers to any outstanding questions received will be sent out after the meeting to all attendees by the consulting team.

All feedback will be analyzed and summarized for incorporation into the final report.

6.0 Summary of Engagement Carried Out

A summary of all engagement activities will be developed utilizing the “engagement tracker” as a method of showing who was engaged with, when the engagement happened, and what they provided input on.

Appendix 1 - Best Practices for Engagement

Overall best practices that will be used to maximize response rates and percentage of complete and accurate survey returns are as follows:

- Design the Survey for Ease and Clarity
 - Keep it short and focused: Longer surveys reduce completion rates. Aim for 5–10 minutes max.
 - Use clear, simple language: Avoid jargon or ambiguous questions.
 - Logical flow: Group related questions and use skip logic to avoid irrelevant items.
 - Mobile-friendly format: Many respondents use phones, so optimize for small screens.
- Communicate Value and Purpose
 - Explain why the survey matters: Tell respondents how their input will be used and the impact it will have.
 - Personalize invitations: Use names and relevant context when possible.
 - Emphasize confidentiality: People are more honest when they feel safe.
- Timing and Frequency
 - Send at optimal times: Avoid weekends and holidays; mid-week mornings often work best.
 - Reminders: Send 1–2 polite reminders spaced a few days apart. Highlight urgency in later reminders.
- Reduce Friction
 - No login required: Avoid unnecessary authentication steps.
 - Progress indicators: Show how much is left to complete.
 - Save and resume: Allow respondents to return later if interrupted.
 - Be sure the survey is mobile friendly.
- Ensure Accuracy and Completeness
 - Use validation checks: Prevent skipped mandatory fields or illogical answers.
 - Pilot test: Run a small test to catch confusing questions.
 - Provide definitions/examples: Clarify complex terms to avoid misinterpretation.
- Follow-Up and Engagement
 - Thank respondents: Acknowledge their effort immediately after submission.
 - Share results: Transparency builds trust and encourages future participation.

7.0 Appendix 2 – Engagement tracker

The following information will be filled out by the MPCA, Eunomia, and Foth as outreach and engagement is completed. Where possible, the project team will request to attend a regularly scheduled meeting of the organization.

Engagement tracker													
Stakeholder Type	Company/ Organization	Contact Name	Title	Phone	Email	Other Contact info	Contact Lead	Dates of regularly scheduled meetings	Notes @ Company/Org (area of interest, connection to EPR, how many members, etc.)	Date reached out	Engagement Scheduled For	Confirmed Engagement Date	Notes @ engagement session

8.0 Appendix 3 – Priority organizations

The following organizations have been identified as priority to engage.

- Transfer, recycling and composting service providers - **Facilities that accept waste generated in MN will be priority. The list will begin with those permitted facilities and be expanded to identify and include facilities not permitted due to being on tribal land and/or out of state.**
- Haulers – Service Provider - **Haulers will be identified using lists of licensed haulers supplied to the MPCA through SCORE reporting. Only haulers that identify providing “commercial” and/or “residential” recycling service will be contacted.** All solid waste joint powers boards, counties, cities, and townships in MN
- State agencies like the Department of Natural Resources, Department of Transportation, and Department of Administration to identify information on generation and costs at public buildings
- MetCouncil and other regional and park organizations that manage collection in public spaces like transit stops and parks

Specific and/or associations nationally or located regionally:

- The Aluminum Association
- AMC Solid Waste working group
- American Forest & Paper Association
- American Iron and Steel Institut
- Association of Plastic Recyclers
- Beauty products from retail salons
- Circulr
- Consumer Goods Forum
- Cylinder Industry
- CURE
- Flexible Plastics Association
- Glass Packaging Institute
- Glass Recycling Coalition
- Glass Recyclers
- National Glass Association
- Loop
- Minnesota Chamber of Commerce

- Minnesota Composting Council
- Minnesota Resource Recovery Association
- MN EJ Table
- National Waste & Recycling Association - MN Chapter
- Paper Recycling Coalition
- Petroleum products
- Plastics Industry Association
- Recycled Materials Association
- Recycling Association of Minnesota
- Recycling Education Committee
- Reuse MN
- Reposit
- Ridwell
- Solid Waste Administrators Association
- SWANA - Land of Lakes (MN/ND) Chapter
- Terra Cycle
- US Plastics Pact
- Zero Waste Coalition

Minnesota Needs Assessment – Needs Assessment Overview



01

**Project
Objectives
Overview**

02

**Primary
Research
Plan**

03

**Needs
Assessment
Plan**

04

Questions



1. **Objective 1:** Conduct research and analysis to **produce the Preliminary Assessment**.
2. **Objective 2:** Develop a plan and execute collection of primary research needed to **fill gaps from the Preliminary Assessment and to establish the foundation of data for the Needs Assessment**.
3. **Objective 3:** Carry out research and analysis to **produce the needs assessment**.



The needs assessment will build upon the findings of the preliminary assessment to inform program details.

Once the current state is understood, the evaluation of the existing system can be completed and considered, on a material-by-material basis along with the programmatic improvement measures and investments that could be made over a five-year period to support waste reduction, reuse, recycling, composting, and use of recycled content. Waste reduction, reuse, recycling, and composting rates will also be projected considering the results from implementing a range of different measures and investments.



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Content of Needs Assessment (subd. 4.) –1

Legislative Text

(1) an evaluation of:

- (i) existing waste reduction, reuse, recycling, and composting, as applicable, for each covered materials type, including collection rates, recycling rates, composting rates, reuse rates, and return rates, as applicable, for each covered materials type;
- (ii) overall recycling rate, composting rate, reuse rate, and return rate for all covered materials; and
- (iii) the extent to which postconsumer recycled content, by the best estimate, is or could be incorporated into each covered materials type, as applicable, including a review of market and technical barriers to incorporating postconsumer materials into covered materials;

(2) an evaluation of covered materials in the disposal, recycling, and composting streams to determine the covered materials types and amounts within each stream, using new studies conducted by the commissioner or publicly available and applicable studies;

(3) proposals for a range of outcomes for each covered materials type to be accomplished within a five-year time frame in multiple units of measurement, including but not limited to unit-based, weight-based, and volume-based, for each of the following:

- (i) waste reduction;
- (ii) reuse rate and return rates;
- (iii) recycling rates;
- (iv) composting rates; and
- (v) postconsumer recycled content, if applicable;

Relevant Engagement Tasks

- **County, city and township, hauler, and facility** surveys and interviews will be used to collect data not already collected via SCORE or available in the 2013 MN Statewide Waste Characterization Study. Example question topics: collection for recycling from multifamily households, existing reuse systems, loss rates through processing, compositions of composting facility inputs and outputs, etc.
- Engagement with **Department of Education, Administration, Natural Resources, and Transportation** to gain information on schools, state-used buildings, parks, etc.
- **Advisory Board** input on “How to measure recycling. Review of the major impacts and types of contamination in the recycling stream and organics stream” on February 18.
- **County, city and township, hauler, and facility** surveys and interviews will be used to collect data not already collected via SCORE or available in the 2013 MN Statewide Waste Characterization Study or the 2022 Food Waste Generation and Comp. Study for MPCA.
- **Industry association, producer responsibility organization, recycling organization, retailer, packaging manufacturer, and other relevant stakeholder** interviews to gather insights from R&D, trials, working groups, etc.
- **Advisory Board** input on “Postconsumer recycled content overview. Update on third-party certifications.” on April 15.
- **Advisory Board** input on “Status and examples of refill and reuse programs. How to measure refill and reuse.” on March 18.

Content of Needs Assessment (subd. 4.) – 2

Legislative Text

(4) proposals for a range of outcomes for the categories established in section 115A.1451, [subdivision 7](#), that consider:

- (i) information contained in or used to prepare a needs assessment according to this subdivision;
- (ii) goals and requirements of the Waste Management Act;
- (iii) statewide goals for greenhouse gas emission reductions under section 216H.02;
- (iv) the need for continuous progress toward overall reduction in the generation of covered materials waste and the complete reuse, recycling, or composting of covered materials to reduce environmental impacts and human health impacts;
- (v) a preference for statewide requirements that accomplish and further the goals and requirements in items (ii) to (iv) as soon as practicable and to the maximum extent achievable; and
- (vi) information from packaging and paper product producer responsibility programs operating in other jurisdictions;

(5) an evaluation of the factors for each covered material collected for recycling or composting as established in section 115A.1453, [subdivision 4](#);

(6) recommended collection methods by covered materials type to maximize collection efficiency, maximize feedstock quality, and optimize service and convenience for collection of covered materials to be considered or that are included on lists established in section 115A.1453;

Relevant Engagement Tasks

- Proposals for recycling rate, composting rate, reuse rate, return rate, % of covered materials waste reduced, and % of post consumer recycled content that covered materials must contain will be informed by modelling and the cumulation of all stakeholder input.

- **County, city and township, hauler, and facility** surveys and interviews will be used to collect data not already collected via SCORE or available in the 2013 MN Statewide Waste Characterization Study. Example question topics: drop off for recycling and yard waste, sorting technology, material grades/bales, processing residuals, contamination, and toxic substances, etc.

- **Hauler and facility** surveys and interviews, covering topics such as composition/reject rates of recyclables collected via curbside.

Content of Needs Assessment (subd. 4.) – 3

Legislative Text

(7) proposed plans and metrics for how to measure progress in achieving performance targets and statewide requirements;

(8) an evaluation of options for third-party certification of activities to meet obligations of sections 115A.144 to 115A.1463;

(9) an inventory of the current system, including:

- (i) infrastructure, capacity, performance, funding level, and method and sources of financing for the existing covered services for covered materials operating in the state;
- (ii) an estimate of total annual costs of covered services based on registered service provider costs; and
- (iii) availability and cost of covered services for covered materials to covered entities and any other location where covered materials are introduced, including identification of disparities in the availability of these services in environmental justice areas compared with other areas and proposals for reducing or eliminating those disparities;

Relevant Engagement Tasks

- **Advisory Board** input on “How to measure recycling. Review of the major impacts and types of contamination in the recycling stream and organics stream” on February 18.
- **Advisory Board** input on “Status and examples of refill and reuse programs. How to measure refill and reuse.” on March 18.
- **Facility** surveys and interviews will be used to collect data on available markets for covered materials.
- **Advisory Board** input on “Postconsumer recycled content overview. Update on third-party certifications.” on April 15.
- **County, city and township, and hauler** surveys and interviews will be used to collect data not already collected via SCORE. Example question topics: gaps in costs of recycling, composting, and garbage services.
- Small group meeting or interviews with **environmental justice organizations and community organizations** to gather insights on disparities in services in environmental justice areas.

Content of Needs Assessment (subd. 4.) – 4

Legislative Text

(10) an evaluation of investments needed to increase waste reduction, reuse, recycling, and composting rates of covered materials according to the range of proposed performance targets and statewide requirements, including investments in existing and new infrastructure that would also:

- (i) maintain or improve operations of existing infrastructure and accounts for waste reduction, reuse, recycling, and composting of covered materials statewide;
- (ii) expand the availability and accessibility of recycling collection services for recyclable covered materials to all covered entities to optimize service and convenience; and
- (iii) establish and expand the availability and accessibility of reuse services for reusable covered materials;

(11) a recommended methodology for applying criteria and formulas to establish reimbursement rates as described in [section 115A.1455](#);

(12) an assessment of the viability and robustness of markets for recyclable covered materials and the degree to which these markets can be considered responsible markets;

(13) an assessment of the level and causes of contamination of source-separated recyclable materials, source-separated compostable materials and collected reusables, and the impacts of contamination on service providers, including the cost to manage this contamination;

Relevant Engagement Tasks

- Evaluation of needed investments will be informed by modelling and the cumulation of all stakeholder input, namely the **county, city and township, hauler, and facility** surveys and interviews that provided information on current infrastructure and capacity.

- Recommended methodology for reimbursement rates will be informed by the cumulation of stakeholder input (e.g., cities, townships, counties, haulers, PRO) on costs.

- **Advisory Board** input on “Methodology to establish reimbursement rates” on June 17.

- **Facility** surveys and interviews will be used to collect data on available markets for covered materials, capacity of those markets, and if the markets meet the definition of a responsible market by disposing of contaminants responsibly.

- **County, city and township, and facility** surveys and interviews will be used to collect data on contamination and related costs not already collected via SCORE.
- **Industry association, reuse and refill organization, recycling organization, and other relevant stakeholder** interviews to gather insights on contamination and related costs.

Content of Needs Assessment (subd. 4.) – 5

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(14) an assessment of toxic substances intentionally added to covered materials, whether this limits one or more covered materials types from being used as a marketable feedstock, and best practices producers can implement to reduce intentionally added toxic substances in covered materials that could be verified through suppliers certificates of compliance, testing, or other analytical and scientifically demonstrated methodology;

(15) an assessment of current best practices to increase public awareness, educate, and complete outreach activities accounting for culturally responsive materials and methods and an evaluation of the efficacy of these efforts, including assessments and evaluations of current best practices and efforts on:

(i) using product or packaging labels as a means of informing consumers about environmentally sound use and management of covered materials;

(ii) increasing public awareness of how to use and manage covered materials in an environmentally sound manner and how to access waste reduction, reuse, recycling, and composting services; and

(iii) encouraging behavior change to increase participation in waste reduction, reuse, recycling, and composting programs;

(16) identification of the covered materials with the most significant environmental impact, including assessing each covered material's generation of hazardous waste, generation of greenhouse gases, environmental justice impacts, public health impacts, and other impacts;

Relevant Engagement Tasks

- **Advisory Board** input on "Environmental health and public health considerations. Overview of toxics in packaging." on July 15.
- **County, city, and township** surveys and interviews will be used to collect data not already collected via SCORE on current public outreach and education.
- Small group meeting or interviews with **environmental justice organizations and community organizations** to gather insights on priorities by these organizations and key opportunities and barriers.
- **Advisory Board** input on "Awareness, education, and behavior change around waste reduction, reuse, recycling and composting" on May 20.
- **Industry association, packaging manufacturer, and other relevant stakeholder** interviews to gather insights on environmental impacts of materials.
- **Advisory Board** input on "Environmental health and public health considerations. Overview of toxics in packaging." on July 15.

Content of Needs Assessment (subd. 4.) – 6

Legislative Text

(17) recommendations for meeting the criteria for an alternative collection program as established in section 115A.1451, subdivision 8;

(18) other items identified by the commissioner that would aid the creation of the stewardship plan, its administration, and the enforcement of sections 115A.144 to 115A.1463.

Relevant Engagement Tasks

- **County, city and township, hauler, and facility** surveys and interviews will be used to collect data not already collected via SCORE on existing collection systems for hard to recycle materials and other considerations for alternative collection programs.
- N/A

Objective 2 (Primary Research) Approach



Objective 2: Develop a plan and execute collection of primary research needed to **fill gaps from the Preliminary Assessment and to establish the foundation of data for the Needs Assessment.**

- A. Task A: Develop engagement and outreach plan and draft surveys and interview guide
- B. Task B: Primary Research
 - 1. County, City, and Township Surveys and Interviews
 - 2. Hauler Surveys and Interviews
 - 3. Infrastructure Survey and Site Visits
 - 4. Market Survey and Interviews
- C. Task C: Data Consolidation, Review, and Assimilation



The purpose of the outreach and engagement will be:

1. To inform
2. To gather data, insights and information
3. To gather feedback

Engagement will be through:

- Surveys
- Interviews
- Site Visits
- Presentations at conferences and programmed events including webinars
- In person events
- Advisory Board meetings

A draft Outreach and Engagement Plan has been shared with MPCA for review and input. It includes:

- *List of stakeholders and interested parties*
- *Engagement plans for each party*
- *Engagement types (e.g., surveys, interviews, site visits, and presentations)*
- *Plan for public comment on the Needs Assessment*

Stakeholders and Interested Parties



Stakeholder/Interested Group	Examples
Industry Association – National Material Specific	Association of Plastic Recyclers, Glass Packaging Institute, Aluminum Association/Can Manufacturers Association, American Forest & Paper Association
Industry Associations – Waste, Recycling and Composting MN	AMC Solid Waste Working Group, SWANA, NWRA, Minnesota Composting Council
Recycling Organizations and Groups	Flexible Film Initiative, The Recycling Partnership,
Reuse Organizations and service providers	Upstream, Reuse Minnesota, Perpetual, Reuse service providers (e.g., Loop, Ridwell)
Producer Responsible Organization	Circular Action Alliance
Producers and producer related organizations	Ameripen, Consumer Brands Association
Packaging manufacturers	Amcor, Sonoco, Ball, Ardagh
Political subdivisions	Counties, Cities and Townships
Haulers – Service Provider	Metro haulers, Greater MN haulers
Transfer, recycling, and composting service providers	MRFs, Composters – Yard and SSOM, transfer stations
State agencies	Department of Education, Department of Administration, Department of Natural Resources, and Department of Transportation
Environmental Justice Organizations and Community Organizations	Minnesota Center for Environmental Advocacy, Clean Water Action – Minnesota, Zero Waste Coalition
Other	Minnesota Chamber of Commerce

Proposed Engagement Timeline



Phase	Action	Owner	Start date	Planned completion
1	Survey design and sign off			
1	Send revised survey questions to MPCA	Eunomia	Jan 1	Jan 9
1	Start structuring survey questions in SnapSurvey software (and Excel for counties)	MPCA	Jan 9	Jan 23
1	Share surveys with Advisory Board and selected interested parties to review and provide feedback within 1 week	MPCA	Jan 12	Jan 12
1	Share survey feedback from Advisory Board and selected interested parties	MPCA	Jan 19	Jan 19
1	Revise county survey questions based on feedback	Eunomia	Jan 19	Jan 21
1	Send finalized county survey questions to MPCA	Eunomia	Jan 21	Jan 21
1	Finalize county survey questions in Excel	MPCA	Jan 21	Jan 22
1	Revise city, hauler, facility and endmarket survey questions	Eunomia	Jan 19	Jan 23
1	Finalize what data will be classified as not-public from requests	MPCA	Jan 19	Jan 23
1	Send finalized city, hauler, facility and endmarket survey questions to MPCA	Eunomia	Jan 26	Jan 26
1	Finalize city, hauler, facility and end market survey questions in SnapSurvey software	MPCA	Jan 26	Jan 30
2	Counties and cities engagement			
2	Issue county survey with a two-week response period	MPCA	Jan 23	Jan 23
2	Receive all county survey data	All	Feb 6	Feb 6
2	Analyze county responses to determine Organized City survey list	All	Feb 6	Feb 10
2	Issue Organized City survey with a two-week response period	MPCA	Feb 10	Feb 10
2	Receive all Organized City survey data	All	Feb 24	Feb 24
3	Hauler engagement			
3	Issue commercial hauler survey with a two-week response period	MPCA	Jan 30	Jan 30
3	Receive all commercial hauler survey data	All	Feb 13	Feb 13
3	Analyze county responses to determine Unorganized Area haulers list	All	Feb 6	Feb 10
3	Issue hauler survey to haulers in Unorganized Areas with a two-week response period	MPCA	Feb 10	Feb 10
3	Receive all hauler survey data for Unorganized Areas	All	Feb 24	Feb 24
3	Perform hauler interviews to fill gaps in survey data	All	Feb 13	Mar 6
4	Facilities and end markets engagement			
4	Issue facility survey with a three-week response period	MPCA	Jan 30	Jan 30
4	Receive all facility survey data	All	Feb 20	Feb 20
4	Issue end market survey with a three-week response period	MPCA	Jan 30	Jan 30
4	Receive all end market survey data	All	Feb 20	Feb 20
4	Perform facility and end markets interviews and on site visits to fill gaps in survey data	All	Feb 20	Mar 20
5	Interested parties and general engagement			
5	Schedule meetings with interested parties	MPCA/All	Jan 1	May 1

Best Practices for Engagement



Design the Survey for Ease and Clarity

- Keep it short and focused: Longer surveys reduce completion rates. Aim for 5–10 minutes max.
- Use clear, simple language: Avoid jargon or ambiguous questions.
- Logical flow: Group related questions and use skip logic to avoid irrelevant items.
- Mobile-friendly format: Many respondents use phones, so optimize for small screens.

Communicate Value and Purpose

- Explain why the survey matters: Tell respondents how their input will be used and the impact it will have.
- Personalize invitations: Use names and relevant context when possible.
- Emphasize confidentiality: People are more honest when they feel safe.

Timing and Frequency

- Send at optimal times: Avoid weekends and holidays; mid-week mornings often work best.
- Reminders: Send 1–2 polite reminders spaced a few days apart. Highlight urgency in later reminders.

Reduce Friction

- No login required: Avoid unnecessary authentication steps.
- Progress indicators: Show how much is left to complete.
- Save and resume: Allow respondents to return later if interrupted.
- Be sure the survey is mobile friendly.

Ensure Accuracy and Completeness

- Use validation checks: Prevent skipped mandatory fields or illogical answers.
- Pilot test: Run a small test to catch confusing questions.
- Provide definitions/examples: Clarify complex terms to avoid misinterpretation.

Follow-Up and Engagement

- Thank respondents: Acknowledge their effort immediately after submission.
- Share results: Transparency builds trust and encourages future participation.

Advisory Board Meeting Timeline

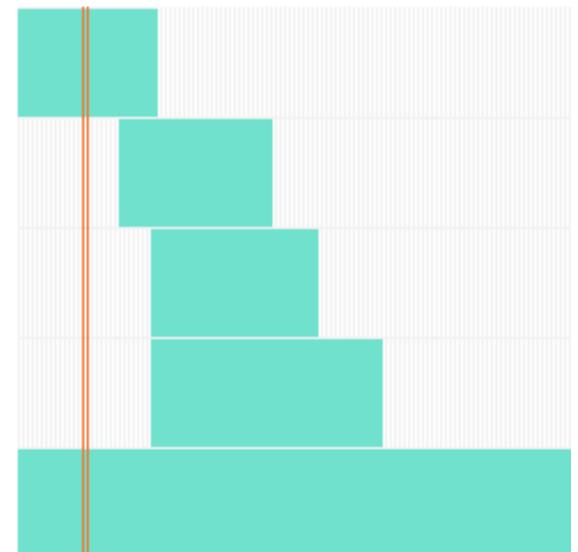


Board Meeting Date	Meeting Subject Area – Draft
January 21	Consultation on the scope of the Needs Assessment.
February 18	How to measure recycling. Review of the major impacts and types of contamination in the recycling stream and organics stream.
March 18	Status and examples of refill and reuse programs. How to measure refill and reuse.
April 15	Postconsumer recycled content overview. Update on third-party certifications.
May 20	Awareness, education, and behavior change around waste reduction, reuse, recycling and composting.
June 17	Methodology to establish reimbursement rates.
July 15	Environmental health and public health considerations. Overview of toxics in packaging.
August 19	TBD
September 16	In-depth presentation on the draft Needs Assessment.
October 21	Working session: comments and feedback on Needs Assessment.

Stakeholder Engagement Timeline



TASK	START	END	JAN	FEB	MAR	APRIL
Survey design and sign off	1/1/26	1/30/26				
Counties and cities engagement	1/23/26	2/24/26				
Hauler engagement	1/30/26	3/6/26				
Facilities and end markets engagement	1/30/26	3/20/26				
Interested parties and other engagement	1/1/26	5/1/26				



Report Engagement and Review Timeline



TASK	START	END	JULY	AUG	SEPT	OCT	NOV	DEC
Report drafting	7/6/26	8/19/26						
Draft submitted to MPCA for review	8/19/26	8/19/26						
MPCA review	8/20/26	9/3/26						
Report edits	9/4/26	9/11/26						
60 day public consultation* <small>*includes two virtual public meetings</small>	9/14/26	11/13/26						
Advisory Board meeting: Needs Assessment presentation	9/16/26	9/16/26						
Advisory Board meeting: Needs Assessment feedback	10/21/26	10/21/26						
MPCA consolidate comments	11/14/26	11/21/26						
Report edits	11/22/26	12/9/26						
Final version submitted to MPCA	12/9/26	12/9/26						



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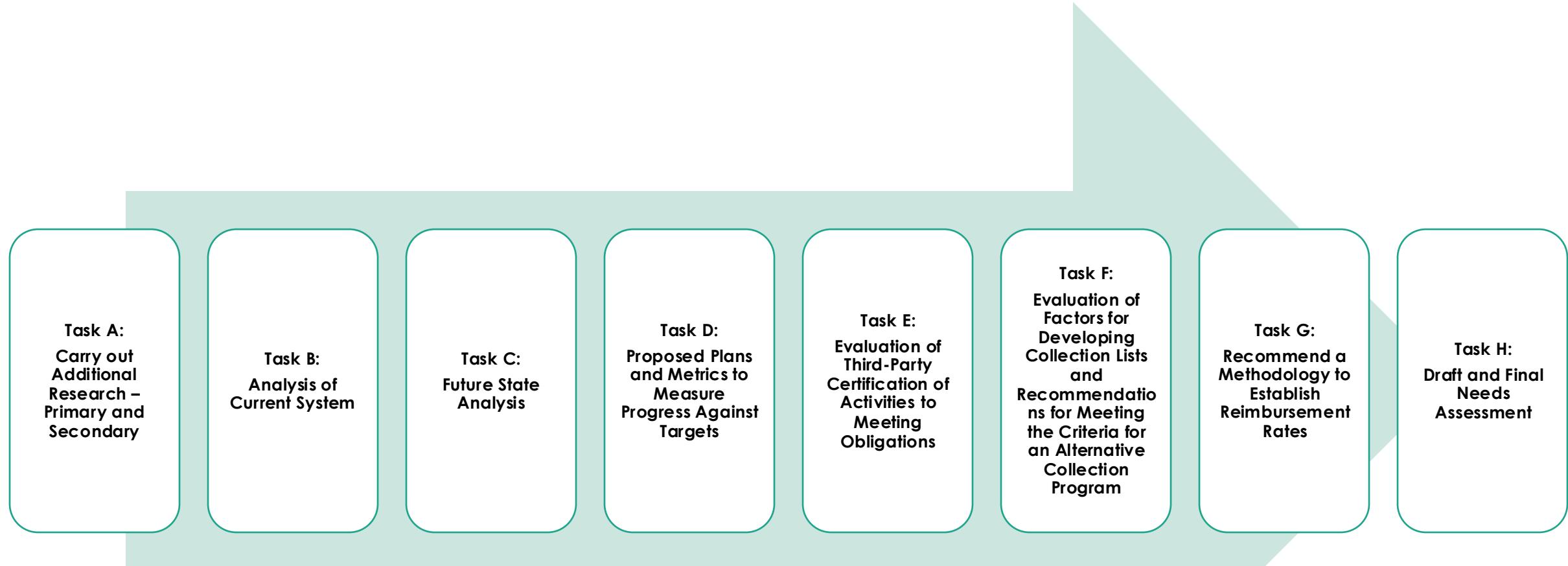
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Objective 3 (Needs Assessment) Approach



Needs Assessment Work Packages



Foundational Work	Model Development	Waste Reduction	Reuse	Recycling and Composting	Costs of Covered Services
Future State Modelling	Future State costs	Post consumer recycled content	Statewide requirements	Evaluation of recyclable or compostable list	Performance metrics
Third party certification	Infrastructure inventory	Service cost reimbursement	End markets	Recycling contamination	Toxic substances
Education and awareness		Environmental impacts		Alternative collection program	

Foundational Work Tasks and Legislation



1. Definitions: Define how key legislative terms will be interpreted within the context of this project. Establishing these definitions at the outset will ensure clarity and consistency in applying the relevant legal requirements throughout the Needs Assessment process.

- This task will continue to be completed via coordination with MPCA.

2. Other Considerations: There are other elements of the legislation that need to be considered as part of this work. These are important, because in proposing a future recycling rate we need to think about what could be in each of these lists including what is contained the "Alternative Collection Mechanism" and we need to apply the criteria listed to the process that we take.

- Relevant parts of the legislation are set out at right.

115A.1453 RECYCLABLE OR COMPOSTABLE COVERED MATERIALS LISTS; EXEMPT MATERIALS LIST.

Subdivision 1. List required. By July 1, 2028, the commissioner must develop a list of covered materials determined to be recyclable or compostable statewide through systems where covered materials are commingled into a recyclables stream and a separate compostables stream. These covered materials must be collected at an optimal level of service and convenience for covered entities, at a minimum, wherever collection services for mixed municipal solid waste are available.

Subd. 2. Alternative collection list required. By July 1, 2028, the commissioner must complete a list of covered materials determined to be recyclable or compostable and collected statewide through systems other than the system required for covered materials on the list established in subdivision 1.

Subdivision 1. List required. By July 1, 2028, the commissioner must develop a list of covered materials determined to be recyclable or compostable statewide through systems where covered materials are commingled into a recyclables stream and a separate compostables stream. These covered materials must be collected at an optimal level of service and convenience for covered entities, at a minimum, wherever collection services for mixed municipal solid waste are available.

Subd. 4. Criteria. In developing the lists under subdivisions 1 and 2, the commissioner may consider the following criteria: (1) current availability of recycling and composting collection services; (2) recycling and composting processing infrastructure; (3) capacity and technology for sorting covered materials; (4) whether a covered material is of a type and form that is regularly sorted and aggregated into defined streams for recycling processes or is included in a relevant Institute of Scrap Recycling Industries specification or its successors; (5) availability of responsible markets; (6) presence and amount of processing residuals, contamination, and toxic substances; (7) quantity of covered material estimated to be available and recoverable; (8) projected future conditions for the criteria in clauses (1) to (7); and (9) other criteria or factors, as determined by the commissioner.

Model Development Tasks and Legislation



Many elements of the Needs Assessment are completed through development of the core Needs Assessment model. Model development is linked in large part by this part of the legislation, (although there are also other supporting clauses) at right:

Evaluation (i) existing waste reduction, reuse, recycling, and composting, as applicable, for each covered materials type, including collection rates, recycling rates, composting rates, reuse rates, and return rates, as applicable, for each covered materials type; (ii) overall recycling rate, composting rate, reuse rate, and return rate for all covered materials;

Tasks for model development:

- Determine scope and 2024 tons for the denominator, necessary for all rate calculations
- Determine what is required from state from a volume, unit and weight-based assessment
- Design and build of waste flow model: The flow model will underpin the analysis of performance of recycling, composting, reuse, waste reduction and will feed into the assessment of costs.
 - Secondary research for the Preliminary Assessment has already provided reasonably good data on the following:
 - Materials collected for recycling from single family households from each county;
 - Service coverage for each county (in particular, whether curbside service provision is there); and
 - Demographic data for each county (used to determine rurality, to inform future state modelling).
 - Primary research (planned for Jan – March 26) will involve surveying counties, municipalities, haulers and other relevant stakeholders to gain the following:
 - Information on multi family service coverage and tonnage;
 - More granularity on materials collected (to correct SCORE data where it does not clearly designate covered materials);
 - Improved service coverage data including variations for municipalities (focusing particularly on areas where service coverage is less good);
 - Improved data on covered material coverage including variations for municipalities; and
 - Data on existing reuse, return and reduction activities taking place across the state.

Waste Reduction Tasks and Legislation



Reducing material use

- Gain clarity through discussions with the MPCA on covered material used by covered entity such that the denominator can be calculated (see slide on Model Development);
- Gather data on best practice packaging designs that could apply across the market to support source reduction;
- Complete primary research with specific industry associations to understand the extent to which covered materials reused material;
- Develop a summary of the types of design-related measures to reduce material use through elimination, rightsizing, concentrate and prefill;
- Consider the extent to which packaging types have changed over time to reduce material use – this will not be specific to MN but general trends;

Consumer consumption changes

- We will focus on gathering any information from municipalities and counties through survey, exploring what education is undertaken currently to reduce consumption and the use of packaging and how effective they believe this education and outreach has been. Findings are likely to be very qualitative.
- We will also consider the extent to which packaging consumption has increased in the state using different third-party data sources, e.g. consumer spending.
- Calculating the denominator will be extremely challenging as there is limited relevant publicly available data.

Subd. 40 "Waste reduction" or "source reduction" has the meaning given in section 115A.03, except that waste reduction or source reduction does not include reuse, but does include refill, as defined in sections 115A.144 to 115A.1463. Subd. 36b. Waste reduction or source reduction.

"Waste reduction" or "source reduction" means an activity that prevents generation of waste or the inclusion of toxic materials in waste, including:

- (1) reusing a product in its original form; - not in respect to EPR see above
- (2) increasing the life span of a product;
- (3) reducing material or the toxicity of material used in production or packaging; or
- (4) changing procurement, consumption, or waste generation habits to result in smaller quantities or lower toxicity of waste generated.

(b) For purposes of determining whether waste reduction performance targets are being met, a stewardship plan must provide a methodology for measuring the amount of waste reduction of covered materials in a manner that can be used to determine the extent to which the amount of material used for a covered material can be reduced to what is necessary to efficiently deliver a product without damage or spoilage, or other means of covered material redesign to reduce overall use and environmental impacts and maintain recyclability, compostability, or reusability.



Subd. 34. **Reuse.** "Reuse" means the return of a covered material to the marketplace and the continued use of the covered material by a producer or service provider when the covered material is:

- (1) intentionally designed and marketed to be used multiple times for its original intended purpose without a change in form;
- (2) designed for durability and maintenance to extend its useful life and reduce demand for new production of the covered material;
- (3) supported by adequate logistics and infrastructure at a retail location, by a service provider, or on behalf of or by a producer, that provides convenient access for consumers; and
- (4) compliant with all applicable federal, state, and local statutes, rules, ordinances, and other laws governing health and safety.

(b) "Food package" means a container applied to or providing a means to market, protect, handle, deliver, serve, contain, or store a food or beverage. Food package includes:

- (1) a unit package, an intermediate package, and a shipping container;
- (2) unsealed receptacles, such as carrying cases, crates, cups, plates, bowls, pails, rigid foil and other trays, wrappers and wrapping films, bags, and tubs; and
- (3) an individual assembled part of a food package, such as any interior or exterior blocking, bracing, cushioning, weatherproofing, exterior strapping, coatings, closures, inks, and labels.

(c) For purposes of determining whether reuse performance targets are being met, a stewardship plan must provide a methodology for measuring the amount of reusable covered materials at the point at which reusable covered materials meet the following criteria as demonstrated by the producer and approved by the commissioner:

- (1) whether the average minimum number of cycles of reuses within a recognized reuse system has been met based on the number of times an item must be reused for it to have lower environmental impacts than the single-use versions of those items; and
- (2) whether the demonstrated or research-based anticipated return rate of the covered material to the reuse system has been met.

Reuse Tasks



This will focus on gathering information on the current reuse activities in the state and successful programs in other jurisdictions.

- Secondary research, reviewing the following sources:
 - Perpetual instances database;
 - Upstream database; and
 - Reuse Minnesota.
- Primary research, as follows:
 - Discussions with MPCA reuse person Kristen Peterson;
 - Discussions with organization such as Green Schools;
 - Surveys with municipalities e.g. to gather information on events; and
 - Interviews with industry associations.
- Further, for any programs that we identify, we will reach out to gather the following information:
 - An overview of the program;
 - What packaging and products are part of the reuse program;
 - What packaging is covered;
 - Who are the relevant entities involved and what do they do;
 - The number of units of packaging reused;
 - The return rate for the packaging; and
 - Other key information to be able to summarize the program and calculate a current reuse rate based on producer.
- This data will determine the extent to which we are able to quantify an overarching reuse rate currently. Further, we will:
 - Identify where reuse for packaging is taking place;
 - Assess the extent to which they have replaced single use for a specific covered material and present that benefit as a percentage of the total amount of covered material/covered materials type generated or sold in the state, as determined in the preliminary assessment; and
 - Identify the current reuse rates and return rates within these systems where data is available.

Recycling and Composting Tasks and Legislation



We will complete the following initial tasks to help finalize our approach:

- Determine the scope of covered materials in relation to the definitions;
- Determine the denominator for calculating the rates; and
- Develop an approach to using data from surveys, waste characterization and other published sources to determine the amount of covered material as these data sources will not be directly linked to denominator.

We will carry out primary and secondary research including:

- Site visits to facilities;
- Surveys; and
- Secondary research.

"Recycling rate" means the amount of recyclable covered material, in aggregate or by individual covered materials type, recycled in a calendar year divided by the total amount of recyclable covered materials sold or distributed into the state by the relevant unit of measurement established in section 115A.1451.

(a) For purposes of determining whether recycling performance targets are being met, except as modified by the commissioner, a stewardship plan must provide a methodology for measuring the amount of recycled material at the point at which material leaves a recycling facility and must account for:

- (1) levels of estimated contamination documented by the facility;
- (2) any exclusions for fuel or energy capture; and
- (3) compliance with sections 115A.965, 116.943, 325F.075, and 325F.172 to 325F.179, and all other laws pertaining to toxic substances in covered materials.



Eunomia will:

- Request from MPCA the extent to which registered service provider costs will be available and strategy if not noting that we are requesting contracts and will aim to get data from surveys and interviews.
- Request that the MPCA confirm the scope of covered material and covered entities as above.
- Pull data from surveys and carry out secondary research to obtain contracts with cost related data
- Model costs by region
- GIS mapping of access to services to determine impact on environmental justice communities

(ii) an estimate of total annual costs of covered services based on registered service provider costs; and
(iii) availability and cost of covered services for covered materials to covered entities and any other location where covered materials are introduced, including identification of disparities in the availability of these services in environmental justice areas compared with other areas and proposals for reducing or eliminating those disparities.

Modelling of the Future State Legislation



(3) proposals for a range of outcomes for each covered materials type to be accomplished within a five-year time frame in multiple units of measurement, including but not limited to unit-based, weight-based, and volume-based, for each of the following:

(i) waste reduction;

(ii) reuse rate and return rates;

(iii) recycling rates;

(iv) composting rates; and

(v) postconsumer recycled content, if applicable;

(4) proposals for a range of outcomes for the categories established in section 115A.1451, subdivision 7, that consider:

(i) information contained in or used to prepare a needs assessment according to this subdivision;

(ii) goals and requirements of the Waste Management Act ;

(iii) statewide goals for greenhouse gas emission reductions under section 216H.02;

(iv) the need for continuous progress toward overall reduction in the generation of covered materials waste and the complete reuse, recycling, or composting of covered materials to reduce environmental impacts and human health impacts;

(v) a preference for statewide requirements that accomplish and further the goals and requirements in items (ii) to (iv) as soon as practicable and to the maximum extent achievable; and

(vi) information from packaging and paper product producer responsibility programs operating in other jurisdictions;

Modelling of the Future State Tasks



This requires the development of the future state model that can present a range of outcomes taking into consideration reuse, waste reduction and recycling and composting.

Waste reduction; reuse rate and return rates

Eunomia will:

- Present to MCPA our source reduction work completed in CA and start a discussion with MPCA on developing an approach to propose a range of outcomes related to waste reduction including time scales for implementing different measures;
- Develop an approach for MCPA to agree based on covered materials and full understanding of what is in scope for waste reduction from the different waste reduction and reuse interventions
- Agree the final approach for modelling including how we will consider a range of outcomes e.g. 2 scenarios;
- Carryout necessary additional research (primary and secondary) to enable modeling;
- Consider the impact on material flows into the recycling and composting streams over 5-year period; and
- Model the waste reduction and reuse outcomes on unit, volume and weight

Recycling rates and composting rates

Eunomia will:

- Use combined data from secondary and primary research to calculate current recycling rates and understand what materials are currently collected through drop off and curbside and understand the existing recycling facilities and markets. This will inform the development of modeling levers (Feb- Apr 26)
- Development of levers that will impact on recycling and composting rates including how covered materials could be collected through curbside, drop off and alternative collection (Feb-Mar 26)
- Agree levers with MPCA that will be modelled to determine future recycling and composting rates, to show a range of outcomes (agreed what a “range” is e.g. considering two different scenarios (Mar 26)
- Consider impact of waste reduction on recycling and composting system change levers and agree assumptions with MPCA - March
- Model impact of levers at state and regional level to determine to enable the impact of each lever to be considered as part of a range of outcomes (March- May)
- Review outcomes with MCPA (May)
- Revise and finalize analysis: June
- Draft relevant section of report – July/August

Future State Costs Tasks and Legislation

- This will be informed by the future state modelling of recycling, return, and reuse activities undertaken above.
- Cost modelling will take into account the differences in current service provision compared to future, also considering rurality.
- It will be informed by hauler data on costs alongside data obtained from municipalities.

(10) an evaluation of investments needed to increase waste reduction, reuse, recycling, and composting rates of covered materials according to the range of proposed performance targets and statewide requirements, including investments in existing and new infrastructure that would also: (i) maintain or improve operations of existing infrastructure and accounts for waste reduction, reuse, recycling, and composting of covered materials statewide; (ii) expand the availability and accessibility of recycling collection services for recyclable covered materials to all covered entities to optimize service and convenience; and (iii) establish and expand the availability and accessibility of reuse services for reusable covered materials;

Postconsumer recycled content Tasks and Legislation



Eunomia will:

- Finalize a list of stakeholders/interested parties to engage with for each covered material type (Jan 26)
- Develop the list of factors in addition to technical feasibility which will impact on range of outcomes for post-consumer recycling content from availability and cost of supply, quality of supply necessary to meet packaging technical requirements and mitigate health impacts;
- Secondary research focusing on industry reports (Feb 26)
- Primary research focused on discussions with: (Feb – Mar 26)
 - industry associations to understand current recycled content rate what is impacting on recycled content rates as well as technical feasibility
 - Markets that are incorporating recycled material into products
- Analysis (Mar-Apr 26)
- Determine technical maximum and factors that will impact that by material type (Apr 26)
- Write section of report (May 26)

(iii) the extent to which postconsumer recycled content, by the best estimate, is or could be incorporated into each covered materials type, as applicable, including a review of market and technical barriers to incorporating postconsumer materials into covered materials;

Statewide Requirements Tasks and Legislation



Eunomia will:

- Follow the waste management hierarchy (waste reduction, reuse, recycling, composting) and consider the 2030 goals for diversion (35% for greater MN and 75% for metro by 2030)
- Consider statewide goals for greenhouse gas emission reductions under section 216H.02: 50% by 2030 > Net zero by 2050 (from 2005 levels)
- Research best practices from packaging and paper product producer responsibility programs operating in other jurisdictions
- Other subtasks TBC in coordination with MPCA

4) proposals for a range of outcomes for the categories established in section 115A.1451, subdivision 7, that consider:

Subd. 7. Statewide requirements.

(a) The commissioner must establish statewide requirements and the date by which they must be met for the following categories:

- (1) recycling rate;
- (2) composting rate;
- (3) reuse rate;
- (4) return rate;

(5) the percentage of covered materials introduced that must be waste reduced; and
(6) the percentage of postconsumer recycled content that covered materials must contain, including an overall percentage for all covered materials, as applicable, excluding compostable materials that cannot include postconsumer recycled content due to unique chemical or physical properties or health and safety requirements that prohibit introduction of postconsumer recycled content.

(b) The commissioner may use the following information and criteria when establishing statewide requirements under paragraph (a):

- (1) needs assessments under section 115A.1450;
- (2) goals and requirements of the Waste Management Act;
- (3) statewide goals for greenhouse gas emission reductions under section 216H.02;
- (4) the need for continuous progress toward overall reduction in the generation of covered materials waste and the complete reuse, recycling, or composting of covered materials to reduce environmental impacts and human health impacts;
- (5) a preference for statewide requirements that accomplish and further the goals and requirements in clauses (2) to (4) as soon as practicable and to the maximum extent achievable; and
- (6) information from packaging and paper product producer responsibility programs operating in other jurisdictions.
 - (i) information contained in or used to prepare a needs assessment according to this subdivision;

Recyclable or Compostable Materials List Tasks and Legislation



Eunomia will:

- Discuss with MPCA what evaluating the factors entails. For each covered material, it must be assessed against the eight factors to determine whether it should be included on List 1 or List 2 (Jan)
- Develop methodology and list of data needed to carry out the evaluation (Feb)
- Carry out additional research not already being carried out through other tasks (Mar-Apr)
- Complete the draft evaluation (May-June)

(5) an evaluation of the factors for each covered material collected for recycling or composting as established in section 115A.1453, subdivision 4;

Subd. 4. Criteria. In developing the lists under subdivisions 1 and 2, the commissioner may consider the following criteria: (1) current availability of recycling and composting collection services; (2) recycling and composting processing infrastructure; (3) capacity and technology for sorting covered materials; (4) whether a covered material is of a type and form that is regularly sorted and aggregated into defined streams for recycling processes or is included in a relevant Institute of Scrap Recycling Industries specification or its successors; (5) availability of responsible markets; (6) presence and amount of processing residuals, contamination, and toxic substances; (7) quantity of covered material estimated to be available and recoverable; (8) projected future conditions for the criteria in clauses (1) to (7); and (9) other criteria or factors, as determined by the commissioner.

Subdivision 1. List required. By July 1, 2028, the commissioner must develop a list of covered materials determined to be recyclable or compostable statewide through systems where covered materials are commingled into a recyclables stream and a separate compostables stream. These covered materials must be collected at an optimal level of service and convenience for covered entities, at a minimum, wherever collection services for mixed municipal solid waste are available.

Subd. 2. Alternative collection list required. By July 1, 2028, the commissioner must complete a list of covered materials determined to be recyclable or compostable and collected statewide through systems other than the system required for covered materials on the list established in subdivision 1.

Recyclable or Compostable Materials List Tasks and Legislation



Eunomia will:

- Request from MPCA a full list of statewide requirements that Eunomia needs (Jan)
- Fully define scope of what is required in respect to plans and metrics (Feb)
- Develop research plan to inform recommendations on plans and metrics (March)
- Carry out research and develop recommendations for review (April – May)
- Send to MPCA for review (May)
- Finalize and develop relevant part of the report (June)

(7) proposed plans and metrics for how to measure progress in achieving performance targets and statewide requirements;

Recyclable or Compostable Materials List Tasks and Legislation



Eunomia will:

- Develop a list of third-party certifications that apply and/or are in development as they relate to this program
- Request and receive from MPCA all of the obligations for which an evaluation of options for third-party certification is required[AM40.1] (Jan)
- Develop and approach to gather data and to carry out the evaluation including any evaluation criteria (Feb)
- Carryout necessary research (Mar-April)
- Complete the assessment (May-June)
- Send to MPCA for review (June)
- Write section of the report (Jul)

(8) an evaluation of options for third-party certification of activities to meet obligations of sections 115A.144 to 115A.1463;

Infrastructure Inventory Tasks and Legislation



Foth will:

- Obtain guidance from MPCA on what methods and sources of financing outside of producer fees should be included in respect to existing covered services, confirm that existing covered services is limited to recycling drop off and curbside, composting (Jan)
- Finalize research guide and templates for data collection (Jan-Feb)
- Carryout research through survey, interviews etc. (Jan – Mar)
- Summarize information and develop section of the report (Apr-May)
- Finalize section of report and appendix (June)
- Send to MPCA for review (July)
- Finalization (July)

(9) an inventory of the current system, including:
(i) infrastructure, capacity, performance, funding level, and method and sources of financing for the existing covered services for covered materials operating in the state;
Subd. 12. **Covered services**. "Covered services" means collecting, transferring, transporting, sorting, processing, recovering, preparing, or otherwise managing for purposes of waste reduction, reuse, recycling, or composting. Covered services does not mean any management method according to section 115A.02, paragraph (b), clauses (4) to (6).

Service Cost Reimbursement Tasks and Legislation



Eunomia will:

- Discuss with MPCA how we engage with CAA since they have developed reimbursement rates (Jan)
- Develop and finalize approach including confirm 3 jurisdictions to consider alongside any information from CAA, building out the costs to be covered (Feb)
- Carryout research (Feb/March)
- Develop methodology for review (April/May)
- Send to MPCA for review (May)
- Present to the advisory board (June)
- Finalize (Jul)

(11) a recommended methodology for applying criteria and formulas to establish reimbursement rates as described in section 115A.1455;

Responsible Markets Tasks and Legislation



Eunomia will:

- Produce a draft definition of markets and also how the viability and robustness of markets for recyclable covered materials (Feb)
- Agree draft with MPCA – (March)
- Review the process and criteria for responsible end markets used in Oregon and other states/jurisdictions and determine the extent to which it is applicable to Minnesota. (Feb)
- Complete interviews with Oregon staff to understand the mechanisms in detail (Mar)
- Apply this knowledge and process during the site visits conducted and using data received through the surveys and interviews with processors and recyclers. The process involves evaluating facilities against five main criteria and 15 sub criteria. (Apr -May). The five criteria are:
 - Compliance to law and regulation;
 - Compliance to local labor requirements;
 - Environmentally sound management;
 - Transparency; and
 - Yield.
- Complete an assessment of end market viability and robustness through analyzing data collected through the primary research with facilities (June)

(12) an assessment of the viability and robustness of markets for recyclable covered materials and the degree to which these markets can be considered responsible markets.

Recycling Contamination Tasks and Legislation



Eunomia will:

- Utilize data collected through survey from the Resource Management Report, interviews completed with facilities as part of the Resource Management Report, surveys and site visits to model the level of contamination
- Provide, for each covered material type, a summary of the most common causes of contamination and the impact it is having on service providers and overarching recycling rates
- Provide recommendations to consider what could be done to reduce the contamination

(13) an assessment of the level and causes of contamination of source-separated recyclable materials, source-separated compostable materials and collected reusables, and the impacts of contamination on service providers, including the cost to manage this contamination;

Toxic Substances Tasks and Legislation



ERG and Eunomia will:

- Conduct secondary research and conduct outreach to trade associations to build an understanding and inform the approach (Feb)
- In consultation with MPCA, develop a list of priority toxic substances to prioritize in further analysis will be compiled, with no more than 12 toxic substances evaluated (Mar)
- Search for and review safety data sheets (SDS) for packaging and paper products that may contain toxic substances to confirm the current use of toxics in those products. (Mar)
- Identify and work with manufacturers to verify the reasons for use (Mar-Apr)
- To determine how this might impact whether a covered material could be used as a recycled content feedstock, an understanding of the recycling process and feedstock requirements will be established by:
 - Reaching out to recyclers through associations or other networks/organizations.
 - Work with end users of feedstock (buyers of recycled material).
 - Reviewing recent PFAS regulations. (Apr)
- Provide a summary of best practices that producers can implement, utilizing secondary research and working with suppliers and vendors alongside manufacturers (May)
- Review with MPCA (May)
- Finalize content (June)

(14) an assessment of toxic substances intentionally added to covered materials, whether this limits one or more covered materials types from being used as a marketable feedstock, and best practices producers can implement to reduce intentionally added toxic substances in covered materials that could be verified through suppliers certificates of compliance, testing, or other analytical and scientifically demonstrated methodology;

Education and Awareness Tasks and Legislation



Eunomia will:

- Review data gathered from other needs assessments and similar projects to identify best practice (Mar)
- Review findings from the primary research (from questions aimed at municipalities and counties) to consider the current activities taking place across the state (Apr)
- Carry out additional research into other needs assessments, and on activities in both the U.S. and overseas where relevant (Apr-May)
- Develop a list of activities, categorize them, and then conduct a qualitative, and where possible, quantitative assessment of the impact they have had on increasing awareness and driving behavior change (Jun)
- Seek input from the MPCA (Jul)
- Finalize content (Jul)

- (16) identification of the covered materials with the most significant environmental impact, including assessing each covered material's generation of hazardous waste, generation of greenhouse gases, environmental justice impacts, public health impacts, and other impacts;

Environmental Impacts Tasks and Legislation



GHG impacts can be assessed through applying WARM emissions factors to the waste model for the scenarios. Public health impacts and hazardous wastes will be informed by the toxic substances assessments.

Tasks:

- **Hazardous Waste:** Secondary research to consider the extent to which covered material may be hazardous and the impact of that hazardous material on public health and the environment
- **Greenhouse Gas (GHG) Impacts:** EPA Warm Model to calculate the GHG impacts associated with each covered material under both the current and future EPR states.
- **EJ Impacts:** Gather data on which communities have access to what services and the cost of these services and then review this data alongside identified EJ areas. Assess disparities that EJ communities face in accessing services
- **Public Health Impacts:** Assessment of impact on public health, drawing on information gathered during our assessment of toxic materials.

(16) identification of the covered materials with the most significant environmental impact, including assessing each covered material's generation of hazardous waste, generation of greenhouse gases, environmental justice impacts, public health impacts, and other impacts;

It would be helpful to group these with the statewide requirements and the covered material lists as the results can help inform both.

Alternative Collection Program Tasks and Legislation



Eunomia will:

- Develop a full list of criteria that would be used to evaluate each covered material; agreed to by the MPCA
- Use information gathered through the primary and secondary research, as well as the recycling rate assessments, to evaluate each covered material against the criteria
- Evaluate each material against the criteria and sub criteria and give a single criteria score (1-4) one (1) was the highest score and signifies few or no issues for that criterion; four (4) was the lowest, meaning there are serious issues for that criterion.
- Consider by covered materials type, if there are collection models that maximize feedstock quality, optimize service and convenience for collection, for example considering the costs and benefits of dual stream versus a co-mingled single-stream collection for recycling

- 17) recommendations for meeting the criteria for an alternative collection program as established in section 115A.1451, subdivision 8;
- Subd. 8. Alternative collection programs. (a) A producer responsibility organization must implement an alternative collection program for covered materials included on an alternative collection list established under section 115A.1453, subdivision 2, that:
 - (1) provides year-round, convenient, statewide collection opportunities, including at least one drop-off collection site located in each county;
 - (2) provides tiers of service for collection, convenience, number of drop-off collection sites, and additional collection systems based on: (i) county population size; (ii) county population density; and (iii) each class of city according to section 410.01;
 - (3) ensures materials are sent to responsible markets;
 - (4) uses education and outreach strategies that can be expected to significantly increase consumer awareness of the program throughout the state; and
 - (5) accurately measures the amount of each covered material collected and the applicable performance target and statewide requirement. (b) A proposal for an alternative collection program must include: (1) the type, number, and location of each collection opportunity; (2) a description of how each of the program requirements established in paragraph (a) will be met; and (3) performance targets for each covered material, as applicable, to be managed through an alternative collection program.
 - (18) other items identified by the commissioner that would aid the creation of the stewardship plan, its administration, and the enforcement of sections 115A.144 to 115A.1463.



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About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.