Waste and Materials Management Study Group Meeting

Oct 7, 2021 @ 1:00 P.M.
Agenda

Waste and Material Management Study Group meeting

1:00 Welcome, agenda review, notes review
Chad Doverspike & Meleesa Johnson

1:05 Action on charter
WMMSG members

1:15 Update from Recycling and Diversion Subcommittee:
Battery Management
Karin Sieg

Solid Waste Interested Parties meeting

1:30 Welcome
Natasha Gwidt

1:35 WA Program updates
Kate Strom Hiorns

1:55 Waste and Materials Management Program financials
David Albino

2:10 Diversion updates and annual recycling data
Jennifer Semrau

2:30 CWD deer carcass compost project
Rob Michitsch (UWSP)

3:00 Department CWD deer carcass management updates
Dan Kroll

3:10 Waste characterization study results
Casey Lamensky

3:25 Wrap up and questions
Natasha Gwidt
Solid Waste Interested Parties (SWIP) Meeting

Oct 7, 2021 @ 1:30 P.M.
Agenda

Waste and Material Management Study Group meeting

1:00 Welcome, agenda review, notes review  Chad Doverspike & Meleesa Johnson
1:05 Action on charter  WMMSG members
1:15 Update from Recycling and Diversion Subcommittee:
Battery Management  Karin Sieg

Solid Waste Interested Parties meeting

1:30 Welcome  Natasha Gwidt
1:35 WA Program updates  Kate StromHiorns
1:55 Waste and Materials Management Program financials  David Albino
2:10 Diversion updates and annual recycling data  Jennifer Semrau
2:30 CWD deer carcass compost project  Rob Michitsch (UWSP)
3:00 Department CWD deer carcass management updates  Dan Kroll
3:10 Waste characterization study results  Casey Lamensky
3:25 Wrap up and questions  Natasha Gwidt
For landfill certification CEU credits for this meeting

Please direct message Casey Lamensky in the meeting chat or by email at Casey.Lamensky@Wisconsin.gov and provide

- first and last name
- meeting ID if different from your name
- operator certification number
Waste and Materials Management Program Updates

Kate Strom Hiorns
WA Program Updates

• Staffing changes in FY21 (7/1/20 – 6/30/21) and recent recruitments

• FY21 solid waste metrics:
  • 120 inspections at active landfills, 182 at closed landfills
  • 192 inspections at non-landfill recycling and solid waste facilities
  • 87 inspections at E-Cycle Program facilities
  • 258 total submittal/plan review decisions made
  • 46 social media posts, 38 newsletters, 5 press releases
WA Program Updates

• Waste generation and COVID – 2020 annual Tonnage
  • ~8% decrease from 2019 tonnage
  • Biggest decrease in industrial waste, but that continues an overall trend since 2007
  • Hard to determine direct correlation
Electronics and E-Cycle Rule

**Scope:** Define requirements for electronics collection, transportation, and recycling activities and codify E-Cycle policies

**WA-11-19 web access:**
https://dnr.wisconsin.gov/news/input/ProposedPermanent.html

**Current status:**
Requesting approval from Natural Resources Board 10/27
Coal Combustion Residuals Rule

**Scope:** Coal Combustion Residual (CCR) Landfills. Incorporating federal rule language into Wisconsin’s current landfill regulations.

**WA-17-19 web access:**
https://dnr.wisconsin.gov/news/input/ProposedPermanent.html
https://dnr.wisconsin.gov/topic/Waste/Laws.html (timeline)

**Current Status:** public hearing and comment period, draft rule available

Public hearing Oct. 28, 2021 [PDF]
Fiscal Estimate & Economic Impact Analysis [PDF]
Draft Rule [PDF]
Landfill Operator Certification Rule

**Scope:** Allow third party administration of online operator certification examinations

**WY-27-20 web access:**

**Current Status:** Emergency rule is in place, permanent rule public hearing 10/12; Online exams likely starting this month
Recent policy and guidance updates

  • More on that later

• Resources for landfill owners and operators
  • https://dnr.wisconsin.gov/topic/Landfills/forms.html
  • Includes animal carcass guidance, updated stormwater management guidance, checklists

• Development on Landfills: change from exemption to approval and fee change
  • https://dnr.wisconsin.gov/topic/Landfills/development.html
Web Resources

• New review timelines on external website
  • https://dnr.wisconsin.gov/topic/Waste/Solid.html
  • https://dnr.wisconsin.gov/topic/Landfills/Siting.html

• Good resources already on website – resources and FAQs
  • https://dnr.wisconsin.gov/topic/Landfills/operationFAQ.html
  • https://dnr.wisconsin.gov/topic/Landfills/MonitorFAQ.html
  • https://dnr.wisconsin.gov/topic/Landfills/SitingFAQ.html
  • https://dnr.wisconsin.gov/topic/Waste/SolidFAQ.html
  • https://dnr.wisconsin.gov/topic/Landfills/forms.html
Waste Characterization Study & Food Waste

- Casey Lamensky covering study details later on

- EPA goal: cut food loss and waste in half by the year 2030
- W&MM Program focus on food waste reduction moving forward
- Please notify us of any local efforts and resources for food donation, diversion, composting, etc.
Solid Waste Program Revenue

David Albino

Annual update per NR 520.04(1)(d)(5)
# Program Revenue Account Status

<table>
<thead>
<tr>
<th></th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Actual</td>
<td>Actual</td>
<td>Estimated</td>
</tr>
<tr>
<td>Opening Balance</td>
<td>$366,116</td>
<td>$1,126,904</td>
<td>$1,019,443</td>
<td>$536,620</td>
</tr>
<tr>
<td>Revenue Sources</td>
<td>FY19</td>
<td>FY20</td>
<td>FY21</td>
<td>FY22</td>
</tr>
<tr>
<td>SW landfill license surcharge</td>
<td>$1,059,706</td>
<td>$1,119,099</td>
<td>$1,068,239</td>
<td>$1,082,348</td>
</tr>
<tr>
<td>SW landfill licenses</td>
<td>$572,550</td>
<td>$507,257</td>
<td>$477,400</td>
<td>$519,069</td>
</tr>
<tr>
<td>SW C &amp; T licenses</td>
<td>$364,490</td>
<td>$135,964</td>
<td>$393,173</td>
<td>$400,000</td>
</tr>
<tr>
<td>Facilities)</td>
<td>$122,210</td>
<td>$133,870</td>
<td>$131,230</td>
<td>$129,103</td>
</tr>
<tr>
<td>SW plan review fees</td>
<td>$420,555</td>
<td>$356,825</td>
<td>$435,510</td>
<td>$404,297</td>
</tr>
<tr>
<td>HW facilities licenses</td>
<td>$83,632</td>
<td>$96,000</td>
<td>$83,200</td>
<td>$167,611</td>
</tr>
<tr>
<td>HW transporter licenses</td>
<td>$73,200</td>
<td>$3,581</td>
<td>$73,097</td>
<td>$70,000</td>
</tr>
<tr>
<td>HW plan review fees</td>
<td>$420,555</td>
<td>$356,825</td>
<td>$435,510</td>
<td>$404,297</td>
</tr>
<tr>
<td>HW manifest fee</td>
<td>$65,880</td>
<td>$1,518</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>SW Facility Oper/Mgr Cert Fees</td>
<td>$37,300</td>
<td>$24,700</td>
<td>$36,689</td>
<td>$32,896</td>
</tr>
<tr>
<td>Misc. (i.e. IW / copying sales / printing)</td>
<td>$47,696</td>
<td>$43,820</td>
<td>$47,835</td>
<td>$46,450</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$2,847,219</td>
<td>$2,422,633</td>
<td>$2,746,373</td>
<td>$2,851,774</td>
</tr>
<tr>
<td>Total Available: (All Revenue Sources + Opening Balance)</td>
<td>$3,213,335</td>
<td>$3,549,537</td>
<td>$3,765,817</td>
<td>$3,388,395</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$(2,323,503)</td>
<td>$(2,642,997)</td>
<td>$(3,220,446)</td>
<td>$(2,800,000)</td>
</tr>
<tr>
<td>Total Expenditures &amp; Budget Lapses</td>
<td>$(2,323,503)</td>
<td>$(2,642,997)</td>
<td>$(3,220,446)</td>
<td>$(2,800,000)</td>
</tr>
<tr>
<td>DOA adjustments to A/R Accounts</td>
<td>$237,071</td>
<td>$112,903</td>
<td>$(8,750)</td>
<td>$113,741</td>
</tr>
<tr>
<td>Closing Balance</td>
<td>$1,126,904</td>
<td>$1,019,443</td>
<td>$536,620</td>
<td>$702,136</td>
</tr>
</tbody>
</table>

**Wisconsin Department of Natural Resources | dnr.wi.gov**
If, for 3 consecutive fiscal years the PR Account Balance is >20% of the **Authorized Expenditure Level**, the DNR must propose rule revisions to lower the landfill license fee surcharge.

NR 520.04(1)(d)5
Recycling Data and Diversion Updates

Jennifer Semrau
October 7, 2021
Recyclable Materials Collected by Wisconsin Responsible Units (in tons)

<table>
<thead>
<tr>
<th>Mandatory Reporting - Banned(^1)</th>
<th>2020</th>
<th>% Change from 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old corrugated cardboard (OCC)</td>
<td>101,774</td>
<td>↑ 30.3%</td>
</tr>
<tr>
<td>All other paper</td>
<td>154,147</td>
<td>↓ -15.5%</td>
</tr>
<tr>
<td>Aluminum containers</td>
<td>7,787</td>
<td>↑ 11.5%</td>
</tr>
<tr>
<td>Steel (tin)/bimetal containers</td>
<td>15,573</td>
<td>↓ -10.1%</td>
</tr>
<tr>
<td>Glass containers</td>
<td>107,747</td>
<td>↑ 17.0%</td>
</tr>
<tr>
<td>Plastic containers #1-7</td>
<td>36,402</td>
<td>↑ 7.1%</td>
</tr>
</tbody>
</table>

**Total Mandatory Reporting** 423,431 ↑ 3.0%

**WI Population** 5,879,284 ↑ 0.3%

**Per capita mandatory reporting (lbs per person)** 144 ↑ 2.7%

\(^1\) Wisconsin Recycling Law bans these materials from landfills
Responsible Unit Data Trends: Mandatory Reporting - Banned Materials

Wisconsin Recycling Law bans these materials from landfills:

1 Wisconsin Recycling Law bans these materials from landfills
Responsible Unit Data Trends: All Recyclables

Wisconsin Recycling Law bans these materials from landfills:

1. Includes electronics, major appliances, non-residential office paper, used lead acid batteries, used oil, used oil filters, and waste tires.
Recyclable Materials Collected by Wisconsin Self-Certified MRFs (in tons)

<table>
<thead>
<tr>
<th>Mandatory Reporting - Banned¹</th>
<th>2020</th>
<th>% Change from 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old corrugated cardboard (OCC)</td>
<td>307,905</td>
<td>0.4%</td>
</tr>
<tr>
<td>All other paper²</td>
<td>252,363</td>
<td>-7.0%</td>
</tr>
<tr>
<td>Aluminum containers</td>
<td>10,845</td>
<td>33.1%</td>
</tr>
<tr>
<td>Steel (tin)/bimetal containers</td>
<td>17,368</td>
<td>6.2%</td>
</tr>
<tr>
<td>Glass containers</td>
<td>121,432</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Plastic containers #1-7</td>
<td>44,223</td>
<td>1.8%</td>
</tr>
<tr>
<td>Foam Polystyrene³</td>
<td>2</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>Total Mandatory Reporting</strong></td>
<td>754,137</td>
<td>-1.9%</td>
</tr>
</tbody>
</table>

¹ Wisconsin Recycling Law bans these materials from landfills
² Includes some non-banned paper, primarily residential mixed paper
³ Variance - released from bans
Self-Certified MRF Data Trends: Mandatory Reporting- Banned Materials

Trends In Recycling: All Banned Materials Processed By Self-Certified MRFs 2011-2020

1 Wisconsin Recycling Law bans these materials from landfills
2 Includes some non-banned paper, primarily residential mixed paper
3 Variance - released from bans
Residual Rates Based on % Received for All 2020 Self-Certified MRFs Located in WI

- Do Not Accept Single-Stream
- Accept Single-Stream
WI Self-Certified MRF Residual Rate Trends
Top Recycling Story of the Moment: Commodity Values

Historic highs for a number of materials

Demand exceeding supply for fiber, plastics

Pricing (Sept)

- OCC $190/ton
- Mixed $115/ton
- Aluminum $1640/ton
- Steel $35/ton
- PETE $580/ton
- HDPE natural $2260/ton
- HDPE color $1260/ton
Legislative Audit
Bureau Statewide Recycling Program Audit

- Received LAB report last Nov.
- Public hearing Feb. 2
- Official DNR response by Apr. 1

Implementing recommendations:
- Increased individual Responsible Unit (RU) evaluations
- Increased documentation of procedures
- Opening NR 544 Effective Recycling Programs

New recycling LTE: Eliza Kruszynski
Focus Areas

UTILIZING RESULTS OF WASTE CHARACTERIZATION STUDY (FOOD WASTE DIVERSION)

ANALYZING RESULTS OF HOUSEHOLD SURVEY

MULTI-FAMILY PROPERTY COMPLIANCE
Questions?

Jennifer Semrau
Jennifer.Semrau@wisconsin.gov
608-381-0960
Composting Deactivation of CWD Prions

Rob Michitsch
Solid Waste Interested Parties Meeting

Carcass Management Updates
October 7, 2021
Dan Kroll – WDNR
CWD in Wisconsin

• First discovered in Southwestern WI in 2002

• Current CWD in Wisconsin
  • 58 Affected/Watch Counties
  • 40 Counties with a wild and/or captive positive CWD deer documented
  • 32 Counties with a wild positive CWD deer documented
  • 10 Hunting Ranches/Deer Farms with positive CWD deer documented still in operation
Deer Waste Disposal Webpage

- [https://dnr.wisconsin.gov/topics/hunt/landfillmap.html](https://dnr.wisconsin.gov/topics/hunt/landfillmap.html)
- Provides a list of licensed animal carcass haulers
- Resources on hauling and disposal
- Deer Carcass frequently asked questions document
- Interactive disposal locations map
Deer Carcass Disposal Sites

- 13 Landfills
- 7 Transfer Stations
- 4 Adopt-A-Dumpster
- Additional dumpster locations will be added to the map as they become available

https://dnr.wi.gov/topic/hunt/landfillmap.html
Adopt-a-Dumpster

- In 2021 the department received a USDA Grant in the amount of $126,000 to support the Adopt-a-Dumpster and state funded dumpster programs.

- Two ways to participate
  - **Donate Full Cost**
    - AAD partners are responsible for all costs and guidelines associate with the dumpsters. The length of time the dumpster is available would be determined by the participant.
  
  - **Donate Partial Cost through Cost Sharing**
    - AAD partners can participate in a cost sharing option during the 2021 deer seasons.
    - Up to the first $1000.00 of the invoice costs are shared 50/50. Any invoice costs over $1000.00 are covered at 100%.
    - Cost sharing available in all counties for 2021, with up to 3 dumpsters per county.

- WDNR Contact – Amanda Kamps, Wildlife Biologist (608)712-5280 or Amanda.Kamps@Wisconsin.gov
State Funded Dumpsters

• In areas where there are not sufficient disposal options the department will place dumpsters.

• 2021 Deer Season Goal
  • Have disposal options in each county to help prevent the spread of CWD.
  • Expand the dumpster program to have 3 disposal options in CWD counties.

• State funded dumpsters will be placed in mid/late October and will remain in place through the gun deer season.

• 2020 Deer Season Dumpsters
  • 6 dumpsters fully funded by AAD partner
  • 49 dumpsters funded by cost share
  • 40 dumpsters fully funded by department
USDA - APHIS

- USDA tested a horizontal grinder to manage mass animal mortality.
- 10 large dairy cows were ground with a mixture of wood chips.
- About half the amount of carbon is needed to compost if carcasses are ground.
- In 3 weeks, there was no notable tissue remaining.

• Animal carcasses may be disposed of in MSW landfills provided they are disposed in accordance with the landfills Plan of Operation (PO).

• Carcasses must be immediately covered and compacted.

• A plan modification may be needed to accept mass volumes of carcasses if the amount requires the landfill to implement special handling requirements.

• Guidance provides recommended special handling procedures that can be incorporated into the PO.
Contact Information

Dan Kroll (920)401-1314

Daniel.Kroll@Wisconsin.gov
Waste Characterization Study Overview

Casey Lamensky
Stats:

- Contracted with SCS Engineers
- Sept.-Nov. ‘20 and March-April ’21
- 15 host facilities (14 landfills and a transfer)
- Host landfills accept 72% of the state’s landfilled MSW
- Focus on MSW and C&D waste

- GFL Hickory Meadows LF
- Brown County Transfer Station
- Outagamie County LF
- WM Ridgeview LF
- City of Superior Moccasin Mike LF
- WM Timberline Trail LF
- Dane County LF Site No.2 (Rodefeld)
- GFL Glacier Ridge LF
- WM Deer Track Park LF
- WM Metro RDF
- GFL Emerald Park LF
- WM Orchard Ridge LF
- Cranberry Creek LF
- GFL Seven Mike Creek LF
- La Crosse County LF
Process:

• Hand sorted and weighed 398 samples MSW from residential, commercial and industrial/institutional sectors
• Visually inspected 659 samples of C&D waste
• Process similar to 2003 and 2009 studies though categories did change

• Waste was sorted into 85 categories
• Data statewide, by DNR region, and by sector
• Study cost $335,000
Interpreting results

• Data by % composition and extrapolated to weight using the category 1 and category 25 landfill tonnage reports
  
• 2009 landfill tonnages (used for extrapolation): 3,973,345 tons
  
• 2020 landfill tons (used for extrapolation): 4,350,100 tons
  
• Data was likely impacted by the pandemic.

• Results are a picture of what was landfilled, not a picture of the waste stream
  
• For a comprehensive picture we have compost data, BU data and processing data. Recycling data available but is specific to facilities accepting multi materials or contracting with an RU.
Comparison to National Numbers

- Food: 20.5%
- Yard waste: 2%
- Textiles: 5.5%
- Wood: 4.7%
Results by type:

- The five largest components of the MSW landfill waste stream are:
  - 14.5% “wasted food” comprised of food items that are traditionally edible,
  - 7.2% “other flexible films” including flexible plastics like chip bags and granola bar wrappers,
  - 6% “food scraps” which are not traditionally edible food waste such as peels,
  - 5.5% “textiles” or cloth materials, and
  - 5.3% “compostable paper” which is paper that is not able to be recycled such as tissues or paper plates
Table 3. Comparison of the Top 10 Category 25 CDD Material Components from 2009 and 2020-2021

<table>
<thead>
<tr>
<th>Material Component</th>
<th>Percent Composition</th>
<th>Material Component</th>
<th>Percent Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other C&amp;D (any other material used in home construction, not including wood, rock,</td>
<td>25.0%</td>
<td>Roofing Shingles (asphalt shingles tarpaper; also tarpaper from built-up roofing)</td>
<td>29.5%</td>
</tr>
<tr>
<td>brick, concrete, gypsum wallboard, shingles, PVC or ceramics/porcelain fixtures)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Untreated Clean Dimensional Lumber (unpainted, untreated new or demolition</td>
<td>11.5%</td>
<td>Rock, Concrete, Bricks (rock gravel, Portland cement mixtures (set or unset),</td>
<td>13.2%</td>
</tr>
<tr>
<td>dimensional lumber such as 2x4s, 2x6s, etc.; may contain nails or other trace</td>
<td></td>
<td>fire-clay bricks, asphalt pavement)</td>
<td></td>
</tr>
<tr>
<td>contaminants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roofing Shingles (asphalt shingles tarpaper; also tarpaper from built-up roofing)</td>
<td>10.0%</td>
<td>Painted/Stained Wood (wood that has had an external coating applied, such as</td>
<td>10.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paint or varnish in more than small amounts)</td>
<td></td>
</tr>
<tr>
<td>Unpainted Engineered Wood (unpainted new or demolition scrap from sheet goods</td>
<td>8.7%</td>
<td>Clean Dimensional Lumber (unpainted, untreated new or demolition dimensional</td>
<td>8.8%</td>
</tr>
<tr>
<td>such as plywood, particle board, wafer board, oriented strand board and other</td>
<td></td>
<td>lumber such as 2x4s, 2x6s, etc.; may contain nails or other trace contaminants)</td>
<td></td>
</tr>
<tr>
<td>residual materials used for sheathing and related construction uses)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum Wallboard - Demo (used gypsum drywall typically with paint, wallpaper or</td>
<td>6.5%</td>
<td>Other C &amp; D (any other material used in home construction, not including wood,</td>
<td>5.8%</td>
</tr>
<tr>
<td>other finish coating)</td>
<td></td>
<td>rock, brick, concrete, gypsum wallboard, shingles, PVC or ceramics/porcelain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>fixtures)</td>
<td></td>
</tr>
</tbody>
</table>
Changes from 2009 to 2020

MSW:
• Food waste is 193% of the percent it was in the 2009 study
• Recyclable waste increased. In 2020 mixed paper #6 and uncoated cardboard #10 (by %)
• TVs reduced by 85%

C&D:
• Shingles decreased from 30% to 10% of the construction and demolition waste stream
More info: DNR.wi.gov search “waste sort”

https://dnr.wisconsin.gov/topic/Recycling/studies.html
For landfill certification CEU credits for this meeting

Please direct message Casey Lamensky in the meeting chat or by email at Casey.Lamensky@Wisconsin.gov and provide

- first and last name
- meeting ID if different from your name
- operator certification number
Questions?

• DNR.wi.gov search “SWIP”

Or

• DNR.wi.gov search “WMM study group”

For slides from this meeting and information about future meetings

Casey.Lamensky@wisconsin.gov for questions