



Michigan
**SOLID WASTE AND
SUSTAINABILITY
ADVISORY PANEL REPORT**
2017

Prepared for:

Governor Rick Snyder
and
Michigan Department of Environmental Quality
Director C. Heidi Grether

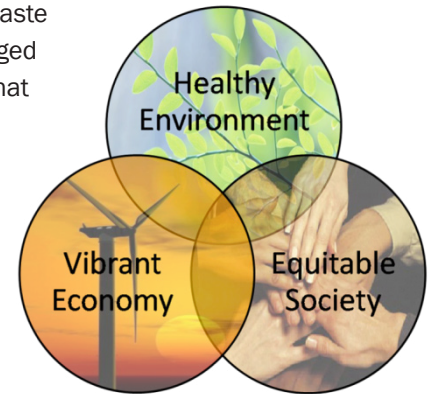


Volume to Value: Refocusing Michigan's Solid Waste Laws

EXECUTIVE SUMMARY

In 2007, the Michigan Department of Environmental Quality (DEQ) adopted a solid waste policy that challenged us to recognize solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.

Solid waste programs of the 1970s and 1980s established an effective system for environmental protection but did not focus on sustainable uses of natural resources. The awareness of advances in sustainable materials management and Governor Rick Snyder's April 2014 Recycling Initiative provided an impetus to evaluate Michigan's solid waste laws. The goal of this evaluation was to identify opportunities for using a sustainable materials management infrastructure to meet the goals of the state solid waste policy. In April 2015, the DEQ established the Solid Waste and Sustainability Advisory Panel (SWSAP) to perform that evaluation.



After 18 months of a systematic review of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the SWSAP recommends the development of legislation to accomplish the following:

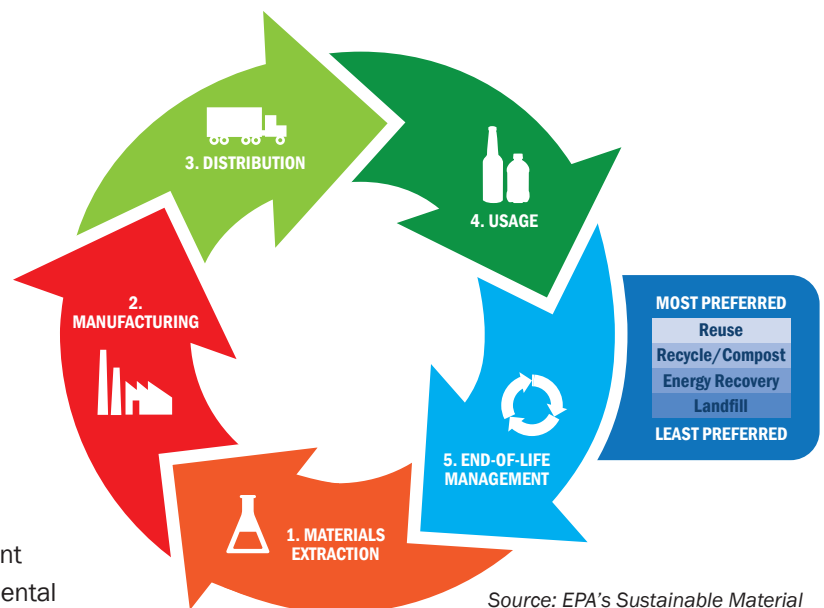
- Changing the solid waste management planning process to a materials management planning process so as to include management options other than disposal.
- Providing regulatory oversight of waste utilization activities like composting and materials recovery facilities.
- Fortifying financial assurance and postclosure provisions.
- Ensuring adequate funding for state and local implementation of their responsibilities.

These recommendations are embodied in 28 consensus proposals that the SWSAP shared with the public for input prior to finalizing them in this report to the DEQ.

Going forward, the SWSAP would like to continue to assist the DEQ as a steering committee for the development of legislation by the various stakeholders and work groups that may be established to pursue the SWSAP's recommendations.

SUSTAINABLE MATERIALS MANAGEMENT

Michigan citizens, local governments, and businesses are embracing sustainable materials management practices to conserve natural resources and energy, reduce human exposure to toxic and hazardous substances, protect the environment, and save money. Examples are everywhere. Residents separate recyclable items from their trash. Restaurants compost leftover food. Local governments and the waste industry operate materials recovery facilities. Socially-responsible businesses adopt environmental management systems (e.g., ISO 14001) that put sustainability at the forefront of their business and demonstrate their environmental commitment to their customers.



Source: EPA's Sustainable Material Management webpage.

The growing interest in sustainable materials management is consistent with Michigan's Solid Waste Policy of 2007. That policy challenges all Michigan citizens, businesses, government agencies, institutions, universities, and political leaders to make wise decisions for managing solid waste. It says that we recognize solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability, and then provides a framework for our decision-making.

RECYCLING INITIATIVE AND INFRASTRUCTURE

In April 2014, Governor Snyder launched an initiative to double Michigan's municipal solid waste recycling rate. The initiative includes: ensuring residents have convenient access to recycling; providing education, outreach, and technical assistance for local materials management programs; developing markets for recycled materials; and providing for measurement and reporting of recycling activity.

In March 2016, Governor Snyder created the 21st Century Infrastructure Commission to develop a long-term infrastructure plan for the State of Michigan. The Commission's initial charge was to ensure Michigan's transportation, water and sewer, wastewater treatment and drainage, energy, and communications infrastructure remained safe and efficient.



A residential curbside bin of recyclables.

Opportunities exist for a strong alignment and connection between the work of the 21st century Infrastructure Task Force, the Governor's Recycling Council, and the Solid Waste and Sustainability Advisory Panel. All three bodies share the vision of a successful and world-class infrastructure that enhances Michigan's economy. And both the GRC and SWSAP recognize the need for policy and funding tools to enhance sustainable materials management in Michigan. As the GRC and SWSAP work progresses, the DEQ will seek to align the two efforts into a connected initiative to amend Part 115 and implement recommendations to double Michigan's recycling rate.

SOLID WASTE REGULATIONS

Solid waste regulations have evolved considerably over time. One of the first laws regulating solid waste disposal in Michigan was the Garbage and Refuse Disposal Act, 1965 PA 87, as amended. It was a relatively simple, 10 section law with minimal standards for licensing disposal areas and haulers and standards for local government collection centers for junk vehicles. Today we have the comprehensive 69 sections of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules. Today's program includes comprehensive location, design, construction, and operating standards for disposal areas, and requirements for environmental monitoring, corrective action, postclosure care, financial assurance, beneficial use of industrial byproducts, and solid waste management planning.

The solid waste laws did not change overnight. Rather, today's Part 115 is the result of over 60 amendments since the 1980s. Some of those amendments made Michigan's provisions consistent with the state permit program requirements under Subtitle D of the federal Resource Conservation and Recovery Act of 1976, as amended. Some of them targeted a specific issue (e.g. solid waste imports). Many of them resulted in a patchwork of provisions that are not easy to navigate.

Most notably, much of the current solid waste law is focused on ensuring proper and adequate disposal capacity. While the state policy is to promote recycling and other waste utilization activities, there is little emphasis on planning for and promoting that policy in Part 115.

SOLID WASTE AND SUSTAINABILITY ADVISORY PANEL

In April 2015, the DEQ established the SWSAP to assist with a broad and comprehensive review of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and other statutes related to furthering the DEQ's solid waste and sustainability goals. The SWSAP is advisory in nature and conducted its work over a period of approximately 18 months. It did not replace existing stakeholder work groups (e.g. Scrap Tire Advisory Committee). Rather, it coordinated with them to ensure recommendations to legislation and rules are developed with a common vision for the waste programs.

Members

The 13 members were appointed by the Director to ensure a broad range of perspectives.

- **Anne Shishkovsky Milne (and Richard Smith)** representing the Central Upper Peninsula Planning and Development Regional Commission
- **Harold Register Jr.** of Consumers Energy representing electric utilities
- **Arthur Siegal** representing the Michigan Chamber of Commerce
- **Darwin Baas** representing the Michigan Association of Counties
- **Sean Hammond** representing the Michigan Environmental Council
- **Andy Such** representing the Michigan Manufacturer's Association
- **Christina Gomes (and Matthew Naud)** representing the Michigan Municipal League
- **Tonia Olson** representing Michigan Waste and Recycling Association
- **Kerrin O'Brien** representing the Michigan Recycling Coalition and the Michigan Organics Council
- **Dana Kirk** of Michigan State University representing academia, recycling, agriculture, and energy
- **Tom Frazier** representing the Michigan Townships Association
- **Brad Venman** of NTH Consultants, Ltd. representing environmental consulting firms
- **Tom McGillis (and Michael Takacs)** of U.S. Ecology representing solid waste processors and the liquid industrial by-products industry

The Department of Environmental Quality, Waste Management and Radiological Protection Division staff facilitated the SWSAP.

Process

The SWSAP conducted a systematic review of Part 115. They set a very ambitious goal to develop their consensus recommendations within 12 months for improving Michigan's solid waste laws.

Specific objectives of the SWSAP review of Part 115 included the following:

- Ensuring requirements are still relevant.
- Identifying where clarification is needed.
- Identifying opportunities to streamline processes.
- Identifying opportunities to promote waste utilization.
- Recommending improvements to provisions that are not achieving intended goals.
- Eliminating, to the extent possible, dual regulation of materials or activities that are subject to similar oversight under other statutes or programs.
- Recommending an overall vision and framework for Part 115 to aid in evaluating legislation proposed by others.

To get started, the DEQ staff and SWSAP members developed a list of issues they wanted addressed under Part 115 (see [Appendix A](#)). Those issues were used to guide the review, including discussions at monthly meetings of the SWSAP, facilitated by the DEQ. The discussions led to the development of numerous proposals for addressing the issues raised by staff and panel members. The SWSAP also established subcommittees to review and report back on certain issues that would benefit from the participation of other stakeholders and staff. Those issues included solid waste management planning, and Technologically Enhanced Naturally Occurring Radioactive Materials, or TENORM.

Public Input

Before finalizing its recommendations to the DEQ, the SWSAP sought public input on the draft proposals. An informational Web page was developed (www.michigan.gov/deqswsap), and a convenient system for providing comments electronically was made available from mid-June through August 1, 2016. In addition, the SWSAP held and broadcasted on the Internet a public meeting at the Lansing Community College West Campus on July 20, 2016. The SWSAP drew considerable media attention and numerous comments (see [Appendix E](#)).

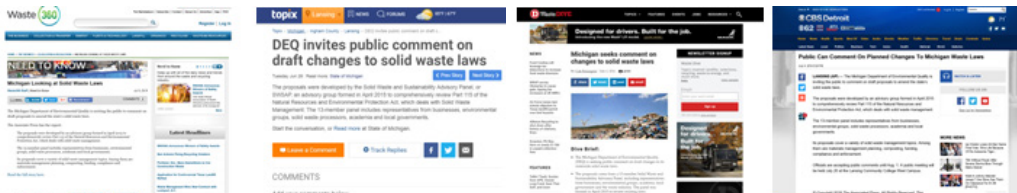
The SWSAP, its draft proposals, and the public meeting were advertised through multiple outlets, including the state's GovDelivery e-mail system, radio interviews of staff and SWSAP members, the AP wire, and state and national environmental and trade organization news.

The comments from the public were generally supportive of the SWSAP's review and proposals, and many reflected strong industry and public support for recycling and other sustainable materials management practices.

The SWSAP considered all of the comments as it refined the proposals for its final recommendations to the DEQ.



Public meeting held on July 20, 2016.



News articles advertising the work of the SWSAP and the public meeting.

PROPOSALS

The SWSAP reached a general consensus on the following proposals to guide the development and analysis of legislation to amend Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The proposals are not intended to be statutory language. Rather, they are intended to inform the development of subsequent legislation that can receive broad support.

Materials Management Planning

Solid waste management planning – or materials management planning as it should be called- drives much of the decision-making for how solid waste is managed. Every county or region needs a plan to manage the solid wastes or materials it generates. County and regional planning must evolve as Michigan relies less on disposal and moves toward a broader materials management scheme to support the state's Solid Waste Policy and the Governor's goal of doubling Michigan's recycling rate. This vision of seeing waste as a resource and focusing on utilization instead of solely on disposal has led to the transition from solid waste management planning to materials management plans.



Steve Sliver relays the message of materials management at the public comment meeting on July 20, 2016.

For purposes of planning, materials management means activities or practices consistent with the concept of sustainable materials management. Sustainable materials management has many definitions, including the U.S. EPA's from their Sustainable Materials Management webpage: *"Sustainable materials management is a systemic approach to using and reusing materials productively over their entire lifecycles. It represents a change in how our society thinks about the use of natural resources and environmental protection. By looking at a product's entire lifecycle we can find new opportunities to reduce environmental impacts, conserve resources, and reduce costs."*

There should be a balance of materials management with solid waste management. It is recommended that the materials management planning provisions under Part 115 maintain accountability for local officials, grandfather inclusion and consistency granted in solid waste management plans, be amended to support the solid waste policy, and clarify and improve requirements as follows:

- **P1:** The Materials Management Plan (MMP) should contain goals for utilization of managed materials and develop a framework to demonstrate progress towards the achievement of these goals consistent with or exceeding the state's Solid Waste Policy.
- **P2:** The MMP should not incorporate import/export authorizations; however, origins of waste should be reported in tons to the planning agency to ensure that the planning agency can effectively plan for its managed materials. A local unit of government may enact flow-controls to publicly-owned facilities only.
- **P3:** The MMP should not drive disposal capacity (e.g. 66 months disposal capacity triggers the siting process), but it should provide for the siting and development of other materials management capacity that is predictable and necessary to manage what is not disposed (e.g. composting or anaerobic digestion for yard clippings).
- **P4:** The MMP should contain a siting process with a minimum set of criteria and a process whereby facilities can be developed, but a facility that documents that it meets all local zoning requirements should not require siting under the plan. Further, the facility that is sited under the MMP must demonstrate that it has met all of the required Part 115 rules and regulations, and has sought approval from the Host Community (i.e., Resolution, HCA, etc.). A facility sited under the MMP without host community approval is required to address, to the extent practicable, host community concerns and operational requirements that are not under DEQ's jurisdiction (including, but not limited to hours of operation, odor control, ingress/egress, and visual compatibility).
- **P5:** To the extent practicable, every County/Region should inventory and identify all managed materials and identify all currently available management options (landfill disposal, recycling, composting, incineration, waste to energy, anaerobic digesters, other waste transfer and processing facilities, etc.). Where the MMP must include capacity for materials that are not disposed (e.g. yard clippings), it must identify new facilities that have already obtained host community approval (i.e. Resolution, HCA, etc.) or identify where the new facilities can be sited and developed.
- **P6:** Waste utilization facilities should report to a system that is available to the State of Michigan/County/Region (Planning Agency) the origin of managed materials in tons, so that the planning agencies can effectively plan for the management of these items. The DEQ should provide a reporting mechanism to collect and reflect the data provided on an annual basis by discard and by-product categories, consistent with Part 175.
- **P7:** Counties or regional planning agencies should review their plans every 5 years, similar to the master plan process, and amend the plan as needed.
 - When the Michigan Solid Waste Policy is significantly changed, the DEQ Director will initiate a plan update.
 - Each county should contact its neighboring counties regarding the feasibility of doing a regional plan and provide documentation indicating the outcome of that contact.
- **P8:** Intermediate deadlines and default mechanisms are needed in the process (see flow chart in [Appendix B](#)).
- **P9:** Support regional plans and develop incentives, if appropriate, for counties to work together.

A shift in emphasis from disposal to utilization should make restrictions on the import or export of solid waste less meaningful unless it is to ensure flow to a public-owned facility. It is recognized that public-owned facilities may need a dependable flow of material and revenue to cover the public investment. However, when a public-owned facility is competing in markets beyond its jurisdiction, the tax and public-funding advantages it may enjoy become more controversial. The SWSAP members discussed the

controversy surrounding public-owned facilities competing in the private marketplace and could not come to consensus on how to address the controversy. However, it was agreed that Part 115 should not give publically-owned facilities any advantages over private facilities.

Additionally, import/export restrictions could actually hinder the development of a sustainable materials management infrastructure in Michigan. It has been argued that Michigan has too much excess disposal capacity, due in part to a very successful planning process that now preserves capacity for individual counties and regions. That excess capacity has been one of the factors keeping disposal costs low, which makes the costs of recycling and other more sustainable materials management practices less attractive when commodity markets decline.

While the SWSAP members recommend that MMPs no longer drive disposal capacity, SWSAP members recommend that MMPs ensure the efficient availability of anticipated material management capacity. For example, yard clippings are prohibited from landfills and incinerators and must, therefore, be managed at compost facilities, anaerobic digesters, or other facilities for organic wastes, which must be specified in the MMP. The SWSAP envisions a robust MMP process that will challenge the counties and regions to first work with municipalities and attempt to obtain a host community approval rather than preempt them when siting and developing new facilities. Where counties are unable to ensure this capacity through existing grandfathered facilities within the county or region, they should be held accountable by the MDEQ to site and develop new ones. The MDEQ should not site new facilities.

The SWSAP recognized that its proposals to add materials management facilities to the planning process would raise concerns if additional preemptions of local ordinances would result. The solid waste management plans already specify where permitted and licensed disposal areas may be located, regardless of local ordinance. Under its proposals, waste utilization facilities that have not historically been permitted and licensed (e.g., yard clippings composting facilities) could now be sited with similar preemption of local ordinance, which could be of concern in some communities that have found poorly run operations to be a considerable nuisance to their neighbors. Therefore, the siting and development of a new facility must be done under a system that ensures any concerns of the most affected communities that are not under DEQ's jurisdiction are addressed (including, but not limited to, hours of operation, odor control, ingress/egress, and visual compatibility). However, because they serve more than just the host community, and because the establishment of new waste utilization facilities is essential to furthering the state's sustainability goals, the system must allow for county-level approval when host community approval cannot be obtained. The decision tree in [Appendix B](#) depicts how new facilities could be determined to be compliant or consistent with the MMP process.

Note the proposed introduction of an alternative path for facilities to be sited is simply that they be found consistent with local zoning, which conforms to the traditional path that many of the current materials management facilities must take today. This path to siting is not envisioned for the siting and development of landfills. Even when this path is taken, prior notice and opportunity to consult with the designated planning agency will help ensure the siting and development is done in light of overall county or regional planning.

The current path of siting a new facility by amending the MMP would be retained. While it may be a longer, more expensive and less predictable process, it provides the ability to include facilities in the plan without having to wait for the next 5-year update and affords the same level of planning and public involvement as the update process.

Regarding enforceability, the MMP should include the identity of any contracts, intergovernmental agreements, laws, ordinances, rules, regulations, or other legally enforceable methods whereby a person is authorized to take action to carry out the plan. The MMP provisions, including the goals for utilization of managed materials, should only be enforceable through the legally enforceable methods identified in the MMP; the MMP itself is not to be a legally enforceable document.

In its review, the SWSAP also agreed that the DEQ Director should continue to be the final decision maker on materials management plans and whether a facility is consistent with it (a determination necessary for issuance of a permit or license), to ensure that all plans are administered in conformance with state requirements.

Authorizations

The management of solid waste must be authorized under Part 115. Current provisions include: construction permits and operating licenses for the transfer, processing, and disposal of solid waste; registrations; and exemptions; with or without written approval and conditions. The authorization provisions under Part 115 should be amended to support the solid waste policy, clarify and improve requirements, and eliminate unnecessary regulations, as follows:



A hauler unloading at an active landfill.

- **P10:** A general permit concept should be established for certain materials management activities. This should include minimal location, design, construction, and operating standards.
- **P11:** A Type II landfill should be allowed to solidify industrial waste sludges onsite in containment and not require a separate construction permit and operating license for processing, if the activity is described in the operations plan.
- **P12:** Part 115 should contemplate and allow for research, demonstration, and development of new and innovative technologies or practices (e.g. pyrolysis, gasification, plasma arc, landfill reclamation, processing reclaimed materials, organics management). This may require special provisions in solid waste management plans and minimum standards for protection of public health and the environment to enable the DEQ to authorize these projects through permits, licenses, or other mechanisms.
- **P13:** The exemption that landfills have from needing a separate construction permit and operating license for processing when removing recyclable materials should also be extended to licensed (and generally permitted) transfer facilities, if they have the activity described in their operations plan.

As part of its review of the current permit system, the SWSAP agreed that opportunities for public input, beginning with the solid waste management plan, are fine. The SWSAP also agreed that the application processes and permit and license durations are fine. Still, the SWSAP recommends the DEQ evaluate the dual permitting system of a construction permit and operating license to determine whether a single permit system would add administrative efficiencies and maintain the protections under the current system. When making the permit system more amenable to other research, demonstration, and development projects, the SWSAP agreed that the current provisions under MCL 324.11511b enabling the DEQ to order a failing bioreactor project to cease would also apply to any other types of projects.

The SWSAP agreed that the 10 percent disposal threshold is not a barrier to establishing materials recovery facilities (MRFs). An MRF is not currently required to have a construction permit and operating license if more than 10 percent of the material processed for recycling is not disposed. Otherwise, it would also have to be recognized in the solid waste management plan. Current MRFs generally either work within that threshold or have been able to pursue siting or amendment of solid waste management plan and obtain the construction permit and operating license. The proposal to allow transfer facilities to remove recyclable materials without requiring a separate construction permit and operating license diminishes the significance of the 10 percent threshold as well.

Composting

Organics are the largest volume of material currently being landfilled across the U.S. Michigan banned yard waste from disposal in municipal solid waste landfills in 1994 and required composting facilities to register with the DEQ beginning in 2008. Minimal oversight of these operations has led to issues (e.g. nuisance odors) that make it difficult to site new compost facilities. It is recommended that the compost provisions under Part 115 be amended to support the solid waste policy and clarify and improve requirements as follows:

- **P14** The DEQ's oversight and enforcement should extend to all composting facilities and be reinforced with general permits, routine inspections, and enhanced site plan, operating, and training requirements.
- **P15** Farms should be able to accept yard clippings that are land applied or composted and land applied to land under their common ownership/management according to the Generally Accepted Agricultural Management Practices that are developed under the Right to Farm regulations.
- **P16** The statute must be clear that a person should not deliver yard clippings to a commercial site that is not in compliance with composting regulations.

While it would be counterproductive to overregulate compost facilities, the need for increased oversight is undisputed. The lack of sufficient oversight has enabled some operators to undercut others by failing to meet industry standards for proper composting. Without some assurance of state enforcement of minimal standards and a resultant level playing field, industry is not willing to make the capital investment in property and equipment needed to properly compost organics. With more oversight, others will be willing to invest in composting operations, and communities will be more receptive to siting them.

Given some of the difficulties experienced with compost facilities, there have been numerous proposals to allow yard clippings to be disposed or used in landfills over the past few years. For example, legislation had been introduced to allow disposal of yard clippings in landfills that capture the landfill gas for energy production. In the broader context of organics management, the SWSAP considered whether current policy and regulations promote the best choices from an ecological perspective. While state policy directs yard clippings to compost facilities, some nationally-recognized models disagree on whether it is better from a greenhouse gas or carbon footprint perspective to comingle yard clippings with trash and dispose them in a landfill with gas collection and energy production, especially when compost facilities are not available locally. Models are imperfect, however, and do not necessarily incorporate all factors in our decision-making. For example, the compost from yard clippings has nutrient value that could be most useful outside of the landfill environment. The SWSAP could not agree on changing current policy for yard clippings.



Yard waste pileup at a composting facility.



Composting facility in Michigan.

Financial Assurance

Licensed disposal area operators provide financial assurance to ensure that the DEQ and taxpayers do not have to pay to cleanup, close, or provide for postclosure monitoring and maintenance of sites if the operator fails to do so. The amount of financial assurance required under Part 115 is frequently not adequate. The financial assurance provisions under Part 115 should be amended to support the solid waste policy and clarify and improve requirements as follows:

- **P17:** Financial assurance should be sufficient for the DEQ to contract with a third party to properly close and maintain a facility. While all potential costs may not be predictable, those that can be reasonably anticipated should be covered.
- **P18:** Owners and operators of general-permitted facilities should provide financial assurance, as determined necessary.
- **P19:** To help ensure more accurate deposits, perpetual care fund increases should be based on the quantity of waste disposed as measured in tons, rather than cubic yards (but conversion factors would be allowed).
- **P20:** The landfill perpetual care funds (trust or escrow account or PCF bond) should remain with the landfill after completion of postclosure, if the owner is insolvent and/or unable to provide a due care plan.
- **P21:** The state's perpetual care account should be available for general permitted facilities that support the fund with application fees.
- **P22:** The state's perpetual care account should receive more funding than the current operating license application fees generate (approximately \$130,000 annually). This account should be protected from other uses.

Advances in technology and systems for disposal facilities as well as the DEQ's experiences from assuming responsibility for the operation, closure, and postclosure of facilities have shown that the amount of financial assurance being provided by the owners and operators is no longer adequate in some categories. The amount required varies depending on the type of facility and site-specific operational issues.

Postclosure

Owners and operators of landfills maintain them for at least 30 years after closure. There are concerns about what obligations should continue after the 30 year maintenance period has ended. The postclosure provisions under Part 115 should be amended to clarify and improve requirements as follows:

- **P23:** DEQ should have the ability to reduce or extend timeframes for postclosure monitoring and maintenance requirements based upon industry generally accepted, science-based objective criteria.
- **P24:** Part 115 should include due care obligations for owners of landfills that have completed postclosure.
- **P25:** The DEQ should maintain an on-line registry of closed landfills.



Michigan landfill in the process of cell construction.



A Michigan landfill in a postclosure state.

An initial step for ensuring proper continued maintenance of closed landfills is to establish due care provisions similar to those imposed under Part 201 on owners of contaminated sites. Under Part 201, regardless of who caused the contamination, owners of those sites are prohibited from doing anything to exacerbate the problem. There may also be a need to include due care requirements for other types of facilities. Requirements for landfills and other types of facilities may be modeled after those in Sections 20107, 20107a and 20114, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Funding

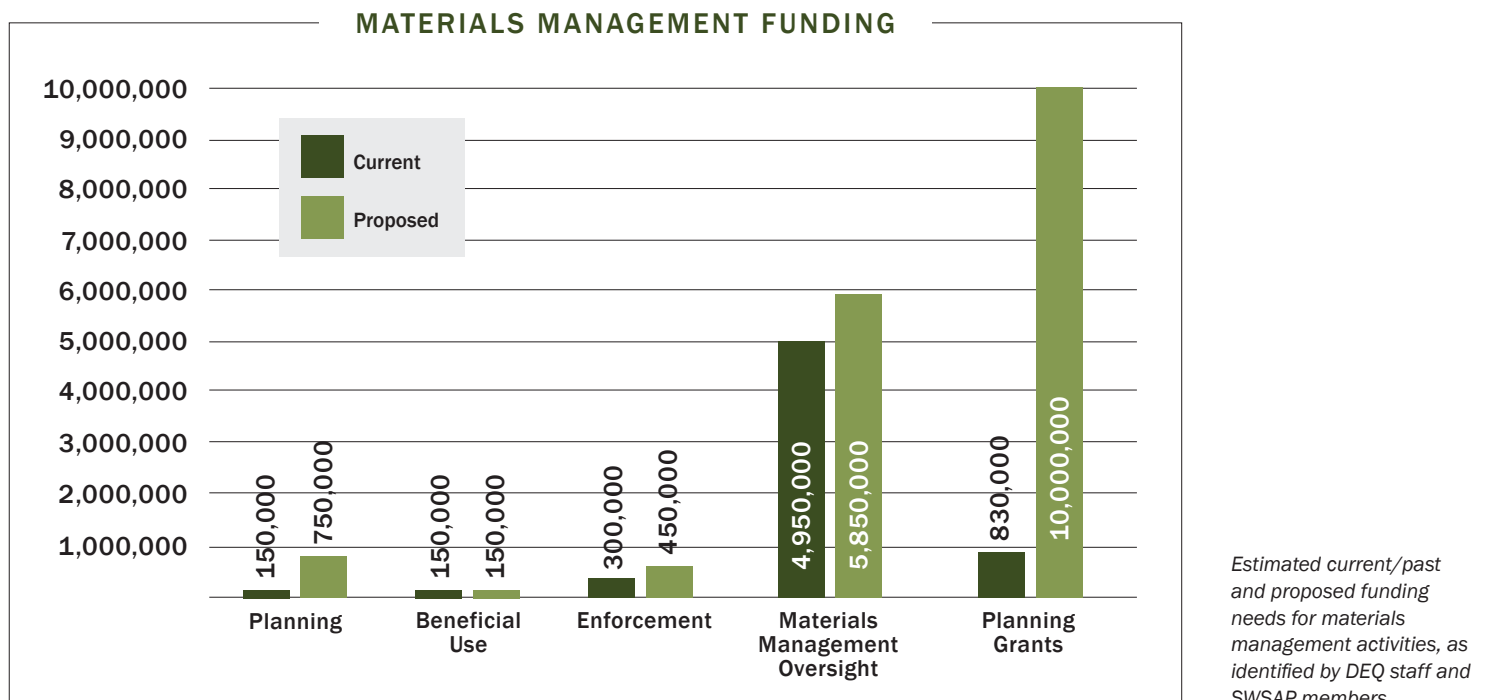
Resources are necessary to administer the Solid Waste Program. The funding provisions under Part 115 should be amended to support recycling and waste utilization and to clarify and improve requirements as follows:

- **P26:** The DEQ and local governments should be provided with the funding necessary to implement the recommended materials management planning process and additional oversight provisions for municipal and commercial solid waste utilization activities and to support education and outreach.

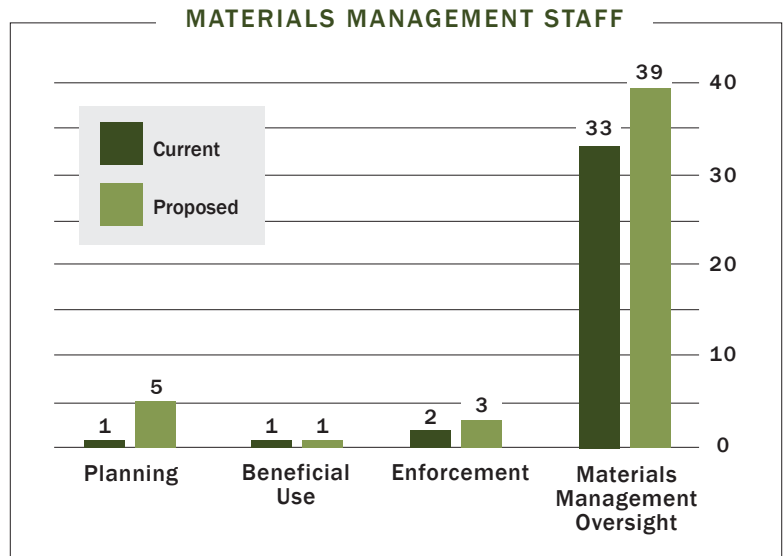
The DEQ and local governments have not been provided with funding to update all county or regional solid waste management plans since the late 1990's. The last statewide update was called for in 1997. Since that time, the DEQ and many designated planning agencies have lost most of the staff that developed, reviewed, and administered the plans. While the DEQ maintains the planning expertise, it only has the capacity to manage plan amendments and review plan issues, such as disposal area consistency and import/export violations. Currently, one staff person handles this, versus the unit of five in the late 1990's. Additionally, while some counties and regions maintain solid waste planning staff and routinely amend their plans as needed, many others are presently not aware of their plan's provisions. Based on initial estimates, at least four staff would be needed in the DEQ to administer a revitalized planning process, and the counties and regions would require additional resources as well.

Similarly, the DEQ may need up to six additional staff to take on the new responsibilities for developing and issuing general permits and overseeing up to 200 materials management facilities that have previously received little, if any, oversight by the DEQ.

Better estimates of additional funding needs will be possible once legislation to implement the proposals is drafted.



It should be noted that the collection and/or distribution of moneys to local units of government for implementing the materials management planning and other related provisions of Part 115 does not necessarily have to be a state obligation. Options for the local assessment or collection of fees or taxes to fund local implementation should be explored. It is generally recognized that the current system for distributing funds to local units of government is problematic, and so adding another element to it may not be the best choice. Planning grant funding estimates are estimated based on a need of \$1 per capita within the state of Michigan.



Estimated current and proposed Materials Management staffing needs as determined by DEQ staff and SWSAP members.

Compliance and Enforcement

Regulatory oversight of solid waste disposal areas and other materials management facilities is essential to ensuring that the activities are protective of human health and the environment, and that a level playing field is maintained among the providers of solid waste disposal services. The compliance and enforcement provisions under Part 115 should be amended to support the solid waste policy, clarify and improve requirements, and eliminate unnecessary regulations as follows:

- **P27:** The DEQ should be able to prioritize its routine inspections of sites based on risk and compliance history.
 - All sites should be inspected to verify compliance prior to the issuance of a construction permit, operating license, or general permit. All non-landfill sites should be inspected, at least annually, and as frequently as necessary to resolve any violations.
 - Quarterly inspections of licensed landfills should continue.
- **P28:** The DEQ should have the right to enter sites to determine compliance with Part 115, and when access is denied, the DEQ can currently obtain an inspection warrant for probable cause. Under Section 11516(3), the issuance of an operating license empowers the DEQ to enter a site to determine compliance at any reasonable time, regardless of whether there is probable cause.



A Michigan pond in the fall.

The DEQ should be similarly empowered to enter a site that obtains a general permit, other written authorization, or determination of exemption under Part 115 to manage a solid waste.

SWSAP members agreed that the abilities of the state and local governments and citizens to seek relief under Part 115 are appropriate. They also agreed that the fines and penalties under Part 115 are appropriate, given the DEQ's application of them using its penalty matrix that weighs duration and severity and history of noncompliance.

OTHER CONSIDERATIONS

While the SWSAP review of numerous other issues did not result in specific proposals to amend Part 115, those issues should be recognized as well.

Solid Waste Policy

Michigan's Solid Waste Policy provides a valuable framework for making wise choices. Before embarking on a review of Part 115, the SWSAP revisited the policy and found it to be substantially relevant for today. As shown in [Appendix G](#), only some updates to specific goals and terminology are recommended. Going forward, the SWSAP recommends that it be reviewed every 5 years and updated as needed. Additionally, an underlying theme for many of the SWSAPs proposals is that Part 115 should support innovative policies and practices at the local level that advance the policy.

TENORM

A panel advised the DEQ in 2014-2015 on the disposal of TENORM. Their white paper contains several recommendations that could be integrated into Part 115. While a subcommittee of the SWSAP began looking at this issue, its work is far from complete and will ultimately include issues beyond the scope of Part 115. The SWSAP recognizes it might be helpful if the disposal provisions under Part 115 are clarified, but the subcommittee should get further along in its process before any specific proposals are considered.

Certified Local Agencies

The DEQ has historically had the ability to certify local agencies and issue grants to administer a solid waste program. Most local agencies stopped administering their own program when grant funds disappeared in the 1980s. A few, however, continued to run their local programs, focused primarily on inspections of solid waste disposal areas and funded with locally-generated fees. SWSAP members agreed that the ability to certify a local agency (e.g., county health department) should be retained, and Part 115 should not limit local government from administering a solid waste program consistent with Part 115.

Electric Utility Coal Combustion Residuals

The U.S. EPA promulgated minimum standards and a schedule of compliance for coal combustion residuals (CCR) from electric utilities on April 17, 2015. These regulations were developed to be self-implementing unless states adopt the rules into the approved solid waste management plan. A subcommittee consisting of electric utilities and other stakeholders was established under the SWSAP to evaluate whether any changes should be made to Michigan's program based on the new federal regulations.

Michigan has maintained a permitting system under Part 115 for the disposal of CCR, and many of those provisions do not align with all of the new federal regulations. The subcommittee ultimately decided to not pursue the adoption of the CCR RCRA Rules through adoption in the solid waste management plan, on account of the lack of flexibility afforded to align the existing Part 115 rules with the CCR RCRA Rule. Since Michigan's provisions were already determined to be protective of public health and the environment, any activity undertaken for compliance through self-implementation could be conformed to state rules and requirements.

On December 16, 2016, the Water Infrastructure Improvements for the Nation (WIIN) Act was signed into law. Congress provided for the U.S. EPA to directly approve a state CCR permitting program under Subtitle D of RCRA. The central feature of the legislation is the State's ability to submit an application to the U.S. EPA to administer the CCR rule through a state permit program. Approval of a state permitting program by the U.S. EPA would operate in lieu of the self-implementing federal CCR. Lack of a state permitting program would necessitate the U.S. EPA to implement the CCR rule through a permit program, if Congress appropriates the funds to do so. Based on these new developments, the subcommittee has been reconvened and is evaluating a submittal for a state self-implementing program.

Industrial Waste Sludges

One area of regulatory confusion and overlap has been for wastes that contain free liquids and are therefore subject to both Part 115 and Part 121, Liquid Industrial By-Products, of Act 451. While liquids are not solid wastes based on the statutory definition, industrial waste sludges, even if they fail the paint filter liquids test, are. They are also subject to Part 121.

Based on the evaluation of a subcommittee, the SWSAP does not recommend changing how industrial waste sludges are regulated under both Parts 115 and 121. The current exemptions for beneficial use or disposal in accordance with Part 31, Water Resources Protection, of Act 451, should continue as well.

As noted under the authorizations proposals, landfills should be allowed to solidify industrial waste sludges without obtaining a separate construction permit and operating license for processing, as long as the activity is included in an operations plan for the facility.

Technical Fixes

Given its ambitious schedule to evaluate all of Part 115 within a year, the SWSAP did not delve into the many technical fixes that may be needed in statute. For example, the definitions sections overlap alphabetically, and some definitions are located in non-definition sections. Those and other issues should be addressed when legislation is developed to implement the consensus proposals of the SWSAP. A summary of them is included in [Appendix F](#).

NEXT STEPS

The proposals establish a framework for Part 115 that, if followed, should minimize inconsistencies in the law and unintended consequences. Many of the proposals are interdependent.

Recognizing it may be difficult to pursue all of the proposals at one time, the SWSAP cautions against too much of a piecemeal approach.

The SWSAP recommends a schedule be developed to pursue legislation consistent with its proposals within the next 2 years, having draft bills by April 2017.

APPENDIX A: INITIAL ISSUES FOR DISCUSSION

The following comments were consolidated from DEQ Staff and SWSAP members regarding their principal concerns about Part 115 before initiation of the SWSAP. These comments were focused on by the panel as starting points and were the basis for many of their recommendations throughout the process of meetings, discussions, and negotiations. The contents of this appendix does not represent a consensus opinion of the SWSAP participants.

1. Waste Utilization

- Recycling and composting.
 - Recycling and composting need to be a focus and to be expanded.
 - Rules for compost sites that include design and operation criteria should be developed.
- Solid waste and recycling measurements should happen more frequently and be more detailed and accurate.
- Residential access.
- Beneficial use.
 - Levels for beneficial reuse should be updated more frequently and taken into more detailed consideration.
 - Need more descriptive and accurate reporting on beneficial reuse.

2. Incineration

- It should be evaluated whether or not expansions and siting should be prohibited.

3. Planning

- The Plan amendment process needs to be easier and less cumbersome.
- The only enforceable parts of a Plan should be disposal area siting, and having host community approval should make siting of solid waste facilities easier.
- It should be ensured that recycling is not impeded in the Planning process.
- Plan updates need to actually happen, but the scope of the update should be revisited.
- Disposal capacity should be considered in either Plans or permits.
- Local government should be included more in decision making of siting and expansions.
- Import and export authorizations should be eliminated.
- Plans should consider other types of facilities, rather than just disposal areas.
- Funding for communities and staffing for Plan management need to be adequate.

4. Disposal area requirements

- Better design for disposal areas needs to be mandatory in order to minimize risk and damage to natural resources, and address annoyances such as odors and birds.
- Financial assurance should be larger and considered for past the 30 year, post-closure timeframe.
- More equal FA requirements for all landfills and other facilities are needed, and they needed to be adjusted for inflation.
- Need provisions for landfill reclamation after postclosure.

5. Compliance and Enforcement

- Used oil needs to be a focus to gain compliance with disposal ban.
- Need improved coordination between the DEQ, township, and county when groundwater or other problems arise
- Need protection against contaminated materials coming into the state from Canadian waste

6. Authorizations

- Allow for the DEQ to review and approve/deny research development, and demonstration projects and provide for public input on these new processes.
- Transfer facility exemptions should be revisited.
- Need more authority and oversight for a larger variety of authorizations.

7. Funding

- Surcharges, such as increased tipping fees, should be distributed to local governments and given to communities to adequately fund planning, mitigate effects of certain facilities, and to promote public health, safety, and welfare, etc.

8. Housekeeping

- Definitions in Part 115 need to be revised and reorganized.
- Dual regulation should be addressed and limited where possible.

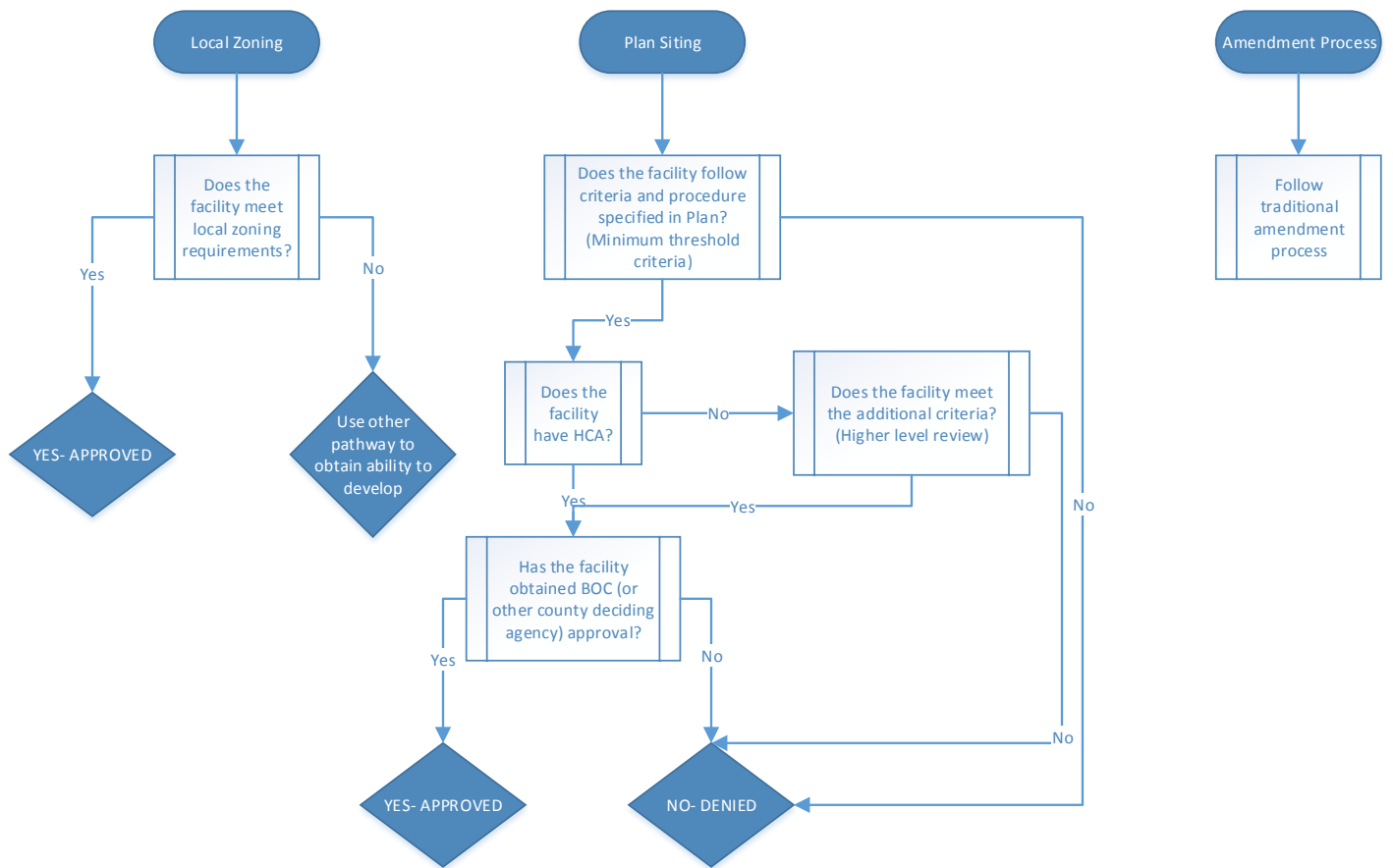
APPENDIX B: MMP CONCEPTS

The following concepts were developed to support the proposals for improving materials management planning. While they may not be the only considerations, they should be recognized when drafting amendments to Part 115. The contents of this appendix does not represent a consensus opinion of the SWSAP participants.

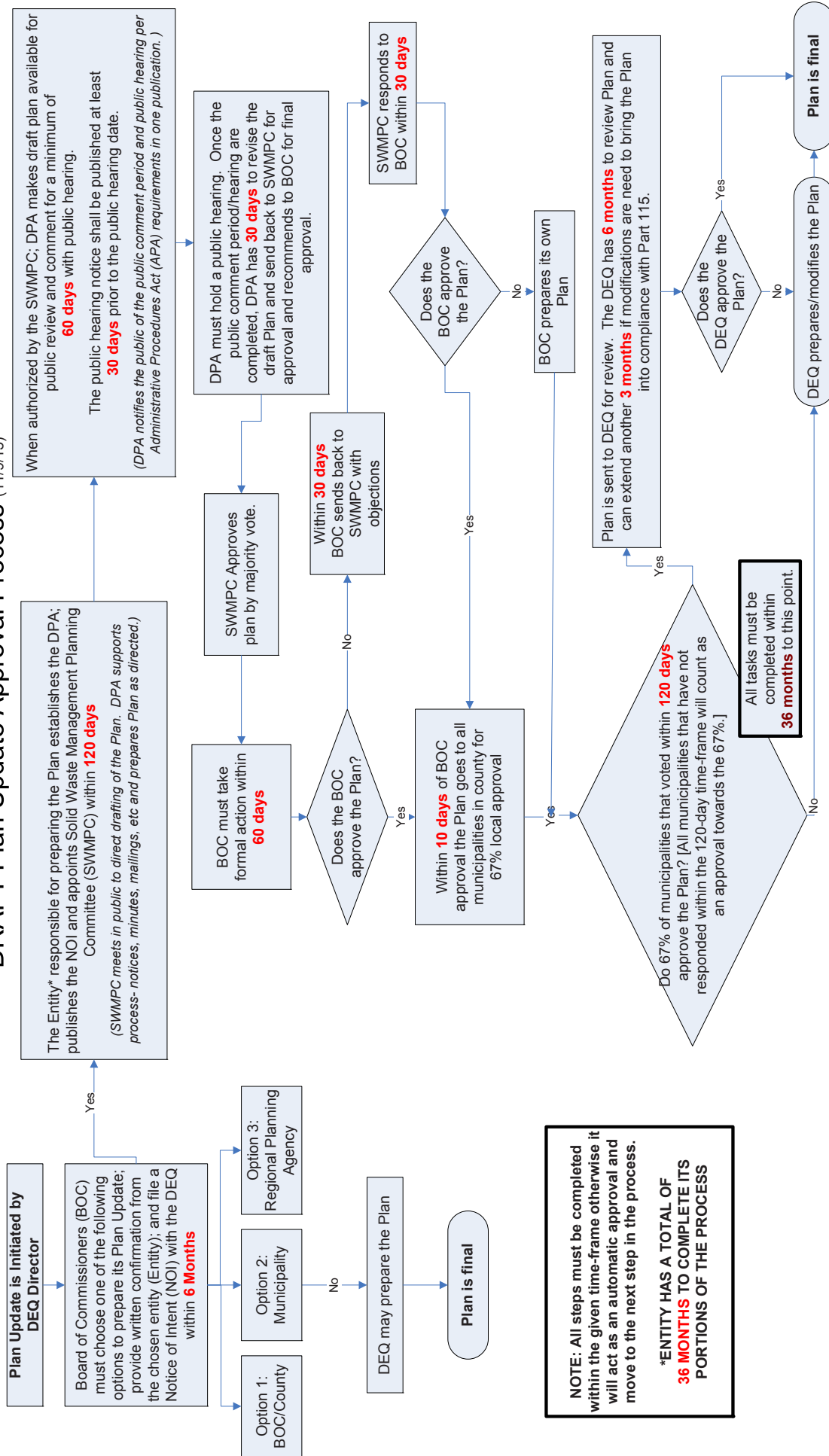
1. A landfill expansion should be deemed consistent with the MMP if the following items have been achieved: the facility has met all of the required Part 115 rules and regulations and has an approval from the local jurisdiction (i.e. Resolution, HCA, etc.)
2. An MMP should contain a provision and an enforceable mechanism if a flow-control ordinance is enacted (i.e. hauler licenses, etc.). A county may enact an ordinance to direct flow to a publically owned facility that is operated by a private entity (Public/Private Partnerships). A county may enact an ordinance that restricts or limits imports to a publically owned facility within their county/region to protect their disposal capacity. Each county within a region may enact an ordinance to direct flow to a regional authority public owned facility.
3. Siting (Non-capacity driven). An MMP that contains a siting process should contain a criterion that requires prior approval by the local jurisdiction as part of the siting process (resolution, host community agreement, etc.). An approval should not be unreasonably withheld or denied.
4. Capacity. To the extent practicable each MMP should identify and demonstrate that the capacity for the managed materials meets the planning area's need.
5. Goals/Objectives. The MMP should not be approved by the DEQ Director unless it identifies the resources (capacity, staff, education, and outreach, etc.) needed for implementing the materials management goals.
6. Goals/Objectives. The State should define how goals are measured, and the MMP should identify inputs for the calculations; utilizing the guidance tools provided by DEQ.
7. MMPs should identify a responsible party for monitoring and implementing the MMP and provide any reporting to the DEQ if required.
8. A greenfield Type II landfill site (i.e., not contiguous property (R.299.4102(g)) should not be consistent with an MMP unless the director determines a regional disposal capacity shortfall exists.
9. No MMP should designate a new municipal solid waste incinerator.
10. Ordinance. Retain the ability for counties to enact local ordinances (flow-control, etc.) under Part 115.
11. Siting (Capacity Driven). The MMP should not mandate the siting of any type of facility.
12. Siting (Non-capacity driven). All disposal areas and municipal and commercial waste utilization facilities that are permitted through a site specific or general permit should be consistent with the MMP.

13. Siting (Non-capacity driven). All facilities sited should be consistent with the framework established for achieving the county/region's materials management goals.
14. Siting (Non-capacity driven). Any facility that requires a permit should be consistent with the MMP.
15. Siting (Non-capacity driven). The department should conduct an independent review of the MMP to ensure that the proposed facility complies and is consistent with the MMP; and the department should have the final say on consistency with the Plan.
16. Siting (Non-capacity driven). The MMP should determine which types of facilities should be sited and/or developed to properly direct its managed materials.
17. Siting of captive Type III landfills should be deemed automatically consistent with the MMP, so long as they are associated with an onsite industrial facility. NOTES: This requirement will not over-rule local zoning because the facility would have to meet local zoning prior to being built. And this principal would not give a captive facility that ability to develop a landfill site off-site without being consistent with the MMP.
18. The MMP should include objective standards that enable the county to determine if expansions are consistent with the MMP.
19. The MMP should not unreasonably prohibit the development of materials management facilities and activities.
20. The MMP should promote the development of materials management facilities and activities.
21. Each county or planning region should have a meeting with other solid waste management planning agency contacts that are a part of its watershed (an area of the state that shares a common solid waste disposal system) or counties where its materials are managed (recycling, composting, , incineration, waste to energy, anaerobic digesters, other waste transfer and processing facilities, etc.
22. The MMPs should not be construed to establish a right to develop a disposal area beyond what is authorized in a permit or license.
23. An MMP should contain an "Adjacent Community Process," whereby each adjacent community within a two mile radius of a proposed landfill expansion must: 1) be notified of the proposed facility and given the opportunity to provide comments and concerns related to the expansion or development of the facility; 2) to the extent practicable each concern should be considered by the facility and the MMP; and 3) documentation demonstrating this process should be included as part of the siting and development process. An MMP should contain a similar process for processing and transfer facilities and materials management facilities for each community within a one mile radius.
24. The MMP should support local managed materials strategies (e.g., bulk purchasing, product stewardship council) that support local business procurement of preferred packaging accepted in county materials management streams (include in MMP template).

2-22-17 DRAFT PROPOSED FACILITY COMPLIANCE/CONSISTENCY DEMONSTRATION PROCESS



DRAFT Plan Update Approval Process (11/9/15)



NOTE: All steps must be completed within the given time-frame otherwise it will act as an automatic approval and move to the next step in the process.

***ENTITY HAS A TOTAL OF 36 MONTHS TO COMPLETE ITS PORTIONS OF THE PROCESS**

APPENDIX C: COMPOST CONCEPTS

The following concepts were developed to support the proposals for improving compost facility oversight. While they may not be the only considerations, they should be recognized when drafting amendments to Part 115. The contents of this appendix does not represent a consensus opinion of the SWSAP participants.

1. Large sites should provide bonding for closure and any money spent on enforcement by the DEQ, townships, or other groups that may be impacted by the facility. Sites that are owned and operated by local government should be exempt from the bonding requirement.
2. The DEQ should maintain a list of medium sized compost sites and review design, operation, and marketing plans for compost sites and perform a yearly site inspection of all registered sites prior to renewing the registration. An initial inspection must be done prior to a new site registration being issued.
3. A site design plan should be submitted to the DEQ to review and approve prior to a site being registered. Requirements would address isolation distances, pad design, water management, site access control, berms/fencing, signage, equipment, and material flow.
4. Existing facilities should comply with new requirements within one year of enactment. Existing facilities may ask the DEQ to approve alternate isolation distances, but design and operating requirements must apply to both existing and new facilities.
5. Sufficient funding should be provided to support 4 full time employees for compost oversight. Funding could come from: registration fees; general fund; inspection fees; surcharge based on volume of material delivered to the site each year; and surcharge based on volume on site at the end of each year.
6. A general permit should be required of facilities that exceed a certain volume and/or material type threshold. General permits should be annual rather than every three years. Additional requirements for large sites would include proof of consistency with local zoning and special use permits, site design plan, operation plan, bonding, and marketing plan. The DEQ must have the right to deny a registration for a site that is found to be in violation.
7. Local government control – Commercial composting (i.e., non-farms) facilities must comply with local zoning requirements; local zoning should not be preempted by the county or state for siting of a composting facility.
8. Material type – Agree with the concept that many states and the US Composting Council (USCC) propose of different regulations based on the volume and type of material handled and the size. Different regulations may be appropriate for the following: leaves only; grass, leaves, and brush; grass, leaves, brush, food waste, slaughter waste, natural farm mortality, and food processing waste; and all other organic materials not listed above.
9. Operation criteria – An operations plan should be submitted to the DEQ for review and approval prior to a site being registered for any site over 1,000 cubic yards or organic material, other than just leaves. The plan should include: volume limits, height limits, staff training, debugging requirement, storm water management, leafate management, speculative accumulation, record keeping, testing of finished product, and final closure plan.
10. Quality of end product –The end product must be tested and meet the quality requirements from the U.S. Composting Council or other appropriate organization approved by the DEQ.
11. Training – Owners/operators/appropriate site staff must receive proper training based on the amount and type of material handled. This might include: “Composting 101”; advanced composting ; trouble shooting; developing markets.
12. A tiered matrix approach to regulation of compost facilities should be established consistent with state or national recognized guidelines.
13. Larger volumes can be accepted at farms that have developed a nutrient management plan through a Concentrated Animal Feeding Operation permit, under the Michigan Agriculture Environmental Assurance Program, or by a certified crop advisor.

APPENDIX D: FINANCIAL ASSURANCE CONCEPTS

The following concepts were developed to support the proposals for improving financial assurance provisions. While they may not be the only considerations, they should be recognized when drafting amendments to Part 115. The contents of this appendix does not represent a consensus opinion of the SWSAP participants.

1. Transfer facility and processing plant standard amount should increase from \$4,000 to \$20,000.
 - Comment: MWRA proposed doubling the FA for Transfer Stations and Processing Plants to \$8,000. Draft recommendations use the \$20,000 figure as proposed by SWSAP document.
2. Type II landfill:
 - Either add a new itemized cost to account for minimal operating costs (utilities, onsite staff, equipment, security, site maintenance, etc.) or increase current itemized costs.
 - Comment: Included operating costs in increased line items for various maintenance line items added.
 - Add a new itemized cost to operate and maintain LDF gas management system.
 - Comment: Itemized costs for LDF gas systems added.
 - Increase leachate management costs for pumping and hauling leachate to a realistic amount. Given the expected reduction in leachate generation over time, a pre- and postclosure estimate for leachate management should be considered as well. Increase would be a multiplier of 5 to 8 over current estimates, depending.
 - Comment: MWRA proposed site-specific cost estimates on a 3-5 year average of actual leachate disposal costs for each site. Opted to recommend the 5-year period to coincide with recommendation that post-closure licenses be required. The leachate cost estimate would be updated at the time of license renewal.
3. Type III landfill:
 - Change from current standard amount of \$20,000 per acre, \$1 million maximum, to calculating as Type II landfills under Section 11523a.
 - Comment: Recommendation is to change the type III cost estimate to be equivalent to the Type II financial assurance calculation.
 - Enable the Type III to use the financial test, and to add the value of the PCF to the amount of the bond when demonstrating the total amount of financial assurance required.
4. Do not limit the use of the financial test to 70 percent of the financial assurance amount, if the criteria under Part 111 are satisfied, and if the owner or operator provides the new, higher amount of financial assurance.
 - Comment: Recommendation was to allow the use of the Part 111 financial test for landfills that could meet the criteria. However, the Part 111 financial test could not be used in lieu of that portion of the financial assurance provided by the Perpetual Care Fund.
5. Phase in the increased financial assurance requirements. Transfer facilities and processing plants provide the new amount upon renewal of the operating license, but not sooner than two years from the effective date of amendatory act. Landfills provide the new amount upon renewal of the operating license, but not sooner than five years from the effective date of the amendatory act.
 - Comment: This concept is recommended, but details on the timing are not spelled out.
6. A pooled trust fund similar to how public schools share liability should be considered as a financial assurance mechanism.
 - Comment: Placeholder provided.

General Comments: Other than differing on the financial assurance requirements for transfer stations and processing facilities, the recommendations of the MWRA and the SWSAP report and appendix generally agree.

APPENDIX E: PUBLIC INPUT

The Solid Waste and Sustainability Advisory Panel hosted a public comment period on their draft proposals from July 1, 2016, to August 1, 2016. A public meeting was held at Lansing Community College West on July 20, 2016. All public comments to the Solid Waste and Sustainability Advisory Panel's draft proposals were encouraged and welcomed.

All comments received during the public comment period, which ended on Monday, August 1, 2016, were reviewed by the SWSAP and/or the Department of Environmental Quality and can be viewed at: www.michigan.gov/deqswsap under the "Public Comments" tab.

The Governor's Recycling Council also provided comments on the draft proposals, which can be viewed at: www.michigan.gov/deqswsap under the 'Governor's Recycling Council Comments' tab.

APPENDIX F: TECHNICAL FIXES

The following concepts were developed to identify areas in the current Part 115 statute that additionally will need revisions. The sections addressed below affect less of the content of the proposals, but instead pertain to their organization, provide updated information, clarifications or corrections, include details on standards to follow, etc. The contents of this appendix does not represent a consensus opinion of the SWSAP participants.

1. Section 11502(14) references ASTM Standard C618-12A, in subparts (a),(b) and (c). This standard has been superseded by ASTM Standard C618-15. It is recommended that the year reference be removed from the citation for the standard. Reference ASTM Standard C618. That will make the citation consistent with the other ASTM Standard citations in the Statute.
2. Section 11510(2)(b) – Consider allowing for publication of notice of receipt of construction permit application in electronic media.
3. Section 11512(8) discusses type II landfill license application fees. Several clarifications and changes are recommended.
 - Fees are based on the average amount of waste projected to be received daily during the license period, and that the fee shall be based on the average amount received in the previous calendar year. Clarify that the average is based on the total amount received in the previous calendar year, divided by the days in the calendar year (i.e., 365 days). Also, since waste receipt is reported to the department based on the state fiscal year, consider altering the calculation basis to the previous fiscal year rather than the calendar year.
 - (8)(c): Provides for a conversion from volume to tons of 3 cubic yards per ton. Consider if this should be retained (or retained in this ratio), if reporting is going to be required in tons.
 - (8)(e) & (f): Delete credit of license fees for early renewal. This is an artifact of the two-year license cycle.
4. Section 11518 – Consider clarifying the term "completion of the landfill" to mean certified closure of the landfill. Then define what that means: certified by the owner/operator and approved by the Department, or other?
5. Section 11523(3) – Eliminate the 50% reduction in bonding after closure is accomplished "...in a manner approved by the department..." Provide for release of entire bond two years after closure and redefine the term "closure is certified" to be consistent with the language that provides for the 50 percent reduction.
6. Section 11523(7) – Clarify language to provide that any reduction in the bond must be approved by the Department. This section provides for reductions based on the amount in the Perpetual Care Fund. This change may be addressed by combining the requirements of Section 11523 with 11523a, which contains other provisions for approval of reduction in bonding (Section 11523a(5)).
7. Section 11525(8)(a) – Consider deleting this provision, which allows for funding the perpetual care fund in amount equal to half of the maximum fund amount for segregated waste landfills.

8. Section 11525b – Consider adding language to clarify that upon transfer of ownership of a solid waste facility, the former owner is required to maintain financial assurance until the bond is replaced, or there is no longer a financial assurance obligation (this was a recommendation from the Financial Assurance Work Group in 2013. We do this in practice already; this would put the practice into statute.)
9. Section 11529 – If the licensing exemption for certain solid waste transfer facilities is retained, consider making the definition of exempt facility consistent with the definitions for Type A and Type B facilities, as described in the Part 5 of Part 115 Rules.
10. Consider deleting compliance or implementation deadlines that have passed (i.e., those in Sections 11515(2), 11523a,(1), 11526a(1), etc.).
11. Section 11526a(1) – Consider deleting the preamble language, start the paragraph at the sentence that begins: “The owner or operator of a landfill...”
12. Consider moving or adding definitions located elsewhere in the statute and rules, such as:
 - a. The RDDP definition found in Section 11511b(12) to Section 11505
 - b. Definitions included in 299.4106a, which was created to define terms used in the statute.
 - c. A definition for “Establishing a disposal area.”
13. Consider consolidating exemptions found in various parts of the statute into Section 11529, such as:
 - a. The exemption for MSW incinerators tests in Section 11512(6).
 - b. The household waste exemption in Section 11520(2).

APPENDIX G: SOLID WASTE POLICY

The following updates to the 2007 Solid Waste Policy should be adopted by the Department of Environmental Quality:
 Message from the Director:

- Pages 1-2: Obtain an updated message from the Director.

Decreasing waste generation and increasing waste utilization:

- Page 9: Add new Goal #8, “Have a state government in which all departments in their respective roles cooperatively support projects that utilize waste.”
- Page 9: Change current goal #8 to say, “Support the beneficial use of utility, commercial, and industrial by-products.”
- Page 10: Update the goal of utilizing 50 percent of Michigan’s MSW by 2015 in the first sentence and the third line in the third paragraph to 2025.
- Page 10: In the fourth paragraph, update 2012 to 2017 and add/change the final sentence, “Counties with at least one drop-off location available per 10,000 residents, and where curbside collection is available in communities with more than 10,000 residents, are considered to have convenient access to recycling.”
- Page 10: Add final paragraph to say, “The DEQ should not be solely responsible for promoting this policy. Other agencies such as the Department of Transportation and Michigan Economic Development Corporation should incorporate it into their cultures as well, promoting practices and businesses that utilize waste as a resource.”

Ensuring appropriate capacity to utilize and dispose of Michigan waste:

To provide appropriate capacity and capability to utilize solid waste, Michigan should:

- Page 11: Change Goal #1 to say, “Use collaboration and partnerships to utilize the individual strengths of the public, non-governmental organizations, and private sectors.”
- Page 11: Emphasize the shift in emphasis on planning by deleting Goal #4 and revising original goal #7 to say “Use the Materials Management planning process to promote the development of utilization infrastructure.”

To ensure appropriate disposal capacity, Michigan should:

- Page 11: Remove Goal #3 regarding transboundary movement of solid waste.

Ensuring that the roles of individual units of government are clearly defined and adequately funded and their actions are consistent with one another:

To ensure the roles of individual units of government are clearly defined, Michigan should:

- Page 13: Change the second section under Goal #2 to say, “The local (regional, county, and municipal) units of government are responsible for assuring the delivery of services for public health and safety (e.g., removal of solid waste from the site of generation).”

Regulating solid waste activities:

- Page 15: Remove Goal #2 for establishing a standing advisory committee (to be added under “Developing and Implementing an Effective System...” on Page 19).
- Page 16: Remove the second paragraph referencing the advisory committee.

Appropriately using regulatory requirements, education, and financial incentives to encourage choices consistent with the management preferences:

- Page 17: Remove Goal #7 (open burning prohibition was accomplished).
- Page 17: Change Goal #9 part a. to say, “Developing and making available a statewide and local messaging on waste utilization that can be appropriately tailored and presented to different audiences.”
- Page 17: Add a Goal #9 part g. to say, “Implement an educational program in public schools to encourage recycling and other waste utilization.”

Developing and implementing an effective system to communicate, monitor, evaluate, and modify the Solid Waste Policy and its implementation:

- Page 19: Insert a new goal #2 to say, “Establish a standing Solid Waste Policy Advisory Committee to advise the MDEQ and help guide implementation of this Solid Waste Policy.”
- Page 20: Add a paragraph to say, “The Solid Waste Advisory Committee will meet regularly to advise the MDEQ on implementation of the Solid Waste Policy and facilitation of sustainable waste management practices. The Solid Waste Policy Advisory Committee may create subcommittees with additional members having needed expertise to help advise the Committee on technical-related issues.”

To review the 2007 Solid Waste Policy in full, please www.michigan.gov/deqwaste, click the “Solid Waste” heading, and find the “Solid Waste Policy 2007” under the “Solid Waste Information” tab.

