

Solid Waste Master Plan: 2006 Revision Response to Comments

The Massachusetts Department of Environmental Protection (MassDEP) issued the *Draft Solid Waste Master: 2006 Plan Revision (Plan Revision)* on September 14, 2005. To the extent that solid waste management is regulated or can be influenced by the Massachusetts Department of Environmental Protection (MassDEP) or Executive Office of Environmental Affairs (EOEA), the Solid Waste Master Plan establishes the policy framework, goals, and overarching strategies for reducing and managing solid waste in Massachusetts. The *2006 Plan Revision* proposed changes to the Beyond 2000 Solid Waste Master Plan to update the Commonwealth's policies and strategies for managing solid waste through 2010.

MassDEP held five public hearings on the Draft Plan Revision and held a public comment period through November 4, 2005. Ninety-two people attended the public hearings. Thirty-nine people provided oral testimony at the public hearings and 40 people provided written comments. A total of 72 people provided comments (some provided both oral and written testimony.)

The comments received spanned all sections of the proposed revision. MassDEP has summarized and provided a response to these comments below, organized by section of the *Plan Revision*. While MassDEP made a number of changes to the Plan Revision, these changes are primarily clarifications or updates to reflect program developments since September.

Waste Reduction and Recycling Goals

1. Comment: Many comments supported maintaining the 70 percent waste reduction goal by 2010 to reduce the need for disposal capacity and realize the benefits of recycling and source reduction and also stated that it is a good idea to have a recycling sub-goal. Many comments stated that the 56 percent recycling goal is too low and should be 63 percent, which would reduce the need to be a net exporter of solid waste by 2010. These comments emphasized the need to devote increased activities and resources to recycling to meet the 63 percent goal.

Response: MassDEP agrees that it is important to maintain an aggressive waste reduction goal, as well as an aggressive recycling sub-goal. The 56 percent recycling goal in the final 2006 Plan Revision reflects an overall recycling rate that, when combined with source reduction, would achieve the 70 percent waste reduction goal. In setting the 56 percent recycling sub-goal, MassDEP evaluated the additional recycling and composting potential for residential waste, commercial waste, and construction and demolition debris, based in large part on a report prepared for MassDEP by the Tellus Institute in 2002¹. This analysis took into account technical, operational, and economic limitations by material category and estimated realistic additional recycling potential given these limiting factors. After additional consideration, MassDEP believes that the 56 percent recycling goal is an aggressive and achievable goal.

¹ *Waste Reduction Program Assessment and Analysis for Massachusetts*, Tellus Institute, December 2002.

Toxicity Reduction Goal

2. Comment: Reducing the toxicity of the waste-stream should be made a greater priority. Every resident in the Commonwealth should have access to hazardous waste collection facilities by 2010.

Response: MassDEP agrees that reducing the toxicity of the waste stream should continue to be a priority for Massachusetts and has, therefore, maintained the Master Plan goal to “Substantially reduce the use and toxicity of hazardous products and provide convenient collection services to all residents and very small quantity hazardous waste generators.” MassDEP’s immediate priorities are to help maintain existing local and regional hazardous product collection programs and facilities, while maximizing sharing of programs on a regional basis to increase collection options for residents. MassDEP also will work with other state agencies such as the Toxics Use Reduction Institute, the Office of Technical Assistance, and the state purchasing agency to encourage efforts to reduce the toxicity of products entering the waste stream. State roles will include research, technical assistance, and using state purchasing to support markets for reduced toxicity products.

Waste Reduction Strategies – Commercial and Residential

3. Comment: Recycling markets are cyclical and we should not rely solely on strong recycling markets to increase recycling. Local recycling programs may not always be paid for their recyclables. Recycling strategies should recognize and plan for recycling markets to change.

Response: Savings from recycling are a combination of recycling revenues and avoided disposal costs. MassDEP agrees that recycling markets will change over time and the economics of recycling programs should not be over-stated. However, even if municipalities or businesses receive no or minimal payment for their recyclables, or even must pay a recycler to take their recyclables, they can still reduce their waste management costs in a sustainable long-term way through avoided disposal fees. MassDEP supports recycling market development through a combination of state, regional, and national initiatives that are described in the 2006 Plan Revision.

4. Comment: Pay-As-You-Throw (PAYT) programs are an important strategy for increasing recycling and waste reduction. MassDEP should continue its efforts to support PAYT and do more to increase PAYT programs to increase residential recycling rates. MassDEP should set a goal of establishing PAYT programs in at least 50% of Massachusetts municipalities by 2010.

Response: MassDEP agrees that PAYT programs are a key strategy for municipalities to use to increase recycling and composting and reduce solid waste disposal. It also establishes a better system for identifying and managing costs. Therefore, the 2006 Plan Revision sets a goal that 50 percent of Massachusetts residents will live in a community served by PAYT by 2010. Currently, 117 municipalities with 1.3 million residents (about 20 percent of the state’s population) have PAYT programs in place. To support progress towards this goal, MassDEP will continue to prioritize assistance to municipalities interested in adopting PAYT.

5. Comment: There should be a mandate that all trash bags sold in the state are made of clear plastic with a MassDEP warning label printed on the bag regarding potential environmental problems that may result from failing to recycle or from disposing of toxic materials.

Response: MassDEP supports public education regarding the environmental benefits of recycling and proper disposal of toxic materials.

6. Comment: The state should consider a tax on the sale of trash bags to fund community recycling.

Response: MassDEP currently receives annual appropriations from the Legislature to fund recycling programs and does not believe new taxes are needed.

7. Comment: There should be more education of the public on recycling, starting in the schools.

Response: MassDEP agrees that public education on recycling is important to inform residents of the importance of recycling and how they can participate in their local recycling programs. MassDEP continues to allocate a portion of state recycling funding to help cities and towns to educate their residents on recycling. MassDEP also coordinates the Green Team, a program for Massachusetts schools to educate children on the importance of reducing waste, recycling, and composting. Participation in the program has been steadily increasing over the past three years. In FY05, 151 schools, representing 30,000 students, participated in the program. MassDEP will continue to promote this school recycling education program.

8. Comment: MassDEP should work with national trade associations to develop recycling solutions for plastic materials that are generated in large volumes but are not readily recyclable, such as pails, oil containers, antifreeze containers, etc.

Response: MassDEP has supported pilot programs focused on increasing recycling of plastic packaging that is not recycled at high rates but where recycling options exist, (e.g., plastic shrink wrap from marinas and supermarkets) and will continue to do so under similar recycling market scenarios. However, the *Waste Reduction Program Assessment and Analysis for Massachusetts*, completed in December 2002 for MassDEP by the Tellus Institute, shows that the greatest additional recycling and composting can come from paper and organics. Therefore, MassDEP will focus the most funding and staff resources on increasing diversion of these target materials.

9. Comment: MassDEP should continue to support an expanded bottle bill as a strategy to increase recycling.

Response: MassDEP continues to support an expanded bottle bill as a strategy to increase recycling.

10. Comment: An expanded bottle bill should only cover “on-the-go” beverage containers equal to or less than 24 ounces that are least likely to enter municipal recycling programs. 2-liter bottles should be removed from the bottle bill since they are consumed at home and enter the

municipal recycling stream. The bottle bill should increase the handling fee to \$0.025 - \$0.03 per container.

Response: MassDEP agrees that the biggest impact of an expanded bottle bill would be to increase the recycling of containers consumed away from home. However, MassDEP supports the current inclusion of larger bottles in the bottle bill as a way to provide an incentive for recycling containers wherever used. MassDEP also will continue to explore options to improve the efficiency and operations of the bottle bill redemption system.

11. Comment: The state should establish a statewide code for all cities and towns that would establish uniform requirements for local trash and recycling programs. Such a code should emphasize PAYT and mandatory recycling.

Response: MassDEP supports increased municipal recycling but does not have the authority to require cities and towns to implement specific recycling initiatives. However, MassDEP does maintain a voluntary Department Approved Recycling Program (DARP) for cities and towns that provides the incentive of exempting their waste from comprehensive waste ban inspections if they meet certain recycling and composting program criteria. MassDEP is revising these criteria and both PAYT and mandatory recycling are key elements of the revised DARP criteria. The revised criteria will take effect in July 2006. MassDEP also provides extensive hands-on assistance and guidance to cities and towns to implement PAYT, improve recycling and solid waste contracting, and make other recycling program improvements.

12. Comment: MassDEP should implement a statewide mandatory recycling requirement coupled with extensive educational programs.

Response: MassDEP supports increased recycling, but does not have the authority to establish a state-wide mandatory recycling requirement. MassDEP has established mandatory recycling as an elective criterion of the revised Department Approved Recycling Program (DARP) criteria for cities and towns. MassDEP also provides templates and samples of mandatory recycling ordinances to cities and towns, and MassDEP's six Municipal Assistance Coordinators (MACs) provide assistance to numerous municipalities that are implementing mandatory recycling. MassDEP also continues to fund local recycling education programs as funding allows.

13. Comment: MassDEP should do more to increase multi-family housing recycling. Multi-family recycling rates are low because of limited recycling access and increased multi-family recycling could make a big difference in increasing recycling rates.

Response: MassDEP works with interested cities and towns to implement local programs to increase multi-family recycling, either by providing equipment and technical assistance to support local government collection initiatives or by providing technical assistance in establishing local recycling requirements. Multi-family recycling is also an elective criterion for municipalities to obtain Department Approved Recycling Program (DARP) status. MassDEP also will explore opportunities to modify building codes to better accommodate recycling equipment in multi-family buildings.

14. Comment: The Department Approved Recycling Program (DARP) exemption for cities and towns does not encourage increased diversion and should be eliminated. Cities and towns should instead be subject to waste ban inspections.

Response: MassDEP believes that the DARP program continues to provide a meaningful incentive for cities and towns to improve their recycling and composting programs. DARP is a voluntary program, and 286 of 351 municipalities currently have DARP status.

15. Comment: MassDEP should place greater emphasis on requiring manufacturers to take responsibility for their products, including reducing packaging and making packaging more readily recyclable.

Response: MassDEP supports increased manufacturer responsibility for their products but does not have the authority to require manufacturers to take back their products or change their packaging. MassDEP continues to participate in voluntary partnerships that involve manufacturers and retailers more in managing products after use. This includes initiatives with gypsum wallboard manufacturers, electronics companies, carpet manufacturers, paint manufacturers, and supermarkets.

16. Comment: MassDEP should establish pilot zero-waste projects in five municipalities by 2010.

Response: MassDEP continues to offer technical assistance grants for cities and towns to implement innovative waste reduction programs. These grants could be used by a city or town to support pilot zero waste projects.

17. Comment: All Clean Environment Fund money should be restored and reallocated to support recycling programs.

Response: In 2002, the Clean Environment Fund and other dedicated funds were eliminated.

18. Comment: Adding items to waste bans is not an effective way to increase recycling; voluntary, market-driven approaches are more sustainable and cost-effective.

Response: While waste bans cannot stand on their own and must be combined with a strong recycling collection and processing infrastructure, MassDEP believes that waste bans continue to play an important role as part of an integrated strategy to increase recycling and composting. MassDEP also believes that waste bans and market-driven approaches are not mutually exclusive. Waste bans complement recycling markets by signaling recycling markets that large volumes of banned materials will be available on a consistent, ongoing basis, helping to encourage capital investments in markets for those materials. A recent successful example is the growth in electronics recycling infrastructure in Massachusetts when MassDEP implemented a waste ban on cathode ray tubes.

19. Comment: MassDEP should make increased use of Supplemental Environmental Projects as a result of enforcement actions to increase recycling.

Response: "Supplemental environmental projects" (SEPs) are environmentally beneficial projects that a regulated entity agrees to undertake, or to cause to be undertaken, in settlement of an enforcement action, but which the regulated entity is not otherwise legally required to perform. MassDEP supports the use of SEPs.

Waste Ban Enforcement

20. Comment: Many comments expressed support for extending waste ban enforcement to waste haulers and generators, arguing that this enforcement is critical to increasing commercial and multi-family housing recycling. Facing risk of enforcement will be a big motivator in encouraging businesses to recycle more. In particular, MassDEP needs to ensure that waste generators are held responsible for disposing of banned materials. Separating banned materials is much more efficient at the point of generation, rather than after it has been mixed with tons of other refuse.

Response: MassDEP agrees that extending waste ban enforcement to waste haulers and generators is critical to increasing recycling in Massachusetts, particularly for commercial waste. MassDEP will continue to proceed with its strategy to ensure that waste haulers and generators comply with waste ban requirements. MassDEP also will continue to enforce facility compliance with waste ban plans.

21. Comment: MassDEP should provide contract language for haulers to use with their customers to help them achieve waste ban compliance and provide assistance to municipal facilities to help them implement waste bans more effectively.

Response: MassDEP does work with municipal officials to improve recycling and solid waste contracting language, including provisions focused on waste ban compliance. This information can also be used by haulers to establish more effective contracts with their municipal customers. MassDEP has held more than 10 workshops on municipal contracting, including two in December 2005. MassDEP also will provide updated guidance and training on implementing waste ban requirements. As part of its outreach on waste ban enforcement, MassDEP has sent a letter to haulers explaining that they need to comply with the waste bans. Upon request, MassDEP also provides haulers with waste ban brochures that they can distribute to their customers.

22. Comment: How does MassDEP intend to enforce waste bans against haulers and generators? Extending waste ban enforcement to haulers at the point of waste collection would cause far more potential for adverse public health and safety impacts and interference with operations than conducting this enforcement at solid waste facilities. It would be unsafe for collection workers to enter enclosed containers or remove waste ban items at the point of collection.

Response: MassDEP plans to conduct waste ban inspections at solid waste facilities and does not expect to conduct waste ban inspections at generator or hauler locations at this time (but may choose to do so in the future). By continuing the existing practice of conducting waste ban

inspections at solid waste facilities, MassDEP can ensure that generators that dispose of banned materials will be held accountable without raising potential worker health and safety issues at the point of collection. However, haulers do have a responsibility to work with their customers to provide recycling services so that banned materials are not disposed. MassDEP enforcement against haulers and generators, combined with economic incentives to recycle, will provide strong impetus for business waste generators to operate in compliance with waste bans and will support haulers that provide recycling services.

23. Comment: MassDEP should not hold haulers responsible for banned waste from generators.

Response: Under the waste ban regulations, no person shall dispose or contract for disposal of banned materials. MassDEP believes that waste haulers and generators have a shared responsibility to comply with waste bans and avoid the disposal of restricted materials. As a practical matter, MassDEP's waste ban compliance guidance defines *de minimis* quantities for certain restricted materials that may be disposed, and other circumstances in which certain recyclable materials may be disposed (e.g., due to MSW contamination, etc.). MassDEP believes that both waste haulers and generators must work together to ensure that banned materials are not disposed.

24. Comment: MassDEP should allow for de minimis quantities of “zero-tolerance” waste ban materials, such as car batteries, tires, and white goods, to be disposed without constituting a failed load.

Response: Because “zero-tolerance” items can be readily identified and removed from the waste stream at solid waste facilities, MassDEP believes that a zero-tolerance standard continues to be appropriate for these materials (except for tires at combustion facilities). They should not be disposed of in any quantity, since they pose potential hazards to public health and the environment and create operational challenges for solid waste facilities.

25. Comment: Require the installation of video equipment at every tipping station to monitor waste ban compliance.

Response: MassDEP is interested in opportunities to improve monitoring of solid waste facility waste ban compliance. Facilities are required to maintain log books to record waste ban monitoring and comprehensive inspections. These records are available to MassDEP to inspect and are used by the facility to report waste ban compliance results on an annual basis. MassDEP believes that this information enables MassDEP to monitor facility operations and ensure a high rate of compliance with waste ban requirements. In addition to the record-keeping requirements contained in a facility's approved waste ban compliance plan, facility operators are encouraged to incorporate additional efforts and materials to document inspection activities and the detection of failed loads, such as photographs and video tapes.

Organics Waste Reduction

26. Comment: Many comments expressed support for increased organics diversion, particularly food waste. MassDEP should set a goal that all Massachusetts residents have access to organics collection programs or facilities for both yard and food waste.

Response: Most Massachusetts residents have access to composting programs for leaves and yard waste. MassDEP is revising Department Approved Recycling Program (DARP) standards for cities and towns to ensure that qualifying cities and towns have strong composting programs. MassDEP would like to increase residential food waste composting programs, however there is not currently a sufficient collection and processing system to support these programs. At this time, MassDEP is focusing first on building the infrastructure needed to collect food waste from larger generators such as supermarkets, hotels, and hospitals. Once this collection and processing infrastructure is better established, it will be easier and more cost effective for municipalities to implement residential food waste composting programs. In the meantime, MassDEP will continue to promote composting food waste as part of home composting efforts.

27. Comment: Large-scale composting operations are needed to significantly increase organics diversion. However, these types of facilities have had operational problems that can cause odors, or attract vermin. MassDEP should not ban commercial food waste because of these concerns. These issues need to be addressed before expanding composting facilities.

Response: MassDEP agrees that improved and expanded processing capacity needs to be in place before a ban on disposal of commercial and institutional food waste should be implemented. However, MassDEP believes that large-scale processing operations, which would be required to obtain a solid waste site assignment and permit, can be well-designed, constructed and operated to avoid operational problems and nuisance concerns. Such well-designed and operated facilities could support a future commercial food waste ban and generate valuable products from organic wastes while diverting this material from disposal facilities.

28. Comment: MassDEP should promulgate regulations for composting facilities to provide certainty of requirements to encourage construction of these facilities.

Response: Composting and other organics processing facilities are currently regulated under solid waste facility regulations. Requirements for facilities vary depending on the size of the facility, whether the facility is agricultural, and what type of materials the facility accepts. MassDEP does not believe that additional regulations for composting facilities are necessary at this time.

29. Comment: Composting releases methane, a powerful greenhouse gas. What is MassDEP doing to prevent increased greenhouse gas releases from composting operations?

Response: All of the composting operations in Massachusetts use aerobic methods, which do not generate significant amounts of methane gas when managed properly. Well-run composting operations produce valuable, environmentally beneficial end products that act as a carbon “sink”. MassDEP plans to rely on a combination of outreach, technical assistance, and enforcement to

ensure that composting operations are well run and do not result in odor or other nuisance concerns. Some types of organics processing facilities, such as anaerobic digestion, capture methane produced from this process and use it as fuel. Such facilities would need to be enclosed and meet applicable permitting criteria, including air pollution controls.

30. Comment: MSW composting has been found to contain relatively high levels of dioxin compounds. Has MassDEP undertaken testing of MSW composting operations?

Response: MassDEP has established stringent testing protocols and standards for compost material produced from MSW/co-composting facilities, which include testing for a wide range of chemicals including pesticides and herbicides, semi-volatile organic compounds, PCBs and metals. This testing does not typically include dioxin. These standards are now in place for the Massachusetts co-compost facilities in Marlborough and Nantucket.

Construction and Demolition Debris Waste Reduction Strategies

31. Comment: C&D processors are ready for the ban and ready to recycle banned material. However, treated wood should not be included in the ban. Treated wood is ground and used for landfill grading and shaping, which is not a sustainable end use.

Response: MassDEP has approved Beneficial Use Determinations (BUDs) for materials that contain C&D wood, which may contain treated wood. These BUDs are for use of C&D fines as daily cover material and C&D residuals as grading and shaping material at landfills. The sampling and analytical requirements for these C&D fines and residuals include:

- Total RCRA 8 metals;
- Total petroleum hydrocarbons;
- Semi-volatile organic compounds;
- Volatile organic compounds;
- Loss on ignition, and
- Asbestos.

MassDEP agrees that the goal should be to develop alternative uses for wood beyond landfill-dependent uses. However, in the interim there is a need for landfill-related uses. MassDEP believes that these current market outlets, along with future market development potential for wood, provide a suitable basis for including treated wood in the C&D ban.

32. Comment: The C&D ban must be enforced at the generator level as well as at solid waste facilities to be effective. This is important to prevent illegal dumping of C&D materials and illegal use of C&D materials as fill. Is there anything MassDEP can do to prevent the illegal dumping of asphalt, brick and concrete (ABC)?

Response: MassDEP will work to ensure compliance with the C&D waste ban by generators and haulers and will take enforcement actions where violations are discovered. MassDEP recognizes the importance of preventing illegal dumping and already has begun to work with local governments in communities that have illegal dumping problems to identify and take

enforcement action against violators. In some cases, these enforcement initiatives have used hidden surveillance cameras.

In addition, MassDEP's C&D Subcommittee has a source separation workgroup focused on increasing separation of recyclable materials at the point of generation (i.e., construction and demolition sites). Through this workgroup, MassDEP has supported pilot projects that show that it is cost-effective and feasible to separate C&D materials for recycling at construction sites. Fact-sheets on these projects are available on the MassDEP web site. In addition, C&D processors, through pricing structures and working with haulers are organizing source separation of target materials such as wood and gypsum wallboard.

33. Comment: MassDEP should allow continued disposal of C&D wood at waste-to-energy facilities.

Response: Under the waste bans, wood can still be disposed at municipal waste combustors.

34. Comment: Waste bans for C&D, or other materials, are not an effective way to increase recycling; developing a voluntary market-driven infrastructure is a more sustainable approach.

Response: While waste bans cannot stand on their own and must be combined with a strong recycling collection and processing infrastructure, MassDEP believes that waste bans continue to play an important role as part of an integrated strategy to increase recycling and composting. MassDEP also believes that waste bans and market-driven approaches are not mutually exclusive. In fact, waste bans complement recycling markets by signaling recycling markets that large volumes of banned materials will be available on a consistent basis, helping to encourage capital investments in markets for those materials. In the case of asphalt pavement, brick, concrete, metal and wood, development of the waste bans for these materials have been integral to supporting the development of an expanded C&D recycling and reuse infrastructure.

35. Comment: MassDEP should not allow the burning of C&D wood at biomass plants due to the toxic chemicals contained in treated and painted wood.

Response: DEP believes that biomass plants can safely use C&D wood as a boiler fuel provided proper air pollution controls are used. Regardless of the type of wood that will be burned, any new wood-to-energy facility will be required to meet MassDEP's air permit requirements at 310 CMR 7.00. These regulations require such a facility to conduct a toxics analysis, install proper air pollution control equipment, and monitor air emissions. The equipment and monitoring requirements for such a facility would be similar to the requirements that apply to municipal waste combustors (MWCs), which already combust incidental quantities of treated and painted wood. MWCs have installed proper air pollution control technologies and conduct routine monitoring for various pollutants, including copper, chromium, arsenic and lead, to ensure that emissions meet stringent permit limits.

36. Comment: MassDEP should set specific targets for gypsum wallboard recycling due to the hydrogen sulfide gas problems that gypsum wallboard causes in landfills and landfill closure projects.

Response: MassDEP is working closely with C&D processors to improve diversion of gypsum wallboard from processing as C&D fines and residuals. MassDEP also is continuing to work with gypsum wallboard recyclers and gypsum wallboard manufacturers to increase recycling of gypsum wallboard. MassDEP may consider recycling targets in the future as well as the potential of adding gypsum wallboard to the list of banned materials.

37. Comment: Carpet should be considered a priority material for increasing C&D recycling. While carpet only represents two percent of the waste stream by weight, it can take up eight percent of space in a landfill because it is bulky.

Response: MassDEP is working with the carpet industry through the Carpet America Recovery Effort (CARE) to advance carpet recycling and will continue to participate in this effort. MassDEP also is working with the state purchasing office (Operational Services Division) to support efforts to increase purchasing of recycled content carpet.

38. Comment: We need a plan for how the homeowner or small contractor can dispose of lead painted wood, arsenic treated wood, and other toxic wood products.

Response: Homeowners and small contractors can continue to dispose of small amounts of treated and painted wood in municipal solid waste. Wood from homeowners represents a relatively small portion of overall C&D wood. As a result, under MassDEP's new waste ban guidance, solid waste facilities that only receive wood in loads that are less than 5 cubic yards (typically small municipal transfer stations) can aggregate these loads and send them for disposal without violating waste bans. C&D loads containing wood received at facilities that receive greater than 5 cubic yard loads will need to be diverted from disposal (e.g., sent to a C&D processor for processing).

Toxicity Reduction Strategies

39. Comment: MassDEP should emphasize producer responsibility for reducing toxic chemicals in products and develop programs to work with manufacturers and support legislative efforts to phase out toxic ingredients in favor of safer alternatives. These programs should also include manufacturer take-back programs for products with hazardous components, particularly electronics and computer equipment. The Toxics Use Reduction Institute in Lowell is doing a good job with these programs and is a good example of how reducing toxics can make companies more profitable.

Response: MassDEP does not have the authority to require manufacturers to reduce the toxicity of their products. However, MassDEP does coordinate with the efforts of the Toxics Use Reduction Institute and the Office of Technical Assistance (OTA) through the Massachusetts Toxics Use Reduction Act (TURA) program to assess and research alternatives to certain toxic chemicals in products. Through TURA, Mass DEP also oversees facility toxic chemical reporting and planning, which has helped to achieve substantial reductions in toxics use by Massachusetts facilities.

40. Comment: MassDEP should participate in multi-state efforts to foster electronics recycling, including legislation that places a fee on electronics purchases that would fund municipal recycling programs.

Response: MassDEP is working with the Northeast Recycling Council as part of a regional effort to develop model electronics recycling legislation. MassDEP also participates in the National Electronics Product Stewardship (NEPSI) dialogue and in the Product Stewardship Institute's electronics product stewardship dialogue.

41. Comment: There should be a plan to use existing solid waste facilities as hazardous materials collection locations.

Response: MassDEP will continue to work with cities and towns through Municipal Assistance Coordinators to improve hazardous product collection programs for residents. Where appropriate, solid waste facilities, many of which are owned and operated by cities and towns, can be used for collection sites.

42. Comment: MassDEP should ensure that 100% of Massachusetts residents have access to hazardous product collection programs by 2010. Solid waste haulers should be required to provide hazardous waste collection at least once per year to each municipality in Massachusetts.

Response: MassDEP agrees that this is an important and appropriate goal for hazardous products collection programs. However, depending on their experience and qualifications, solid waste haulers may not be qualified to collect and manage hazardous products. This collection and materials management should be handled by a company with specific experience and expertise in managing hazardous products. Having a solid waste hauler responsible for providing a hazardous product collection either on its own or through a contractor is an element that could easily be phased into a municipal solid waste management collection contract.

43. Comment: MassDEP should phase in disposal bans for products with toxic materials, such as computers and mercury-containing products.

Response: MassDEP will consider adding these materials to the list of materials banned from disposal in the future. One of the challenges of a waste ban, particularly in the case of mercury-containing products, would be identifying these items in the disposal stream.

44. Comment: There should be deposits on nickel cadmium batteries and chemical aerosol cans to increase recycling.

Response: MassDEP does not have the authority to establish deposits on products. This type of program would require legislation.

Waste Management Capacity Issues

45. Comment: Solid waste management should be made more local. Rather than large regional facilities that disproportionately burden some towns, each city and town should be responsible for managing its own waste. This approach would be more equitable. Large regional facilities impose additional costs on nearby communities that are not adequately reflected in tipping fees. Other cities and towns should be forced to share these costs.

Response: MassDEP does not have the authority to determine where solid waste facilities should be sited. MassDEP reviews facility proposals put forth by both private parties and municipalities to ensure that facilities do not pose unacceptable risks to public health and the environment. Neighboring local officials and citizens can review and influence proposed facility plans through the public involvement provisions afforded by both the state and local site assignment and permitting processes. In general, a municipality is free to decide how best to manage its solid waste.

46. Comment: If Massachusetts is a net exporter of waste, then we have failed to properly manage our own waste.

Response: MassDEP agrees that it would be preferable to have sufficient in-state capacity to manage all the waste generated in Massachusetts, which would make Massachusetts less vulnerable to changes in disposal capacity and availability in other states. However, MassDEP recognizes that regional markets are the primary driver of waste management capacity development decisions and that it is very difficult to site and permit new capacity in Massachusetts, whether municipally or privately-owned. Therefore, Massachusetts will continue to be a net exporter of waste for the foreseeable future.

47. Comment: MassDEP should conduct an analysis comparing waste generation to waste management capacity by county.

Response: Such geographic analysis of waste management data can sometimes be helpful in better understanding waste flows. However, in conducting such an analysis, it is important to remember that county boundaries are not a determining factor in where facilities are located and where waste is managed compared with where waste is generated. Waste flows are often driven by contractual relationships and transportation distances and travel times, so that examining waste management trends by county may be misleading when waste management decisions are made due to other factors.

48. Comment: MassDEP should address the potential capacity and other impacts of rail haul facilities that could be federally preempted from state and local regulation. MassDEP needs a plan to address the growing issue of federal preemption relative to solid waste management by railroads and management of bio-hazardous materials.

Response: MassDEP recognizes that transport of waste by rail is an appropriate part of waste management infrastructure, and that transport by rail is likely to grow as in-state disposal capacity decreases. Facilities where waste is being transferred in inter-modal containers are not

subject to Massachusetts solid waste facility regulation. Facilities that otherwise sort, process, or transfer solid waste are subject to regulation as solid waste facilities.

49. Comment: MassDEP should work with the Massachusetts Emergency Management Agency to assess capacity for managing medical and bio-hazardous waste both on an ongoing basis and in the event of a pandemic event that would generate a large spike of this material. Material handling procedures should be developed to ensure that this waste does not contaminate trash in such an event.

Response: MassDEP has not heard concerns expressed by hospitals, other medical facilities, or the Department of Public Health regarding capacity for managing medical waste on an ongoing basis. Existing out-of-state capacity appears to be sufficient to manage medical waste on an ongoing basis.

In 2006 and 2007, MassDEP will be reviewing and revising Massachusetts's disaster debris management plan to address management of all types of debris and waste from both natural and man-made disasters. In revising this plan, MassDEP will coordinate with the Massachusetts Emergency Management Agency, the Massachusetts Department of Public Health, and other relevant local, state and federal agencies to develop a coordinated plan for responding to debris management needs following a disaster.

Facility and Materials Management Oversight

50. Comment: MassDEP needs to do more to protect residents living near solid waste facilities and drinking water supplies from the impacts and risks of solid waste facilities.

Response: Massachusetts regulations and permit requirements for landfills, combustion facilities, and other solid waste facilities are among the most stringent in the country. MassDEP revised its site assignment regulations on June 8, 2001 and its solid waste permitting regulations on October 7, 2005 to further improve oversight of solid waste facilities. MassDEP also maintains a strong compliance and enforcement presence at solid waste facilities to ensure that they operate in compliance with these regulations and will continue to respond to concerns raised by residents regarding specific facilities.

51. Comment: MassDEP should pursue more aggressive monitoring and enforcement strategies such as video monitoring and off-hours inspections at municipal waste combustors.

Response: MassDEP is committed to maintaining a strong compliance and enforcement presence at municipal waste combustion (MWC) facilities, as well as other solid waste facilities. MWCs are required by statute to conduct stack tests every nine months for a range of pollutants. Furthermore, MWCs are required to submit semi-annual reports summarizing emissions data and to note any deviations from permitted standards. Furthermore, MWCs are required to submit emissions monitoring data to MassDEP for publication on the MassDEP website. For further information regarding MWCs and emissions data please go to:

www.mass.gov/dep/recycle/solid/mwc.htm

52. Comment: MassDEP should set up continuous air sampling programs near landfills.

Response: Continuous air monitoring is very expensive and is unnecessary for well-operated landfills. Well-run landfills, and particularly those with active gas collection and control systems, should not present significant landfill gas problems. MassDEP requires landfills to monitor for gas and groundwater and to notify MassDEP should concentrations of contaminants exceed specified threshold values. In cases where landfills have operational problems, MassDEP requires the facility operator to conduct extensive landfill gas monitoring to identify problems and determine what facilities must do to eliminate landfill gas emissions.

53. Comment: In order to maximize the development of productive partnerships with the solid waste industry and develop more self-sufficient solid waste management systems, MassDEP should move away from enforcement-based approaches and adopt a more positive support role working with the solid waste industry to develop an improved solid waste management system.

Response: MassDEP does not believe a positive working relationship with the solid waste industry and strong enforcement against violators are mutually exclusive. MassDEP undertakes many activities to promote compliance and provide technical assistance to solid waste facilities. At the same time, MassDEP believes it is important to maintain a strong compliance and enforcement presence and conduct frequent inspections of solid waste facilities. Maintaining this aggressive oversight is necessary to ensure that facility compliance problems are corrected and that the regulatory and permitting playing field remains level for all facilities.

54. Comment: MassDEP should establish more aggressive setback criteria for solid waste facility site assignment and permitting. Facilities make more than enough revenue to pay for this cost.

Response: In 2001, MassDEP revised the Site Assignment Regulations, 310 CMR 16.00, to increase the setbacks from all types of solid waste management facilities to sensitive receptors such as homes, schools, nursing homes, water supplies, etc. In many cases, the setbacks were doubled (for example, the setback from a landfill to a house was increased from 500 feet to 1000 feet). MassDEP believes that these set-back requirements are sufficiently stringent.

55. Comment: MassDEP should ban the use of contaminated soil used for landfill closure projects, particularly in Zone II drinking water areas. Landfills that are capped with contaminated fill should be designated as toxic waste sites.

Response: MassDEP believes that some contaminated soils are appropriate to be used as grading and shaping material in landfill closures. Allowable contaminant levels are specified in MassDEP policy #Comm 97-001. The levels established in this policy were developed by MassDEP's Office of Research and Standards and are appropriate for a landfill undergoing closure that will have an impervious cap as soon as final grades are established. Landfills closures receive detailed review and approval by MassDEP's Solid Waste Program and are considered "adequately regulated" under the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000), which are the regulations governing waste site cleanups.

56. Comment: The 30-year post-closure monitoring requirements for closed landfills should be extended many years.

Response: The 30-year post-closure period established in the Solid Waste Regulations is the minimum post-closure period. The regulations allow MassDEP to lengthen the 30-year period should the results of monitoring data or other reasons indicate that it is necessary to do so to ensure protection of the public health, safety or the environment. In addition, MassDEP has the authority to require corrective actions at any landfill, even beyond the 30-year post-closure monitoring period, where a risk to public health or the environment becomes known.

57. Comment: Several comments raised concerns and objections to expansions of specific facilities, including the Hardwick landfill, the Gardner Landfill, and the Holliston Transfer Station.

Response: The Solid Waste Master Plan provides the overall policy framework and vision for managing solid waste in Massachusetts, but is not a regulatory or compliance mechanism for addressing specific facilities. Comments and concerns regarding specific facility permits and compliance status are best addressed on a case-by-case basis and should be directed to the solid waste program in the applicable MassDEP regional office.

58. Comment: MassDEP should proactively support the development of improved waste management technologies.

Response: MassDEP agrees and will continue to evaluate new waste management technologies that can contribute to a safe and cost-effective waste management infrastructure.

Municipal Waste Combustion Moratorium

59. Comment: A number of comments were made both for and against the moratorium on municipal waste combustion capacity. Comments arguing that the municipal waste combustion facility moratorium should be lifted included:

- A moratorium is not the appropriate mechanism to address potential facility impacts. MassDEP should rely on Massachusetts Environmental Policy Act (MEPA), site assignment, and permitting instead. MassDEP should allow new facilities that meet health-based performance requirements for emissions.
- Massachusetts has a disposal capacity need and should allow all options that can meet performance-based standards. Municipal waste combustion provides environmentally sound disposal capacity that also recovers metals, produces renewable energy, reduces greenhouse gases, and conserves land.
- New 2004 data show that municipal waste combustors emitted 189 pounds of mercury and are no longer the largest in-state source of mercury emissions. In particular, residential fuel oil and industrial boilers appear to be larger sources of mercury emissions. Mercury emissions are likely to further decrease as mercury is phased out of more products.

- Through material separation plans, combustion facilities have collected and recycled more than 2,000 pounds of mercury from mercury-containing products over the past two years, far more than was emitted by these facilities during that same period.
- It is not appropriate to focus on a single environmental issue such as mercury as the basis for a moratorium without addressing the environmental issues of other waste management options. A California Integrated Waste Management Board comprehensive life-cycle analysis shows that municipal waste combustors perform better than other waste management options in terms of greenhouse gas emissions, energy savings, and other important environmental issues.
- MassDEP should review the results of research in Florida showing that mercury emissions from landfills may be higher than expected. If these results are transferable to Massachusetts, then combustion may be more favorable compared with landfilling.

Comments arguing that the municipal waste combustion moratorium should be maintained included:

- The moratorium is important for continuing to reduce mercury emissions and associated health impacts.
- It is important to maintain the moratorium to support the state's Zero Mercury Strategy.
- It is important to maintain the moratorium to address other emissions of concern from municipal waste combustors, including lead, dioxins, and furans.
- MassDEP needs to do a better job of monitoring existing combustion facility operations, including both emissions and ash management. MassDEP should not allow expansion of ash landfills.

Response: MassDEP has maintained the moratorium on increased municipal waste combustion (MWC) capacity due to concerns about mercury emissions. While existing environmental review mechanisms such as MEPA, site assignment, and permitting provide safeguards to ensure that any single facility siting or expansion is protective of health, these mechanisms do not account for the cumulative mercury loading from MWCs to the environment. Therefore, MassDEP has made a policy decision to maintain the municipal waste combustion moratorium to maintain progress that has been made in reducing mercury emissions under the state's Zero Mercury Action Plan.

60. Comment: In addition to the moratorium on new municipal waste combustion capacity, MassDEP also should establish a moratorium on new landfill capacity. This would help encourage recycling and avoid the environmental and public health risks posed by landfills. All landfills will leak eventually, landfill leachate is toxic and poses a risk to groundwater, and landfill gas releases also present health risks.

Response: MassDEP will continue to allow new landfill capacity since Massachusetts does not have adequate in-state disposal capacity to handle its own waste (Massachusetts exports about 1.6 million tons annually for disposal) and since annual landfill capacity is projected to decrease by more than 0.8 million tons between now and 2012. MassDEP has established more protective design, construction, and operating requirements for landfills in the October 2005 revisions to the solid waste permitting regulations at 310 CMR 19.000 (including requirements for state of

the art landfill liner systems with leak detection) to ensure that these facilities operate safely. Sufficient landfill capacity is important not only to provide for local waste disposal, but also because it provides capacity for managing “hard to manage” materials such as contaminated soils, C&D fines, and street sweepings that are not easily combusted. These materials can readily be used as daily and intermediate cover materials at active landfills. Sufficient landfill capacity also provides flexibility to accommodate bypass due to combustion facility shutdowns and is an important component of a successful integrated solid waste management system in Massachusetts.

Solid Waste and Recycling Data

61. Comment: The population totals for municipalities in Appendix B appear to be incorrect.

Response: This is a spreadsheet error and has been corrected in the Final Plan Revision.

62. Comment: Are the residuals from recycling operations that are sent to disposal facilities subtracted from recycling tonnages?

Response: Yes, in MassDEP’s survey form for recycling processors, we ask them to identify residuals tonnage that is not counted as part of recycling tonnage.

63. Comment: MassDEP plans to include updated solid waste data in the Final Plan Revision, but has not provided an opportunity to review and comment on that data. MassDEP should re-issue the Plan Revision to provide an opportunity to review and comment on the updated data.

Response: MassDEP included 2004 solid waste data in the final Plan Revision because it was the most up-to-date data available at the time the Plan Revision was published. MassDEP reviewed the 2004 solid waste data with the SWAC Data Subcommittee in November 2005 and with the full Solid Waste Advisory Committee in January 2006.