

Source Reduction

Issue:

In 2011, there were 373,932 tons of MSW generated in the Planning Area, of which 304,919 (82 percent) tons were sent to landfills for disposal. Consistent with the waste management hierarchy reducing the quantity of waste generated is important in conserving resources and reducing the amount of waste to be managed by other means.

Major Options:

- 1) Maintain Status Quo
- 2) Expand Programs that Lead to Greater Source Reduction.

Implementation issues/considerations:

- 2) Expand Programs that Lead to Greater Source Reduction.
 - a. Program type/structure and strategies
 - i. Public education/behavior change
 - ii. Product stewardship principles
 - iii. Zero waste principles
 - iv. Material exchanges/reuse
 - v. Disposal bans
 - vi. Materials targeted

Other Considerations:

Source Reduction (Excerpts from Technical Papers)

Source Reduction: Definitions/Framework/Options

- Source reduction activities reduce the amount of materials entering the waste stream and are considered the highest ranking waste management approach under the USEPA, NDEQ and City-County hierarchy.
- The recommendations and programs resulting from the Solid Waste Plan 2040 can encourage, support and provide additional opportunities for changes in thinking and waste generation/management habits by implementing programs that target source reduction practices.
- 1976 federal Resource Conservation and Recovery Act (RCRA), which set national goals to:
 1. To protect human health and the environment from the potential hazards of waste disposal
 2. To conserve energy and natural resources
 3. To reduce the amount of waste generated
 4. To ensure that wastes are managed in an environmentally sound manner
- The City-County currently support a wide range of public and private waste reduction programs for source reduction.
- A key part of the overall diversion and minimization effort involves educating consumers and waste generators about options to avoid, prevent or minimize waste generation.
- additional efforts focus on changing behavioral patterns and the way people and businesses think (sustainable materials management). The success of source reduction programs is dependent on continuous education of the public and businesses. Education is important to any consumer-targeted source reduction and recycling program.
- Beyond the educational effort, opportunities (systems, facilities and programs) must exist to divert and avoid disposal of materials that might otherwise become waste. With more than half of the municipal solid waste (MSW) generated in the Planning Area estimated to come from non-residential sources it is important that these opportunities exist for both residents as well as businesses (the commercial/industrial/institutional) community.
- Programs may include educational components and waste audits, but ultimately need to include systems and facilities to provide for diversion opportunities.
- Research on pay as you throw programs suggests that in addition to increasing recycling rates that such programs have resulted in a removal of 6 percent of the residential waste stream by source reduction (Including buying in bulk, buying items with less packaging, donating of reusable goods to charities).
- under the current Planning Area collection system, if you choose to have collected yard waste removed from your residence or business you typically pay an added fee (pay as you throw).

- Mandated recycling/diversion can also include recovery and diversion requirements associated with demolition or construction projects, especially projects that utilize public funds.
- The recommendations and programs resulting from the Solid Waste Plan 2040 can encourage these changes in habits by implementing programs that target a wide array of source reduction practices. Programs for source reduction should target residential waste, as well as potential wastes from the business, industry and institutional community. They can be mandatory or voluntary. To be effective they will likely need to consider broad perspective approaches such as zero waste and product stewardship and specific material focused programs such as HHW and lawn waste.

Product Stewardship

- it would appear one of the most effective means of implementing product stewardship and EPR (to the extent that they would be a part of the Solid Waste Plan 2040) would be to continue to support efforts of NPSC to integrate principles of environmental stewardship into the policy and economic structures of Nebraska through support of educational initiatives and legislative changes.

Zero Waste

- there is no reliable source of information to estimate the rate of reuse (e.g., materials that never enter the stream of materials requiring management as a waste product).
- Although C/D waste diversion efforts have made great strides in the past two decades, there are still opportunities for increased diversion.
- Some of the zero waste ideas that may deserve further consideration in the Solid Waste Plan 2040 planning effort include the follows:
 - Better establish and promote Solid Waste Program information as it relates to Source Reduction
 - Expand education in the schools, businesses and institutions
 - Increase Waste Audits to Planning Area businesses
 - Expansion of Material Reuse Center/Waste Exchange, including such items as: construction materials, household furnishings and cleaning supplies
 - Development/Expansion of ReUse Centers to help provide a second-life option for various materials (e.g. used electronics, building material) currently targeted for disposal
 - Increased Special Waste Diversion Programs for items such as Electronics and Medical Wastes
 - Increase residential recycling
 - Increase commercial, institutional and industrial recycling
 - Develop composting capacity for other organic waste
 - Institute bans on materials that have significant resource value and that may be difficult to recycle or pose problems with disposal
 - Target programs to reduce the quantity of plastics in the waste stream, especially film plastics and single use containers
 - Promote Product Stewardship and Extended Producer Responsibility legislation
 - Mandate and/or Incentivize Recycling programs, such as:

Solid Waste Plan 2040

- Volume-based waste collection programs to provide additional price based incentive to encourage more waste reduction and recycling
- Pay-as-you-throw rate structures for yard waste to encourage reduction
- Requiring recycling services be universally available to all waste generators in the Planning Area (residential, commercial, industrial and institutional generators)
 - Strategies to improve local markets for recyclable and composted materials
 - Promote purchasing policies that minimize waste
- Engage the community: zero waste requires an engaged community because it ultimately seeks to change the current management/disposal ethos by including lifestyles and societal changes.
- Zero Waste is a philosophy and a design principle that maximizes recycling, minimizes waste, reduces consumption and encourages the development of products that are made to be reused, repaired or recycled back into nature or the marketplace.