Solid waste management

MR2.1 | Possible point

Intent

To facilitate the reduction of waste and toxins generated from the use of ongoing consumable products by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills or incineration facilities.

To facilitate the reduction of ongoing waste and toxins generated by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To facilitate the reduction of waste and toxins generated from the use of durable goods by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To divert construction and demolition debris from disposal to landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites.

To reduce the volume of waste deposited in landfills. To promote the proper disposal of hazardous wastes.

To facilitate the reduction of waste and toxins generated from the use of ongoing consumable products by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To facilitate the reduction of waste and toxins generated from the use of durable goods by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To divert construction and demolition debris from disposal to landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites.

To facilitate the reduction of waste and toxins generated from the use of ongoing consumable products by building occupants and building operations that are hauled to and disposed of in landfills or incineration facilities.

To reduce the waste that is generated by building occupants and hauled to and disposed of in landfills and incinerators.

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To divert construction, renovation, and demolition debris from disposal in landfills and incinerators and recover and recycle reusable materials.

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To reduce the volume of waste deposited in landfills and promote the proper disposal of hazardous waste.

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To avoid the environmental consequences of extracting and processing virgin materials by using recycled and reclaimed materials.

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Requirements

Maintain a waste reduction and recycling program that addresses materials with a low cost per unit that are regularly used and replaced through the course of business. These materials include at a minimum, paper, toner cartridges, glass, plastics, cardboard and old corrugated cardboard, food waste, and metals. Materials that may be considered either ongoing consumables or durable goods (see MR Credit 8: Solid Waste Management—Durable Goods) can be counted under either category provided consistency is maintained with MR Credit 8, with no contradictions, exclusions or double-counting. Consistency must also be maintained with MR Credits 1: Sustainable Purchasing—Ongoing Consumables and 5: Sustainable Purchasing—Food.

Reuse, recycle or compost 50% of the ongoing consumables waste stream (by weight or volume).

Have a battery recycling program in place that implements the battery recycling policy adopted in MR Prerequisite 2: Solid Waste Management Policy. The program must have a target of diverting at least 80% of discarded batteries from the trash, and actual diversion performance must be verified at least annually. The program must cover all portable dry-cell types of batteries, including single-use and/or rechargeables used in radios, phones, cameras, computers and other devices or equipment.

Have in place a solid waste management policy for the building and site addressing the requirements of the waste management credits listed below as well as recycling of all mercury-containing lamps. This policy must adhere to the LEED 2009 for Existing Buildings: Operations & Maintenance policy model (see Introduction). At a minimum, the policy must cover the waste streams that are within the building and site management's control.

- MR Credit 7: Solid Waste Management—Ongoing Consumables
- MR Credit 8: Solid Waste Management—Durable Goods
- MR Credit 9: Solid Waste Management—Facility Alterations and Additions

This prerequisite requires only policies, not ongoing actual sustainable performance.

Conduct a waste stream audit of the building's entire ongoing consumables waste stream (not durable goods or construction waste for facility alterations and additions). Use the audit's results to establish a baseline that identifies the types of waste making up the waste stream and the amounts of each type by weight or volume. Identify opportunities for increased recycling and waste diversion. The audit must be conducted during the performance period.

Maintain a waste reduction, reuse and recycling program that addresses durable goods (those that are replaced infrequently and/or may require capital program outlays to purchase). Durable goods include at a minimum, office equipment (computers, monitors, copiers, printers, scanners, fax machines), appliances (refrigerators, dishwashers, water coolers), external power adapters, televisions and other audiovisual equipment. Materials that may be considered either ongoing consumables (see MR Credit 7. Solid Waste Management—Ongoing Consumables) or durable goods can be counted under either category provided consistency is maintained with MR Credit 7, with no contradictions, exclusions or double-counting. Consistency must also be maintained with MR Credit 2.1: Sustainable Purchasing—Electric Powered Equipment and MR Credit 2.2: Sustainable Purchasing—Furniture.

Reuse or recycle 75% of the durable goods waste stream1 (by weight, volume or replacement value) during the performance period.

Divert at least 70% of waste (by volume) generated by facility alterations and additions from disposal to landfills and incineration facilities. This applies only to base building elements permanently or semipermanently attached to the building itself that enter the waste stream during facility renovations, demolitions, refits and new construction additions. Base building elements include at a minimum, building components and structures (wall studs, insulation, doors, windows), panels, attached finishings (drywall, trim, ceiling panels), carpet and other flooring material, adhesives, sealants, paints and coatings. Furniture, fixtures and equipment (FF&E) are not considered base building elements and are excluded from this credit. Mechanical, electrical and plumbing components and specialty items such as elevators are also excluded.

Meet at least four of the following five requirements and publicize their availability and

benefits:

a. Include as part of the project at least one recycling or reuse station, available to all project occupants, dedicated to the separation, collection, and storage of materials for recycling; or locate the project in a local government jurisdiction that provides recycling services. The recyclable materials must include, at a minimum, paper, corrugated cardboard, glass, plastics and metals.
b. Include as part of the project at least one drop-off point, available to all project occupants, for potentially hazardous office or household wastes; or locate the project in a local government jurisdiction that provides collection services. Examples of potentially hazardous wastes include paints, solvents, oil, and batteries. If a plan for postcollection disposal or use does not exist, establish one.
c. Include as part of the project at least one compost station or location, available to all project occupants, dedicated to the collection and composting of food and yard wastes; or locate the project in a local government jurisdiction that provides composting services. If a plan for postcollection use does not exist, establish one.
d. On every mixed-use or nonresidential block or at least every 800 feet, whichever is shorter, include recycling containers adjacent to other receptacles or recycling containers integrated into the design of the receptacle.
e. Recycle and/or salvage at least 50% of nonhazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and specifies whether the materials will be stored on-site or commingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume but must be consistent throughout.

Maintain a waste reduction and recycling program that addresses materials with a low cost per unit that are regularly used and replaced through the course of business. These materials include, but are not limited to, paper, toner cartridges, glass, plastics, cardboard and old corrugated cardboard, food waste and metals. Materials that may be considered either ongoing consumables or durable goods (see MR Credit 8) can be counted under either category provided consistency is maintained with MR Credit 8, with no contradictions, exclusions or double-counting. Consistency must also be maintained with MR Credits 1 and 5.

- **MR Credit 7.1** (1 point): Reuse, recycle or compost 50% of the ongoing consumables waste stream (by weight or volume).
- **MR Credit 7.2** (2 points): Reuse, recycle or compost 70% of the ongoing consumables waste stream (by weight or volume).

Have a battery recycling program in place that implements the battery recycling policy adopted in MR Prerequisite 2. The program must have a target of diverting at least 80% of discarded batteries from the trash, and actual diversion performance must be verified at least annually. The program must cover all portable dry-cell types of batteries, including single-use and/or rechargeables used in radios, phones, cameras, computers and other devices or equipment.

Maintain a waste reduction, reuse and recycling program that addresses durable goods that are replaced infrequently and/or may require capital program outlays to purchase. Examples include, but are not limited to, office equipment (computers, monitors, copiers, printers, scanners, fax machines), appliances (refrigerators, dishwashers, water coolers), external power adapters, televisions and other audiovisual equipment. Materials that may be considered either ongoing consumables (see MR Credit 7) or durable goods can be counted under either category provided consistency is maintained with MR Credit 7, with no contradictions, exclusions or double-counting. Consistency must also be maintained with MR Credit 2.

Reuse or recycle 75% of the durable goods waste stream (by weight, volume or replacement value) during the performance period.

Durable goods waste stream is defined as durable goods leaving the project building, site and organization that have fully depreciated and reached the end of their useful lives for normal business operations. Durable goods that remain useful and functional and are moved to another floor or building, etc. do not qualify. Leased durable goods returned to their owner at the end of their useful lives for normal business operations do qualify.

Divert at least 70% of waste (by volume) generated by facility alterations and additions from disposal to landfills and incineration facilities. This applies only to base building elements permanently or semipermanently attached to the building itself that enter the waste stream during facility renovations, demolitions, refits and new construction additions. Examples include, but are not limited to, building components and structures (wall studs, insulation, doors, windows), panels, attached finishings (drywall, trim, ceiling panels), carpet and other flooring material, adhesives, sealants, paints and coatings. Furniture, fixtures and equipment (FF&E) are not considered base building elements and are excluded from this credit. Mechanical, electrical and plumbing components and specialty items such as elevators are also excluded.

Maintain a waste reduction and recycling program that addresses materials with a low cost per unit that are regularly used and replaced through the course of business. These materials include, but are not limited to, paper, toner cartridges, glass, plastics, cardboard and old corrugated cardboard, food waste and metals. Materials that may be considered either ongoing consumables or durable goods (see MR Credit 8) can be counted under either category provided consistency is maintained with MR Credit 8, with no contradictions, exclusions or double-counting. Consistency must also be maintained with MR Credits 1 and 5.

- **MR Credit 7.1** (1 point): Reuse, recycle or compost 50% of the ongoing consumables waste stream (by weight or volume).
- **MR Credit 7.2** (2 points): Reuse, recycle or compost 70% of the ongoing consumables waste stream (by weight or volume).

Have a battery recycling program in place that implements the battery recycling policy adopted in MR Prerequisite 2. The program must have a target of diverting at least 80% of discarded batteries from the trash, and actual diversion performance must be verified at least annually. The program must cover all portable dry-cell types of batteries, including single-use and/or rechargeables used in radios, phones, cameras, computers and other devices or equipment.

Maintain a waste reduction and recycling program that reuses, recycles, or composts the following:

- at least 50% of the ongoing waste as specified in Materials and Resources Prerequisite: Ongoing Purchasing and Waste Policy (by weight or volume); and
- at least 75% of the durable goods waste as specified in Materials and Resources Prerequisite: Ongoing Purchasing and Waste Policy (by weight, volume or replacement value).

In addition, safely dispose of the following:

- all discarded batteries; and
- all mercury-containing lamps.

K–12 schools may exclude food waste from the final performance calculations of the total building waste stream by meeting both of the following requirements.

- Provide documentation that food waste composting services are not available in the region or are not economically feasible, based on the school or district's operational budget for solid waste management.
- During the performance period, implement an awareness program that encourages occupants to reduce food waste. Compliant programs should include at least two of the following:

1. signage in food service and cafeteria areas;
2. food service employee training on reducing waste in food preparation and selecting menu options to reduce the potential for food waste; and
3. extracurricular activities or student organizations that promote awareness of the environmental benefits associated with composting food waste.

Establishment

None.

Performance

Maintain a waste reduction and recycling program that reuses, recycles, or composts the following:

- at least 50% of the ongoing waste as specified in Materials and Resources Prerequisite: Ongoing Purchasing and Waste Policy (by weight or volume); and
- at least 75% of the durable goods waste as specified in Materials and Resources Prerequisite: Ongoing Purchasing and Waste Policy (by weight, volume or replacement value).

In addition, safely dispose of the following:

- all discarded batteries; and
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Establishment

None.

Performance

Maintain a waste reduction and recycling program that reuses, recycles, or composts

the following:

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Divert at least 70% of the waste (by weight or volume) generated by facility maintenance and renovation activities from disposal in landfills and incinerators. Include base building elements as specified in the Materials and Resources prerequisite: Facility Maintenance and Renovation Policy.

Exclude furniture and furnishings that pose human health concerns (e.g., mold) as well as components not considered base building elements; mechanical, electrical, and plumbing components; and specialty items, such as elevators.

Establishment

None.

Performance

Divert at least 70% of the waste (by weight or volume) generated by facility maintenance and renovation activities from disposal in landfills and incinerators. Include base building elements as specified in the Materials and Resources prerequisite: Facility Maintenance and Renovation Policy.

Exclude furniture and furnishings that pose human health concerns (e.g., mold) as well as components not considered base building elements; mechanical, electrical, and plumbing components; and specialty items, such as elevators.

Meet at least four of the following five requirements and publicize their availability and benefits.

1. Include as part of the project at least one recycling or reuse station, available to all project occupants, dedicated to the separation, collection, and storage of materials for recycling; or locate the project in a local government jurisdiction that provides recycling services. The recycling must cover at least paper, corrugated cardboard, glass, plastics, and metals.
2. Include as part of the project at least one drop-off point, available to all project occupants, for potentially hazardous office or household wastes and establish a plan for postcollection disposal or use; or locate the project in a local government jurisdiction that provides collection services. Examples of potentially hazardous wastes include paints, solvents, oil, mercury-containing lamps, electronic waste, and batteries.
3. Include as part of the project at least one compost station or location, available to all project occupants, dedicated to the collection and composting of food and yard wastes, and establish a plan for postcollection use; or locate the project in a local government jurisdiction that provides composting services. .
4. On every mixed-use or nonresidential block or at least every 800 feet (245 meters), whichever is shorter, include recycling containers either adjacent to or integrated into the design of other receptacles.
5. Recycle, reuse, or salvage at least 50% of nonhazardous construction, demolition, and renovation debris. Calculations can be done by weight or volume but must be consistent throughout. Develop and implement a construction waste management plan that identifies the materials to be diverted from disposal and specifies whether the materials will be stored on site or commingled. Reused or recycled asphalt, brick, and concrete (ABC) can account for no more than 75% of the diverted waste total. Excavated soil, land-clearing debris, alternative daily cover (ADC), and materials contributing toward GIB Credit Existing Building Reuse do not qualify for this credit.

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Use materials for new infrastructure such that the sum of the postconsumer recycled content, on-site reused materials and one-half of the preconsumer recycled content constitutes at least 50% of the total mass of infrastructure materials.

Count materials in all of the following infrastructure items, as applicable:

- roadways, parking lots, sidewalks, unit paving, and curbs;
- water retention tanks and vaults;
- base and sub-base materials for the above; and
- rainwater, sanitary sewer, steam energy distribution, and water piping.

Recycled content is defined in accordance with ISO/IEC 14021, Environmental Labels and Declaration, Self-Declared Environmental Claims (Type II environmental labeling).

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