

# The Big Picture

## WGP Credit:

### MSW Source Reduction Programs

#### (1-3 Points, Reciprocal)

#### Credit Summary

The aim of WGP Credit: MSW Source Reduction programs is to encourage reduced waste generation to minimize resource consumption throughout society, and to avoid human health and environmental impact from toxicity resulting from the manufacturing of goods. Source reduction is more effective than waste diversion alone because it does not require fuel from transport, costs from labor, or the emissions from processes such as recycling or composting.

#### Impact Summary

While composting and recycling are better alternatives to many widely used MSW disposal methods, using source reduction programs to decrease the amount of waste generated is the best option. Plastics, for example, were responsible for emissions equivalent to [1.8 billion metric tons](#) of CO<sub>2</sub> in 2015. Included in this number is not just the emissions from producing plastics, but also those necessary to recycle and compost plastic. The most effective way to decrease the amount of waste generated and the emissions released by production and processing is to implement source reduction programs.

#### Submittal Summary

Private companies should submit brief descriptions of the Source Reduction program from the list provided. In addition to Baseline waste generation figures developed for *WGP Prerequisite: Measuring and Calculating Waste Generation, Recovery and Disposal*, you should include expected waste reduction results (measured or calculated) from the programs listed under the *How to Meet Requirements* section.

**Calculation:** [Baseline Material Generation (tons)] - [Program Impact (tons)] = [Source Reduction (tons)]

**Innovation Credit Opportunity:** Calculate environmental and/or economic benefits of these reductions

Report changes in per capita disposal due to source reduction programs outlined in the *SMMP Credit: Sustainable Materials Management Policy* and briefly describe the programs used to achieve this result.

#### Case Study and Benefits

There are a number of different program options, including junk mail reduction, advanced disposal fees, food waste reduction, material opt-out options, and more. Businesses and local governments have found success with many of these options, such as Chicago's disposable bag tax and Western Michigan

University's food waste reduction efforts. The case studies provided later in this chapter provide several detailed examples of source reduction programs.

## Intent and Requirements

### Intent

Encourage reduced waste generation to minimize resource consumption throughout society, and to avoid human health and environmental impact from toxicity resulting from the manufacturing of goods.

### Local Government & Industry Requirements

Implement a waste prevention program for MSW, including, as appropriate, C&D waste.

#### ***SMMP Performance Path:***

Report changes in per capita disposal due to source reduction programs outlined in the SMMP Credit 1: Sustainable Materials Management Policy and briefly describe the programs used to achieve this result.

#### ***SMMP Prescriptive Path:***

##### **Tier 1: (1 point)**

Develop, support and promote at least 2 of the following—or equivalent—waste reduction programs in the Local Government's jurisdiction or Company's service area.

##### **Tier 2: (+1 point)**

Develop, support and promote at least 4 of the following—or equivalent—waste reduction programs in the Local Government's jurisdiction or Company's service area.

##### **Tier 3: (+1 point)**

Develop, support and promote at least 6 of the following—or equivalent—waste reduction programs in the Local Government's jurisdiction or Company's service area.

## Why We Care

While composting and recycling are better alternatives to many widely used MSW disposal methods, using source reduction programs to decrease the amount of waste generated is the best option. These strategies allow businesses and municipalities to avoid the energy required to recycle new waste, instead opting for a reduction of waste altogether. Plastics, for example, were responsible for emissions equivalent to [1.8 billion metric tons](#) of CO<sub>2</sub> in 2015. Included in this number is not just the emissions from producing plastics, but also those necessary to recycle and compost plastic. The most effective way to decrease the amount of waste generated and the emissions released by production and processing is

to implement source reduction programs to avoid the generation of new MSW and drive down the demand for disposable items.

## How to Meet the Requirements

### ***Performance Path:***

- Report Baseline calculation from SMMP Credit 1
- Report the reductions in per capita disposal from the baseline
- Briefly describe the programs used to achieve this result

### ***Prescriptive Path:***

Develop, support and promote at least 2 (Tier 1), 4 (Tier 2), or 6 (Tier 3) of the following waste reduction programs in the Local Government's jurisdiction or Company's service area:

- Rate structure modifications (Pay-as-you-throw programs in the residential sector and/or fee adjustments to nonresidential sector rates)
- Advanced disposal fees on single use, disposable, and non-durable goods
- Food waste reduction: (e.g., promoting reduced portions of food for customers)
- Material opt-out options (i.e. phone books, news publications, etc.)
- Local Government-sponsored book drives for community re-circulation
- Extended Producer Responsibility and Stewardship program targeting litter, single-use products, universal waste, or wasted goods (e.g., take it back programs for universal wastes)
- Reduce transport packaging program (e.g., reusable boxes)
- Waste prevention at venues and events (e.g., avoiding single use cups, plates and utensils)
- Junk mail reduction program (removing customers from junk mail lists)
- Material leasing programs (e.g., returnable electronics)
- Awards and recognition program (e.g., trash cutters award)
- Environmentally preferable purchasing (e.g., avoiding wasteful purchases or ensuring recycled content)
- Xeriscaping program (e.g., rebate for replacing grass lawns with organic gardens)
- Discounts on reusable product usage (e.g., 15 cents off a coffee for using a reusable mug or a per bag discount for bringing your own reusable bag)
- Local purchasing strategies for food and other goods
- Other suggested by Local Government
- Disposal bans on plastic single use products
- Business waste prevention programs
- Smart shopping campaigns for residents and businesses
- Purchasing co-ops for residents and businesses
- Encourage LEED or equivalent construction standards with builders and developers
- Code amendments to reflect source reduction practices
- Rate structure modifications
- Local government procurement programs and local tax incentives
- Encourage local community gardens through zoning code revisions
- Encourage residential and nonresidential sector organics waste prevention program

## Required Documentation

### ***Performance Path:***

- Upload (internal or published) program report/evaluation/narrative

Report changes in per capita disposal due to source reduction programs outlined in the *SMMP Credit: Sustainable Materials Management Policy* and briefly describe the programs used to achieve this result.

### ***Prescriptive Path:***

- Upload (internal or published) program report/evaluation/narrative for each waste reduction program currently in use or planning to be implemented.

## Case Studies & In-Depth Information

### Examples of Waste Reduction Programs

Rate structure modifications (Pay-as-you-throw programs in the residential sector and/or fee adjustments to nonresidential sector rates)

- [Eliot, Maine](#) In September, 2013, the city of Eliot implemented a Pay-as-you-throw program where residents purchase official purple bags to dispose of their waste. There are two sizes available, a 15 gallon bag which costs \$1.25 and a 30 gallon bag which costs \$2. There is no additional cost for recycling glass, plastic bottles, cardboard, aluminum cans, and paper. In the first four months of the program, Eliot was able to decrease their solid waste tonnage by 57%. Two years after the program began, the city saved [\\$46,569](#) in disposal fees.

Advanced disposal fees on single use, disposable, and non-durable goods ([examples](#))

- [Chicago, IL](#) In 2017, Chicago implemented a 7 cent tax on all paper and plastic bags. A study done by the UChicago Energy & Environment Lab, with assistance from New York University and ideas42 found that the tax decreased the use of disposable bags by 28 percentage points. Following the tax, the likelihood of consumers to use reusable bags increased from 13% to 29%, and the likelihood of consumers to forgo a bag altogether increased from 8% to 21%.
- [California Refund Value \(CRV\)](#) California charges consumers 5 cents on recyclable beverage containers, and refunds the 5 cents if the container is taken to a collection center. This policy incentivizes residents to recycle, and after it was implemented in 1987, recycling rates increased tremendously. (this doesnt seem like a source reduction program, more of a recycling incentive program? But was hard to find adf for source reduction that is still implemented today)

Food waste reduction: (e.g., promoting reduced portions of food for customers)

- [Western Michigan University](#) Western Michigan University removed trays from their dining halls in 2008, which reduced the amount of food that students were able to collect at one time. Through waste audits, they found that removing trays decreased their food waste by 30%.

Material opt-out options (i.e. phone books, news publications, etc.)

- [Seattle, WA](#) In 2010, Seattle implemented an opt-out program for receiving yellow pages. These large books often are sent to people who do not use them, and they use a significant amount of paper. The opt-out program led to 300 tons of paper saved annually.

#### Local Government-sponsored book drives for community re-circulation

- [Washington County, MD](#) An annual book drive in Washington County raised over 17,000 childrens' books in 2019. The collected books were distributed to at-risk children in order to improve literacy.
- [Ithaca, NY](#) In Ithaca, NY, the Friends of the Tompkins County Library Book Sale sells used books and uses the funds to give grants to local libraries and other not-for-profit organizations. In 2019, over 260,000 items were sold.

#### Extended Producer Responsibility and Stewardship program targeting litter, single-use products, universal waste, or wasted goods (e.g., take it back programs for universal wastes)

- [Maine, USA](#) The state of Maine has laws that specify for product stewardship for batteries, electronic waste, cell phones, mercury thermostats, paint, and returnable beverage containers. For example, the [law](#) that regards cell phones was created in 2008 and states that any entity "that sells a cellular phone at retail in Maine must accept used cell phones for recycling at no charge to the customer." They must also make this information known through a sign posted visibly to the public.

#### Reduce transport packaging program (e.g., reusable boxes)

- [Minnesota Pollution Control Agency](#) advertises reusable transport packaging as an option for local businesses. The agency itself also uses reusable plastic [totes](#) instead of cardboard boxes in order to ship supplies.
- [Usereusables](#) has a success story page with an interactive map showing businesses that use reusable transport packaging.

#### Waste prevention at venues and events (e.g., avoiding single use cups, plates and utensils)

- [Moscone Center, San Francisco](#) The Moscone Center in San Francisco, CA has made extensive efforts to reduce waste. They have been able to increase recycling rates dramatically, but also reduce waste by using reusable utensils and plates at events.

#### Junk mail reduction program (removing customers from junk mail lists)

- [Palo Alto, California](#) The city of Palo Alto has a thorough guide to reducing junk mail for both residents and businesses. It explains why people receive junk mail and gives several ways to prevent getting junk mail or contact the sender to stop sending it. The website also lists several businesses that specialize in removing names from junk mail lists.

#### Material leasing programs (e.g., returnable electronics)

- [Canon Inc.](#) The Japanese multinational corporation, Canon, has created a multitude of options for its customers to return used products or enter into [leasing programs](#). In Europe, the company leases large office printers and either refurbishes or reclaims the parts of the printers when the lease is done. This allows Canon to recover about 80% of the materials by weight. Globally, the company has 5 recycling sites where customers can send used products to be remade into new products circulated in their area.

Awards and recognition program (e.g., trash cutters award)

- [San Diego, CA](#) The Business Waste Reduction & Recycling Awards in San Diego, CA reward businesses that reduce waste production.

Environmentally preferable purchasing (e.g., avoiding wasteful purchases or ensuring recycled content)

- [Santa Monica, CA](#) The city of Santa Monica is extremely large and spends millions of dollars annually on goods and services. Santa Monica has made extensive efforts to purchase EPP products, such as recycled paper, less toxic cleaning alternatives, and alternative fueled vehicles.

Xeriscaping Program (e.g., rebate for replacing grass lawns with organic gardens)

- [LA County Waterworks District](#) “The Waterworks Districts offer customers a rebate for removing water-inefficient grass with drought-tolerant landscaping. The Cash for Grass program has been a successful program and has removed over 2,000,000 square feet of inefficient turf and replaced it with drought-tolerant, efficient landscaping.”

Discounts on reusable product usage (e.g., 15 cents off a coffee for using a reusable mug or a per bag discount for bringing your own reusable bags)

- [Starbucks](#) The international coffee chain Starbucks has offered its customers discounts for using reusable cups since 1985. In 2019, the company tracked a reusability rate of 2.8%, which translated to saving over 105 million disposable cups.

Local purchasing strategies for food and other goods

- [American Express](#): In 2010, American Express launched Small Business Saturday to promote spending at local businesses across the country. Small Business Saturday has been adopted across all 50 states as the Saturday after Thanksgiving. Each year awareness is raised through advertisements and social media, and in 2020 consumers at independent retailers and restaurants spend \$19.8 billion on the day.

## Referenced Standards

N/A

## Definitions

### Code Amendments

A change or addition to the terms of the source reduction plans or programs.

### Company's Service Area

A specific area in which solid waste companies provide services.

### Disposal bans

[CSWD Definition](#): CSWD's Ordinance requires that all residents and businesses separate the following items from their trash and manage them appropriately. A Banned Materials Fee of \$20 per ton

(minimum fee of \$60) will be assessed on loads dumped at transfer stations that contain any amount of hazardous waste, or 10% or more (by volume) of mandatory recyclables, yard trimmings, or certain other “special wastes” that have been banned from landfilling. Banned items include liquids and hazardous waste, dangerous wastes, mandatory recyclables, certain electronics and batteries, scrap metals, tires, clean wood, yard debris, large appliances, and construction and demolition waste.

### **Disposal Fees**

[Law Insider Definition](#): Disposal fee means a fee that may be charged on items that will eventually end up as solid waste with the intent of factoring into the price or use or disposal of the same the eventual cost of managing the goods as wastes.

### **Environmentally Preferable Purchasing**

[CalRecycle Definition](#): EPP is the procurement of goods and services that have a reduced impact on human health and the environment compared to competing products serving the same purpose.

### **Extended Producer Responsibility**

[OECD Definition](#): a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. Assigning such responsibility could in principle provide incentives to prevent wastes at the source, promote product design for the environment and support the achievement of public recycling and materials management goals

### **Local Government’s Jurisdiction**

- [Cambridge Dictionary Definition](#): the authority of a court or official organization to make decisions and judgments
- Sample SWEEP Definition based on above definition: the Local Government’s authority to make decisions and judgements

### **Material Leasing Programs**

### **Material Opt-Out**

[Wikipedia Definition](#): The term opt-out refers to several methods by which individuals can avoid receiving unsolicited product or service information.

### **Municipal Solid Waste (MSW)**

[EPA definition](#): Municipal solid waste (MSW) (also called trash) consists of everyday items such as product packaging, yard trimmings, furniture, clothing, bottles and cans, food, newspapers, appliances, electronics and batteries. Sources of MSW include residential waste (including waste from multi-family housing) and waste from commercial and institutional locations, such as businesses, schools and hospitals. The Environmental Protection Agency’s (EPA) definition of MSW does not include industrial, hazardous or construction and demolition (C&D) waste.

### **Nonresidential Sector**

[Law Insider Definition](#): land which is not currently used as a residential area and which is zoned for nonresidential uses.

## **Organics**

[SWANA Definition](#): Solid Wastes containing carbon compounds that are capable of being biologically degraded, including paper, Food Residuals, wood wastes, Yard Debris and plant wastes but not metals and glass or plastic.

## **Procurement Programs**

[EPA Definition of "Affirmative Procurement Program \(APP\)"](#): APP is an agency's strategy for maximizing its purchases of EPA-designated items. The APP should be developed in a manner that ensures that items composed of recovered materials are purchased to the maximum extent practicable consistent with Federal procurement law.

## **Purchasing Co-Ops**

[NCBACLSA Definition](#): Purchasing co-ops are typically made up of several small businesses who have joined together to improve their purchase power and to get better discounts and offers on products and services.

## **Rate Structure**

[EPA Definition](#): The price you charge per unit of solid waste set out for collection, processing, and/or disposal.

## **Residential Sector**

[Law Dictionary Definition](#): The unoccupied or occupied, rented, owned, one or multi-family houses, mobile homes that does not include institutional housing like schools, barracks for example.

## **Smart Shopping Campaign**

[Google Definition](#): This campaign subtype combines Standard Shopping and display remarketing campaigns, and uses automated bidding and ad placement to promote your products and business across networks. With Smart Shopping campaigns, your existing product feed and assets are combined with Google's machine learning to show a variety of ads across networks. Our systems will pull from your product feed and test different combinations of the image and text you provide, then show the most relevant ads across Google networks, including the Google Search Network, the Google Display Network, YouTube, and Gmail.

## **Source Reduction Programs**

[EPA Definition](#): Source reduction, also known as waste prevention, means reducing waste at the source, and is the most environmentally preferred strategy. It can take many different forms, including reusing or donating items, buying in bulk, reducing packaging, redesigning products, and reducing toxicity. Source reduction also is important in manufacturing. Lightweighting of packaging, reuse, and remanufacturing are all becoming more popular business trends. Purchasing products that incorporate these features supports source reduction. Source reduction can save natural resources, conserve energy, reduce pollution, reduce the toxicity of our waste, and save money for consumers and businesses alike.

## **Tax Incentives**

[Fresh Books Definition](#): Tax incentives are deductions, exemptions or exclusions from money owed in taxes to the government. Tax incentives are offered by the government to help individuals or businesses do certain activities.

### **Transport Packaging**

[Sustainable Packaging Definition](#): Transport Packaging is a shipping unit that provides containment and protection to goods during handling, storage, and transportation. The term includes all industrial packaging and the shipping containers for consumer products.

### **Universal Waste**

[EPA Definition](#): The federal regulations identify four specific categories of materials that can be managed as universal wastes: batteries, pesticides, mercury-containing equipment and lamps.

### **Waste Prevention Program**

### **Waste Reduction Program**

### **Xeriscaping**

[EPA Definition](#): Quality landscaping that conserves water and protects the environment

### **Zoning Code**

[PermitDocs Definition](#): Zoning codes are ordinances outlining the division of land into categories for use like residential, agricultural and commercial to protect the public's safety and welfare.