



**Material Separation Plan 7
For the Diversion of Mercury
January 1, 2018 – December 31, 2020**

**SEMASS Resource Recovery Facility –
Rochester, Massachusetts**

October 2017

Prepared by:

Covanta SEMASS
141 Cranberry Highway
West Wareham, Massachusetts 02576



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SEM ASS Partnership
141 Cranberry Highway
W. Wareham, MA 02576
Phone: 508-291-4400

October 5, 2017

Susan Peck
Associate Director for Planning, Evaluation, and Toxics
Massachusetts Department of Environmental Protection (MassDEP)
Business Compliance and Recycling Division - Bureau of Air and Waste
1 Winter Street,
Boston, Massachusetts 02108

VIA ELECTRONIC AND REGULAR MAIL

Re: SEM ASS Resource Recovery Facility: Material Separation Plan "7" for the Diversion of Mercury from the Solid Waste Stream

Dear Ms. Peck:

On behalf of the SEM ASS Partnership, as it relates to the SEM ASS Resource Recovery Facility (SEM ASS RRF), attached is Material Separation Plan "7" (MSP7) for the diversion of mercury from the potential solid waste stream for the 3-year period of January 2018 - December 2020 (with the possibility of extending it for two additional years). This Plan has been prepared by Covanta SEM ASS, the managing general partner of the SEM ASS Partnership.

The MSP7 Plan incorporates comments received from MSP Stakeholders and MassDEP during August and September 2017 meetings.

We appreciate the opportunity to provide the SEM ASS MSP7 Plan. If you have questions or need further information, contact Patti Howard, MSP Program Manager/Coordinator at (508) 962-7398 or PHoward@covanta.com

Sincerely,

Patti Howard
MSP Program Manager/Coordinator

Mark Davis
Facility Manager – Covanta SEM ASS

Attachment

Cc: Greg Cooper, MassDEP Boston
Brooke Nash, MassDEP Boston

Daniel Peters, Covanta SEM ASS
SEM ASS MSP "7" Plan Partners

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MATERIAL SEPARATION PLAN 7,
January 1, 2018 – December 31, 2020
SEMASS Resource Recovery Facility – Rochester, Massachusetts

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ATTACHMENTS

- A. List of Long-Term SEMASS Communities
- B. MSP7 Stakeholder Input Summary: August 2017

I. BACKGROUND

In accordance with the requirements of 310 CMR 7.08, and on behalf of the SEMASS Partnership, attached is the seventh installment of the Material Separation Plan (MSP7) for the diversion of mercury and mercury-containing manufactured articles (MCMAs). MSP7 has been prepared to address the solid waste regulations noted above, guidance and technical comments from the Massachusetts Department of Environmental Protection (MassDEP), and input from Plan Stakeholders. At the conclusion of this plan period in December 2020, Covanta SEMASS and the Massachusetts Department of Environmental Protection (MassDEP) may agree to extend the plan for an additional two years. This would extend the MSP7 period to December 31st, 2022.

The SEMASS Partnership (SEMASS) owns and operates the SEMASS Resource Recovery Facility (SEMASS RRF) in Rochester, Massachusetts. SEMASS provides solid waste processing and disposal services for thirty-two (32) contracted, residential community customers (SEMASS Communities) located primarily in southeastern Massachusetts, Cape Cod, and the Boston metropolitan area. The SEMASS RRF receives and processes approximately 1.0 – 1.1 million tons of solid waste annually. Refer to Attachment A for a listing of these communities. Renewable electricity created from the processing of solid waste at the SEMASS RRF is sufficient to power approximately 75,000 households. In addition, between 25,000 and 35,000 tons of recyclable ferrous and non-ferrous metals are typically reclaimed each year from waste processing at the SEMASS RRF.

The goals of the Material Separation Plan are fourfold: 1) identify products in the solid waste stream that contain significant quantities of mercury, 2) provide the instructional and outreach support necessary to educate the SEMASS communities, their associated businesses, and the general public about the reasons to reduce mercury in the waste stream and how to recover and recycle mercury and mercury-containing manufactured articles (MCMAs) before disposal as solid waste, 3) aid the SEMASS customer base in implementing mercury removal and recycling programs, and 4) effectively manage activities related to these goals to maximize the value of every dollar invested in the program.

It remains Covanta's firm belief that the most efficient method to prevent the disposal of mercury in solid wastes is for the manufacturers of articles containing this compound to modify or substitute other, less toxic compounds that can achieve a comparable function. However, until voluntary efforts by these manufacturers occur and/or further federal and state regulatory requirements are promulgated to achieve this objective, Covanta SEMASS remains dedicated to our continued commitment to the Material Separation Program to reduce the amount of mercury disposed in the solid waste stream.

Preparation of this Plan has been based on input received from the SEMASS communities via periodic stakeholder meetings held during August 2017, the local community Recycling Coordinators, MassDEP, and/or direct suggestions from community individuals.

II. APPLICABILITY OF PLAN BENEFITS AND PLAN EXCLUSIONS

This section clarifies who is eligible to receive Plan benefits under the MSP Program and areas where Program support is excluded.

Applicability of Plan Benefits. SEMASS’ contracted communities financially support the MSP program via language in their specific contracts with SEMASS. Therefore, these communities will receive full Plan benefits (Tier 1 categorization) and this Plan is primarily targeted for their benefit. However, the MSP Program seeks to address all of the solid waste (both municipal and commercial) in SEMASS’ waste shed which can potentially include mercury or mercury-containing articles. Therefore two additional, lesser categories of support have been continued under MSP7 to address this. See Table 1.

TABLE 1. MSP PROGRAM BENEFIT COVERAGE

Category	Description	Plan Benefits
Tier 1	<ul style="list-style-type: none"> • SEMASS Contract Communities ⁽¹⁾; Refer to Attachment A • Qualifying Recycling Organizations that serve the Tier 1 Communities. • Qualifying Businesses within the Tier 1 Communities. 	<u>Full Plan Benefits.</u> Refer to Section III for a description. Plan Benefits targeted to Specific businesses under the Program as detailed in the text.
Tier 2	<ul style="list-style-type: none"> • Non-SEMASS Contract Communities that send <u>significant</u> solid waste volumes to the SEMASS RRF. • Qualifying Recycling Organizations that serve the Tier 2 Communities. • Qualifying Businesses within the Tier 2 Communities. 	<u>Limited Plan Benefits.</u> Specific, targeted activities, primarily around mercury & mercury product transport & disposal. See text discussion. Plan support to be determined on a case-by-case basis based on potential mercury amounts and if activity is in-line with Plan objectives.
Tier 3	<ul style="list-style-type: none"> • Non-SEMASS Contract Communities that don’t send significant solid waste volumes to the SEMASS RRF. • Qualifying Recycling Organizations that serve the Tier 3 Communities. • Qualifying Businesses within the Tier 3 Communities. 	<u>Typically No Plan Benefits.</u> In general, no Plan benefits are provided. Exceptions may be made on a case-by-case basis as funds allow, and if the activity is in line with Plan objectives.

Notes:

(1) Includes associated municipally-supported recycling organizations.

Priority of Program Support. To the extent practical, program support will be provided in the order as follows: Tier 1, Tier 2, then Tier 3 depending upon funding availability. Qualifying recycling organizations are those organizations who are typically associated with management of solid waste, recyclables from solid waste, or who assist their associated communities with household hazardous waste events and planning. Qualifying businesses are those described in this Plan who may utilize or handle mercury or mercury-containing manufactured articles (MCMA). Tier 3 support will only be provided (on a limited case-by-case basis) when funding/resources are available and if the potential sources of mercury are significant or if the activity furthers Plan objectives.

Written requests for Plan Support. In general, requests for Plan benefits and support need to be submitted in writing (letter, FAX, e-mail, etc.) to the MSP Program Coordinator. This is necessary to fully document the program progress and to accurately track type of mercury articles and how they were reclaimed by Town and task. The Department requires that this information be provided in the annual program reporting issued to the Public.

Plan Exclusions. Certain items or activities are not covered under the MSP Program scope.

Wastes Not Accepted. Only quantities of pure elemental mercury or mercury-containing manufactured articles containing elemental mercury will be collected and reclaimed under this program. Organo-mercury compounds and other mercury alloys (for example, dental amalgams) will not normally be eligible for Plan benefits. These compounds will typically have to be disposed of as special and/or hazardous wastes and the usual “Universal Waste” processing means, methods and contractors that SEMASS utilizes on this program cannot reclaim these materials.

Other manufactured articles that do not contain mercury will not typically be eligible for Plan benefits under the MSP program. This may include other household hazardous wastes (paints, solvents, etc.) or other universal wastes (electronic-wastes, electronics, monitors and cathode ray tubes). SEMASS may grant exceptions to this on a case-by-case basis if it furthers the overall goals of the program. An example of this is recycling of PCB ballasts since they are frequently generated as a result of mercury-containing fluorescent bulb recycling activities.

Liability of Mercury Spills and/or Releases. Due to the inherent nature of the MSP program, reclamation and recycling of mercury and mercury-containing manufactured articles may result in an accidental release or spill. Covanta SEMASS or Covanta will NOT be held liable for the impacts of such an incident unless directly caused by our activities. Ultimate liability of these materials lies with the generators of these materials/products or the contractors who have been hired to transport and/or recycle them.

To reduce the possibility of these types of incidents, SEMASS has designed this Plan and our MSP Program to reduce the likelihood of such an occurrence. Safeguards include:

- Education and outreach performed on a regular basis through coordinated onsite visits and through workshops provided by *MassRecycle*
- General information flyers, videos, and websites to communities and businesses
- Providing local mercury handling and awareness training events on a periodic basis.

- When necessary, authorizing direct Reclamation Contractor pickup of elemental mercury and large quantities of MCMA's

Should a spill event or release occur, SEMASS may provide advice, recommendations, or other actions (on a case-by-case basis) to assist a long-term community or outside 3rd party to safely and properly characterize, address, and mitigate the spill.

III. SCOPE OF PLAN ACTIVITIES

The scope of Material Separation Plan 7 (MSP7) activities are detailed below and broken down into five primary tasks: 1.0 –Media Outreach, 2.0 – Mercury Awareness Training & Conferences, 3.0 – Community Support, 4.0 – Targeted Mercury Outreach, Collection & Recycling Efforts, and 5.0 – Program Administration.

Quality outreach is the focus of Task 1.0 activities. The purpose of Task 1.0 is to promote general awareness of the hazards associated with mercury, identify which products contain mercury, and promote the recycling/reclamation potential offered by the MSP Program through efforts by Covanta, SEMASS and other Energy-from-Waste (EfW) facilities.

Task 2.0 activities are directed towards educating and training Municipal and recycling organization staff to become more aware of mercury hazards, recognize products that contain mercury, and learn options to safely handle, store, reclaim and recycle them. Task 3.0 activities are directed towards municipalities, and their associated businesses, and recycling organizations in the SEMASS regional waste shed area. These activities are targeted for the benefit of SEMASS contract communities. These benefits include: supporting improved outreach, flyers and print materials, paying vendors for the cost of recycling of mercury-containing products, and placement of universal waste sheds.

Task 4.0 activities utilize the outreach and awareness accomplished under the prior tasks to target specific sources of elemental mercury and to work with the business community to identify and manage mercury containing items in the business community. Task 5.0 involves the administrative effort required to operate, manage and report efforts on the MSP Program.

MSP7 incorporates many of the prior activities from MSP6 but includes a number of changes discussed with Plan stakeholders during input sought during an invitational partners meeting including representatives from Cape Cod Cooperative Extension, South Shore Recycling Cooperative, Complete Recycling Solutions, Center for Ecological Technology, Grand Cove Productions, and MassRecycle. Input was also sought from municipalities and businesses in August 2017 at Stakeholder meetings. These changes include the following:

- Elimination of commercials on Comcast. Due the expense and limited viewing area the commercials are not an efficient use of funds to benefit the entire SEMASS waste shed. These videos will be available for communities to use at their discretion should they so choose to embed them on a town or recycling website.
- Addition of a new Plan activity as part of Task 1.1 for media outreach. Recycling Organizations may request to have a video made as a teaching tool for residents to learn about mercury products in the home and how best to safely dispose of them.

- Addition of new Plan activity as part of Task 2.0 for providing funds for community representatives to attend conferences to learn best practices for the handling and management of Household Hazardous Waste from such organizations as North American Hazardous Material Management Association (NAHMMA), Northeast Resource Recovery Association (NRRA), or MassRecycle.
- Addition of a new Plan activity as part of Task 4.1 dedicated to the reclamation of elemental mercury in Southeastern Massachusetts. This activity will build upon prior plan activities that have been successfully working with Council on Aging representatives. As an example, we will develop outreach targeting area veterans through VFW's and American Legion Halls.

MSP7 presents a variety of Plan activities so that participating communities and their associated recycling organizations and businesses can choose a wide variety of options to implement mercury recovery and recycling in a manner that best suits their needs. SEMASS continues to find that providing participants with a flexible approach has been a key ingredient for continued success of the Plan's implementation. Covanta SEMASS will continue to adapt and modify Plan activities and shift funds throughout the duration of this Plan in search of a maximum level of efficiency on program implementation.

Documentation of Mercury Amounts and Mercury-Containing Manufactured Articles (MCMA). In accordance with directives issued by the Department during MSP5, measurement and reporting of elemental sources of mercury will be conducted by a) obtaining direct weights of the quantity of mercury itself, when at all possible or b) counting the mercury-containing articles and applying standard conversion factors. In order to minimize the exposure risk to reclamation personnel and others, mercury-containing containers and products will not be opened. Tare weights of the containers or products holding the elemental mercury will be estimated to the degree practical.

Unless otherwise noted, SEMASS will utilize the standard conversion factors for mercury-containing products developed by the Northeast Waste Management Officials' Association (NEWMOA) and detailed in Table 2, below.

Please note that the Department and NEWMOA have not yet agreed upon standard conversion factors for the some of the mercury-containing products that SEMASS may encounter during MSP7 (for example, high intensity tanning salon fluorescent lights). SEMASS will assume conversion factors based on best available technical information or utilize direct measurements, if possible. These factors are detailed below and will be listed on annual report tables to clarify the assumptions used.

TABLE 2. CONVERSION FACTORS FOR MERCURY-CONTAINING MANUFACTURED ARTICLES

Name of Mercury-Containing Product:	Quantity of Mercury: ^(a)
Fluorescent Lamps (straight)	0.005 grams (5 mg) per Linear Foot of Lamp
Glass Fever Thermometers	1 gram per unit
Laboratory Thermometers	3 grams per unit
Blood Pressure Cuffs	110 grams per unit
Barometers	500 grams per unit
Tanning Bed Bulb	0.030 grams (30 mg) per unit (per 6-ft bulb) ^(c)
Thermostats (Residential & Commercial)	4.5 grams per unit
Mercury Switches	8 grams per unit ⁽²⁾
Float Switches	4.5 grams per unit ⁽²⁾
Mercury Button Cell Batteries	0.009 grams (9 mg) per unit, 5.76 grams per lb
U-Tube Fluorescent Lamps	0.0175 grams (17.5 mg) per unit ^(b)
Circular Bulb Fluorescent Lamps	0.0175 grams (17.5 mg) per unit ^(b)
Compact Lights	0.0175 grams (17.5 mg) per unit ^(b)
HID Lamps	0.035 grams (35 mg) per unit ^(b)

Notes:

- a. Source of factors: NEWMOA factors contained in MADEP letter to SEMASS dated 2/18/04.
- b. Assumed factors utilized during MSP2 by SEMASS.
- c. Assumed factor utilized during MSP5 by SEMASS.

1.0 GENERAL MEDIA OUTREACH

Objectives. General Media Outreach is the umbrella under which communities will be able to request assistance with addressing best practices through educational videos and pamphlets.

Priority will be given to memorializing successful programs such as thermometer and thermostat collections done through Cape Cod Cooperative Extension so that they may be replicated in other areas.

1.1 Media Outreach

Grand Cove Productions will provide video, radio, and general media outreach resources to regional recycling representatives to expand the library of tools available to the SEMASS communities.

In an effort to stay current with effective outreach materials, we will focus on expanding the existing products that currently include:

- Five videos that focus on proper handling of sharps and expired medicines, common household hazardous wastes, marine flares, recyclables, and mercury containing products in the home.
- Public Service Announcements (PSA's) concerning mercury containing items in the home
- A variety of thirty second commercials regarding the importance of recycling MCMA in the home

These videos may be made available to embed on town websites, run on local cable access stations in coordination with HHW events, or can be emailed to residents inquiring about proper handling of HHW items.

Activity Scope. Community representatives will request a quote from MSP Program Coordinator via email for Grand Cove Production to produce video or radio project to educate and inform the general public about diverting HHW from the waste stream.

Timeline: Efforts for this activity will be ongoing throughout the period of the Plan.

1.2 “Keep Mercury from Rising” Website Support

Activity Scope. Covanta SEMASS will continue to utilize the Keep Mercury from Rising website (www.keepmercuryfromrising.org) as a method for documenting relevant information related to mercury, mercury-containing products and the MSP Program. The Energy Recovery Council (ERC) will continue to lead efforts for maintenance and update of this website. Other Massachusetts Energy-from-Waste (EfW) facilities that are implementing MSP7 (Covanta Haverhill, Wheelabrator Technologies facilities) may also be contributing to this effort in a joint approach.

Timeline: Efforts for this activity will be ongoing throughout the period of the Plan.

2.0 MERCURY AWARENESS TRAINING & CONFERENCES

Objectives. The objective for Task 2.0 is to provide training to municipal and school staff plus any associated recycling personnel, and target business managers or staff for proper handling and storage of mercury-containing devices prior to pick up and recycling.

As part of MSP7, mercury awareness training will be held in conjunction with other MassRecycle training and conference events. This is expected to significantly increase attendance and impact of the mercury training, yet still be cost effective.

Additionally, funds will be provided to municipal and regional recycling personnel to attend seminars or conferences that target the diversion, handling, or identification of HHW related to the MSP program. Some examples include New England chapters of the North American

Hazardous Material Management Association, MassRecycle, or Northeast Resource Recovery Association.

Activity Scope. MassRecycle will plan to include mercury-related trainings at its annual conference. Workshops throughout the year will also integrate mercury training where appropriate. MassRecycle will also include the trainings at its annual School Summit to better reach the less tapped groups of school educators and support staff.

Timeline: The MassRecycle annual conference occurs in the Spring each year. Additional workshops occur throughout the year, so activities will be ongoing with the primary during the Spring and Fall periods each year.

3.0 COMMUNITY SUPPORT

Objectives. The objective for Task 3.0 is to provide a 1-stop task where any municipal needs on the MSP program are satisfied. This includes outreach materials, payment of costs for mercury-containing items transport, and disposal/recycling, plus placement of new universal waste sheds to promote expanded recycling efforts.

SEMASS will strive to improve communications with our municipal contacts on the program. The key component of this is maintenance of the master mailing/distribution list which details municipal contacts in the SEMASS contract communities. Key activities include:

- Issue periodic requests for updates/changes to the master mailing list (names, addresses, e-mail address, etc.)
- Add e-mail distribution of documents & mailings when possible rather than paper (.e.g hardcopy) to promote environmental stewardship on the MSP program and for more direct distribution of key information.

3.1 Mercury Recycling, Transport & Disposal Costs

The primary purpose of this subtask is to provide proper and certified contractor pickup, transport and disposal/recycling of mercury and mercury-containing items collected by municipalities, schools, and associated recycling organizations. Use of a properly-certified contractor is critical to conduct a safe pickup as well as to properly document the collected devices as required by MassDEP annual reporting. SEMASS can reimburse municipalities, schools or organizations for their mercury costs or fund your selected recycling contractor by direct payment.

Costs for “counting” mercury-containing devices and transport/pickup fees are reimbursable under this task. Costs for packaging (i.e. Ziplock bags, buckets, fiber drums, boxes, labels, etc.)

to properly contain and label mercury-containing items are also reimbursable under this task. Costs for mercury spill kits are reimbursable under this task.

Costs for non-mercury “universal waste” items (lead-acid batteries, Cathode Ray Tubes or CRTS, flat screen televisions, computers, computer monitors, non-mercury batteries, phones & electronics) are NOT reimbursable as part of the MSP program. An exception to this is PCB ballasts, which are typically collected during fluorescent bulb recycling. SEMASS will reimburse costs for PCB ballast recycling unless funds become exhausted on this task.

Special contractor pickups are available for liquid elemental mercury sources that are found within Tier 1 or Tier 2 communities. Liquid elemental mercury represents a significant hazard for proper storage and labeling. Handling should be minimized to reduce the likelihood of a spill. Once known, SEMASS will promptly direct our recycling contractors to drive directly to the location with the known liquid mercury source and provide immediate containment, packaging, and recycling support. We strongly advise our Stakeholders to notify SEMASS of any liquid elemental sources promptly, so that immediate pickups can be scheduled.

In general, support under Task 3.1 is applicable to Tier 1 and Tier 2 Communities. Support for Tier 3 Communities would require special circumstances or rationale. Refer to the Plan discussion in Section II.

Activity Scope. Funds are included in the MSP7 budget for the following contractor support detailed below. Additional funds are included for SEMASS coordination and reimbursement repayment:

- Contractor support for ten (10) large towns at a rate of \$3,500.00 per town, per year
- Contractor support for twenty-five (25) smaller towns at a rate of \$1,000 per town, per year

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

3.2 Community Support

SEMASS will conduct activities to support the communities, their schools and any associated municipal recycling organizations in the goals of education, outreach, and removal of mercury-containing products. The primary purpose of this subtask will be to assist each community in their preferred methods of information dispersal. In addition, the MSP Program Coordinator will offer guidance along with the proper tools (e.g., training sessions, supplies) and advertising to conduct outreach on the Plan in an attempt to ensure successful mercury-reclamation programs.

SEMASS may also provide supplemental funding for Universal Waste Shed placement, advertising swag to exchange for mercury containing products, sandwich boards, etc.

Activity Scope. SEMASS will update existing print or pamphlets, direct mail pieces, flyers, booklets, bills, posters and other written materials that address mercury and the diversion of mercury-containing items articles in support of MSP program efforts. These efforts will be

augmented by SEMASS' consultant, Center for EcoTechnology (CET), who has designed municipal outreach booklets for municipalities in the past that document a variety of key information and contacts for residents. CET can provide similar templates to interested SEMASS communities.

SEMASS will require written requests for support from municipalities or associated recycling organizations for support under this task. These activities will be evaluated on a case-by-case basis with regards to the applicability to the diversion of mercury or mercury-containing products from the waste stream as well as the anticipated degree of enhancement for a overall mercury and MSP program outreach.

In general, support under Task 3.2 is applicable to Tier 1 Communities only, unless other rationale or circumstances could be providing to qualify for support for lower Tier municipalities. Refer to the Plan discussion in Section II.

Additional funding is provided for SEMASS support and coordination of scope activity and requests as set forth below.

- Municipal Visits & Follow-up. SEMASS may generate interest in these outreach activities through a combination of phone calls, letters, or in-person visits. Should opportunities present themselves, SEMASS may also award grants and other funding so that mercury awareness and education are incorporated into municipal school curricula.
- SEMASS and Covanta Facility Tours. When appropriate, tours of the SEMASS RRF or its auxiliary facilities (landfill, transfer stations, convenience drop-off centers, etc.) will be conducted on behalf of these groups to educate the public on the combined roles of the Energy-from-Waste (EfW) facilities and the MSP program in diverting mercury-containing products from the solid waste stream. Tours are very popular with school groups and other social groups and represent an excellent opportunity for MSP and mercury outreach on a personal basis.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan. Requests for updates of the master mailing list will be conducted during periodic Council of SEMASS Communities (COSC) meetings.

4.0 TARGETED MERCURY OUTREACH, COLLECTION & RECYCLING EFFORTS

Objectives. Task 4.0 involves targeted Plan activities that result in identification, location, separation, handling, transportation and recycling of elemental mercury or mercury-containing products. Subtasks are targeted to particular areas where further sources of mercury or mercury-containing products may be found.

4.1 Elemental Mercury Recovery

Task 4.1 is a continued effort to locate, identify, properly contain, and pickup/recycle any remaining liquid elemental mercury sources within the SEMASS waste shed. Liquid elemental mercury sources remain a potent hazard for the MSP program with a high probability of improper storage, disposal within the solid waste stream, as well as hazards for spills and exposure to human health and the environment.

It has been SEMASS' experience on the MSP program that sources of liquid elemental mercury still exist in our waste shed despite our best efforts. Frequently, these are found in business and residential settings where the generators know "they shouldn't throw it out" but they lack the information to know what to do with the material.

Activity Scope. CET will lead outreach efforts to identify any Councils on Aging, Veterans associations, town departments, schools, associated businesses or residents that may know of any sources of liquid elemental mercury. Key municipal departments that CET will interface with include Boards of Health, Building Departments, and Fire Departments. Any leads will be investigated and followed up by CET.

If sources of liquid elemental mercury are identified, SEMASS and CET will take immediate action to locate, contain, and secure the material for pickup by our recycling contractors.

Timeline. The timeline for this activity will be conducted throughout the year.

4.2 Business Outreach

This task is a continuation of previously successful efforts initiated on MSP6. These contractors have been successfully targeted in the past to identify and recover substantial quantities of thermostats, industrial switches and other electrical switches containing mercury. Reaching contractors, builders and renovation specialists is an important strategy to successfully capture mercury-containing thermostats. Efforts will be led by the Cape Cod Cooperative Extension (CCCE) and Center for EcoTechnology (CET).

In addition, Covanta SEMASS and CET will work to identify additional businesses such as septic system and sump pump repair companies that may have mercury containing devices that must be reclaimed and recycled.

Activity Scope. CCCE and CET will perform targeted outreach through their existing HVAC and contractors training services. CET also produces regular electronic newsletters to these professionals and thermostat recycling program opportunities under the SEMASS MSP7 Plan will be highlighted through this newsletter service. CET will use these efforts to focus on face-time with contractors to build a relationship and engage them in the MSP Program activities. Specific Scope items include:

- Through existing relationships, CET will work closely on thermostat reporting goals with their partners, TRC, Honeywell, NEMA, etc. The goal will be to confirm thermostat recycling activities within the SEMASS communities that may be already occurring but not yet documented in MSP reporting.
- CET will conduct Outreach within existing community groups, Home Builders Association, Health Departments, etc. to identify other sources of thermostats.

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan. In conjunction with CCCE and CET, SEMASS will continue the targeting of tanning salons begun during MSP5 and also seeking to interface with tanning bed bulb suppliers. CET will lead these efforts on behalf of SEMASS. The intent will be to convince tanning bulb suppliers to properly recycling their bulbs and not dispose in the solid waste stream.

5.0 PROGRAM ADMINISTRATION

Activity Scope. General administrative activities required to operate the MSP7 program activities will be conducted as part of Task 5.0. Activities include:

- Tracking of program costs
- Review of reclamation records and preparation of estimates for mercury reclaimed
- Processing of funding requests
- Routine copying, filing & recordkeeping
- Sub-contractor management
- Processing billing for accounts receivable and accounts payable
- Periodic internal program meetings, management oversight and status reporting.
- Meetings with the Department
- Preparation of the MSP Program Annual Report
- Preparation of letter(s) & responses to Department technical comments or program information requests
- Preparation of the MSP8 Plan (if required) for Plan activities beyond this current MSP7 Plan

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan.

IV. PROGRAM REPORTING AND SCHEDULE

Program Reporting. SEMASS will prepare and submit annual reports to the Department summarizing the results of the Material Separation Plan Program. These annual reports will be based on a calendar year basis (January through December) and be submitted by February 15th of the year following or by an alternate schedule approved by the Department. Reports will include a description of activities completed by task, mercury amounts reclaimed on the program and costs expended. Mercury amounts will be broken down by type of mercury articles and elemental mercury in two matrices: 1) mercury devices/amounts by SEMASS contract community and 2) mercury devices/amounts by Plan Task. Costs expended will be compared versus costs budgeted and significant differences will be detailed in the annual report text.

Program Schedule. Activities related to MSP7 will be three (3) years in duration and will begin on January 1, 2018 and continue through December 31, 2020. At the conclusion of this plan period in December 2020, Covanta SEMASS and the Massachusetts Department of Environmental Protection (MassDEP) may agree to extend the plan for an additional two years. This would extend the MSP7 period to December 31st, 2022.

V. PERSONNEL

Implementation of the Material Separation Plan requires the efforts of a variety of professional, contractor and supporting organization personnel. Key Parties include the following:

SEMASS

- MSP Program Coordinator. SEMASS will continue to provide a Material Separation Plan (MSP) Program Coordinator to oversee and administer the activities described within this Plan. SEMASS will also provide support to the MSP Program Coordinator in the form of office space, administrative support, and administrative logistics (e.g., telephone, copiers, printers, computer, IS Support, fax machine, etc.) necessary to execute this Plan.
- Technical & Management Program Oversight. Technical and management program oversight will be provided on a periodic basis by Covanta and SEMASS personnel to monitor and guide successful implementation of the MSP Program. This oversight support may include personnel with managerial, technical, environmental, legal, and financial backgrounds.

Covanta. SEMASS personnel may work co-operatively with other Covanta facilities in Massachusetts. SEMASS may team up to sponsor joint outreach activities or combine on other program tasks if co-operative efforts further Plan goals and objectives.

Contractor, Consultant, and Organization Support. SEMASS will employ outside contractors, consultants, and other organizations in the implementation and other facets of the activities associated with MSP7, as indicated in the Plan. Major contractors, consultants, or organizations (CCOs) that SEMASS may employ are listed below. SEMASS reserves the right

to change, add, eliminate, or amend CCOs as required, for successful implementation of the MSP Program.

- Mercury Handling, Pick-Up, Packaging & Disposal. SEMASS will utilize multiple contractors to conduct the field activities associated with pick-up, packaging, transport and reclamation/recycling of mercury and mercury-containing articles. Two contractors that have been used in the past include: 1) Complete Recycling Solutions (CRS) of Fall River, MA and 2) Veolia Environmental Services (VES) of Stoughton, MA.
- General Media Outreach. SEMASS will utilize Grand Cove Productions of Dennis, MA, to produce video, digital, radio and print outreach materials to facilitate the identification, reclamation and removal of mercury containing items in Massachusetts. The Energy Recovery Council (ERC) of Washington, DC will be used to maintain the “Keep Mercury from Rising” website (www.KeepMercuryFromRising.org) which presents a variety of mercury-related information for Public Use.
- Mercury Awareness Training & Conferences. In instances where supplemental training is conducted under the MSP Program, MassRecycle will be utilized. This organization specializes in conducting a wide-variety of training and conferences associated with the solid waste field. In addition, specialized training for awareness, hazard recognition, handling, packaging and transport of mercury and mercury-containing products will be provided to qualified representatives as requested by attending relevant conferences or seminars.
- Community Support and Targeted Mercury Outreach and Collection. SEMASS will utilize the Center for EcoTechnology (CET) of Northhampton, MA to lead targeted efforts on designing Municipal outreach booklets and well as targeted mercury outreach and collections with businesses such as heating, ventilating, and air conditioning (HVAC) contractors and other businesses.

Supporting Organizations. SEMASS may work in conjunction with the following supporting organizations to help co-operatively accomplish Plan activities.

- Regional Recycling Coordinators/Organizations. SEMASS may work with Municipal Recycling Coordinators in each of our contract communities as well as regional recycling organizations. Examples of these include:
 - South Shore Recycling Cooperative (SSRC) of Dover, MA representing several SEMASS south shore communities
 - University of Massachusetts Cape Cod Cooperative Extension (CCCE) of Hyannis, MA representing SEMASS communities on Cape Cod and Martha’s Vineyard
 - MassDEP Municipal Assistance Coordinators for the Northeast 1 District (NE1) which includes Plymouth County communities, Southeast District 3 (SE3) which includes South Shore communities, Southeast 2 District (SE2) which includes the South Coast and Bristol County communities, and the Southeast 1 District (SE1) which encompasses the Cape Cod & Islands communities plus Carver, Marion, Wareham, Mattapoisett and Rochester.

- The Carver-Marion-Wareham Regional Refuse Disposal District (CMWRRDD), Marion, MA which oversees waste disposal and recycling for the SEMASS host communities of Carver, Marion, Wareham, Rochester, and Mattapoisett.
- General Program Assistance. SEMASS will continue to work with staff from the Northeast Waste Management Officials' Association (NEWMOA) of Boston, MA for general assistance with MSP7 initiatives and efforts.
- Thermostat Recycling. SEMASS will continue to work with the Thermostat Recycling Corporation (TRC) of Philadelphia, PA for assistance with municipal and commercial, thermostat reclamation and recycling.

VI. PROJECTED PLAN BUDGET

The projected budget based on the scope set forth for the three (3) year period of this Plan (2018-2020) is detailed in Table 3, below.

TABLE 3. PROJECTED MSP7 BUDGET BY TASK

Task No.	Plan Activity:	Average Yearly Expenditures
1.0	General Media Outreach	\$38,740
1.1	Media Outreach	\$33,500
1.2	<i>“Keep Mercury from Rising”</i> Website Support	\$5,240
2.0	Mercury Awareness Training & Conferences	\$25,000
3.0	Community Support	\$142,240
3.1	Mercury Recycling Costs Transport & Disposal	\$73,500
3.2	Community Support (Sheds, Outreach materials, etc.)	\$73,740
4.0	Targeted Mercury Outreach, Collection & Recycling Efforts	\$45,000
4.1	Elemental Mercury Reclamation	\$18,800
4.2	Business Outreach	\$26,200
5.0	Program Administration	\$30,600
Grand Total per Year:		\$286,580

This budget includes payments to Plan contractors, consultants, and organizations, purchase of supplies and materials, travel and outreach activity costs, local advertising, mailing, postage, copy costs, and internal labor.

Internal labor primarily includes the MSP Program Coordinator, MSP Program Manager, Administrative Support, other Environmental Dept. support, plus a limited amount of SEMASS Facility Management time. Internal labor is not allocated to any single task but rather allocated to each of the tasks as necessary to conduct the work. Similar to any professional consultant, SEMASS personnel associated with the Program track their labor time and allocate it to the appropriate tasks or subtasks. Internal labor costs associated with the MSP Program Coordinator (a full-time employee) are directly factored into the MSP7 budget but include the appropriate multipliers for overhead & benefits. Internal labor costs for other personnel who support the program on a part-time basis are allocated using comparable consultant rates commensurate with their experience and job description. SEMASS uses labor rates comparable to those used by our facility consultants.

The budget estimates above do not include costs associated with office space costs, rental or overhead nor do they include any internal labor that is not directly required on the program. For example, the costs associated with Accounts Payable staff, Procurement Department Staff, Human Resources personnel, Corporate Management, etc. are not allocated to the program. The costs for these services, again similar to a professional consultant, are considering “included” with the equivalent consultant rates used when allocating internal labor to the program.

ATTACHMENT A

LIST OF SEMASS CONTRACT COMMUNITIES

**Table A-1. List of SEMASS Contract Communities as of
October 2017**

No.	Community
1	Acushnet
2	Avon
3	Berkley
4	Braintree
5	Brewster
6	Bridgewater
7	Carver
8	Chatham
9	Cohasset
10	Dighton
11	Eastham
12	Fairhaven
13	Halifax
14	Hingham
15	Kingston
16	Lakeville
17	Marion
18	Martha's Vineyard
19	Norwell
20	Plymouth
21	Plympton
22	Quincy
23	Rochester
24	Rockland
25	Sandwich
26	Scituate
27	Sharon
28	Stoughton
29	Truro
30	Wareham
31	Weymouth
32	Yarmouth

ATTACHMENT B
MSP7 STAKEHOLDER INPUT SUMMARY

August 2017

Covanta SEMASS:
Material Separation Plan (MSP) Program for the Diversion of Mercury

STAKEHOLDER MEETINGS SUMMARY (MSP7)

Sessions. Two meetings with Stakeholders were sponsored during August 2017 by Covanta SEMASS (SEMASS) to discuss the MSP Program and the new plan going forward. Notice of the meetings was sent out to two-hundred and thirty eight (238) persons on the program contact list. Meetings were held in different geographic areas and available through a MassRecycle Webinar to promote attendance:

- Plymouth – Tuesday, August 8th
- Rochester – Tuesday, August 15th

Attendees. A total number of seventeen (17) people attended the stakeholder meetings from ten (10) organizations and/or municipalities.

Stakeholder Meetings Discussion and Feedback. SEMASS presented a summary of program results from 2005-2016 and the MSP6 task list as a basis for expanding and amending MSP7 going forward. Discussion points included:

- Combining multiple tasks under a single heading such as Community Support. This will include Universal Waste Sheds, Outreach Materials, and disposal costs. The intent is that communities will have more flexibility in devising their own successful program.
- Use mercury training funds to allow regional recycling personnel to attend conferences related to HHW collection.
- Incorporate Municipal Facility Managers into the outreach devised by CET. In the same way we provide information to Health Agents professional groups, we should seek out MFM groups.