



Formerly **COVANTA**

**Material Separation Plan 8**  
**For the Diversion of Mercury**  
**Extension Request**

**January 1, 2023 – December 31, 2027**

**Reworld Haverhill and SEMASS**

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# **MATERIAL SEPARATION PLAN 8 extension**

**January 1, 2023 – December 31, 2027**

## **Reworld Facilities**

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## **I. BACKGROUND**

In accordance with the requirements of 310 CMR 7.08, Reworld prepared the eighth installment of the Material Separation Plan (MSP8) for the diversion of mercury and mercury-containing manufactured articles (MCMAs). MSP8 was 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 MSP8 plan period (December 2025), Reworld and the MassDEP can agree to extend the plan for an additional two years in order to evaluate potential changes to the MSP program regarding input from the Mass DEP Solid Waste Master Plan HHP Action Plan updates.

This is a request to extend MSP8 for two years to December 31st, 2027.

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 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 Reworld 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 Reworld'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, Reworld remains dedicated to our continued commitment to the Material Separation Program to reduce the amount of mercury disposed in the solid waste stream. Of note, outlet stack testing results for mercury for the last 5 years are in line with the MSP outlet testing goals. Reworld acknowledges that there are still legacy mercury containing devices and elemental mercury supplies not yet recovered and is committed to the continuation of the MSP 8 program as outlined.

Reworld knows firsthand from fires that have occurred nationwide at various solid waste facilities and has heard from MassDEP that lithium primary and lithium-ion batteries are problems for Massachusetts communities. As part of the MSP 8 extension, Reworld is proposing to review lithium battery recycling options and procedures, develop and disperse information regarding safe handling and disposal which can be used for not only contracted communities but any Massachusetts community. Reworld supports EPR measures as a permanent solution.

## II. APPLICABILITY OF PLAN BENEFITS AND PLAN EXCLUSIONS

Preparation of this Plan has been based on input received from the Reworld communities via quarterly stakeholder meetings, the local community Recycling Coordinators, MassDEP, and/or direct suggestions from community individuals.

**Applicability of Plan Benefits.** Reworld contracted communities financially support the MSP program via language in their specific contracts. 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 the Reworld waste shed which can potentially include mercury or mercury-containing articles. Therefore, two additional, lesser categories of support have been continued under MSP8 to address this. See Table 1.

**TABLE 1. MSP PROGRAM BENEFIT COVERAGE**

Category	Description	Plan Benefits
Tier 1	<ul style="list-style-type: none"><li>• Reworld Contract Communities <sup>(1)</sup>; Refer to Attachment A</li><li>• Qualifying Recycling Organizations that serve the Tier 1 Communities.</li><li>• Qualifying Businesses within the Tier 1 Communities.</li></ul>	<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"><li>• Non-Contract Communities that send <u>significant</u> solid waste volumes to Reworld facilities</li><li>• Qualifying Recycling Organizations that serve the Tier 2 Communities.</li><li>• Qualifying Businesses within the Tier 2 Communities.</li></ul>	<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"><li>• Non-Contract Communities that don't send significant solid waste volumes to Reworld facilities.</li><li>• Qualifying Recycling Organizations that serve the Tier 3 Communities. Qualifying Businesses within the <sup>1</sup>Tier 3 Communities.</li></ul>	<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. <sup>2</sup>

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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. MassDEP 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 be eligible for Plan benefits.

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). Reworld 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. A second example is lithium-ion and lithium primary batteries as they are causing fires in solid waste trucks and at solid waste facilities.

**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. Reworld 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.

**Liability of Lithium Primary and Lithium-Ion Battery fires.** Reworld 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, Reworld 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 and targeted information flyers, videos, and websites to communities and businesses such as downsizing information and identification of hazardous antiques.
- 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 MCMAs
- Providing information on lithium primary and lithium-ion identification and proper handling.

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

### **III. SCOPE OF PLAN ACTIVITIES**

The scope of Material Separation Plan 8 (MSP8) activities are detailed below and broken down into five primary tasks: 1.0 –Media Outreach and Synergy with Partners, 2.0 – MSP Awareness Training & Conferences, 3.0 – Community Support, 4.0 – Targeted MSP 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 Reworld, the Center for EcoTechnology and other Energy-from-Waste (EfW) facilities. Quarterly partner and recycling coordinator meetings and podcasts are also included in Task 1.0 activities.

Task 2.0 activities are directed towards educating and training Municipal and recycling organization staff to become more aware of mercury and lithium battery 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 regional waste shed area. These activities are targeted for the benefit of Reworld contract communities. These benefits include: supporting improved outreach, flyers and print materials, paying vendors for the cost of recycling of mercury-containing products, and organization support for 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 legacy mercury containing items in the business community. Task 4.0 will also cover lithium primary and lithium-ion battery research and outreach.

Task 5.0 involves the administrative effort required to operate, manage and report efforts on the MSP Program.

MSP8 incorporates many of the prior activities from MSP7 but includes a number of changes discussed with Plan stakeholders during input sought during a quarterly stakeholder meeting including representatives from Cape Cod Cooperative Extension, South Shore Recycling Cooperative, MassDEP MAC's, Center for EcoTechnology (CET), and MassRecycle. Input was also sought from municipalities and businesses during these meetings. These changes include the following:

- Creation of one plan for both Reworld facilities (Haverhill and SEMASS).
- Expansion of the role of CET as the MSP Program coordinator to utilize their programs such as the MassDEP's RecyclingWorks in Massachusetts and The Green Team, as well their existing partnerships with TRC and MassDEP.
- Expansion of a Plan activity as part of Task 4.1 dedicated to the reclamation of elemental mercury in Massachusetts. This activity will build upon prior plan activities that have been successfully working with Council on Aging, Board of Health representatives and two realtor organizations. Going forward, we will develop outreach targeting additional area realtor organizations, and the Massachusetts Harbormasters Association.
- Expansion of Plan activity as part of Task 4 to research lithium battery handling and reclamation options available in Massachusetts and to disseminate that information to contracted communities in Tier 1, 2, and 3.

MSP8 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. Reworld continues to find that providing participants with a flexible approach has been a key ingredient for continued success of the Plan's implementation. Reworld 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 MassDEP, 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, Reworld 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 MassDEP and NEWMOA have not yet agreed upon standard conversion factors for the some of the mercury-containing products that Reworld may encounter during MSP8 (for example, high intensity tanning salon fluorescent lights). Reworld 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 Bulbs	0.030 grams (30 mg) per unit (per 6-ft bulb) <sup>(c)</sup>
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 <sup>(b)</sup>
Circular Bulb Fluorescent Lamps	0.0175 grams (17.5 mg) per unit <sup>(b)</sup>
Compact Lights	0.0175 grams (17.5 mg) per unit <sup>(b)</sup>

Notes:

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

## 1.1 Media Outreach

CET will provide video, radio, podcast, and general media outreach resources to communities to expand the library of tools available.

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

- Videos that focus on proper handling of sharps and expired medicines, common household hazardous wastes, marine flares, recyclables, lithium-ion and lithium primary batteries, and mercury containing products in the home.
- Video documenting the proper management of Universal Waste Sheds.
- Continuing sponsorship of the MassRecycle Podcasts that educate the public on a variety of topics that include the identification and reclamation of mercury containing products at home and work.

This outreach 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 work with the MSP Program Coordinator via email or during quarterly stakeholder meetings 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.

Activity Scope. The KMFR website has been mothballed in recent years. Reworld will seek to either restart efforts using the KMFR website, or employ an equivalent outreach via other means or websites. These may include some combination of MassRecycle, CET, RecyclingWorks, or Reworld websites. Extensive efforts to communicate with KMFR or ERC have not resulted in any success, so Reworld resources are now being hosted on the Center for EcoTechnology website at [cetonline.org/programs/reworld/](http://cetonline.org/programs/reworld/). Created resources also link to the MassDEP Mercury Information page at [mass.gov/guides/massdep-mercury-information](http://mass.gov/guides/massdep-mercury-information)

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

## 2.0 MSP AWARENESS TRAINING & CONFERENCES

**Objectives.** The objective for Task 2.0 is to provide information and 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 MSP8, 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.

Exhibiting and presenting at conferences also falls under Task 2.0. Successful conferences have been the Plumbing Heating Cooling Contractors conference and the Mass Health Officials Association conference. Participation in additional on-line or in-person conference opportunities will be evaluated.

CET maintains several hotlines and emails for other programs and periodically receives inquiries for fluorescent bulb and mercury containing product recycling options, and staff is trained to provide Reworld resources as appropriate. CET will also serve as the MassDEP Mercury Voicemailbox contact to evaluate requests that fall into Tier 1, Tier 2, or Tier 3. (This also is referenced under Task 4).

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 conference to reach the cities and towns across Massachusetts.

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.

Reworld will strive to improve communications with our municipal contacts on the program by encouraging participation in the quarterly stakeholder meetings. These meetings offer an opportunity to gather via video conferencing and/or in person to discuss plan activities, goals, and successes. In addition to the quarterly meetings, we will continue to provide four newsletters per year on a variety of “difficult to manage waste” topics.

### **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. 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.

Costs for “counting” mercury-containing devices and transport/pickup fees are covered under this task. Costs for mercury spill kits are covered 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 covered as part of the MSP program.

Lithium-ion and Lithium Primary battery recycling costs may be covered on a case-by-case basis as funds allow.

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 MSP8 budget for the following contractor support detailed below:

- Contractor support for collection of mercury containing products at municipal locations.
- Contractor support for use of Thermostat Recycling Corp (TRC) collection bins at municipal locations.

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

### **3.2 Community Support**

Reworld will conduct activities to support the communities, their schools and any associated municipal recycling organizations in the goals of education, outreach, and identification of mercury-containing products and elemental mercury. 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.

Reworld may also provide supplemental funding for Universal Waste Shed support, operational supplies, and advertising swag to exchange for mercury containing products, sandwich boards, posters, etc.

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

CET 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 an 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 provided to qualify for support for lower Tier municipalities. Refer to the Plan discussion in Section II.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan. Reworld and CET will maintain appropriate Stakeholder contact lists for periodic quarterly progress meetings.

## **4.0 TARGETED MSP 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. 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 our 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, Realtor Associations, town departments, schools, associated businesses or residents in Contracted Communities that may know of any sources of liquid elemental mercury. Key municipal departments that CET will interface with include Boards of Health, Building Departments, Fire Departments and the MassDEP Mercury Voicemailbox. Any leads will be investigated and followed up by CET.

If sources of liquid elemental mercury are identified, immediate action will be taken 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 for Legacy Items**

This task is a continuation of previously successful efforts initiated on MSP7. HVAC 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 Center for EcoTechnology (CET) and the Thermostat Recycling Corp (TRC).

In addition, Reworld and CET will work to identify additional businesses such as marine repair companies and harbormasters that may have mercury-containing devices that must be reclaimed and recycled. Note: Coverage for mercury recycling business costs will be evaluated on a case by case basis.

Activity Scope. CET and TRC will perform targeted outreach through their existing HVAC and contractors contacts. 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 Reworld 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.

#### **4.3 Lithium-Ion and Lithium Primary Research and Outreach**

Task 4.3 is added to MSP 8 Extension by mutual agreement with Reworld and MassDEP. Lithium batteries have been identified during the mid-year review of the Solid Waste Master Plan Household Hazardous Products workgroup as a difficult to manage item. Solid waste facilities including Reworld have experienced fires and are interested in finding ways to raise awareness and diversion of those items to proper disposal. Adding this effort to the MSP 8 Extension will give time to review available options and potential EPR changes prior to MSP 9 development.

- CET will research existing and anticipated resources and outlets for diverting lithium batteries to include but not limited to Call2Recycle, EPA, and MassDEP.
- CET will develop digital, print, and/or video materials and determine a distribution strategy.

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

## **5.0 PROGRAM ADMINISTRATION**

Activity Scope. General administrative activities required to operate the MSP8 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 MassDEP
- Preparation of the MSP Program Annual Report
- Preparation of letter(s) & responses to MassDEP technical comments or program information requests
- Preparation of the MSP8 Plan (if required) for Plan activities beyond this current MSP8 Plan

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

#### **IV. PROGRAM REPORTING AND SCHEDULE**

Program Reporting. CET will prepare and submit annual reports to MassDEP 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 15<sup>th</sup> of the year following or by an alternate schedule approved by MassDEP. 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 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 MSP8 were conducted over three (3) years in duration and from January 1, 2023 and continue through December 31, 2025. At this time, Reworld requests a 2-year extension to December 31, 2027 from MassDEP.

#### **V. PERSONNEL**

Implementation of the Material Separation Plan requires the efforts of a variety of professional, contractor and supporting organization personnel. Reworld will contract with the Center for EcoTechnology (CET) to manage the MSP program with oversite by George Drew, Regional Environmental Director. Support will also be provided by Reworld environmental specialists at the Haverhill and SEMASS facilities.

## VI. PROJECTED PLAN BUDGET

The projected budget based on the scope set forth for the five (5) year period of this Plan (2023 - 2027) is detailed in Table 3, below.

**TABLE 3. PROJECTED MSP8 BUDGET BY TASK**

Task No.	Plan Activity	Average Yearly Expenditures
<b>1.0</b>	<b>General Media Outreach &amp; Synergy with Partners</b> 1.1 Media Outreach & Synergy with Partners	<b>\$16,975</b>
<b>2.0</b>	<b>MSP Awareness Training &amp; Conferences</b>	<b>\$16,725</b>
<b>3.0</b>	<b>Community Support</b> 3.1 Mercury Recycling Support plus Costs Transport & Disposal (Complete Recycling Solutions) 3.2 Community Support (Sheds, Outreach materials, etc.)	<b>108,950</b>
<b>4.0</b>	<b>Targeted MSP Outreach, Collection &amp; Recycling Efforts</b> 4.1 Elemental Reclamation – included in 3.1 4.2 Business and other Outreach Legacy Items 4.3 Lithium Primary and Lithium Battery Research and Outreach	<b>\$9,200</b>
<b>5.0</b>	<b>Program Administration</b>	<b>\$18,800</b>
	<b>Grand Total</b>	<b>\$170,650</b>

This budget is for each Reworld facility (Haverhill and SEMASS) includes payments to Plan contractors, consultants, and organizations, purchase of supplies and materials, travel and outreach activity costs, and internal labor.

Internal labor primarily includes the Regional Environmental Director, Administrative Support, other Environmental Dept. support, plus a limited amount of Facility Management time. Internal labor is not allocated to any single task but rather allocated to each of the tasks necessary to conduct the work. Internal labor costs for personnel who support the program on a part-time basis are allocated using comparable consultant rates commensurate with their experience and job description. Reworld uses labor rates comparable to those used by our facility consultants.