



Waste

Introduction

Practice Greenhealth recommends **comprehensive waste tracking** as a starting point for any healthcare institution looking to improve its environmental footprint. Understanding the breakdown of both cost and weight for different waste categories can be one of the easiest strategies to identify areas of opportunity and low-hanging fruit. Beyond waste data, understanding how waste can be prevented, or shifted from a more environmentally-intensive (and expensive) waste stream to a less environmentally intensive waste stream (e.g., from **regulated medical waste** into **recycling**) is key to truly reducing the facility's waste footprint.

Baseline Year: The facility's baseline year is generally the **first year the facility started tracking waste data**. Some facilities use the first year they apply for an award. If 2020 is your first year of waste tracking, please enter data in both the **Baseline Year** and the **Current Year** column (leaving the **Previous Year column blank**), and it will become your baseline for next year's award data.

1.* Baseline Year:

The waste data in this section requires **12 consecutive months of waste data**. While energy data must be tracked in a calendar year, waste data can utilize a fiscal year if necessary. We ask that you please use the **same 12 months consistently** each year you apply, so we can compare year-to-year totals effectively.

Solid Waste

Please indicate the facility's **Solid Waste** totals in Table A below (enter a numerical response). You are required to complete the **Current Year** column at a minimum.

If you are using a vendor that uses a **flat fee for integrated waste removal** (e.g., RMW and **solid waste** go out at the same price per lb), please enter your tonnage but do not include your cost data in Table A below, as it will skew the data set.

Non-RCRA Pharmaceutical Waste data will be captured in the category in which it is being treated/disposed. If the facility is segregating and collecting **Non-RCRA Pharmaceutical Waste** and disposing of it as **solid waste** (e.g., sent to a municipal waste incinerator via a pharm waste hauler), please enter Non-**RCRA** Pharm Waste data in **Table A. Solid Waste**. If Non-**RCRA** Pharm Waste is disposed of as **regulated medical waste** (e.g., sent to an RMW incinerator), please enter Non-**RCRA** Pharm Waste data in **Table C. Regulated Medical Waste**. DO NOT enter Non-**RCRA** Pharm Waste in both Tables A and C. This will double count this waste stream.

*****If your facility does NOT source-segregate non-RCRA pharmaceuticals into separate containers for disposal with a licensed hauler, DO NOT enter any data for non-RCRA pharm waste into either Table A or C. Please leave the cells blank.**

Table A. **Solid Waste**

(Please do not use commas or \$ signs.)

Solid Waste	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
Solid Waste	2.* <input type="text"/>	3.* <input type="text"/>	4.* <input type="text"/>	5.* <input type="text"/>	6.* <input type="text"/>	7.* <input type="text"/>
Non-RCRA Pharmaceutical Waste (MSW)	8.* <input type="text"/>	9.* <input type="text"/>	10.* <input type="text"/>	11.* <input type="text"/>	12.* <input type="text"/>	13.* <input type="text"/>
Total Solid Waste	14.* <input type="text"/>	15.* <input type="text"/>	16.* <input type="text"/>	17.* <input type="text"/>	18.* <input type="text"/>	19.* <input type="text"/>

Recycling

20.* Does the facility recycle clinical/**medical plastics**?

- ☒ Yes
☐ No

20.a* Which clinical plastics are being recycled by the facility (select all that apply):

- ☐ Irrigation bottles
☐ Skin prep solution bottles
☐ Trays
☐ Overwraps
☐ Rigid inserts
☐ Blue wrap
☐ Tyvek
☐ Basins
☐ Urinals/Bedpans
☒ Other

20.a.a* Please describe any other plastic items being recycled:
Recycling Profile

Please enter the facility's individual **Recycling** Totals in **Appendix A**. The data will self-populate in the **Current Year** column in Table B.

Please enter baseline and previous year **recycling** tonnage and annual costs in Table B below. If this year is your first year of tracking **recycling** data, go ahead and enter the same number as **Current Year** in the **Baseline Year** column, leaving the **Previous Year** column blank. Do not enter zeros. A negative number in cost field denotes a revenue (or rebates from **recycling**). Reuse and **diversion** are not included in this table but are credited elsewhere in the application. Construction & Demolition (C&D) waste **recycling** is tracked in the **Profile**, Table C.

PLEASE NOTE: The tonnage and costs for Current Year will be autopopulated from Appendix A.

Table B. Recycling

Recycling Streams	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
Recycling (Current Year data will be entered from Appendix A)	21.* <input type="text"/>	22.* <input type="text"/>	23.* <input type="text"/>	24.* <input type="text"/>	25.* <input type="text"/>	26.* <input type="text"/>
Universal Waste (Current Year data will be entered from Appendix A)	27.* <input type="text"/>	28.* <input type="text"/>	29.* <input type="text"/>	30.* <input type="text"/>	31.* <input type="text"/>	32.* <input type="text"/>
Recycling Total	33.* <input type="text"/>	34.* <input type="text"/>	35.* <input type="text"/>	36.* <input type="text"/>	37.* <input type="text"/>	38.* <input type="text"/>

39.* This is the value of total annual **recycling** costs that will be used in calculating total waste cost percentages in Table K at the bottom of this page. Costs will be used unchanged, but all revenue will be changed to zero.

Less Food To Waste Stream

It is estimated that **10% to 15%** of an average hospital's waste is comprised of food waste. The US EPA and the USDA announced a partnership, calling on businesses to commit to food waste reduction by 50% by 2030. As a result, Practice Greenhealth developed resources around **Less Food to Landfill** intended to mobilize the health care community around the opportunity to maximize food as a valuable resource, feed hungry people, and reduce methane gas associated with food breakdown in landfills.

For the purposes of this application, the reduction of wasted food falls into the following categories:

- **Prevention and source reduction:** Purchasing practices that avoid spoilage and expiration, just-in-time preparation, food scrap techniques.
- **Food recovery and donation:** Re-serving and/or donating edible food.
- **Food waste disposition:** Composting, digestion, or animal feed.

Applicants may answer the questions in this section on either the Food page or the Waste page and answers will be copied to the other page. The questions will be scored on the Waste page. The aim is to ensure Environmental Services and Food Services are connected around the management and reduction of this important waste stream.

16.* Does the facility have a plan or strategy to maximize food as a resource--including reducing wasted food?

- ☐ Yes
☐ No

17.* Is the facility working on prevention/source reduction of food waste?

- ☐ Yes
☐ No

Prevention and source reduction could include purchasing to avoid spoilage and expiration, just-in-time preparation, etc.

18.* Is the facility working on food recovery and donation?

- ☒ Yes
☐ No

Food recovery and donation includes re-serving and/or donating edible food.

18.a* Please enter the tonnage of food **donated**:
18.b* Dollar (\$) value of food donated:
19.* Has the facility undertaken any efforts to **divert food waste from the landfill or incinerator?**

- ☒ Yes
☐ No

19.a* Please select the activities your facility is engaged in to divert food waste from landfill:

- ☐ Composting
☐ Digestion
☐ Animal Feed
☒ Other

19.a.d* Please describe other **diversion** method for food waste:
19.a.e* Please enter tonnage from other **food waste diversion** method:

Note: Incineration is not considered a form of **diversion** under Practice Greenhealth guidelines.

Total Tons of Food Waste Diverted from Landfill**19.b***

Regulated Medical Waste

Please indicate the facility's **Regulated Medical Waste** totals in **Table C** below (enter a numerical response). If you cannot break out one of the waste types, please leave it blank and use the comments box to indicate which waste stream it is combined with; do not enter zero. If you are using a vendor that uses a **flat fee for integrated waste removal** (e.g., RMW and **solid waste** go out at the same price per lb), please enter your **tonnage**, but **DO NOT** include your **cost data** in **Table C** below, as it will skew the data set. All applicants must fill out **Current Year** tonnage and costs. If this year is your baseline year (e.g. first year of collecting accurate RMW data), please enter your **Current Year** totals in the **Baseline Year** column as well, but leave the **Previous Year** column **blank**.

RMW Treated Onsite or Offsite:

Please include **all general RMW** in this number, including any RMW that is **treated onsite and landfilled**. If the facility normally combines treated RMW with its **solid waste**, please estimate weight or contact your facility's membership engagement liaison or the Awards Technical Assistance for guidance at awards@practicegreenhealth or 888-378-2259.

RMW generation can be weighed over a period of time and extrapolated to a year.

Incinerated RMW

Please include any RMW that is incinerated, such as pathology waste, trace chemotherapeutic waste, or any waste that is segregated and removed by a licensed hauler for **medical waste incineration**. This category may be very small.

Sharps

Sharps waste is typically tracked as a separate waste stream by **regulated medical waste** haulers and should be entered in the Sharps category. If sharps are incinerated, they can be included in the **Incinerated RMW** category, but it should be noted in the comments field that the waste streams

are combined. If the facility uses a reusable sharps container service, make sure the sharps disposal data does not include the **weight of the containers**.

Non-RCRA Pharmaceutical Waste

Non-RCRA pharmaceutical waste does not meet the EPA or state agencies' definition of **hazardous waste** but may still be dangerous to human health and the environment. Many health care institutions choose to use a vendor to manage this waste stream as incinerate-only to protect health. This waste stream is typically managed in a blue or white pharm waste container.

This waste stream can be incinerated as **municipal solid waste** (if so please track in **Table A**) or as **medical waste** (please track in **Table C**.)

Please do not enter **non-RCRA pharmaceutical waste** in both tables or it will be double-counted! All **Non-RCRA pharmaceutical waste** data entered in either Table A or Table C will be **autopopulated in Table E. Pharmaceutical Waste** below.

****If your facility does NOT source-segregate non-RCRA pharmaceuticals into separate containers for disposal with a licensed hauler, DO NOT enter any data for non-RCRA pharm waste into either Table A or C. Please leave the cells blank.**

Table C. Regulated Medical Waste

Regulated Medical Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
RMW (treated onsite or offsite)	<u>44.*</u> <input type="text"/>	<u>45.*</u> <input type="text"/>	<u>46.*</u> <input type="text"/>	<u>47.*</u> <input type="text"/>	<u>48.*</u> <input type="text"/>	<u>49.*</u> <input type="text"/>
Sharps	<u>50.*</u> <input type="text"/>	<u>51.*</u> <input type="text"/>	<u>52.*</u> <input type="text"/>	<u>53.*</u> <input type="text"/>	<u>54.*</u> <input type="text"/>	<u>55.*</u> <input type="text"/>
Non-RCRA Pharmaceutical Waste	<u>56.*</u> <input type="text"/>	<u>57.*</u> <input type="text"/>	<u>58.*</u> <input type="text"/>	<u>59.*</u> <input type="text"/>	<u>60.*</u> <input type="text"/>	<u>61.*</u> <input type="text"/>
Incinerated RMW	<u>62.*</u> <input type="text"/>	<u>63.*</u> <input type="text"/>	<u>64.*</u> <input type="text"/>	<u>65.*</u> <input type="text"/>	<u>66.*</u> <input type="text"/>	<u>67.*</u> <input type="text"/>
RMW total waste	<u>68.*</u> <input type="text"/>	<u>69.*</u> <input type="text"/>	<u>70.*</u> <input type="text"/>	<u>71.*</u> <input type="text"/>	<u>72.*</u> <input type="text"/>	<u>73.*</u> <input type="text"/>

RMW Waste Metrics Table

<u>74.*</u> <u>Operating Rooms:</u> CHC <input type="text"/>	<u>75.*</u> <u>Outpatient Visits:</u> <input type="text"/>	<u>76.*</u> <u>FTE:</u> <input type="text"/>
<u>77.*</u> <u>Tons of RMW per OR</u> (The median value was 2.6; data generally ranged from 1.7 to 23) <input type="text"/>	<u>78.*</u> <u>Pounds RMW per Outpatient Visit</u> (Values generally ranged from 0.013 to 0.13.) <input type="text"/>	<u>79.*</u> <u>Pounds RMW per FTE</u> (The median value was 19.5, values generally ranged from 1.3 to 63.8) <input type="text"/>

80.* Does the facility incinerate any portion of its **regulated medical waste** (RMW)?

- ☒ Yes
☐ No

80.a* Please indicate which medical waste streams are incinerated:(Please select all that apply)

- ☐ General RMW
☐ Path/Chemo
☐ Sharps
☐ Non-RCRA Pharm
☐ Other

80.b* Did you ensure that tonnage was tracked for incinerated waste in Table C. above?

- ☐ Yes
☐ No

81.* Does the facility disinfect/treat its RMW using **onsite technology**?

- ☐ Yes
☐ No

Please do not include fluid management systems that empty to the sanitary sewer in this question.

Pharmaceutical Waste

Non-RCRA Pharmaceutical Waste

Segregating non-**RCRA** regulated pharmaceutical waste for incineration is currently considered a best management approach. For facilities using a pharmaceutical waste vendor (not Reverse Distribution), this may be a white container--not to be confused with the container for trace chemotherapy. **Non-RCRA Pharmaceutical Waste** data is entered in **Table A** (if disposed of through municipal waste incineration) or **Table C** (if disposed of through RMW incineration). Data from Tables A or C will autopopulate **Table E. Pharmaceutical Waste** below. Pharmacy, Environmental Services, EH&S or your pharmaceutical waste vendor are good resources to identify the waste pharmaceutical tonnage.

If the hospital is **NOT** source segregating non-**RCRA** pharmaceuticals into a separate container, **do not report a number in either Table A or Table C.**

RCRA-Regulated Hazardous Pharmaceutical Waste

RCRA hazardous pharmaceutical waste is comprised of waste that is either listed as hazardous or meets the characteristics of **hazardous waste** in **EPA's Resource Conservation and Recovery Act (RCRA)** or via state agency. This waste stream should not be confused with red bag or "biohazardous" waste. For facilities using a pharmaceutical waste vendor (not Reverse Distribution), this may be a blue or black container.

Please enter the facility's **RCRA Hazardous Pharmaceutical Waste** totals in tons in Table E below. Entering RCRA Hazardous Pharm Waste data in this table will auto-populate Table G. Hazardous Waste below. Please also see the **NIOSH List of Hazardous Drugs in Healthcare Settings.**

All applicants must enter **Current Year** tonnage and costs. If this is the first year for which you have accurate pharmaceutical waste data, please enter your **Current Year** totals in the **Baseline Year** column as well (but leave the **Previous Year** column **blank**). If the facility does not segregate or track a particular waste type, leave that space blank and identify any combined waste streams in the comments box. **Do not enter zeros.**

Enter data in tons. Pounds can be easily converted to tons by dividing poundage by 2000.

Table E. Pharmaceutical Waste

Pharmaceutical Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
RCRA-Hazardous Pharmaceutical Waste	82.* <input type="text"/>	83.* <input type="text"/>	84.* <input type="text"/>	85.* <input type="text"/>	86.* <input type="text"/>	87.* <input type="text"/>
Non-RCRA Pharmaceutical Waste (MSW)	88.* <input type="text"/>	89.* <input type="text"/>	90.* <input type="text"/>	91.* <input type="text"/>	92.* <input type="text"/>	93.* <input type="text"/>
Non-RCRA Pharmaceutical Waste (RMW)	94.* <input type="text"/>	95.* <input type="text"/>	96.* <input type="text"/>	97.* <input type="text"/>	98.* <input type="text"/>	99.* <input type="text"/>
Total Pharmaceutical Waste	100.* <input type="text"/>	101.* <input type="text"/>	102.* <input type="text"/>	103.* <input type="text"/>	104.* <input type="text"/>	105.* <input type="text"/>

Table F. Pharmaceutical Waste Metrics (These numbers are only a rough guideline)

Total Pounds of Pharmaceutical Waste per Outpatient Visit	Total Pounds of Pharmaceutical Waste per FTE
106.* (The median value was 0.006 pounds per outpatient visit; values generally ranged from 0.001 to 0.02) <input type="text"/>	107.* (The median value was 0.28 pounds per FTE; values generally ranged from 0.07 to 4.88) <input type="text"/>

108.* Does the facility segregate **non-RCRA pharmaceutical waste** into a separate waste stream for hauling?

- ☒ Yes
☐ No

108.a* Did the facility ensure the data for **non-RCRA pharmaceutical waste** was added above in Table A or Table C (depending on the type of incineration used for disposal)?

- ☐ Yes
☐ No

Note:Data should only be entered in one table or the other--NOT both.

109.* Does the facility utilize a reverse distributor for potentially creditable (unused, surplus or expired) **RCRA**-hazardous prescription pharmaceuticals?

- ☒ Yes

☐ No

109.a* Did the facility ensure that potentially creditable **RCRA**-hazardous prescription pharmaceuticals sent for reverse distribution are included and accounted for in your hospital's pharmaceutical waste totals?

- ☐ Yes
☐ No
☐ We did not know this was a requirement

Per the EPA's 2019 **Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine:Final Rule**, prescription pharmaceuticals sent to reverse distributors are considered **solid waste** at the healthcare facility and must be accounted for in waste totals.

Hazardous Waste

Please enter the facility's **Hazardous Waste** total in tons in **Table G. Hazardous Waste** below. All applicants must enter **Current Year** tonnage and costs. If this is the facility's first year of tracking comprehensive waste data, please enter the **hazardous waste** tonnage from **Current Year** into the **Baseline Year** column as well (but leave the **Previous Year** column **blank**).

Do not enter zeros for any year. All health care facilities generate some amount of hazardous waste.

Converting to Tons

If your **hazardous waste** is in gallons or a mix of gallons and pounds, please convert to tons. It is most accurate to convert gallons to tons using the specific gravity of the waste liquid. However, if this is unavailable, convert gallons to tons using a general conversion factor of 8.35 lbs=1 gallon (e.g., there are approximately 8.35 pounds in a gallon of liquid). Pounds can be easily converted to tons by dividing poundage by 2000.

RCRA-Regulated Pharmaceutical Waste totals will autopopulate from Table E.

RCRA-Regulated Hazardous Waste

Please note that your facility's **hazardous waste** tonnage **should not be zero**.

Hazardous waste includes waste solvents, lab fixatives and stains, spill clean-up residue, lab packs, refrigerants, or any "listed" or "characteristic waste" per **RCRA** regulations. Check with your Laboratory Manager, Pharmacy Director, Safety Director, Hazardous Materials Coordinator, **hazardous waste** hauler, Accounts Payable, or review waste removal manifests to identify **hazardous waste** removal documentation that will provide you with the data needed for this section. **Examples of hazardous waste** from the clinical laboratory can be found at: **Clinical Laboratory Waste**

Table G. Hazardous Waste Table

Hazardous Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
RCRA-Regulated Hazardous Waste	110.* <input type="text"/>	111.* <input type="text"/>	112.* <input type="text"/>	113.* <input type="text"/>	114.* <input type="text"/>	115.* <input type="text"/>
RCRA-Regulated Hazardous Pharmaceutical Waste	116.* <input type="text"/>	117.* <input type="text"/>	118.* <input type="text"/>	119.* <input type="text"/>	120.* <input type="text"/>	121.* <input type="text"/>
Total Hazardous Waste	122.* <input type="text"/>	123.* <input type="text"/>	124.* <input type="text"/>	125.* <input type="text"/>	126.* <input type="text"/>	127.* <input type="text"/>

Waste Summary

The following tonnages and costs have been **automatically calculated** based on the information that was provided in Tables A, B,C, and G. If the numbers do not look accurate, check the tonnage and costs entered in those Tables.

Table I. Total Waste Tonnage and Cost (comprised of **Solid Waste**, **Recycling**, RMW and **Hazardous Waste**)

	Total Tonnage (Baseline)	Total Tonnage (Previous)	Total Tonnage (Current)	Total Cost (Baseline)	Total Cost (Previous)	Total Cost (Current)
Total Waste	128.* <input type="text"/>	129.* <input type="text"/>	130.* <input type="text"/>	131.* <input type="text"/>	132.* <input type="text"/>	133.* <input type="text"/>

Table J. Total Waste Metrics

Based on the information above, the facility's total tons of waste per OR is:	Based on the information above, the facility's total pounds of waste per FTE is:	Based on the information above, the facility's total pounds of waste per outpatient visit is:
134.* The median value was 76.6; values generally ranged from 28 to 296) <input type="text"/>	135.* (The median value was 1394; values ranged from 506 to 3274) <input type="text"/>	136.* (The median value was 3 pounds of waste per outpatient visit; values ranged from 1 to 5) <input type="text"/>

Table K. Total Waste Percentages

	% Waste (Baseline)	% Waste (Previous)	% Waste (Current)	% Cost (Baseline)	% Cost (Previous)	% Cost (Current)
Solid Waste [from Table A]	137.* 0	138.* 0	139.* 0	140.* 0	141.* 0	142.* 0
Recycling [from Table B]	143.* 0	144.* 0	145.* 0	146.* 0	147.* 0	148.* 0
RMW [from Table C]	149.* 0	150.* 0	151.* 0	152.* 0	153.* 0	154.* 0
Hazardous Waste [from Table G]	155.* 0	156.* 0	157.* 0	158.* 0	159.* 0	160.* 0

Other Waste Program Successes

Please use the space below to describe your **most successful and/or innovative waste minimization, reduction, recycling, medical waste or hazardous waste management program(s)** in 2020. Practice Greenhealth not only scores these questions but also uses them to **identify great case studies** to share with the sector. Environmental benefit and cost-savings data appreciated. Please use complete sentences.

161.* Waste Success 1:
162.* Please attach any additional documentation (optional) for Waste Success 1:**163.*** Waste Success 2:
164.* Please attach any additional documentation (optional) for Waste Success 2:**165.*** Additional documentation (optional):

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