

# A How-To Guide for Waste Audit Success

Clearly defined steps and downloadable templates.

Identifies cost saving opportunities to help fund recycling program expansion.

Top tips from Bruce Buchan, CleanRiver CEO, who has conducted over 200 client waste audits.



## BENEFITS OF AN INTERNAL WASTE AUDIT

Not only will a waste audit help you gain a better understanding of where your organization currently is in terms of waste management, but it will also help you clearly see opportunities for efficiencies and improvements – both for the environment and your bottom line.

Bruce Buchan, CleanRiver CEO says “Determining a baseline is the most critical step on the path to sustainability. The ability to provide factual data rather than using an estimate from a waste hauler is essential.”

“The baseline will not only reveal and prove the reduction in landfill waste it will also uncover savings or rebate opportunities to support growth and expansion of your recycling program. The ROI data that can be identified during this process provides valuable evidence for funding support.”

A waste audit involves collecting, measuring and monitoring all waste for three consecutive days as well as taking a look at other practices such as waste hauling schedules and bin placement. The information gathered will help determine your current diversion rate and identify areas for improvement. You’ll find everything you need to conduct your waste audit in this document, and of course, if you have any questions, you can always contact us at [solutions@cleanriver.com](mailto:solutions@cleanriver.com), we’re always happy to help.

## Step 1 – Identify your team.

Recruit a team of people who will be tasked with conducting the waste audit. Ideally this group should include individuals from across the organization because they have fresh eyes and perspectives. Depending on the size of your facility you will need between 3 and 10 people on the team, one of which should be a team leader or waste audit coordinator.

### Tip!

It's highly recommended you include a representative from your Finance, Health & Safety and Custodial departments.



**Finance** – waste audits can be eye-opening from a finance perspective, often wasteful practices that translate to dollar losses are identified. For example, often items like toilet rolls are changed every time the cleaning staff services the washrooms rather than when the roll is actually empty. In a large facility of 1000 employees or students this results in a large volume of half-full toilet rolls being tossed in the garbage which equates to a significant dollar loss over the course of a year. This scenario actually occurred to a client who until they participated in a waste audit they had no idea this was happening.



**Health & Safety** – dangerous hazards can also be identified during waste audits. If waste that's potentially dangerous is not being collected safely such as used lightbulbs or medical equipment such as syringes, then this will become apparent to the health and safety representative during the waste audit. Processes can then be put in place after the audit to prevent an injury.



**Custodial** – including someone from your custodial team provides them the opportunity to validate their process or identify areas of improvement. They are often the only department who understands how the back-of-house collection works with the front-of-house collection. They can provide valuable insight on the program and advise on how to decrease contamination. [Little Rock Zoo](#) consulted their custodial team when they designed their bins and saw a 50% improvement in the amount of recyclable waste they diverted.

## FOLLOW THIS EASY 8-STEP WASTE AUDIT PROCESS.

### Step 2 – Plan your waste audit.

Plan your waste-audit over a 3-day period when there are no special events at your facility. You want to measure every day waste collection behaviors.

#### Tip!

Best practices have proven that collecting the waste over 3 days on Tuesday, Wednesday and Thursday provides a more accurate picture of your waste. This is due to there being more absences during Mondays and Fridays due to vacation which skews the data.

Communicate your waste audit plans to your custodial team. You will need their help in storing the waste during the 3-day period in a central collection area. Don't forget to provide them with pre-written labels to stick on the bags when they service the bins for easy identification during the visual audit stage.

Labels should have the date, location and stream written on them. For example:

| Tue          | Wed       | Thur |
|--------------|-----------|------|
| Floor: _____ |           |      |
| Classroom    | Office    |      |
| Hallway      | Theatre   |      |
| Cafeteria    | Wood Shop |      |
| Photocopy    | Library   |      |
| Staff Room   | Outside   |      |

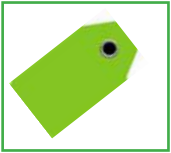


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### Step 3 – Gather necessary equipment.



1. Clear waste bags – to be used for all collection streams in all the waste and recycling bins



2. Labels – to identify where the bags were collected from



3. Permanent markers for the labels if you are not pre-printing



4. Camera – to take pictures of the bags during the visual audit stage



5. Scales – to weigh the waste



6. Sealed large bin to store the waste during the 3 day period



7. Protective clothing for waste audit team – heavy duty gloves, eye protection and coveralls



8. Printed checklist or spreadsheet on tablet/smartphone for recording data

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### Step 4 – Conduct your visual waste audit.

Follow these Steps:

1. Collect all garbage in clear bags from all bins throughout your facility for a period of 3 typical consecutive days (not during special events, etc.). Put bags in a central location and label each with the date, location and waste stream collected e.g. recycling, organics or trash.



2. On waste audit day, weigh each bag and record the weight.



3. Perform a visual assessment for each bag of waste and use the [Visual Waste Audit template](#) to record the contents of the bag, including the percentage of stream contaminants (a contaminant is anything that shouldn't be in that stream).



## FOLLOW THIS EASY 8-STEP WASTE AUDIT PROCESS.

### Tip!

Recording the stream contaminants in each area identifies opportunities for increased diversion. For example if you notice a high percentage of organics appearing in your waste stream you could introduce organic collection to your facility which would positively impact your diversion rate.

By recording the percentage of items that contaminate a stream you'll be able to estimate the weight. This will help you set realistic diversion goals. For example if you collect 50lbs of cafeteria waste and 50% of it's food waste, you can set a goal of diverting 25lbs of food waste from landfill a week.

Remember to take pictures of the items that are contaminating your waste and recycling streams so that you can visually communicate where these items should be tossed.

### Tip!

You may be surprised by the materials you find when doing a waste audit. Binders, unused notebooks, rolls of paper towel etc. these can all be collected for re-use or exchange.

Reuse centers are becoming more popular in corporate offices and higher education facilities as people strive to be more environmentally and cost conscious.

[Waste Audit Template](#)

### Step 5 - Calculate your diversion rate.

You now have a very detailed picture of what is happening within different areas of your business for analysis at a later time. To [calculate your diversion rate](#), you'll need the total weight of recycling, organics and trash collected by your organization. Then use the following formula:

$$\frac{\text{Weight of Recycling}}{\text{Weight of Recycling} + \text{Weight of Garbage}} \times 100$$

Once you have your current diversion rate you can set diversion rate targets for your organization and measure your progress each year.



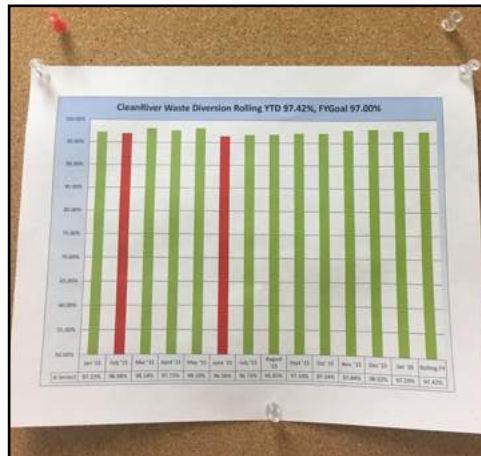
## FOLLOW THIS EASY 8-STEP WASTE AUDIT PROCESS.

### Step 6 – Communicate the results.

This is a vital step to ensure that your waste audit results bring about improvement in your program. Here's what you need to share with your organization:

1. Current Diversion rate – this provides the big picture in terms of the amount of waste you are currently diverting from landfill
2. Areas for improvement
  - a. Identify areas where you found high levels of **contamination** e.g. sports facilities which attract people who are external to the organization and may bring outside sources of garbage, or cafeteria areas where a lot of organic waste is being generated.
  - b. Pick the low hanging fruit – identify the top contaminants that can easily be recycled for example pop cans, paper items and napkins. Concentrating on these items first will produce a significant improvement in a short space of time, which helps people see the difference they can make.
3. Remind people of the location of the recycling bins – it helps bring your recycling program to the top of everyone's mind.
4. Publish your diversion and contamination rate goals, and map your progress every month. Everyone can see how they are contributing and this helps keep momentum going.
5. Highlight the areas that are doing well in the organization so that others can learn from them.

#### Diversion Metrics Chart



*Publish your diversion and contamination rate goals*

#### Tip!

Make sure you show people images of the bags of waste you collected. People don't necessarily connect to the waste that's being generated until they see the images. People relax over time so make sure you continue to communicate your progress and identify areas for improvement.



## FOLLOW THIS EASY 8-STEP WASTE AUDIT PROCESS.

### Step 7 - Update your graphics.

When you have a list of the key offenders that are causing contamination in your waste streams, it's time to update your bin signage. For example if you keep finding coffee pot filters in the waste when they should be in your organics collection, refresh your bin graphics to include an image of the coffee filter, or add them to a poster above your bin.

Clear signage has proven\* to increase recycling rates and decrease contamination rates.

Keeping your graphics up to date helps ensure your program constantly evolves and improves on your journey to the ultimate goal of zero waste.



\*Bryson, Scott (2014). "Exploring Effective Signage: An Examination of Contamination Rates in Source-Segregated Recycling Streams through Manipulation of Recycling Signage Features". University of Strathclyde.

Wilson, Julie (2011). "Effect of Signage on Recycling". Missouri University of Science and Technology

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### Step 8 – Repeat, Repeat, Repeat.

Conduct waste audits at least once a year to measure how your current program is performing and identify areas for improvement. It's also a great time to evaluate the waste that is being brought into your facility from vendors and to evaluate whether there's an alternative solution for example compostable clam shells for cafeterias or recyclable coffee cups.



### Need Help?

We'd be happy to review your waste audit results with you and help you determine the best recycling program solution for your facility, based on your collection goals. We'll help you identify areas for improvement and provide you with best practices to set you up for recycling program success.

Call us today at **1-888-646-4246** or email [solutions@cleanriver.com](mailto:solutions@cleanriver.com). Our sustainability experts are waiting to help.

# Visual Waste Audit

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| <b>Audit Date:</b> | <b>Waste From:</b> | <b>Auditor(s):</b> |
|--------------------|--------------------|--------------------|

| Bag #           | Floor # | Weight<br>kg/lb | Description of Contents<br>(check all that apply)  | % Recyclable<br>by Weight | % Organics<br>by Weight |
|-----------------|---------|-----------------|--|---------------------------|-------------------------|
| <b>Location</b> |         |                 |  |                           |                         |
| <b>1</b>        |         |                 | <input type="checkbox"/> fine paper<br><input type="checkbox"/> old corrugated cardboard<br><input type="checkbox"/> newsprint<br><input type="checkbox"/> boxboard<br><input type="checkbox"/> polystyrene (#6) plastic<br><input type="checkbox"/> PETE (#1) plastic<br><input type="checkbox"/> plastic film (shopping bags, etc.)<br><input type="checkbox"/> organics (food waste, soil, plants, etc.)<br><input type="checkbox"/> paper towels<br><input type="checkbox"/> food contaminated packaging<br>(lunch bags/containers, plastic wrap, foil etc.) |                           |                         |
| <b>2</b>        |         |                 | <input type="checkbox"/> fine paper<br><input type="checkbox"/> old corrugated cardboard<br><input type="checkbox"/> newsprint<br><input type="checkbox"/> boxboard<br><input type="checkbox"/> polystyrene (#6) plastic<br><input type="checkbox"/> PETE (#1) plastic<br><input type="checkbox"/> plastic film (shopping bags, etc.)<br><input type="checkbox"/> organics (food waste, soil, plants, etc.)<br><input type="checkbox"/> paper towels<br><input type="checkbox"/> food contaminated packaging<br>(lunch bags/containers, plastic wrap, foil etc.) |                           |                         |
| <b>3</b>        |         |                 | <input type="checkbox"/> fine paper<br><input type="checkbox"/> old corrugated cardboard<br><input type="checkbox"/> newsprint<br><input type="checkbox"/> boxboard<br><input type="checkbox"/> polystyrene (#6) plastic<br><input type="checkbox"/> PETE (#1) plastic<br><input type="checkbox"/> plastic film (shopping bags, etc.)<br><input type="checkbox"/> organics (food waste, soil, plants, etc.)<br><input type="checkbox"/> paper towels<br><input type="checkbox"/> food contaminated packaging<br>(lunch bags/containers, plastic wrap, foil etc.) |                           |                         |
| <b>4</b>        |         |                 | <input type="checkbox"/> fine paper<br><input type="checkbox"/> old corrugated cardboard<br><input type="checkbox"/> newsprint<br><input type="checkbox"/> boxboard<br><input type="checkbox"/> polystyrene (#6) plastic<br><input type="checkbox"/> PETE (#1) plastic<br><input type="checkbox"/> plastic film (shopping bags, etc.)<br><input type="checkbox"/> organics (food waste, soil, plants, etc.)<br><input type="checkbox"/> paper towels<br><input type="checkbox"/> food contaminated packaging<br>(lunch bags/containers, plastic wrap, foil etc.) |                           |                         |



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