



Analyze Current Conditions

Step 3 Preparing a Solid Waste Management Plan



Steps in Preparing a Solid Waste Management Plan



Analyze Current Conditions

This step focuses on building a clear picture of current solid waste systems in the community.

This involves:

- Reviewing existing information
- Analyzing current waste systems/programs/services
- Conducting a waste audit
- Projecting future waste generation and system demand

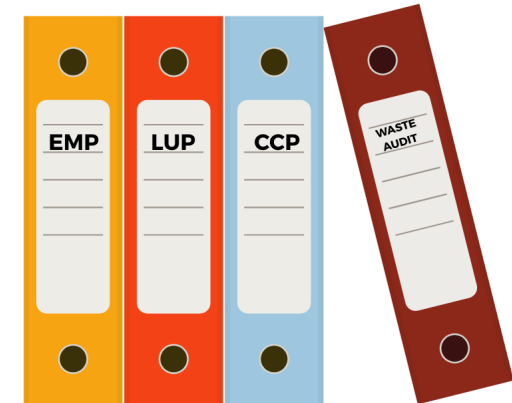
Step 3

Reviewing & Identifying Key Information

Before initiating work on a SWM Plan, the First Nation's staff should assemble available reports and plans containing information that may inform solid waste decision making.

This could include:

- Environmental Management Plan (EMP)
- Land Use Plan (LUP)
- Community Comprehensive Plan (CCP)
- Community Strategic Plan
- Environmental Site Assessments
(for any potential contamination and/or illegal dump sites)
- Landfill design or evaluations
- Waste Assessment/Audit



Community Profile, Demographics, & Growth

A **community profile** is a comprehensive overview of a First Nations waste generation, infrastructure, and diversion programs to help guide in the planning of waste management. It is a baseline, capturing data on waste systems, demographic factors, and infrastructure to address evolving needs and meet environmental goals.

A community profile includes:

- Identifying key waste generators within the community
- Reporting on community demographics
- Considering location (e.g. proximity to the nearest urban centre)
- Forecasting population growth and future development



What Practices are Currently in Place?

Consider how waste is currently managed in the community.

What **facilities** do you have for managing solid waste on your reserve(s)?

Examples include:

- Off-reserve disposal site/facility (municipal service-type agreement)
- Transfer Station
- Engineered Landfill
- Non-engineered Landfill
- On-reserve unauthorized (illegal) Dump sites
- Garbage Pick-up/Recycling pick-up



What Practices are Currently in Place?

Do you have any solid waste **diversion programs** currently operating on your reserve(s)?

Examples include:

- Blue box recycling
- Composting
- Tire collection/recycling
- Electronics collection/recycling
- White Goods collection/recycling
- Battery collection/recycling
- Paint, solvents, used oil collection/recycling



Infrastructure to Support Current Practices

Now that you know what you have on reserve...

Consider how those facilities and programs are functioning:

- Is your landfill nearing capacity?
- What is the participation rate in existing waste diversion programs?
- Is the landfill posing any potential risks to the environment?
- Is there sufficient staff to operate the current waste management system?

Consider what infrastructure the programs and services require:

- What supports do these programs and services require to operate on reserve?
- What is the frequency of these services?
- Are these services functioning effectively?
- Does the community have infrastructure and staff in place to support these services or is more required?
- Are there any plans, audits, or reports that outline the details for these programs or services (e.g. implementation date, upgrades, etc.)?

Share your Thoughts

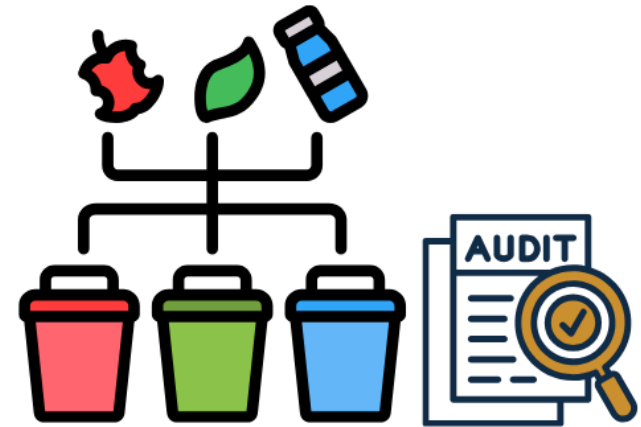
What information is often missing or difficult to assess when reviewing your current solid waste management system and services?



Step 3

What is a Waste Audit?

- **A Waste Audit:**
 - Is a hands-on analysis of waste to determine the quantity, composition and types of waste being produced
 - Involves collecting, sorting and weighing a representative sample of the waste
 - Defines what types and how much waste your community is generating
 - Analyzes your community's waste and production rates



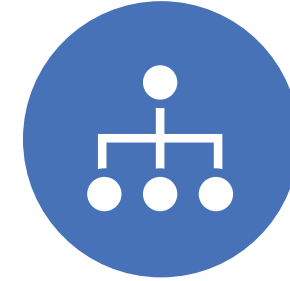
Waste Audit Benefits



Gather data for waste reporting



Identify ways to reduce costs



Establish additional waste streams



Evaluate the effectiveness of existing waste management systems



Determine community & staff education needs



Address contamination

Waste Audit Challenges

A waste audit alone will not help to resolve a First Nations solid waste management issues but should be included as part of a larger SWM Plan.

A waste audit:

- Requires significant time and commitment
- Provides only waste data (does not consider the why)
- Safety and health hazards dealing with waste
- Data accuracy can be skewed due to a “non-typical” week (e.g. community event generating more waste than usual)
- Cost to hire specialized auditors can be high
- High contamination levels in the recycling and organics streams

Step 3



Community Feedback to Supplement the Waste Audit

Community feedback provides valuable insight and should be considered alongside waste audit data.

What can community members tell us about the results of the waste audit?

- Are the current programs or services sustainable into the future?
- What are their common waste disposal habits?
- What waste may not have been captured in the waste audit? (e.g., household waste burnt in backyard fire pits/burn barrels that was not part of the curbside pickup that was assessed in the audit)
- If waste diversion rates are low, what is preventing community members from participating?
- How do community members see waste generation changing in the future?

Considering Future Needs

The Waste Audit provides information on the amount and type of waste your community is currently producing and can be used to calculate the **per capita waste generating rates**.

Calculating current waste is key, however, it is also important to **anticipate** how much waste your First Nation will generate **2, 5, 10+ years in the future**.

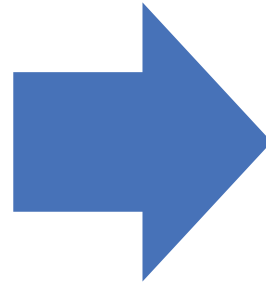
Using information from your waste audit as well as details from your **Community Strategic Plan** can help to predict the amount and types of waste that will be produced in the future, so you can plan in advance.

Considering Future Needs - Examples

Scenarios: Future Needs

ABC First Nation plans for large scale house development of 40 new homes to be completed in 3 years.

EFG First Nation plans on bringing industry partners to reserve as an economic development opportunity.



Solid Waste Considerations

1. What new types and volumes of waste will these scenarios generate?
2. Can the current system handle the demand?
3. What new programs will be required for new waste streams generated during construction and by industry partners?