

City of Cheney

Recycling Contamination Reduction and Outreach Plan (CROP)

The goal of the CROP is to reduce contamination of the materials collected in the City of Cheney's single-family, multi-family, drop box, and commercial recycling programs. This, in turn, helps the City of Cheney more fully realize the economic, environmental, social, and public health benefits of these programs. The CROP does not specifically include strategies to reduce contamination of other material streams such as organics or construction and demolition debris. However, many of the same strategies apply to these streams and may be included in future CROP updates.

The CROP intends to meet the requirement in RCW 70A.205.045(10) that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), include a CROP in their SWMP by July 1, 2021.

This CROP includes ten action steps and is a framework for developing a more detailed and customized implementation plan in the future. Also, it identifies the need to align the CROP with the SWMP, and secure and allocate funding for ongoing planning and implementation.

Step #1: Inventory of current recycling collection services and programs

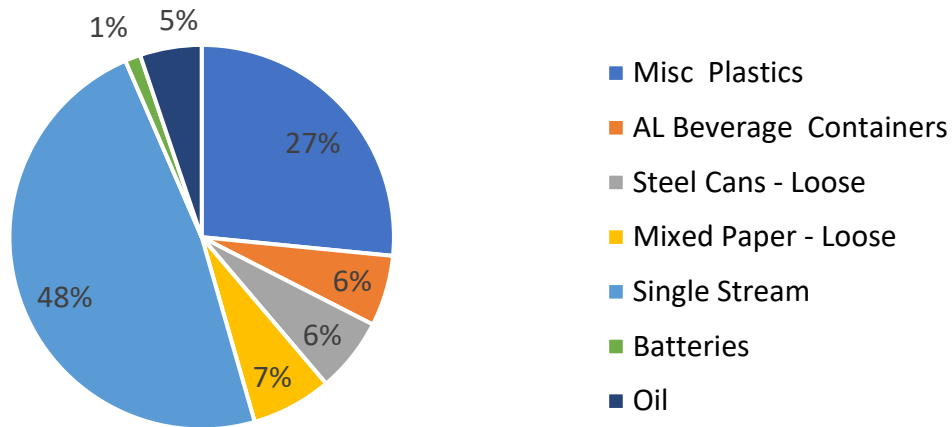
The City of Cheney collects all of its recycling materials at a drop-off facility that is manned on-site by solid waste staff. Cheney opened its Recycling Facility in 1994. The Recycling Facility is located at 100 Anderson Road in Cheney, Recycling products accepted at the facility include:

- Ferrous and non-ferrous metals
- Batteries (household)
- Cardboard (corrugated)
- Paper Products (colored ledger paper, computer paper, magazines, newspapers, phone books, white ledger paper)
- Aluminum
- Plastic Products (HDPE and PETE)

Below is a summary of the recycling tonnage for the 2019 calendar year, broken down by commodity. All of these items are collected at the Recycling Center, sorted, and then stored in separate areas within the center for off-site disposal. The frequency off pick-up for off-site disposal depends on the commodity and how much is collected each week/month.

Recyclable	Tonnage
Misc. Plastics	26.76
AL Beverage Containers	6.00
Steel Cans - Loose	6.33
Tin/Light Iron	0.00
Mixed Paper - Loose	6.81
Single Stream	48.31
Batteries	1.32
Oil	5.23
Total	100.76

Recycling Tonnage - 2019



The City of Cheney currently does not offer curbside recycling. The primary reason for not offering the service is due to cost. While we could offer the service for our single-family residential customers, the challenge is in offering the service for multi-family residential customers. In many instances there is not the space for both a dumpster and a recycling cart.

Step #2: Develop the scope of work with stakeholders

The City of Cheney will work with key stakeholders to develop a scope of work for the CROP addressing the specific challenges and opportunities associated with local recycling contamination. Specifically, for the City of Cheney the Public Works sub-Committee (PWSC) which is a subset of City Council will serve as the Solid Waste Advisory Committee. They will be responsible for reviewing the CROP and advising the City with appropriate recommendations.

These stakeholders include:

- SWAC members (Public Works sub-Committee - PWSC)
- Elected officials and key staff from other local governments, including potential regional partners in the same MRF-shed
- Organizations representing homeowners, tenants, and multi-family and business interests
- Material recovery facilities (MRF) and transfer station operators
- End markets for recovered materials
- City of Cheney's Ecology Regional Planner and grant manager
- Non-governmental organizations and community groups
- Regional, statewide, and national organizations that can provide technical assistance and/or financial support.

Step #3: Prioritize the recycling program(s) to focus on first

For the City of Cheney, the following will be our priorities of recycling programs to focus on first.

1. Continue the existing education program (City Newsletters) that educates residents of the City of which items are recyclable and how to minimize cross-contamination (i.e. the used pizza box that should go in the normal waste receptacle and inadvertently ends up in the recycling center.
2. Capitalize on markets that will pay for the products generated by the Cheney recycling center.
3. Identify the products to collecting as part of the recycling program via a cost/disposal analysis.

Step #4: Establish acceptable materials lists

Starting with the highest-priority program(s), the City of Cheney will establish lists of acceptable materials. This effort will be coordinated with the PWSC, MRF operators, collectors, end markets, and other key stakeholders. Criteria for determining the acceptable materials lists may include, but are not limited to:

- Alignment with the SWMP mission and goals, and community values
- Degree of uniformity across local programs, regionally, and statewide
- Diversion potential
- Cost to collect and process relative to other management options
- Strength and long-term viability and stability of end markets
- Environmental, social, and other benefits and costs
- Potential to cross-contaminate or lower the value of other materials
- Potential to cause customer confusion

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and the Department of Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. More harmonization across programs reduces customer confusion and contamination. To that end, they identified these four priority materials for statewide recovery:

- Paper (including office and notebook paper, newspaper, mail, catalogs, magazines, and cereal or cracker boxes)
- Cardboard
- Plastics
- Steel and aluminum cans

The resources and guidelines developed by these organizations to establish their list of priority materials will help guide the development of Cheney's acceptable materials list.

https://www.ezview.wa.gov/site/alias_1962/37664/recycling_contamination_reduction_resources.aspx

<https://apps.ecology.wa.gov/publications/SummaryPages/2007031.html>

Step #5: Define what data to collect to determine baseline levels of recycling contamination

Starting with the highest priority program(s), and based on the review completed in Step 1, the City of Cheney will identify what the acceptable materials are and what is considered contamination to establish a baseline recycling contamination rate. This data will also inform decisions about what, if any, changes to make to the accepted materials list in the future.

The City of Cheney controls the inflow of recyclable products to the Recycling Center. As customers show up the Recycling Center and drop off their recyclable products, the products are "hand" sorted on-site by staff to make sure the recyclable products go into the appropriate bins for further recycling with the appropriate off-site vendor. As part of the "hand" sorting process, "non-appropriate" products are pulled out of the stream as to not contaminate the recyclable product. This is one of the reasons why the City of Cheney does not have curbside recycling.

Step #6: Gather baseline recycling contamination data

Starting with the highest-priority program(s), the City of Cheney will establish baseline levels and types of recycling contamination. Recycling contamination rates can vary significantly across different programs and communities. Nationally, The Recycling Partnership (TRP) estimated an average contamination rate of about 17% across 197 programs that participated in their 2019 State of Curbside Survey. In Washington State, TRP's 2019 survey of seven MRFs found inbound levels of contamination from commingled recycling collection programs ranging from 5%-20% by weight. Recent drop-off programs and cart lid-lift audits in Washington showed rates as high as 40%. For this reason, it is important to gather data on local recycling

contamination levels. In the case of Cheney, we do not have curbside recycling, as having the Recycling Center minimizes the amount of contaminated products in our recycling stream.

In discussions with stakeholders, and building on the information in the State CROP and Ecology's Resource Library, and on the work completed in Step 5, the City of Cheney will identify and develop ways to track specific contaminants. For example, tracking the number of carts containing plastic bags may be a more useful metric than an estimated overall percentage of contamination by volume.

Data collection methods may include, but are not limited to:

- Recycling stream composition studies
- Survey of transfer stations and MRF operators
- Drop box composition studies or visual audits

The City of Cheney controls the inflow of recyclable products at the Recycling Center. Since the recyclables are sorted "on-site" as they are dropped off, any contaminants are immediately pulled out, which makes the recycling stream from the City of Cheney is extremely clean.

Step #7: Identify key contaminants and their costs and impacts

Based on the data collected in Step 6 and collaborating with key stakeholders, the City of Cheney will identify the most problematic and costly contaminants starting with the highest priority program(s). Although the types and impacts of contamination don't vary as much as the levels of contamination across different communities and programs, it is still important to gather locally specific data. This data is critical to designing outreach campaigns and other strategies targeting the most problematic materials. It can also help calculate the economic and other benefits of removing problematic materials from the recycling stream.

In recent surveys, such as the one conducted by the TRP in 2019, MRFs and cities in Washington identified the following recycling contaminants as the most problematic and costly to manage:

- Plastic bags and film
- Tangles including rope, cords, chains, and hoses
- Food and liquids
- Shredded paper
- Bagged garbage
- Non-program plastics including clamshells and polystyrene foam
- Hypodermic needles

These contaminants can:

- Slow down the sorting and processing of materials.
- Reduce the quality and value of secondary material feedstocks.
- Result in costly shutdowns.

- Damage collection, processing, and remanufacturing equipment.
- Cause serious injuries to collection and processing facility staff.

According to TRP, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs:

- 40% for disposal of residuals
- 26% in value lost from contaminated recyclables
- 14% in labor to remove contamination from sorting equipment, etc.

The recycling stream at the Cheney Recycling Center is relatively contaminant free. The biggest challenge in terms of recycling is the recyclables (i.e. glass) that have zero or little aftermarket recyclable value. We also struggle with finding vendors to take the product even at a loss. This means that the rate payers in the City of Cheney are footing the bill for the recyclables that little after market value.

Step #8: Develop and implement education and outreach strategies to reduce contamination

The City of Cheney will develop and implement education and outreach strategies based on best practices. This starts with addressing any inconsistencies in recycling information and messaging identified in Step 1. All new outreach materials and messages will be aligned and consistent across all platforms.

Depending on the type of recycling program, outreach and education strategies may include, but are not limited to:

- Visual, easy-to-understand signage using photos and universal pictures and symbols
- On-site assistance and outreach at drop-off sites
- Up-to-date, and easy-to-find and access websites with clear, consistent messaging
- Social media posts, campaigns, mailings, brochures, and other communications
- Online apps for residents and businesses to get answers to their recycling questions
- Community presentations, tabling, and activities at community events
- School presentations and activities focused on recycling right
- Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences
- Social marketing campaigns to effectively promote long-term behavior change

https://www.ezview.wa.gov/site/alias_1962/37664/recycling_contamination_reduction_resources.aspx

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The City of Cheney will continue with educational outreach on recyclables and contaminants via “Cheney Connections,” the City’s monthly newsletter to the community that comes out in the monthly utility bills to residents.

Step#9: Evaluate the effectiveness of anti-contamination strategies and set next steps

The City of Cheney will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies, and share the results with key stakeholders and the public. These assessments will use, at least in part, the same methodology used in Step 6 to establish baseline contamination levels.

The assessment results inform what is working and what adjustments to make for better results. This includes reducing contamination in other recycling programs that were not a focus during the initial CROP implementation.

The City of Cheney operates and maintains one recycling drop off facility located at 100 Anderson Road. The City of Cheney will continue to have an “attendant” at the Recycling Center to monitor contaminants. This is the most effective way to control the stream of recyclables and to make sure contaminants do not enter the recyclable stream going to the MRF.

Current recycling operations under Covid-19 restrictions:

- The City’s recycling drop-off facility has been moved to the outside with resident disposing their comingled recycling materials at a drive-up designated/separated onsite dumpsters (large bins). An onsite recycling attendant monitors the recycling materials as they are received, and educates residents on recycling products and changes. We are collecting the same materials that we would normally collect during non-Covid times, the difference is in the manner we collect the items from the customer

Recycling operations post Covid-19 restrictions:

- The City’s recycling drop-off facility will move back inside and resume a source separated recycling operation. An onsite attendant monitors the recycling materials as they are received, and educates residents on recycling products and changes.

Step #10: Explore contamination reduction strategies beyond education and outreach

As part of a statewide effort, the City of Cheney will work with Ecology and other partners to explore strategies and solutions beyond education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, enhanced data collection, etc. Based on this evaluation, the City of Cheney will identify and pursue the most promising initiatives.

These options may include, but are not limited to:

- Regional planning and aligned or joint contracting for services to harmonize messaging, lower program costs, and improve program performance.
- Evaluating the costs and benefits of operational changes, including collection frequency, level of source-separation at the curb, and innovative drop-off container designs on contamination levels and overall program performance.
- Product bans or restrictions.
- Strengthening contracts with haulers and MRFs to include provisions focused on reducing contamination, collecting and reporting data on program performance, and ensuring materials on the accepted materials list are responsibly recycled. Consult The Recycling Partnership's BMPs for MRF contracting and their supporting materials for guidance.

Ensure alignment of the CROP and SWMP and secure and allocate funding to implement the CROP:

This work will occur throughout the process as needed. Updates to the CROP can occur during SWMP revisions, including the required five-year revision process.

This work includes involving key stakeholders in reviewing, and if necessary, updating related elements in the SWMP to ensure they are aligned and consistent with the contents of the CROP and implementation work. This information may include, but is not limited to:

- Designated recyclables list
- Recycling facilities including transfer stations, drop-off sites, and MRFs
- Recycling collection services and providers, and collection systems and fees
- Waste reduction and recycling education and outreach strategies
- Funding sources and mechanisms for recycling programs and services

During this process, the City of Cheney will also work with Ecology and other key stakeholders to identify and secure new and/or allocate existing funding, and forge partnerships with agencies and organizations to provide technical and financial assistance.

The State CROP and Ecology's Resource Library are tools to get started on implementing the CROP. The library includes contamination reduction best management practices, contracting guides, MRF-shed maps, materials from successful programs in Washington State and across the country, and more.

An initial 3-year implementation schedule for all ten steps in the CROP is included below. As The City of Cheney clarifies and defines the scope of work, and identifies the resources to complete the work, a more detailed and refined implementation plan, schedule and budget will be developed.

CROP Implementation Schedule

Year 1 (2021)

- Educate the general public on appropriate recyclables in the City Newsletter (monthly)
- Inventory of current recycling collection services and programs
- Develop the scope of work with stakeholders
- Prioritize the recycling program(s) to focus on first
- Establish acceptable materials list

Year 2 (2022)

- Educate the general public on appropriate recyclables in the City Newsletter (monthly)
- Define what data to collect to determine baseline levels of recycling contamination.
- Gather baseline recycling contamination data
- Identify key contaminants and their costs and impacts

Year 3 (2023)

- Educate the general public on appropriate recyclables in the City Newsletter (monthly)
- Develop and implement education and outreach strategies to reduce contamination
- Evaluate the effectiveness of anti-contamination strategies and set next steps
- Explore contamination reduction strategies beyond education and outreach

Ensure alignment of the CROP and SWMP and identify and secure or allocate funding to implement the CROP – These are steps that will be addressed throughout the process as needed.