

REGIONAL DISTRICT OF KOOTENAY BOUNDARY
SOLID WASTE MANAGEMENT PLAN UPDATE

PTAC MEETING 1
CURRENT SYSTEM AND PLAN DIRECTION

Prepared by Sperling Hansen Associates Inc.

February 19, 2025

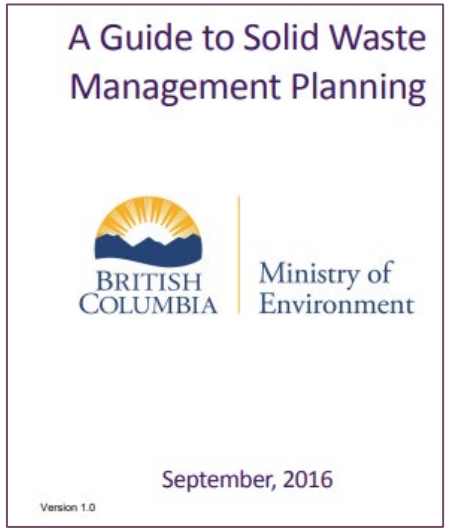
PROJECT OUTLINE AND PLANNING PROCESS

1. Initiate the Planning Process (COMPLETE)
2. Set the Plan Direction
3. Evaluate Options
4. Prepare and Adopt the Plan

→ Prepare TM-1: SWMP Status Overview and Plan Direction
PTAC Meeting 1
Public Consultation – Initial Input to Develop Long List of Strategies

B.C. GUIDE TO SWMP PREPARATION

The 2016 Guide to Solid Waste Management Planning provides guidance for this project, including the waste hierarchy



Provincial Guiding Principles can be reviewed in TM1 or at this link:

https://www2.gov.bc.ca/assets/gov/environment/waste-management/garbage/swmp.pdf



RDKB PRINCIPLES FROM THE 2005 SWMP

The 2005 SWMP set out 5 guiding principles for waste management in the RDKB:

1. Consumption of material and energy resources shall be minimized.
2. The regional solid waste stream shall be reduced to the extent practically possible, and consistent with local resources and desire for implementation.
3. Pollution of the environment through solid waste disposal or treatment shall be eliminated or reduced to the degree possible without imparting undue hardship on local communities and resources.
4. User-pay and market-based incentives shall put preference on waste reduction. Individuals and businesses shall have access to information enabling them to make sound choices about waste generation and disposal.
5. Reduction, recycling collection, and disposal policies and strategies shall be developed through public consultation and must be socially acceptable, cost effective, and based on full cost accounting.

RDKB GOALS FROM THE 2005 SWMP

1. Develop a 20-year plan establishing an economically and technically feasible program to recover resources and manage solid waste that is both environmentally safe and acceptable to the public.
2. Maximize potential for implementing the waste hierarchy – reduce, reuse, recycle, recover, and residual management.
3. Enable all generators of waste in the RDKB to move towards the goal of Zero Waste.
    - 60% diversion by 2010, 80% by 2015, and 100% by 2020.
4. Coordinate and cooperate with neighbouring regional districts to increase resource recovery and improve solid waste management.
5. Develop and promote partnerships with senior levels of government by acknowledging a shared responsibility in the protection and enhancement of the environment.
6. Promote and encourage adoption of the 'extended producer responsibility' model for all waste management activities in British Columbia.
7. Work cooperatively with all communities in the Regional District of Kootenay Boundary to the extent possible, to achieve the goals of the plan.

PROVINCIAL TARGETS

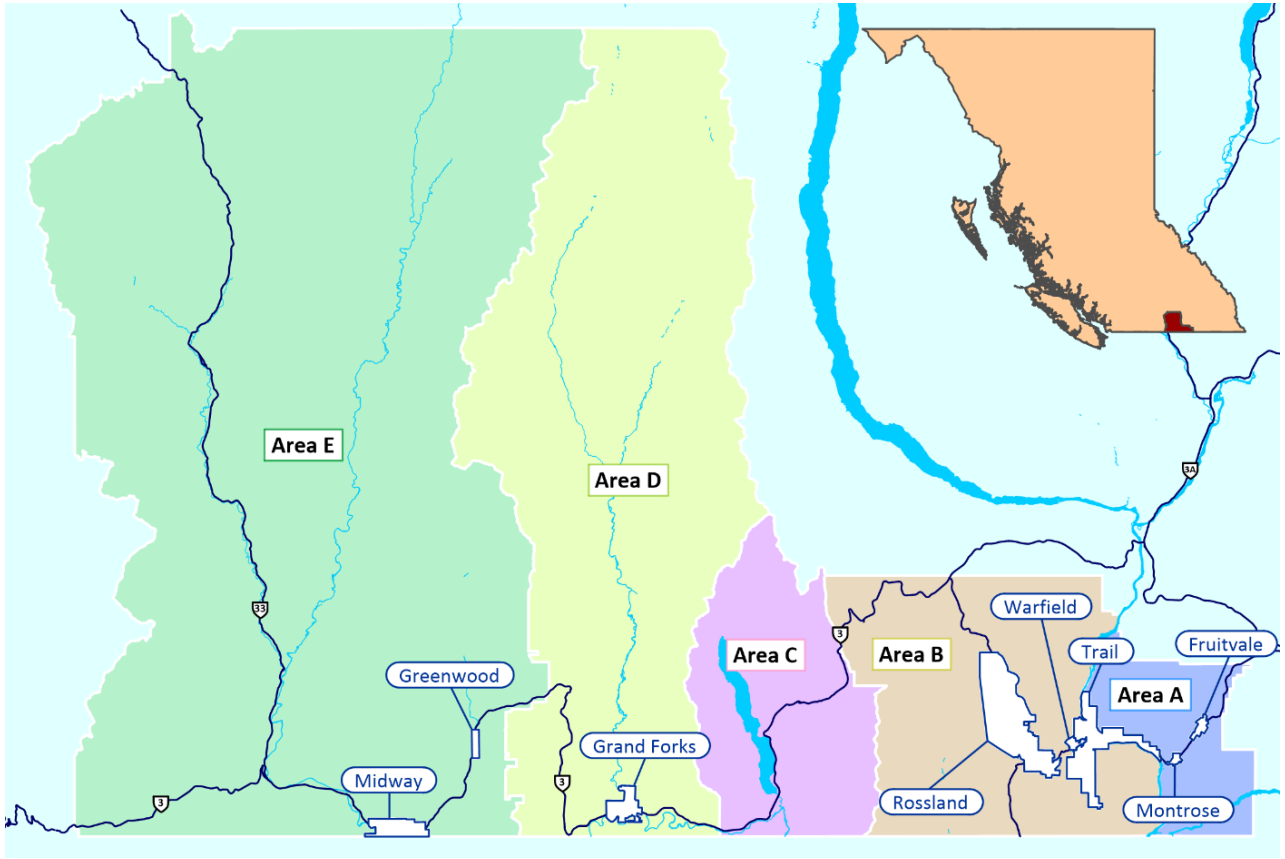
- The BC Ministry of Environment and Parks has established provincial solid waste management targets, adjusted to reflect current realities and public expectations.

  - The RDKB had a disposal rate in 2024 of approximately **478 kg/person**, just below the provincial forecast.

Year	Per Capita MSW Disposal (kg/person)
2021/22 Baseline	506
2024/25 Forecast	480
2025/26 Target	470
2026/27 Target	460
2027/28 Target	450

BRITISH COLUMBIA | Ministry of Environment and Parks

BACKGROUND INFORMATION



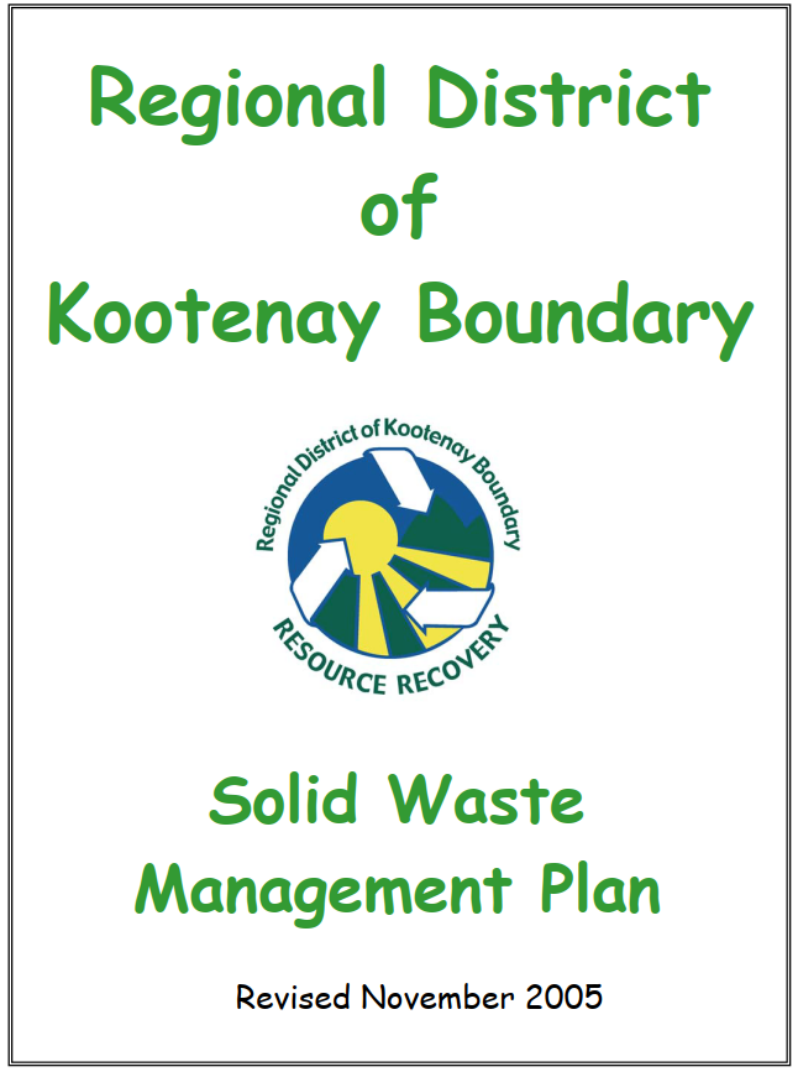
- 5 electoral areas and 8 municipalities
- 2024 population estimate: **33,647** full time residents with Christina Lake and Big White additional seasonal - **7,920**
- Statistics BC projection: remain relatively stable with a slight decline over 10 yrs
  - waste generation could remain stable - not accounting for additional recycling and mindset changes
- No First Nations communities - 13 may have interest

2005 SWMP STATUS

- 59 different strategies categorized as in progress (3), not started (4), ongoing (33), completed (16), or abandoned (3).
- Ongoing and completed strategies: have been started and finished or have been started but have no definitive end

In Progress

- The RDKB will separate all construction/demolition/renovation wood waste for chipping and composting with sewage sludge at the McKelvey Creek and Grand Forks Landfill sites.
- The RDKB shall convert to a transfer station or close the landfills at Rock Creek, Midway, and Christina Lake, when operationally mandatory or financially feasible.
- The RDKB shall monitor the closed landfill sites at Rock Creek, Beaverdell, Midway, and Christina Lake in compliance with the BC Landfill Criteria for Municipal Solid Waste and/or the Regional Manager's directives.



2005 SWMP STATUS CONT'D

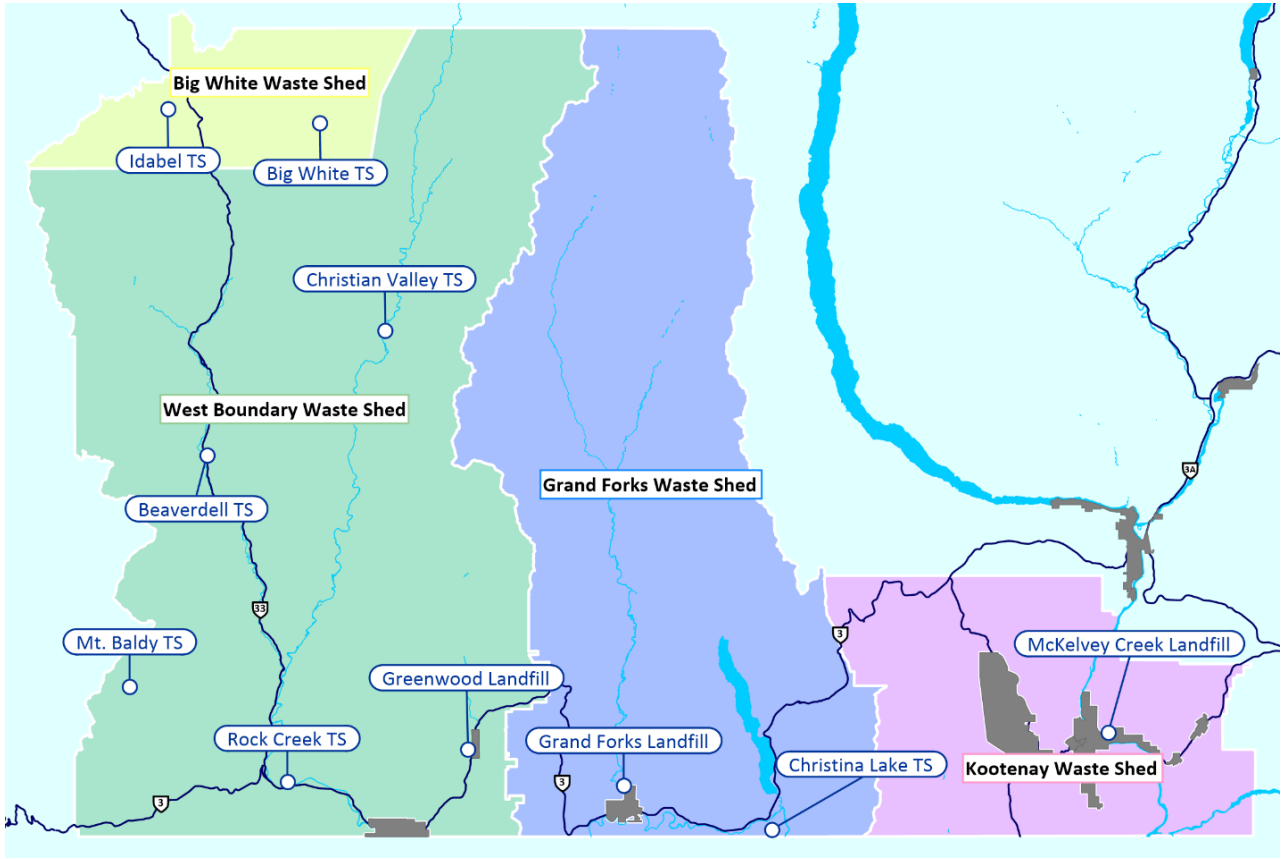
Not Started

- The RDKB shall encourage and support the use of the BC Materials exchange, the Pacific Materials Exchange, the Industrial Materials Exchange, and other similar organizations.
- The RDKB may provide residential recycling opportunities for specific products not yet covered by EPR programs if there is a demonstrated need.
- The RDKB shall encourage member municipalities to adopt recycled product procurement policies similar to that of the RDKB.
- The RDKB shall consider and review co-generation [energy] opportunities.

Abandoned

- The RDKB may make funds available to private groups or individuals to promote or implement waste reduction initiatives and/or to educate the public on how to reduce waste.
- The RDKB will make reusable materials salvaged at it's residual management facilities available to the general public and may charge a nominal fee.
- The RDKB shall encourage backyard composting. If a need is identified for further backyard composters in the Region, the RDKB may make these available to its residents at cost.

RDKB FACILITIES AND WASTE SHEDS



10 RDKB Facilities:

- 3 landfills, 4 staffed transfer stations, 3 unattended transfer stations

4 different 'waste sheds':

- **Kootenay Waste Shed**: Greater Trail - waste to McKelvey Creek Landfill
- **Grand Forks Waste Shed**: Grand Forks and Christina Lake area - waste to Grand Forks Landfill
- **West Boundary Waste Shed**: Electoral Area E – waste to West Boundary (Greenwood) Landfill
- **Big White Waste Shed**: Big White resort area and Idabel Lake - waste to Glenmore Landfill in Kelowna

RDKB RESIDUAL CAPACITY

Landfills Lifespan (2025 Financial Reports)

- Grand Forks Landfill – 2037*
- McKelvey Creek Landfill – 2073
- West Boundary (Greenwood) Landfill – 2061

- Prudent to consider long term planning for residuals management during SWMP update
- Consider closure of Midway Landfill in SWMP update



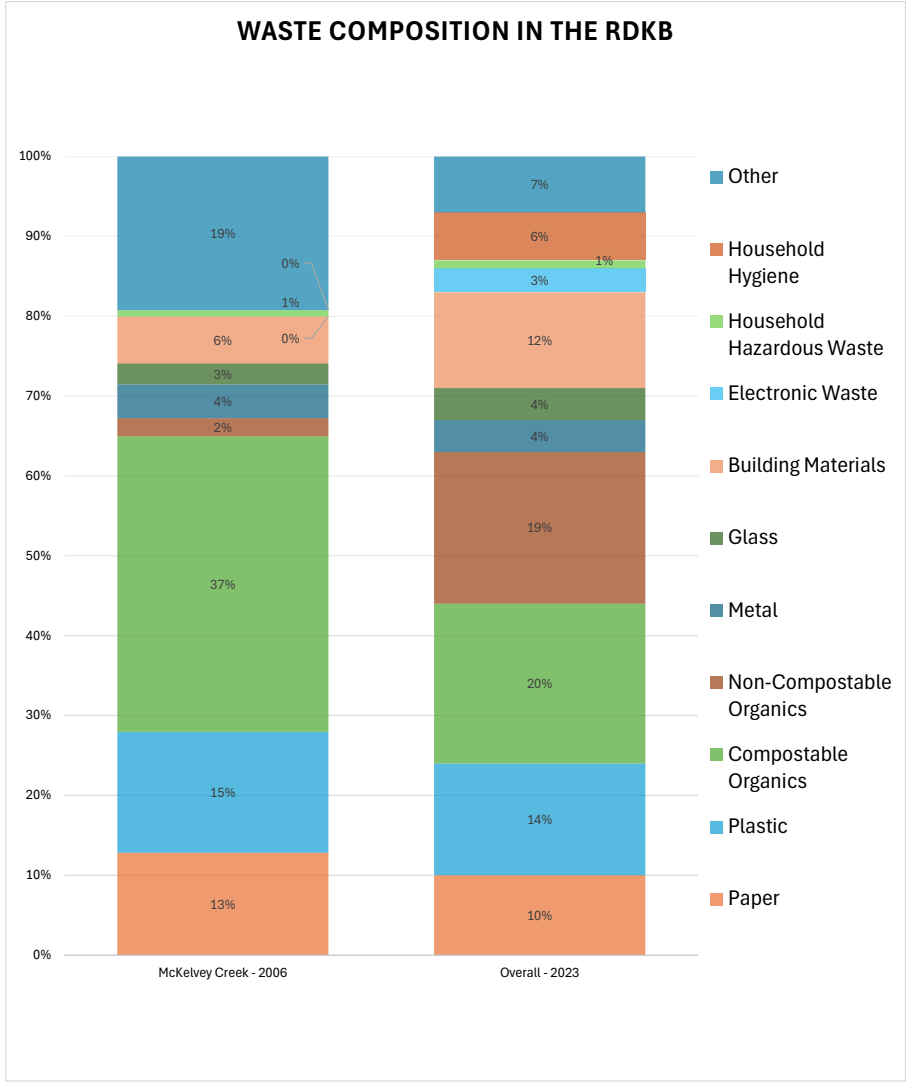
WASTE COMPOSITION

Conducted in 2006 and one more recently in 2023/24 to assess diversion opportunities

- much less compostable organics within the waste, while non-compostable organics have increased
  - Compostable: food waste, food soiled paper, and yard & garden waste
  - Non-compostable: treated wood, textiles, and other items (eg. broom handles, candles, or wooden toys)

In 2023, diversion potential was around 70%, including:

- Drop-off materials including treated wood, building materials, and bulky objects (furniture, mattresses)
- Compostable materials
- Recyclable materials such as packaging (rigid plastic and paper), recyclable glass containers, and recyclable plastic film
- Product stewardship materials covered under EPR programs



WASTE COMPOSITION BY SECTOR AND STATUS

- Steps already taken to increase diversion of compostable organics through food waste collection and composting program expansion
- Plastics and recyclables collection increased through education and expanding access to recycling services



RECYCLEBC™

- Residential Drop Off
  - Building Materials (17%)
  - Compostable Organics (16%)
  - Non-Compostable Organics (15%)
  - Plastic (12%)
- Single Family
  - Compostable Organics (30%)
  - Paper (16%)
  - Household Hygiene (16%)
  - Plastic (14%)
  - Non-Compostable Organics (13%)
- Industrial, Commercial, and Institutional
  - Compostable Organics (32%)
  - Plastic (19%)
  - Paper (17%)
  - Non-Compostable Organics (15%)
- Commercial Drop-Off
  - Non-Compostable Organics (34%)
  - Building Materials (28%)
  - Other Materials (19%, mainly bulky objects)
  - Plastic (12%)

EXISTING DIVERSION STRATEGIES

Composting of food waste and yard & garden waste

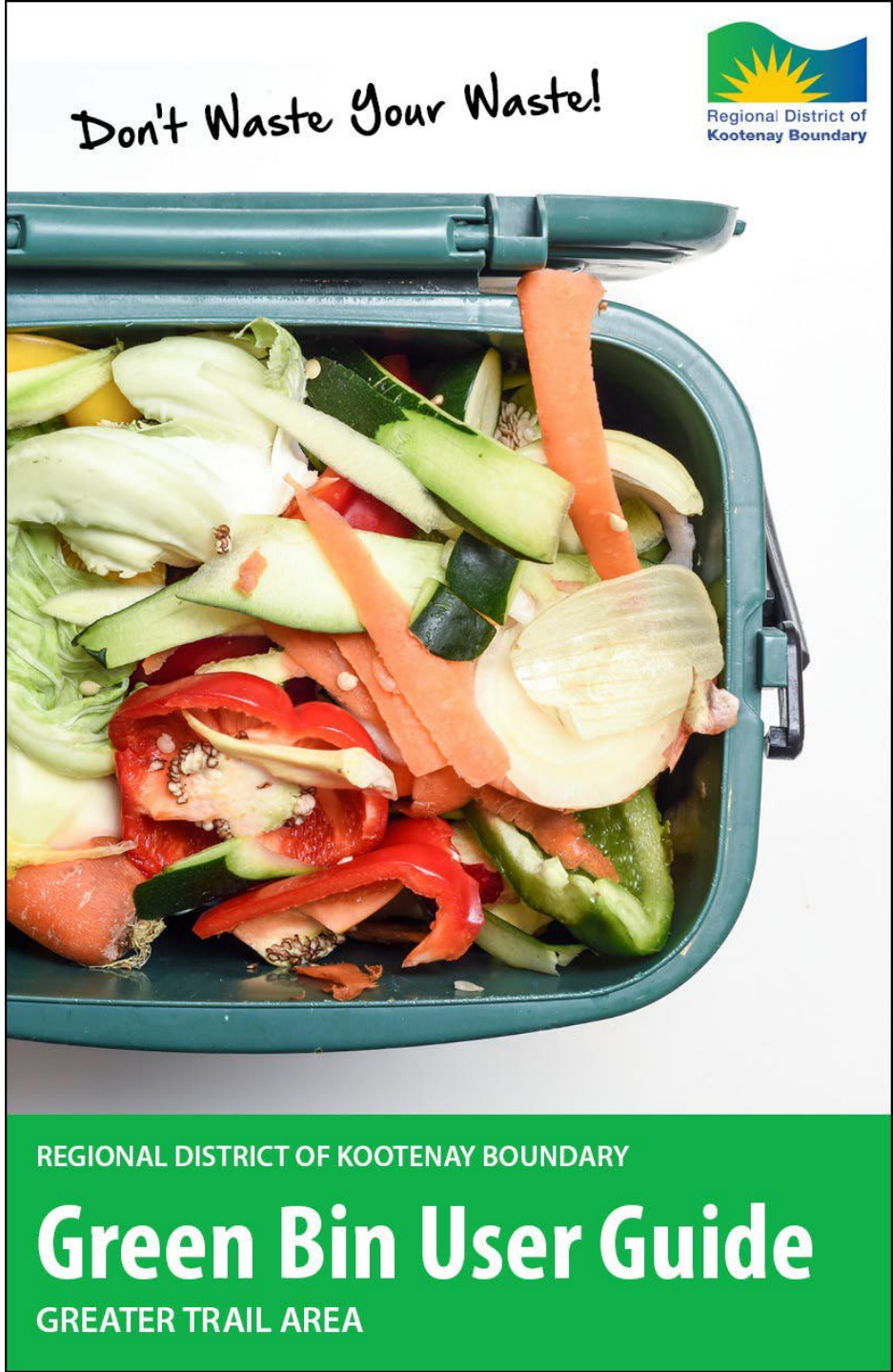
- curbside collection program expanded in 2023 to include the Greater Trail area
- Yard and garden waste composted at Grand Forks Landfill
- Food waste from Greater Trail sent to the Regional District of Central Kootenay's compost facility in Salmo

Participation in Extended Produce Responsibility (EPR) programs

- Several facilities serve as drop-off locations for these items including large appliances, tires, and other EPR items

Diversion of other waste

- Metal is collected at RDKB facilities and recycled
- Propane tanks are collected at RDKB facilities and recycled



STEWARDSHIP (EPR) PROGRAMS

- Producers from a sector often join together to form non-profit organizations that take responsibility for the end-of-life management of their products
- Set up to run at no cost to the RDKB, however, up to 4% of the overall waste stream still includes EPR items
- Mattresses were intended to be added to the program in 2025, however the province has delayed this implementation
  - ➢ Since 2010, the RDKB has collected (and landfilled) an average of 543 mattresses each year, which take up a significant amount of landfill airspace.

Items covered under EPR programs in BC include:

- Tires
- Electronics
- Smoke and Carbon Monoxide Alarms
- Packaging and Paper Products
- Outdoor Power Equipment
- Large Appliances
- Ready-to-Drink Beverage Containers (alcoholic and non-alcoholic)
- Batteries
- Used Oil, Antifreeze, and Containers
- Thermostats
- Pharmaceuticals
- Paint, Aerosols, Pesticides, and Containers
- Lighting Equipment

CURBSIDE COLLECTION SERVICES

Curbside collection in the RDKB:

- Garbage and food waste is collected at the curb on a weekly basis in the municipalities and electoral areas
- RecycleBC collects blue bin recycling (paper, cardboard, and assorted containers) on a bi-weekly basis
  - ➢ RecycleBC collects glass only in the Kootenay wasteshed
- Some of the municipalities also offer seasonal curbside collection of yard & garden waste

Curbside collection is offered to approximately 95% of households supplemented with drop off locations at solid waste facilities and recycling depots throughout the region



FINANCIAL CHANGES IN THE LAST DECADE

Expenses are increasing due to regulatory requirements and new programs to increase waste diversion

- These costs are covered through taxation, tipping fees, and capital reserves
- Taxes did not increase from 2014 to 2019, after which they increased each year
- Tipping fees have also increased, but income from tipping fees varies widely depending on the amount of waste received at RDKB facilities

Green bin (food waste diversion) curbside collection program, supported by a grant through the CleanBC Organics Infrastructure Program

Received a CleanBC Organics Infrastructure Program grant for the Grand Forks Composting Facility

Year	Taxation	Increase
2014	$1,255,457	0%
2015	$1,255,457	0%
2016	$1,255,457	0%
2017	$1,255,457	0%
2018	$1,255,457	0%
2019	$1,310,420	4%
2020	$1,402,108	7%
2021	$1,428,775	2%
2022	$1,566,955	10%
2023	$1,920,810	23%
2024	$2,308,154	20%

FINANCIAL CHANGES IN THE LAST DECADE, CONT'D

Increased services include:

- 2012/2013 – The RDKB completed a financial assessment of closure and post-closure costs for landfills and was required to establish/contribute to a substantial reserve fund
- 2013 – Grand Forks composting facility established
- 2022 – Expanded the West Boundary green bin program to include households in Greenwood - about 5,900 households
- 2023 – Expanded the green bin program to approximately 8,300 households in the McKelvey Creek waste shed, supported by a grant through the CleanBC Organics Infrastructure Program

SUMMARY

- The RDKB has done very well with curbside collection program availability (95% of households covered)
- Waste disposed in the RDKB is just below the provincial forecast for 2024.
- Many of the strategies in the 2005 SWMP have been implemented in the Region, while others have been abandoned or not started due to lack of funding or changes in the solid waste management system (regional and provincial).
- Waste composition studies have shown that organics (compostable and non-compostable), plastics, and paper are the largest categories of waste deposited within the RDKB.
- The RDKB has ample residual management room (landfill airspace), but future planning is recommended.
- Increased programs and regulatory requirements have continued to increase costs to operate the solid waste system.



NEXT STEPS

1. Adopt TM-1 as final –draft circulated before this meeting

2. Undertake public consultation and engagement which begins with Survey #1 to help develop a long list of solid waste management strategies
   - ➢ PTAC to contribute to long list of ideas

Next meeting: July 2026

