



MORRISON HERSHFIELD

Potential Waste Prevention and Diversion Strategies for Residential and ICI Sectors

Presentation to PTAC on October 24, 2023

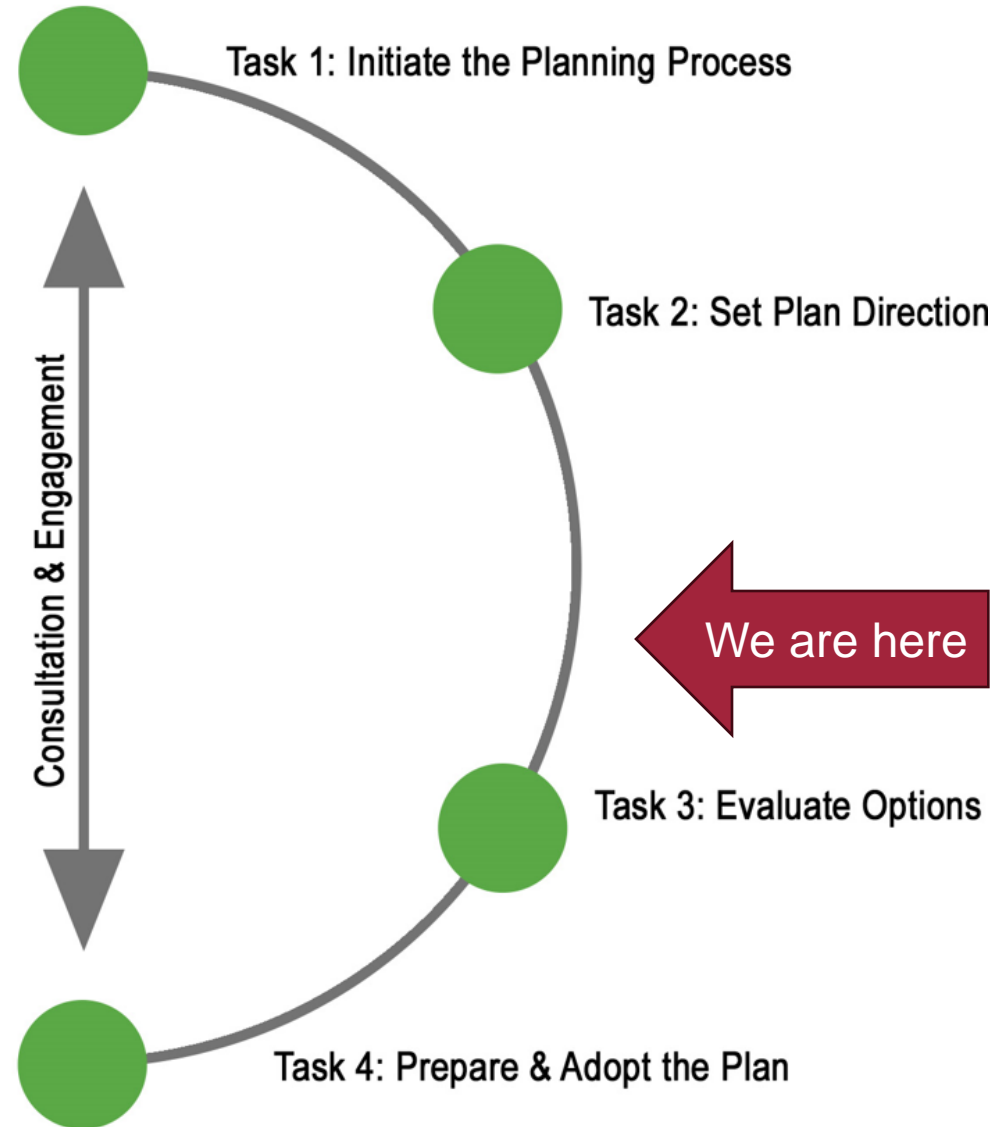


Meeting Outline

- Plan process and context (10 min)
- Six potential waste prevention and diversion strategies (80 min)
 - Brief discussion on each
- Potential impacts from strategies (5 min)
- Next steps (5 min)



Where We Are At

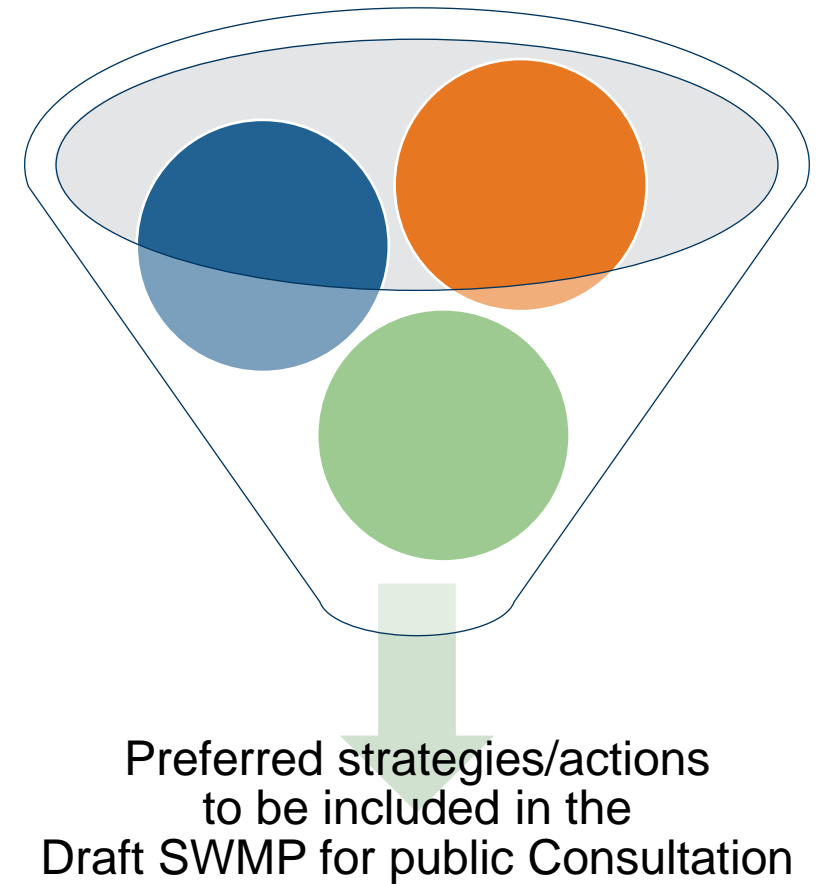


Meeting Purpose

- Outline possible key waste prevention and diversion strategies and potential impacts
- Narrow down these strategies which will form the preferred strategies and actions for the Plan

After Meeting:

Follow-up survey to gauge your priorities and any additional feedback



Overview of Services



Curbside Collection

- SCRD (food waste & garbage) in areas B,D,E,F
- Town of Gibsons (food waste & garbage)
- District of Sechelt (recycling, organics & garbage)
- shíshálh Nation Government District (recycling, organics & garbage)



Organics Drop-Off

- Pender Harbour Transfer Station
- Sechelt - Salish Soils
- Gibsons - South Coast Residential Green Waste (no food waste or ICI organics)

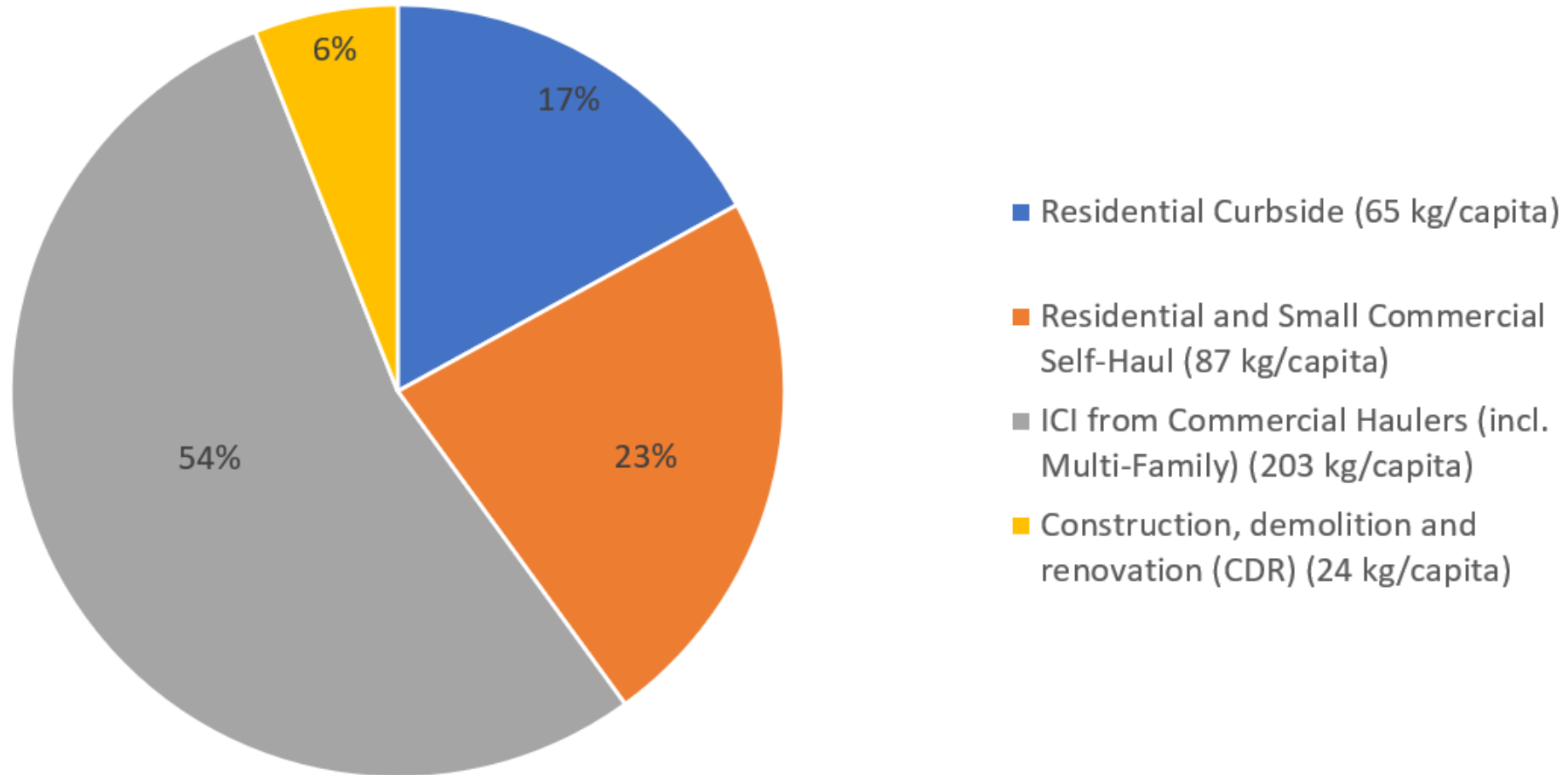


Residential Recycling Drop-off

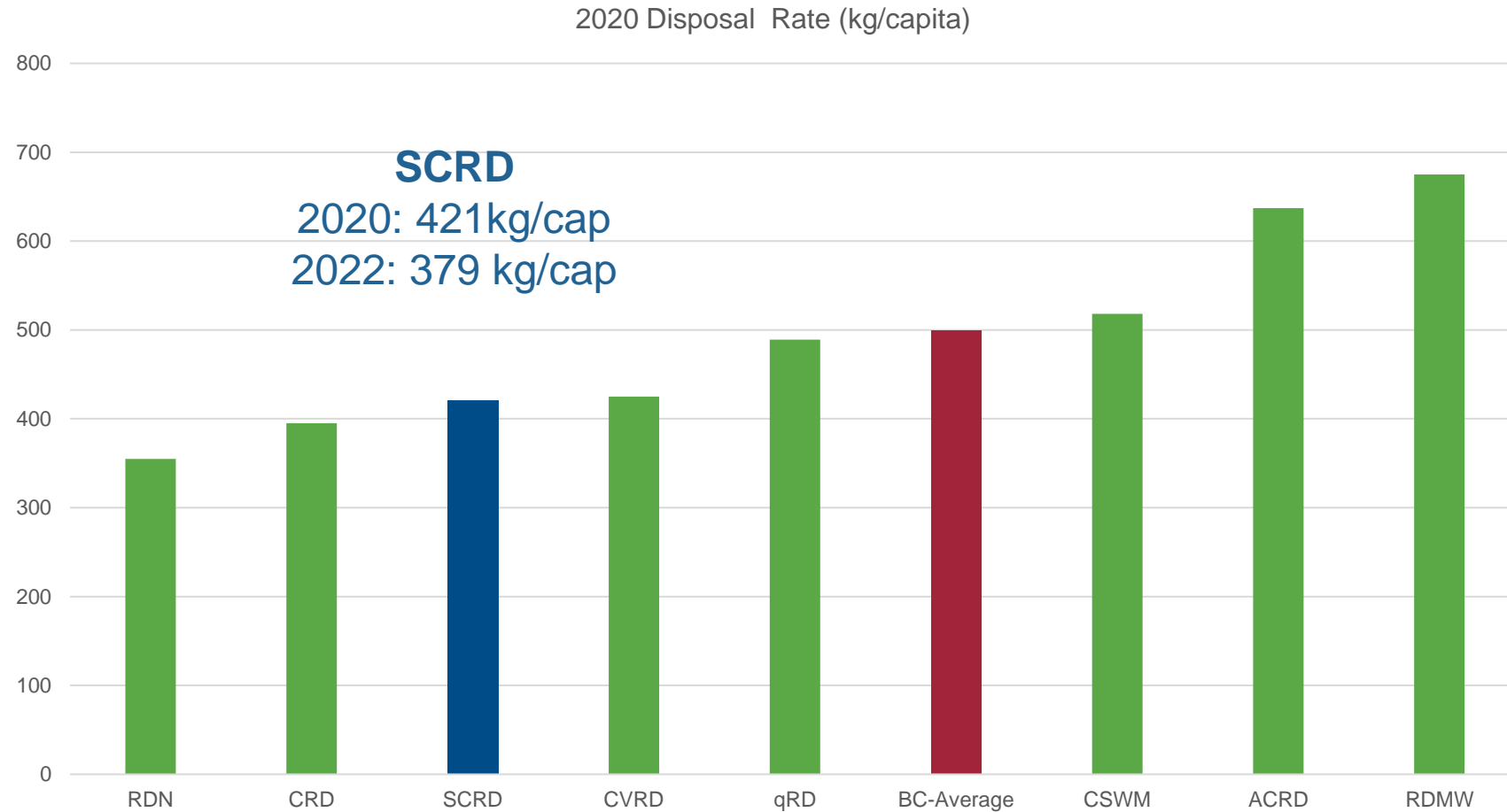
- Gibsons - Gibsons Recycling
- Sechelt - Salish Soils
- Pender Harbour – GRIPS

Where is Our Waste Coming From?

Sectors Contributing to the SCRD's 2022 Disposal rate (379 kg/capita)

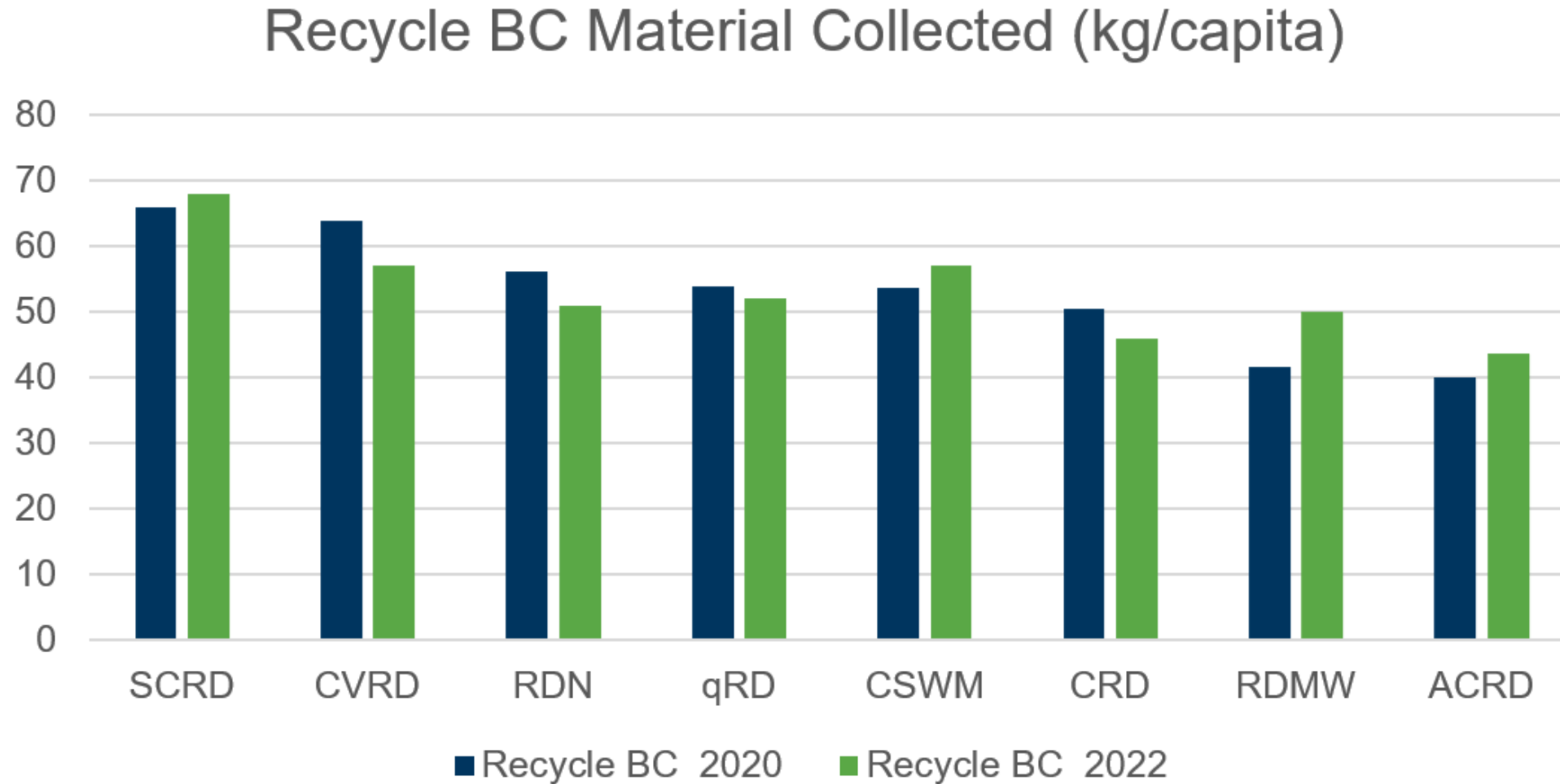


Comparison to Neighbouring Regions



Disposal Rate by Regional District (2020 performance)

Comparison to Neighbouring Regions



Overview of Potential Waste Prevention and Diversion Strategies

- 1 Improve Regulatory Requirements to Enhance Waste Diversion 25 min
- 2 Improve Access to Residential Curbside Recycling Collection 15 min
- 3 Improve Waste Diversion Opportunities for Residents 10 min
- 4 Provide More Waste Reduction, Reuse, and Repair Opportunities 10 min
- 5 Lobby for Better and More Provincial Product Stewardship Programs 10 min
- 6 Improve Waste Diversion Through Education and Enforcement 10 min

Potential Waste Prevention and Diversion Strategies

Strategy 1: Improve Regulatory Requirements to Enhance Waste Diversion

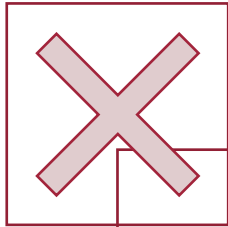
- Options Under Local Service Regulatory Bylaws
 - 1A: Ban materials from disposal rather than variable tipping fees and
 - 1B: Harmonize waste collection bylaws to effectively encourage waste diversion across the Region
- Options Under the Environmental Management Act
 - 1C: Implement Waste Stream Management Licensing
 - 1D: Implement Mandatory Waste Sorting
 - 1E: Implement Waste Hauler Licensing

Sanitary Landfill Site Bylaw 405

- Interpretation/Definitions
- Establishment of Sanitary Landfill Sites
- Operations
- Materials Prohibited and Permitted On-Site
- Landfill Site Fees
- Insecure And/Uncovered Loads
- Offence
- Penalty
- Severability
- Citation
- Effective Date

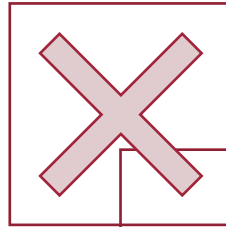


Bylaw 405 Materials Prohibited On-Site



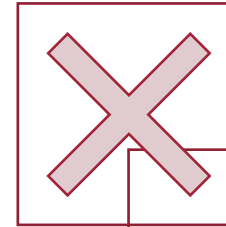
Prohibited from Disposal

- Hazardous wastes
- Explosive substances
- Chemicals which may create hazardous working conditions
- Combustible materials
- Waste oil or petroleum by-products
- Biomedical waste
- Gypsum board potentially contaminated with asbestos



Prohibited from Disposal

- Stumps
- Land clearing debris
- Lumber, timber, logs, etc. (>3.5 m)
- Lumber, demolition materials, and timber (> 0.25 m²)



Prohibited from Disposal

- Batteries
- Fish feed bags
- Undigested septage/sludge
- Paints and paint products except those delivered to Paint Care Depot at landfill site
- Boats and recreational vehicles containing liquids or recyclables including drivetrain and frame

Bylaw 405 Materials Permitted On-Site

“Municipal Solid Waste” means waste that is acceptable for deposit and disposal at the landfill sites which originates from residential, commercial, institutional, demolition, land clearing or construction sources but does not include prohibited waste (materials that cannot be disposed of at the landfill sites)

“Controlled Waste” means municipal solid waste requiring special handling at the landfill site and includes but is not limited to waste asbestos, asbestos cement, dead animals, boats, recreational vehicles, tires filled with foam, and the following construction/demolition wastes: roofing, waste wood, asphalt, concrete, dirt and rocks, acceptable gypsum, vermiculite, vinyl floor tile, sheet vinyl flooring with paper backing, ceiling tiles, textured ceiling, stucco and cement panels

“Recyclable Materials” means all source separated items, such as scrap metal, tires, hot water tanks, MARR appliances, yard and garden waste, gypsum wallboard, mattresses, cardboard, food waste, food soiled paper, paper and other materials accepted at the drop off area excluding municipal solid waste

“Source Separated Waste” means municipal solid waste, recyclable materials and controlled waste that arrives at the landfill sites and which is separated by means of barriers or placement into clearly distinguishable accumulations

“Non-Separated Waste” means waste that arrives at the landfill sites that is not separated into clearly distinguishable accumulations of recyclable materials, controlled waste or municipal solid waste

- Variable tipping fees to encourage diversion
- Five additional categories
- Higher tipping fees for Non-Separated Waste

1: Improve Regulatory Requirements to Enhance Waste Diversion

- Options Under Local Service Regulatory Bylaws

1A: Ban materials from disposal rather than variable tipping fees

1B: Harmonize waste collection bylaws to effectively encourage waste diversion across the Region

1A: Ban Materials From Disposal Rather Than Variable Tipping Fees

Example Regional District of Nanaimo's Bans

Recyclable Materials

- Commercial Organic Waste
- Compressed Gas Containers
- Corrugated Cardboard
- Garden Waste
- Gypsum
- Metal
- Recyclable Paper
- Recyclable Plastic Containers
- Stewardship Materials
- Wood Waste
- Tires

Prohibited Waste

- Biomedical Waste
- Clean Soil
- Concrete
- Gypsum
- Hazardous Waste
- Land Clearing Waste
- Liquids
- Motor vehicle bodies
- Organic Waste
- Recyclable Material in roll-off bins

Surcharge

- MSW containing Recyclable Materials or Prohibited Waste 0-50 kg - \$5 per load
- MSW containing Recyclable Materials or Prohibited Waste 50K or greater (20% surcharge)

1A: Ban Materials From Disposal Rather Than Variable Tipping Fees

Example Regional District of Central Kootenay Restrictions

- Recyclable Materials may only be deposited at:
 - An area designated for the Deposit of the material at the Landfill or Transfer Station
 - A resource recovery facility where a Product Stewardship Depot has been established
 - At an area designated for deposit at a Recycling Depot or Recycling Area
- Double the fee for mixed waste loads containing recyclables

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SCHEDULE B TO BYLAW NO. 2891: RECYCLABLE MATERIALS

- a. Accepted for Deposit at Landfills and Transfer Stations:
 - 1. ODS Containing Products
 - 2. Scrap Metal
 - 3. Wood Waste
 - 4. Yard and Garden Waste
 - 5. Propane Tanks
- b. Accepted for Deposit at Product Stewardship Depots, where they exist:
 - 1. Antifreeze
 - 2. Beverage containers
 - 3. Electronic and electrical products
 - 4. Fluorescent tubes and bulbs
 - 5. Gasoline
 - 6. Lead-acid Batteries
 - 7. Packaging and Printed Paper as defined in the Recycling Regulation
 - 8. Paint Products
 - 9. Pesticide Products
 - 10. Pharmaceutical Products
 - 11. Rechargeable Batteries
 - 12. Solvents and Flammable Liquids
 - 13. Tires as defined in the Recycling Regulation
 - 14. Used Oil
 - 15. Used Oil Containers
 - 16. Used Oil Filters
 - 17. Other designated product categories established by the Recycling Regulation
- c. Accepted for Deposit at Recycling Areas and Recycling Depots, where they exist:
 - 1. Glass Containers
 - 2. Metal Containers
 - 3. Mixed Waste Paper
 - 4. Old Corrugated Cardboard
 - 5. Plastic Bags and Overwrap
 - 6. Other Flexible Plastic Packaging
 - 7. Foam Packaging
 - 8. Other Recyclable Containers
 - 9. Plastic Containers #1 - #7

1B: Harmonize Waste Collection Bylaws to Effectively Encourage Waste Diversion

Example Collection Bylaws – Cowichan Valley Regional District & Town of Gibsons



GARBAGE

YES these materials belong in the garbage.



PERSONAL HYGIENE WASTE



HOUSEHOLD GARBAGE



BROKEN, IRREPARABLE, UN-DONATABLE ITEMS



BIODEGRADABLE & COMPOSTABLE PLASTIC PACKAGING



MIXED-MATERIALS PACKAGING



HARD PLASTICS



GLASS & CERAMIC PRODUCTS

NO liquids, curbside recyclables, metal, batteries, appliances, electronics, lightbulbs, or household hazardous waste.
Take these materials to a Recycling Centre.



COLLECTIBLE GARBAGE

shall mean garbage capable of being contained in a Wildlife Resistant Container, but shall not include the following: collectible organics, recyclable materials as mandated by RecycleBC including beverage containers, packaging and printed paper, cardboard, aluminum cans, grass cuttings, tree or hedge clippings or other garden refuse, rocks, gravel or soil, any hazardous material (including pathogenic and radioactive wastes), paints, solvents, pesticides and gasoline, used oil and antifreeze, pharmaceuticals, tires, lumber, demolition materials, batteries and undigested septic sludge;

COLLECTIBLE ORGANICS

means kitchen waste that is compostable and includes egg shells, bones, tea bags, coffee grounds, paper, filters, dairy products (butter, cheese) fruits, vegetables, (no packaging) breads, pasta, cakes, biscuits, paper towels, napkins, paper plates, paper cups, pizza boxes, food soiled cardboard;



1: Improve Regulatory Requirements to Enhance Waste Diversion

Options Under the Environmental Management Act

1C: Implement Waste Stream Management Licensing

1D: Implement Mandatory Waste Sorting

1E: Implement Waste Hauler Licensing

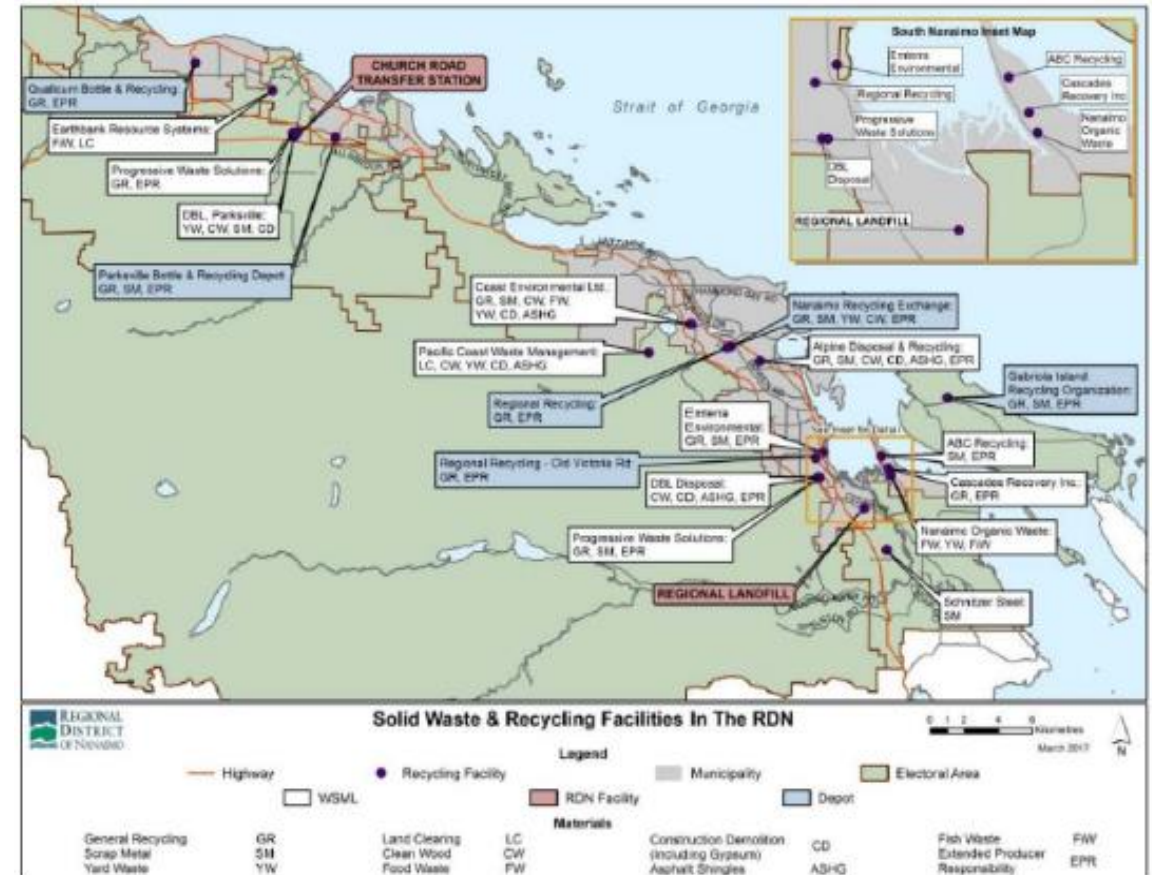
Regional District of Nanaimo:
Solid Waste Management Plan
Planning for the Future of Our Waste



1C: Implement Waste Stream Management Licensing

Example Regional District of Nanaimo

- Ensure diversion and support circular economy
- Prevent abandonment of waste
- Track movement of waste
- Establish administrative and operating requirements
- Encourage private sector investment (level playing field)



1D: Implement Mandatory Waste Sorting

Example Regional District of Nanaimo's Mandatory Waste Source Separation Regulation

- Requires all existing and new commercial, institutional and industrial businesses to have separate containers for recyclables, organics and waste



1E: Implement Waste Hauler Licensing

Example Regional District of Nanaimo's Waste Hauler Licensing

- Requires businesses that haul waste for profit to obtain a license
- Allows RDN to change existing financial model to one where waste industry is more profitable if they divert waste
- Promotes “business of diversion” and foster industry innovation to achieve lowest system cost with highest diversion



Comment/ Questions on Strategy 1

Strategy 1: Improve Regulatory Requirements to Enhance Waste Diversion

1A: Ban materials from disposal rather than variable tipping fees

1B: Harmonize waste collection bylaws to effectively encourage waste diversion across the Region

1C: Implement Waste Stream Management Licensing

1D: Implement Mandatory Waste Sorting

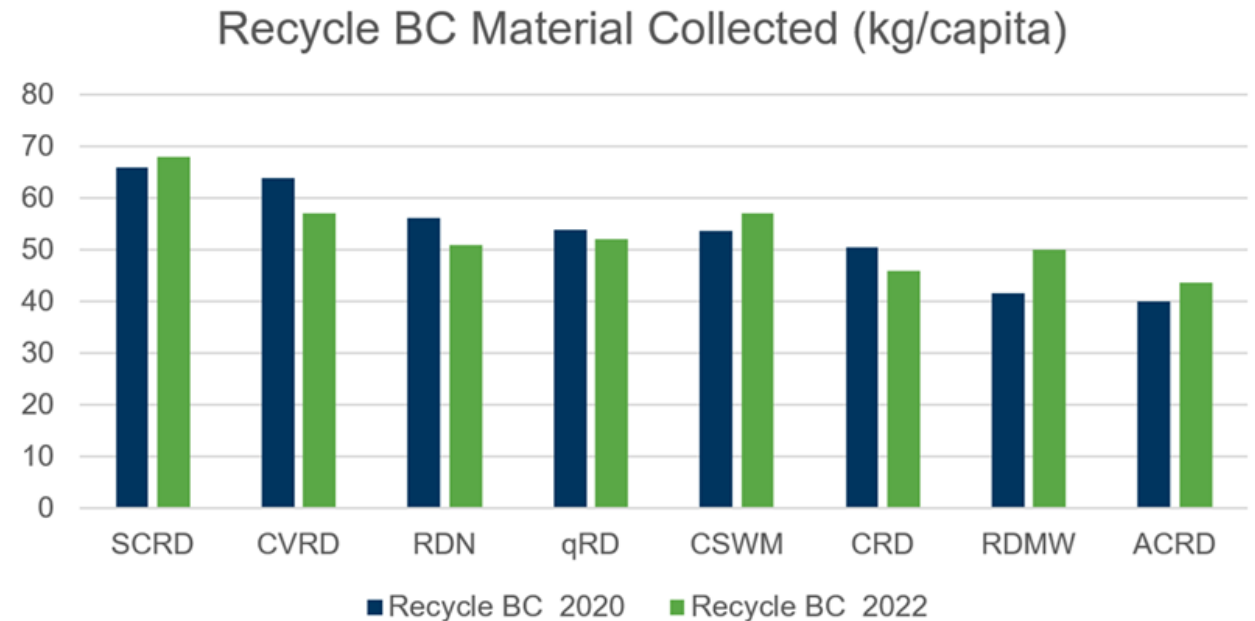
1E: Implement Waste Hauler Licensing



Potential Waste Prevention and Diversion Strategies

Strategy 2: Improve Access to Residential Curbside Recycling Collection

2A: Re-assess curbside recycling costs and provide better access to curbside recycling collection, if deemed desirable by residents



2A: Re-assess Curbside Recycling Costs and Provide Better Access

Area	Recycling	Yard Waste	Food Waste	Garbage
District of Sechelt	Bi-weekly	Weekly	Weekly	Bi-weekly
shíshálh Nation Government District	Bi-weekly	Weekly	Weekly	Bi-weekly
Town of Gibsons	None	None	Weekly	Bi-weekly
Area A	None (some residents have private collection services)			
Areas B, D, E, F	None	None	Weekly	Bi-weekly

2A: Re-assess Curbside Recycling Costs and Provide Better Access

Pros

- Improved accessibility and convenience to recycling
- The majority of survey respondents expressed interest in receiving curbside recycling



2A: Re-assess Curbside Recycling Costs and Provide Better Access



Cons

- Only paper products and plastic/metal containers are collected
- Increased financial cost/risk from managing PPP on behalf of Recycle BC as contamination thresholds are enforced
- Need for an updated cost analysis may be needed to inform the cost impacts on residents

Questions/ Comments on Strategy 2

Strategy 2: Improve Access to Residential Curbside Recycling Collection

2A: Re-assess curbside recycling costs and provide better access to curbside recycling collection, if deemed desirable by residents



Potential Waste Prevention and Diversion Strategies

Strategy 3: Improve Waste Diversion Opportunities for Residents

3A: Pilot reuse program, either a bulky item pick up collection, or reuse days in a suitable area and expand if deemed feasible

3B: Provide better access to waste diversion services through expanded cleanup events



Mattresses accepted by the Regional District of Central Okanagan

3: Improve Waste Diversion Opportunities for Residents

- Examples of initiatives
 - Large Item Pickup – City of Burnaby
 - Reuse Days – Metro Vancouver's North Shore Recycling and Waste Centre
- Enhance current initiatives (Islands Clean Up Program)



City of Burnaby Large Item Pick Up

Questions/ Comments on Strategy 3

Strategy 3: Improve Waste Diversion Opportunities for Residents

3A: Pilot reuse program, either a bulky item pick up collection, or reuse days in a suitable area and expand if deemed feasible

3B: Provide better access to waste diversion services through expanded cleanup events



Potential Waste Prevention and Diversion Strategies

Strategy 4: Provide More Waste Reduction, Reuse, and Repair Opportunities



Food Waste
Prevention &
Rescue



Reduction of
Single-use
Items &
Packaging



Waste
Prevention
Through
Sharing, Reuse
& Repair

4: Provide More Waste Reduction, Reuse, and Repair Opportunities

- Food Waste Prevention & Rescue

4A: Encourage and support local businesses to reduce food waste



- Reduction of Single-use Items & Packaging

4B: Partner with local compost operator to develop a takeout guide that encourages the reduction of single-use items and packaging and the use of locally compostable materials

4C: Collaborate with the member municipalities and local organizations to educate residents and businesses on regulations and provide education on alternatives to single-use items and packaging



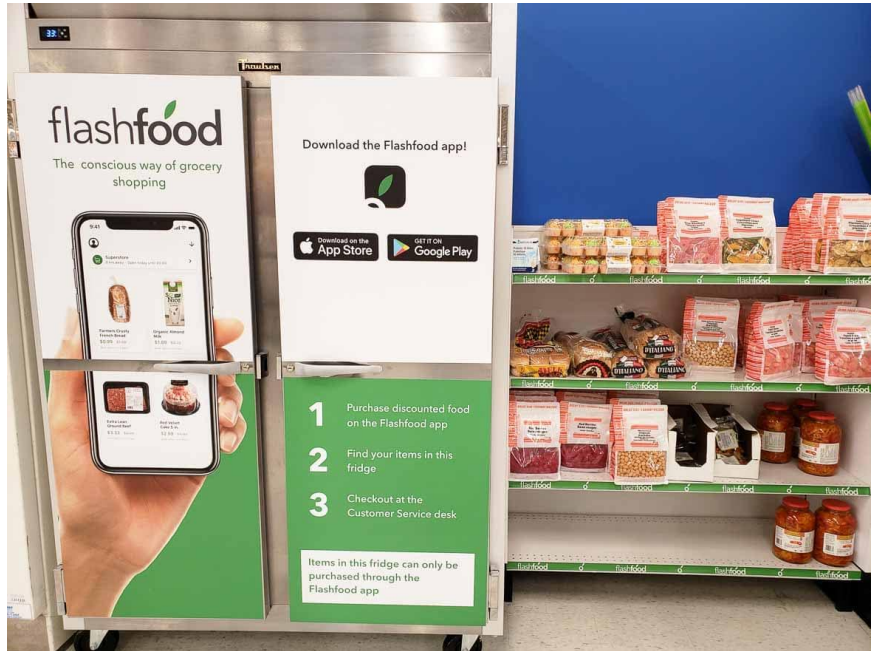
- Waste Prevention Through Sharing, Reuse & Repair

4D: Adopt successful household waste reduction, repair and diversion campaigns targeting residents



4A: Encourage and support local businesses to reduce food waste

Examples Food Waste Prevention and Rescue



Flashfood Fridge in participating grocery store



reFRESH Cowichan redistributing food using van funded by the Cowichan Valley Regional District



4A: Encourage and support local businesses to reduce food waste

Examples Food Waste Prevention and Rescue

How to put your unused organics to good use in the Fraser Valley



How to put your unused organics to good use

Fraser Valley Regional District has collaborated with FoodMesh and other partners to educate businesses



4: Provide More Waste Reduction, Reuse, and Repair Opportunities

Reduction of Single-use Items and Packaging

4B: Partner with local compost operator to develop a takeout guide that encourages the reduction of single-use items and packaging and the use of locally compostable materials

4C: Collaborate with the member municipalities and local organizations to educate residents and businesses on regulations and provide education on alternatives to single-use items and packaging



Six Categories of Single-Use Items and Packaging Covered by the Federal Single-use Plastics Prohibition Regulations (image from CBC)

4D: Adopt Successful Waste Reduction, Repair And Diversion Campaigns

Examples Waste Prevention Through Sharing, Reuse, and Repair

- Repair Cafés
- Lending Programs
- Re-use Events
- Campaigns



A Metro Vancouver's campaign



Repair Café organized by the Regional District of Central Okanagan



Tool library in Roberts Creek

Questions/ Comments on Strategy 4

Strategy 4: Provide More Waste Reduction, Reuse, and Repair Opportunities

4A: Encourage and support local businesses to reduce food waste

4B: Partner with local compost operator to develop a takeout guide that encourages the reduction of single-use items and packaging and the use of locally compostable materials

4C: Collaborate with the member municipalities and local organizations to educate residents and businesses on regulations and provide education on alternatives to single-use items and packaging

4D: Adopt successful household waste reduction, repair and diversion campaigns targeting residents



Potential Waste Prevention and Diversion Strategies

Strategy 5: Lobby for Better and More Provincial Product Stewardship Programs

5A: Lobby for inclusion of new materials, regardless of the sources (residential or ICI) under the Recycling Regulation

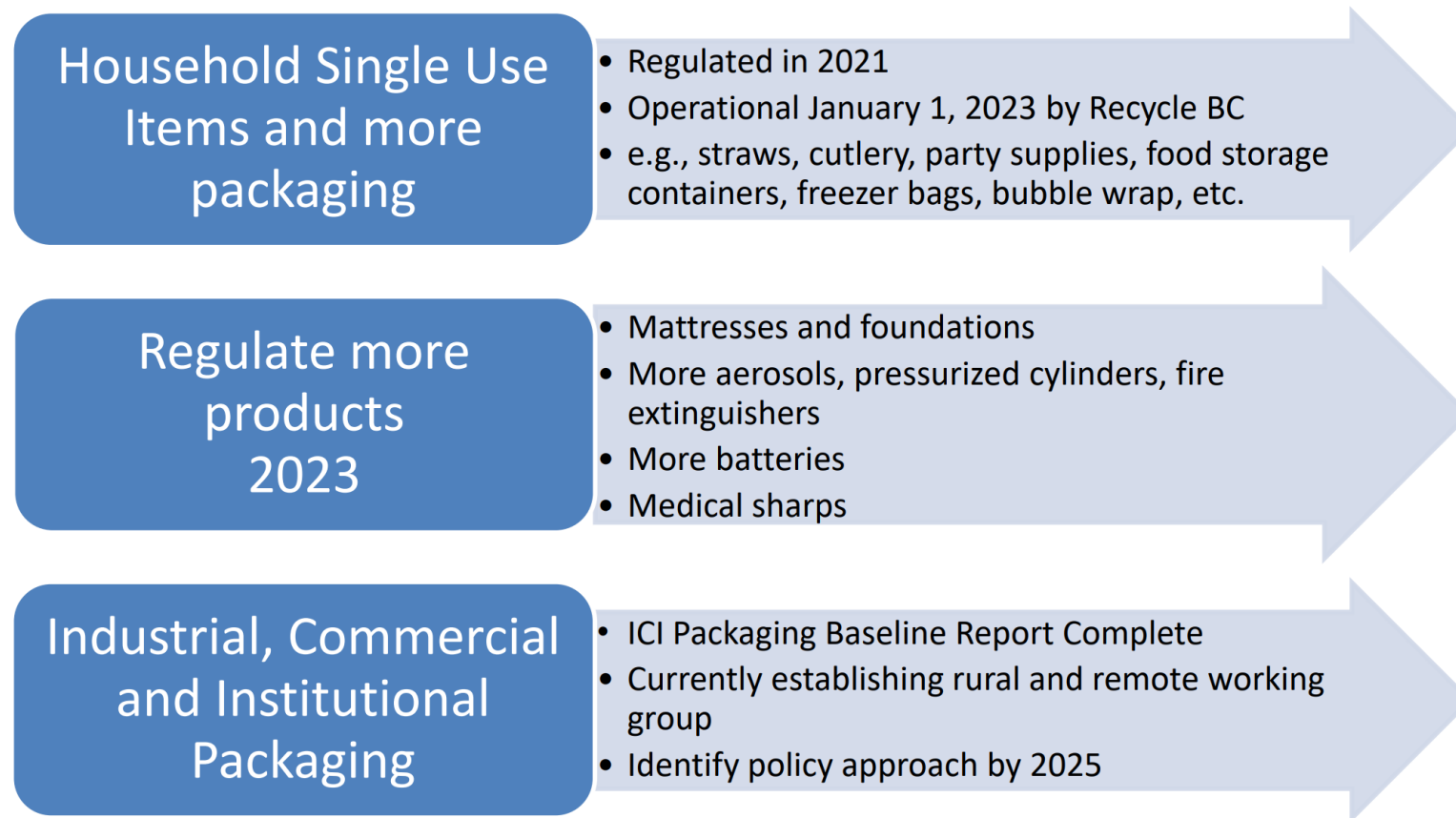
5B: Lobby for increased cost recovery by stewards

5C: Lobby for increased focus on reduce and reuse efforts amongst existing Extended Producer Responsibility (EPR) programs rather than collection and recycling



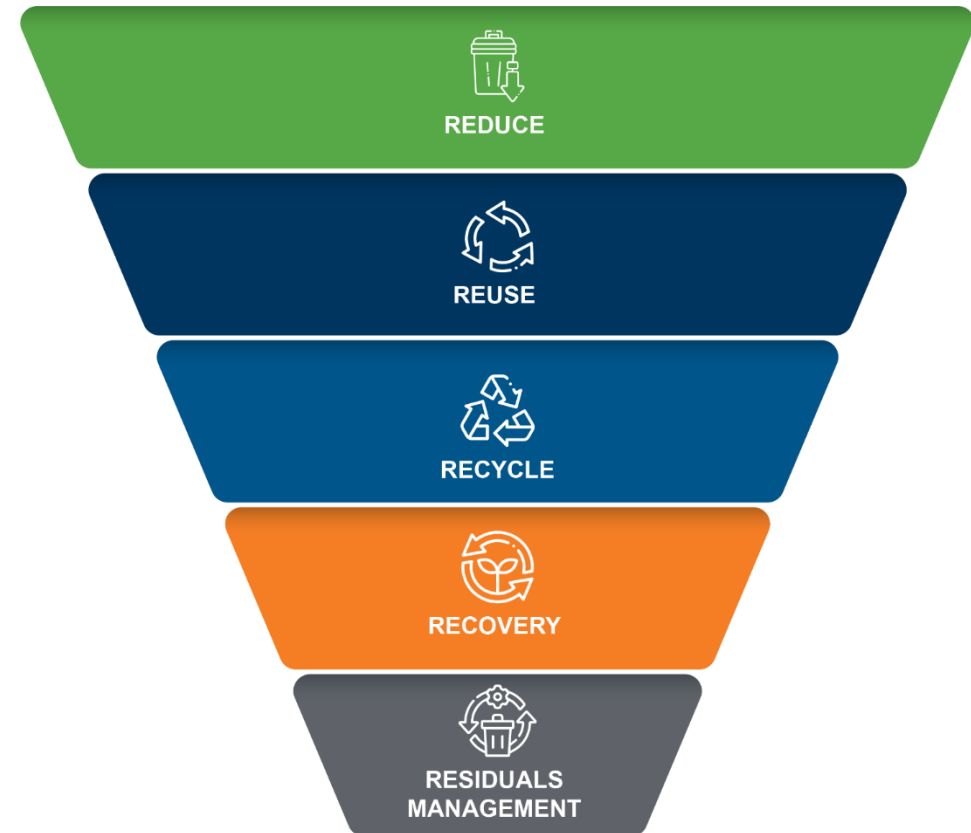
5: Lobby for Better and More Provincial Product Stewardship Programs

Provincial Five-Year EPR Action Plan (2021 -2026)



5: Lobby for Better and More Provincial Product Stewardship Programs

- Costs of managing EPR materials not fully covered
- EPR policy should consider the waste hierarchy and not hinder reduce and reuse



Questions/ Comments on Strategy 5

Strategy 5: Lobby for Better and More Provincial Product Stewardship Programs

5A: Lobby for inclusion of new materials, regardless of the sources (residential or ICI) under the Recycling Regulation

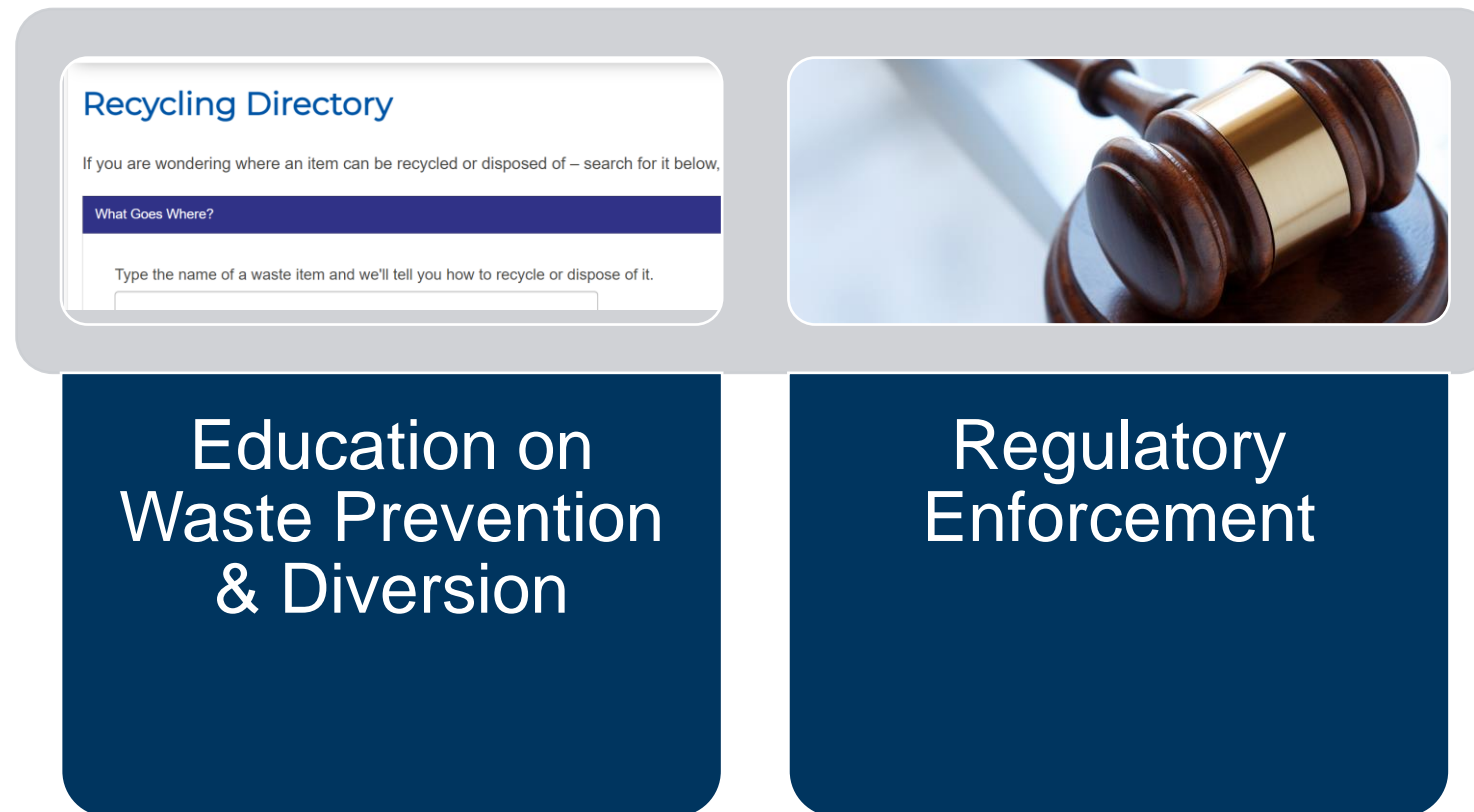
5B: Lobby for increased cost recovery by stewards

5C: Lobby for increased focus on reduce and reuse efforts amongst existing EPR programs rather than collection and recycling



Potential Waste Prevention and Diversion Strategies

Strategy 6: Improve Waste Diversion Through Education and Enforcement



6: Improve Waste Diversion Through Education and Enforcement

- Education on Waste Prevention and Diversion

- 6A: Partner with haulers, depot operators and other business organizations to provide better education on existing diversion opportunities

- Regulatory Enforcement

- 6B: Simplify bylaw enforcement by requiring waste generators to use transparent bags for garbage destined for landfill

- 6C: Increase enforcement capacity beyond current 2023 levels

6: Improve Waste Diversion Through Education and Enforcement

- Need for collaboration to improve education
- Need to improve enforcement of disposal regulation
 - clear bags
 - increased resourcing



6A: Partner to provide better education on existing diversion opportunities

Example Regional District of Nanaimo's Process to Establish ICI Disposal Restrictions

- Establish policy and bylaw
- Collaborate with haulers
 - Regular meetings
 - Build trust
- Collaborate with generators
 - Create database
 - Workshops
 - Mail-Outs
 - Promotion/education materials
 - On-going engagement
- Enforce the restrictions



Questions/ Comments on Strategy 6

Strategy 6: Improve Waste Diversion Through Education and Enforcement

6A: Partner with haulers, depot operators and other business organizations to provide better education on existing diversion opportunities

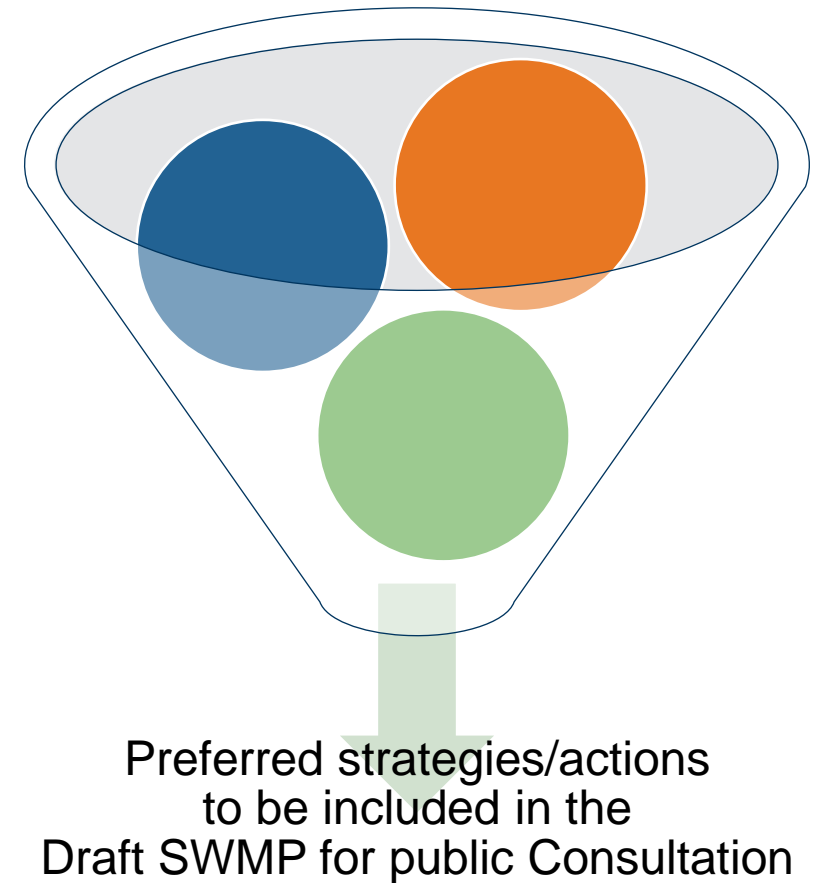
6B: Simplify bylaw enforcement by requiring waste generators to use transparent bags for garbage destined for landfill

6C: Increase enforcement capacity beyond current 2023 levels



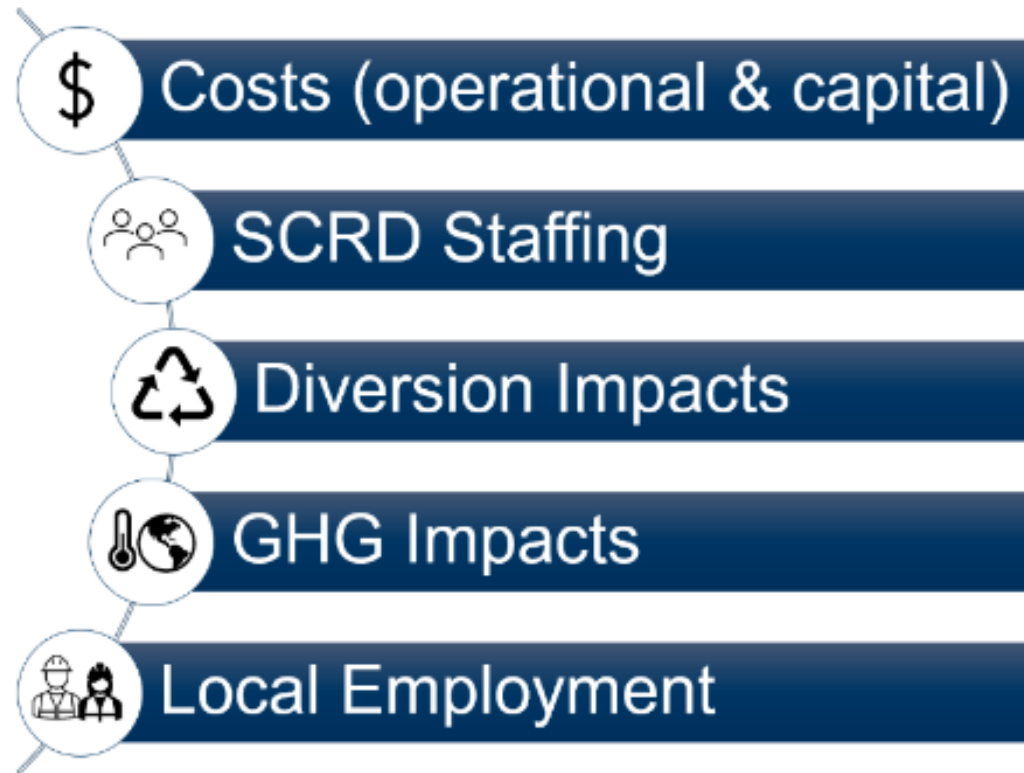
Next Steps – Help Prioritize

- Post-Meeting: PTAC members will receive a follow-up survey to gauge your priorities and any additional feedback
- MH to listen to feedback, review priorities based on impacts discussed
- MH will present these at the next meeting to finalize which strategies and actions are preferred



Impacts from Strategies

Approach for evaluating strategies:



Impacts from Strategies

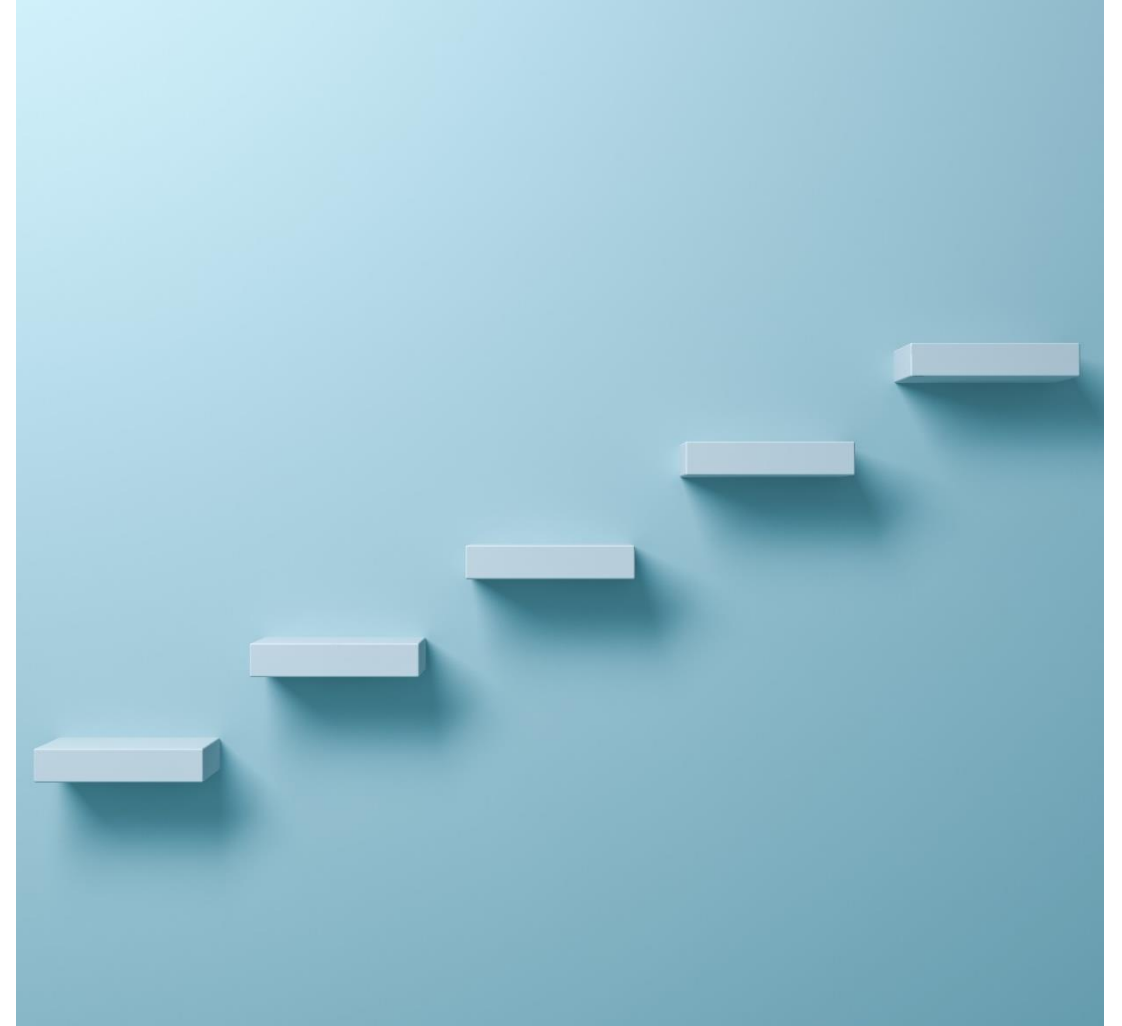
Strategy #	Strategy Theme	Costs	Staffing	Diversion Potential	GHG	Local Employment
1	Regulatory Requirements	Medium-High	High	Medium-High	Medium-High	Low-Medium
2	Residential Curbside Recycling Collection	Medium-High	Medium	Low- Medium	Low- Medium	Medium
3	Waste Diversion Opportunities	Medium-High	Medium	Low	Low	Low
4	Waste Reduction, Reuse, and Repair	Low-Medium	Medium	Low	Low to Medium	Low-Medium
5	Lobby for better EPR	Low	Low	Low-High	Low	Low
6	Education and Enforcement	Low-Medium	Low-Medium	Low -Medium	Low -Medium	Low

Questions/ Comments on Impacts



Future Meeting Topics

- Actions for Construction, Demolition & Renovation sector and non-sector specific issues (November 21)
- Disposal options and system financing (January 2024)
- Preferred strategies in a draft SWMP (Spring 2024)



Remaining Discussion Topics

- Opportunity for local recyclers
- Explore alternative recycling options for landfilled waste
- Diversion of CDR waste
- Illegal dumping and marine debris
- Invasive species management
- Tourist waste
- System efficiencies
- Disposal options
- How to finance our waste management system

Thank you!



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MORRISON HERSHFIELD
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