

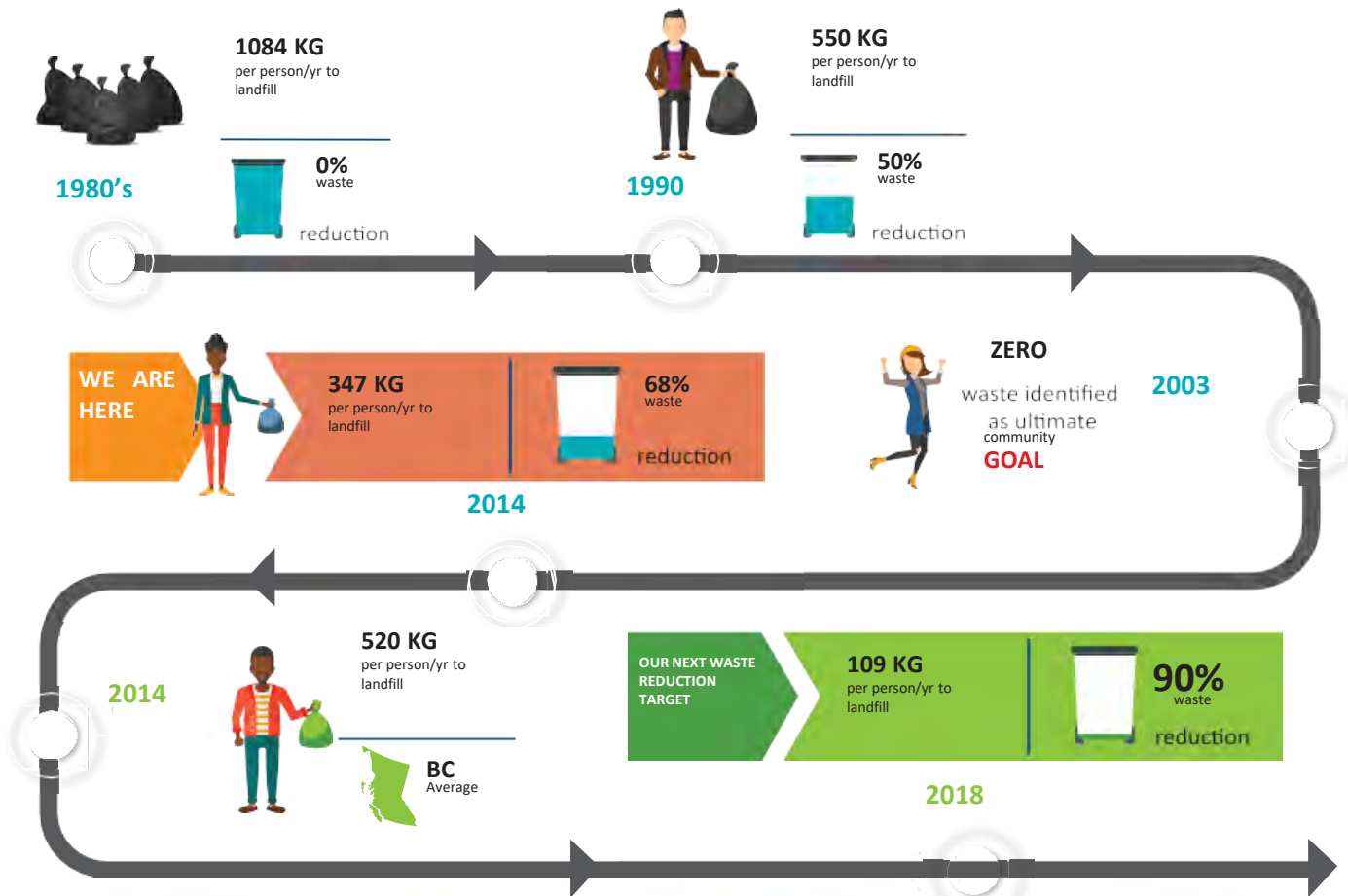


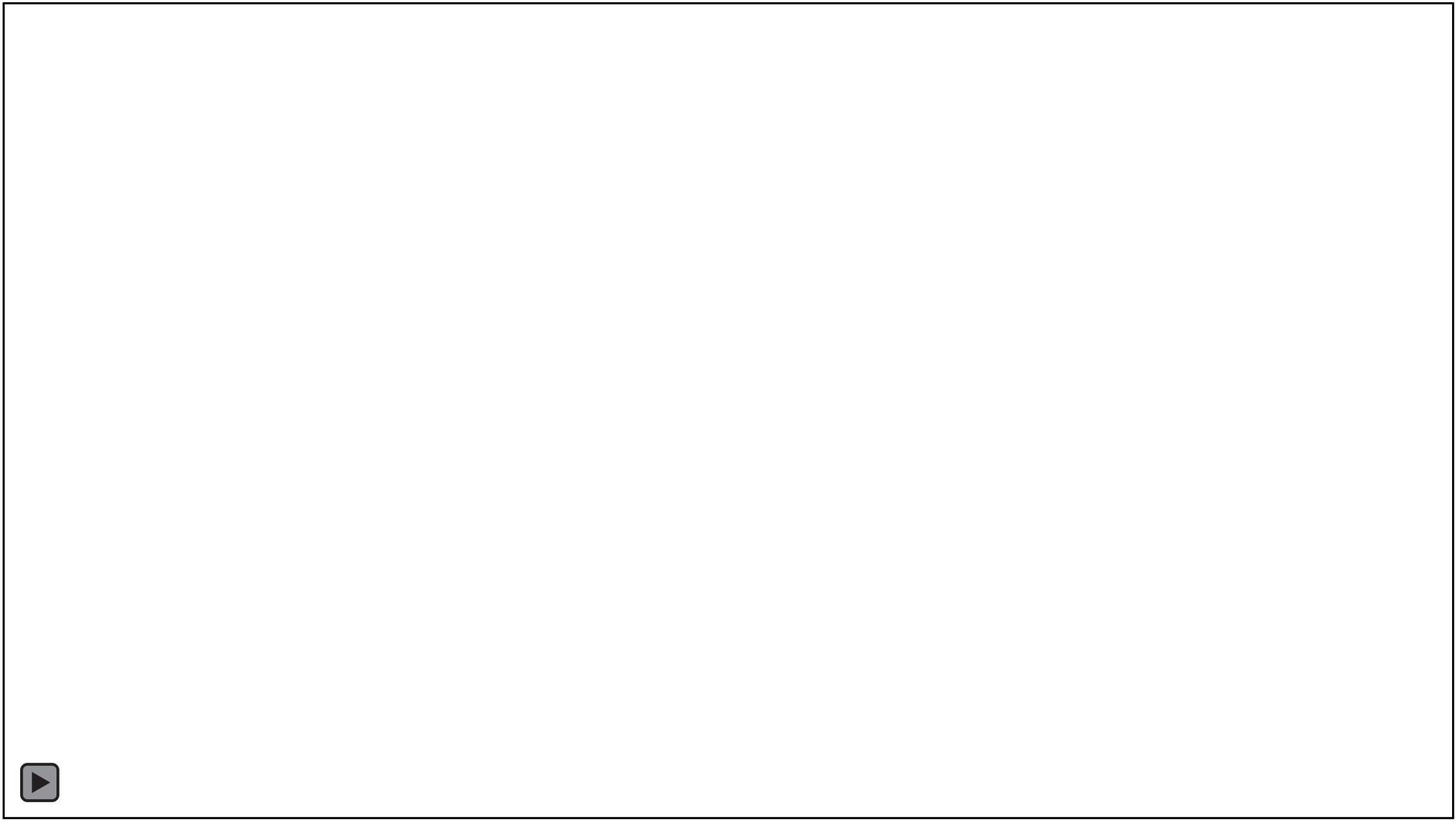
Solid Waste Management Plan

Plan Management Advisory Committee

May 15th, 2019

Historical Waste Management





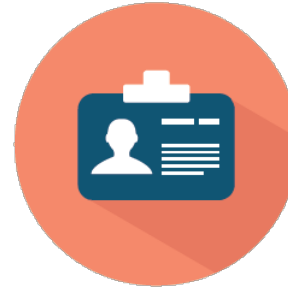
Current Solid Waste Programs



School Education



Recycling and
Organic Collection
at RDN Facilities



Waste Stream
Management
Licensing



Residential
Curbside
Collection



Illegal Dumping

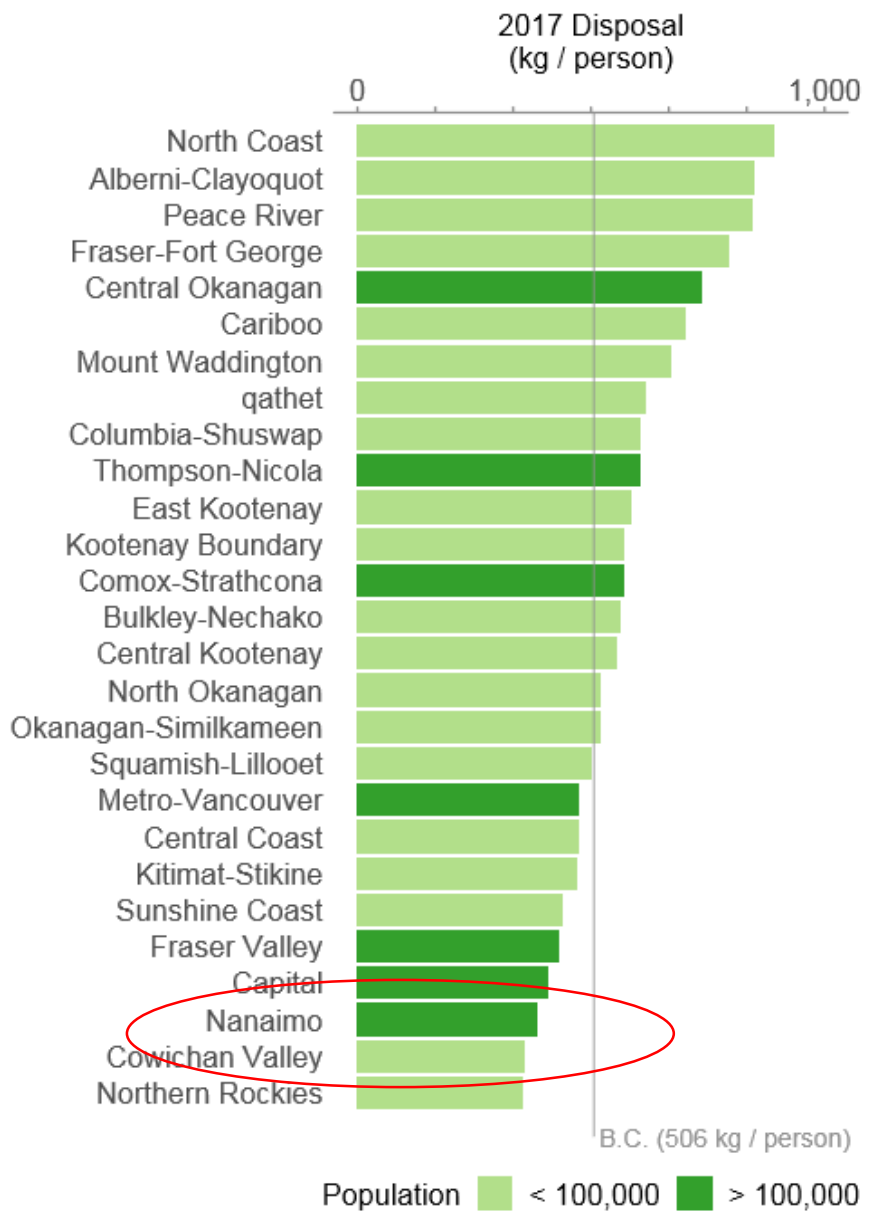


Disposal Bans

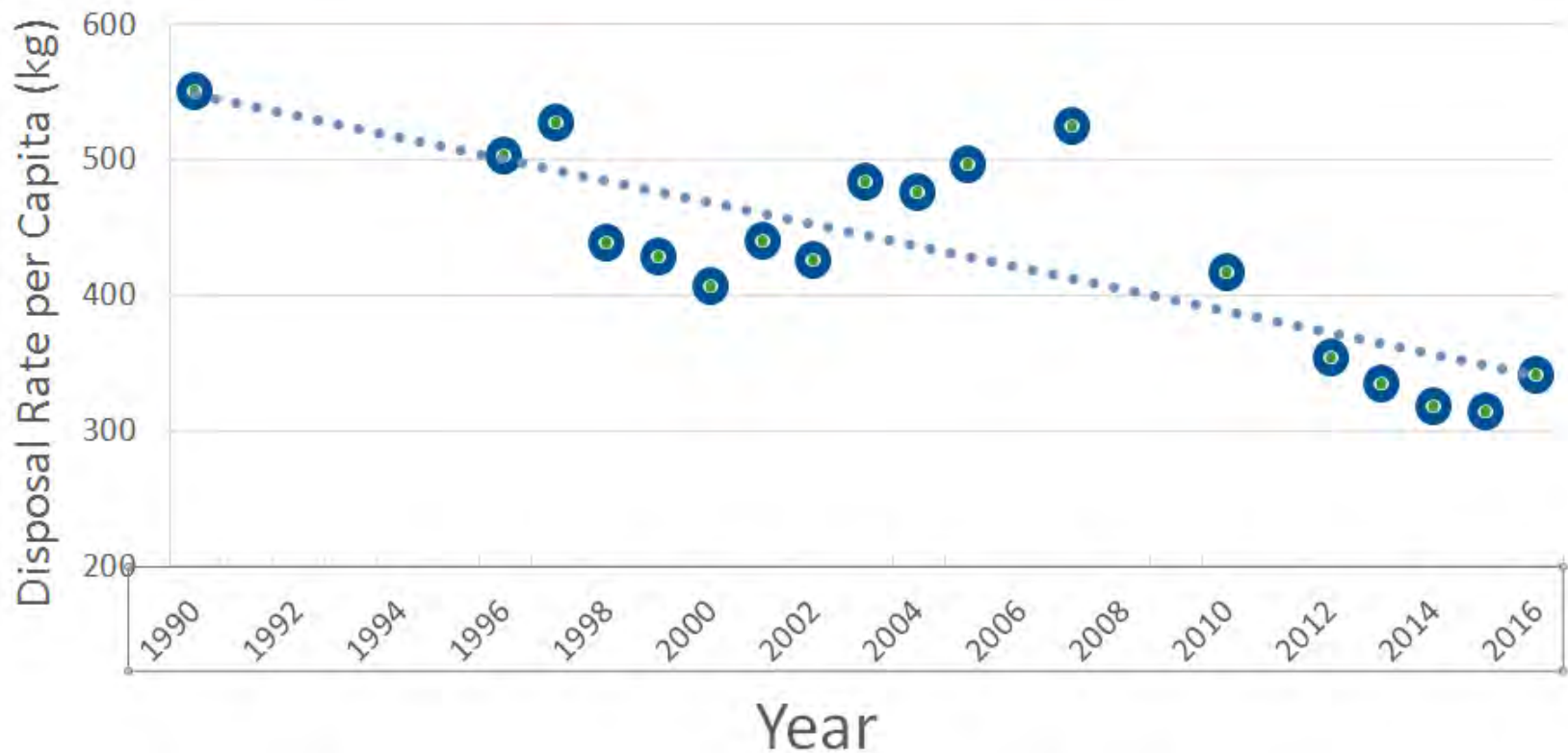


Advocacy

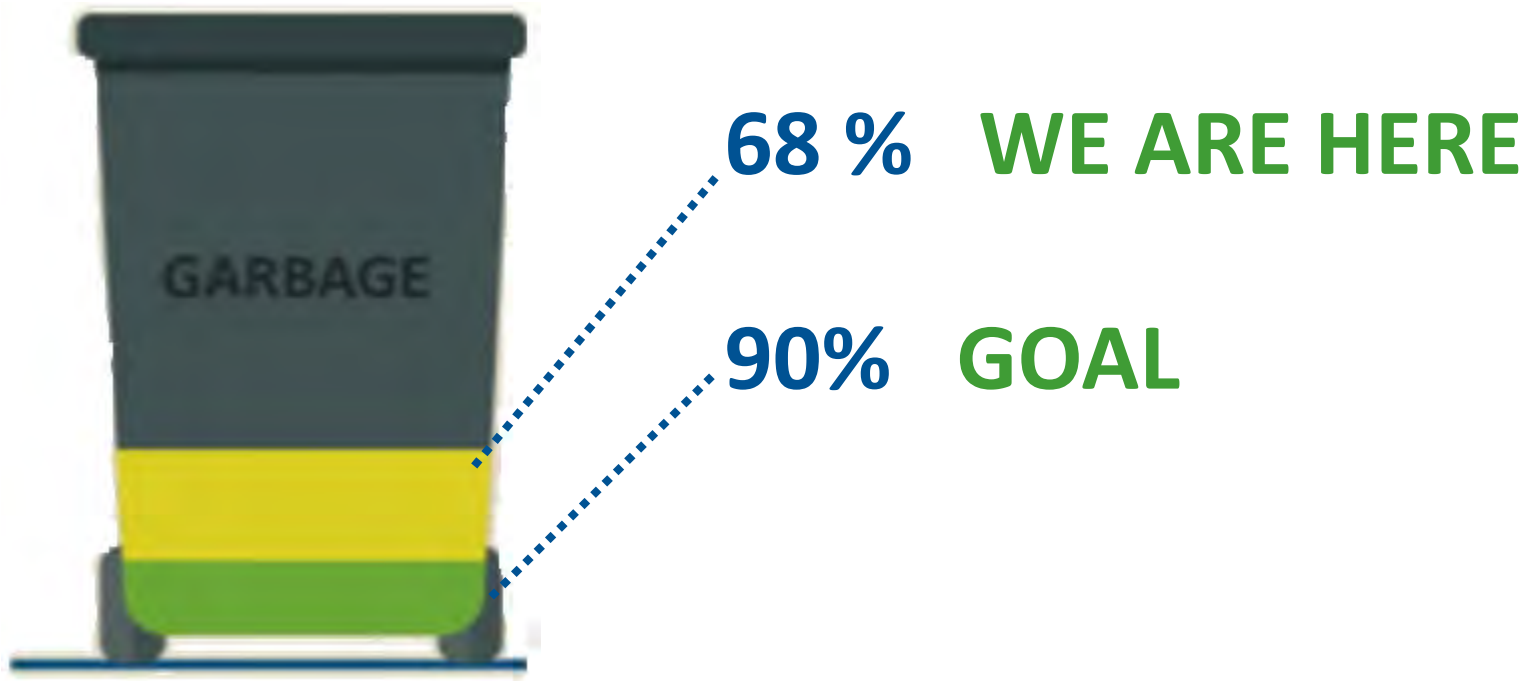
Comparison of Disposal Rates by Regional District



RDN Annual Disposal Rates



10 Year Goal – Waste Reduction



Planning Process

| Timeline | Stage | Activities |
|--------------|---|---|
| 2013 to 2014 | Stage 1 Evaluate existing system | <ul style="list-style-type: none"> • Plan implementation status and future needs • Issues and opportunities |
| 2015 to 2016 | Stage 2 Identify strategies and options | <ul style="list-style-type: none"> • Develop short and long list of options • Prepare Solid Waste Management Plan |
| 2017 to 2018 | Stage 3 Consultation and adoption | <ul style="list-style-type: none"> • Conduct public review • Plan approval |
| 2018 | Plan Submission to MoE | <ul style="list-style-type: none"> • Estimated 9-12 months for approval from time of submission |
| 2019 to 2029 | Implementation | <ul style="list-style-type: none"> • Implement strategies outlined in the Plan |

Advisory Committee

Regional Solid Waste Advisory Committee (RSWAC)

- ~27 representatives from a cross section of the community
- Address social, business, technical and political interests
- Provides advice to the RDN Board via the Solid Waste Management Select Committee

Public Consultation

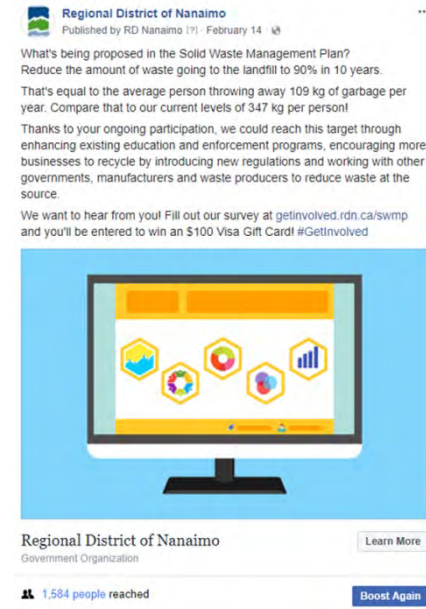
- Ensure Plan is collaborative and reflects a broad range of perspectives
- Provide opportunities to educate the public about the Plan
- Increase support for the resultant Plan
- Meet the consultation expectations of the Ministry of the Environment

Stage 3 Consultation Activities

- Online and in-person surveys
- 10 open houses, 111 residents attended
- RSWAC meetings
- Invites to meet were sent to 130 stakeholders:
- School Districts
- First Nations
- Waste Industry
- Local Government: 4 meetings, 26 council members, ~100 residents in attendance
- Met with Cowichan Valley and Comox Valley Regional Districts

Stage 3 Consultation Communications

- Print and online news
- Social media
- Travelling display
- Public bus ads
- Video
- Zero Waste Newsletter
- Information display at RDN 50th Anniversary event
- Presentation of Plan at SWANA AGM
- Interview with Shaw TV series “Change the World” and “Up Front”

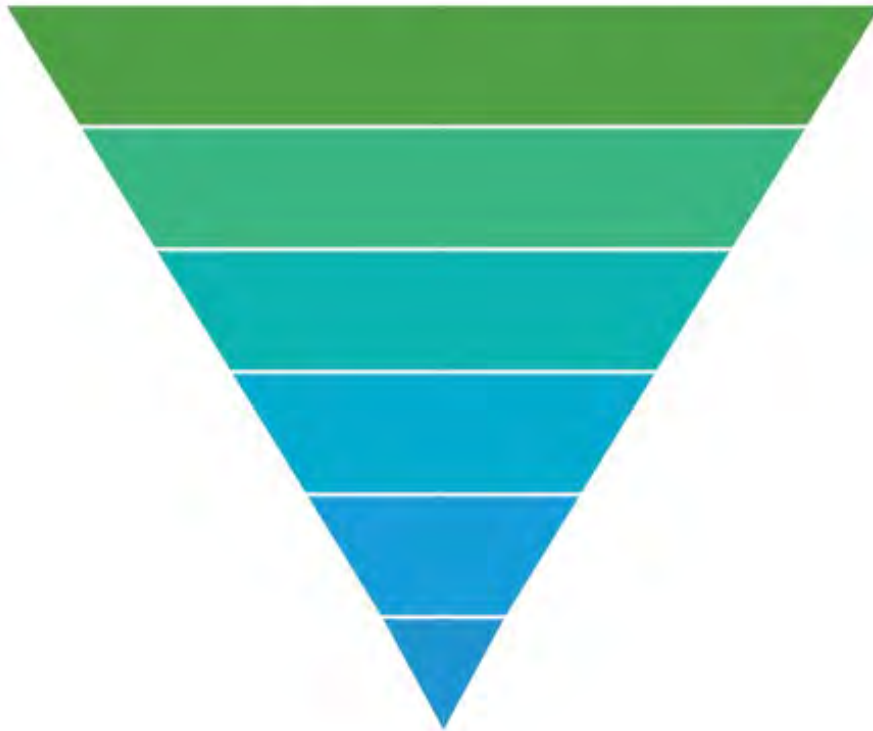


Stage 3 Consultation Results

- Direct communication with ~4000 residents
- ~500,000 opportunities for dialogue
- Survey: 726 residents completed
 - 97% (700) supportive of 90% diversion
 - 77% (562) support cost of around \$10 per year per person
- Stakeholder groups were enthusiastic of 90% diversion target
 - Supportive of proposed options and costs
 - Waste Industry has general objection to increased regulation

The Zero Waste Hierarchy

ZW Hierarchy of Highest & Best Uses



- Reduce, reuse & return
- End subsidies for wasting
- Product & packaging redesign
- Clean production & takebacks
- Reuse, repair, remanufacture
- Recycle, compost & digest
- Regulate (bans, biological energy recover, landfills with re-processing)
- Not ok: incineration, bioreactor landfills

New Zero Waste Programs

- Household Hazardous Waste
- Expanded Industrial, Commercial, and Institutional Waste Strategy
- Expanded Construction and Demolition Waste Strategy
- Mandatory Waste Source Separation
- Waste Hauler Licensing
- Zero Waste Recycling

Household Hazardous Waste (HHW)

- Most HHW accepted through Product Care
- RDN is considering two collection methods for Non-Stewarded HHW :
 - HHW “Roundup”
 - Contracted drop off



Composition of Commercial Waste



ROOM FOR IMPROVEMENT

Here is a snapshot of the types of commercial waste still being landfilled.

This, along with multi-family waste, represents the greatest opportunity to reduce and recycle.

- 42% COMPOSTABLE ORGANICS
- 15% PAPER
- 13% PLASTIC
- 7% BUILDING MATERIALS
- 5% HOUSEHOLD HYGIENE
- 4% HOUSEHOLD HAZARDOUS
- 3% ELECTRONICS
- 3% TEXTILES
- 2% OTHER
- 2% GLASS
- 2% BEVERAGE CONTAINERS
- 2% METALS

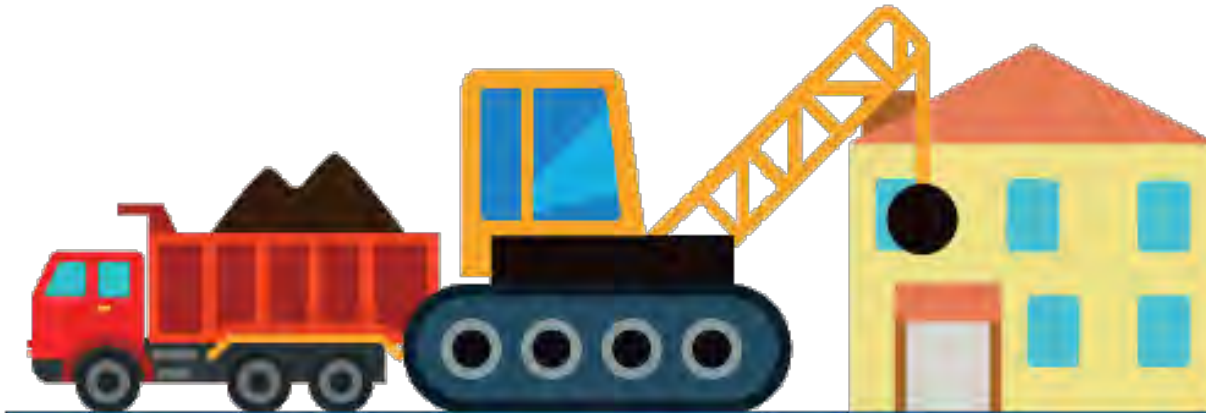
Industrial, Commercial and Institutional Waste Strategy

- Increase Education and Awareness
- Differential Tipping Fees
- Landfill Bans
- Increased enforcement of existing bans

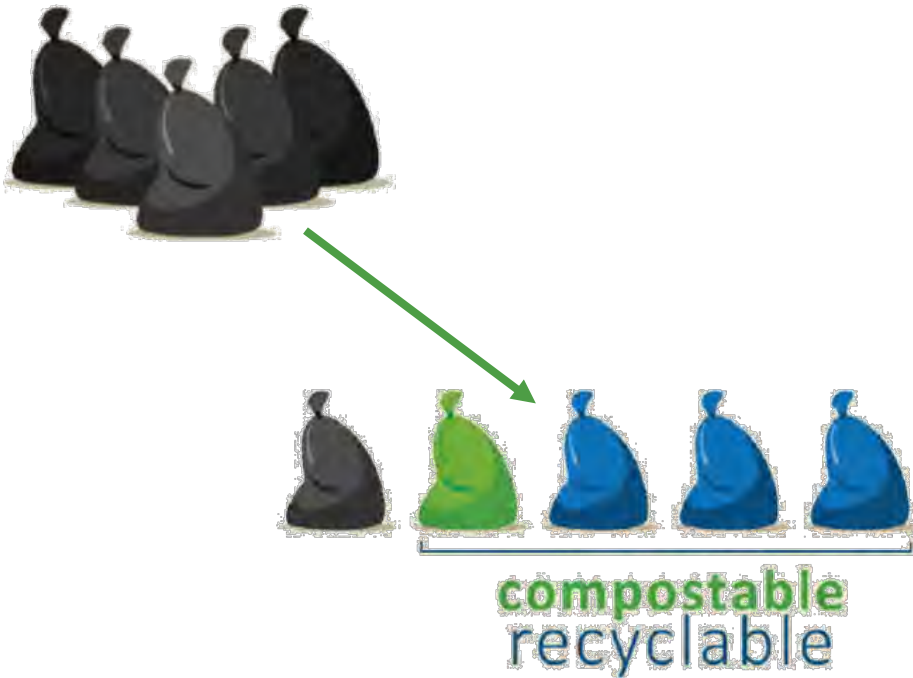


Construction and Demolition Waste Strategy

- Increase Education and Awareness
- Differential Tipping Fees
- Landfill Bans
- Increased enforcement of existing bans



Mandatory Waste Source Separation

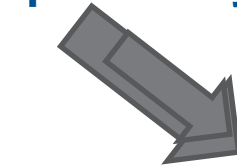


- Commercial
- Multi-Unit Homes
- Institutions

Waste Hauler Licensing



Disposal levy



Reduced tip fee



Zero Waste Recycling



Zero Waste Recycling

- Materials that currently have little or no commercial value typically end up in the landfill

Funding for the Nanaimo Recycling Exchange to act as a research/recycling hub

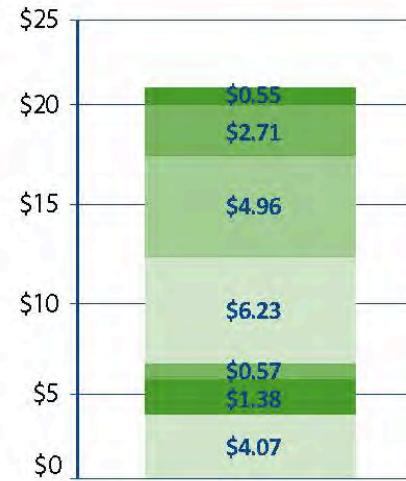
- Catalyst to developing viable recycling markets

| New Zero Waste Programs | Implementation Year | Estimated Diversion |
|--|---------------------|---------------------|
| Expanded Zero Waste Education | 2018 | Not Quantifiable |
| Household Hazardous Waste | 2018 | <1% |
| Expanded Industrial, Commercial and Institutional Waste Management Diversion <ul style="list-style-type: none"> • Increased education of existing landfill bans and a relaunch of Commercial Organics Diversion Strategy and Multi-Unit Diversion Strategy • Increased enforcement of existing landfill bans targeted at the ICI sector | 2018 2018 | 3% |
| Expanded Construction and Demolition Waste Diversion <ul style="list-style-type: none"> • Improve and reintroduce education and communication regarding CD waste in the region • Enhanced enforcement of landfill bans related to CD materials | 2018 2018 | 3% |
| Waste Haulers Licensing | 2019-20 | 10% |
| Mandatory Waste Source Separation | | |
| Solid Waste Emergency/Disaster Response Plan | 2022 | N/A |
| Zero Waste Recycling | 2019 | 1% |
| New Program Diversion | | 17% |
| Existing Diversion | | 68% |
| Anticipated Diversion From Federal/Provincial Programs | | 5% |
| TOTAL | | 90% |

Cost of Solid Waste Services



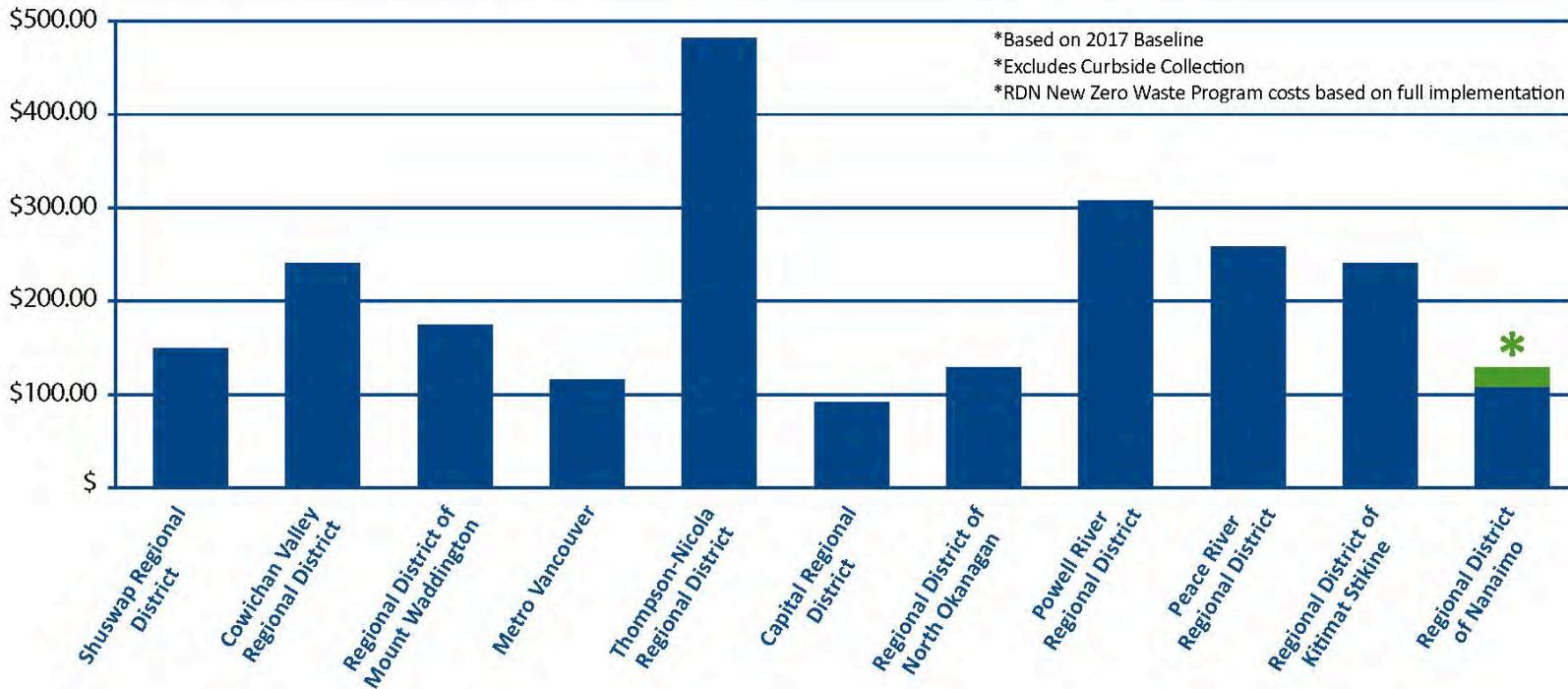
■ Additional Funding for Zero Waste Programs
■ Total Cost per Household Tipping Fee + Tax Req



- Zero Waste Education
- ICI Waste Management
- Waste Source Regulation
- Waste Hauler Licensing
- CD Waste Management
- Household Hazardous Waste
- Zero Waste Recycling

Financing The Plan

AVERAGE FAMILY SOLID WASTE SERVICES COSTS BASED ON \$500,000 HOUSEHOLD



WHAT DOES THIS LOOK LIKE FOR RDN PER CAPITA COSTS?

| | ANNUAL NET COST (\$MILLION) | PER CAPITA COST (\$) |
|------------------------------------|--------------------------------|-------------------------|
| Current Zero Waste Strategy (68%) | \$3.3 | \$53.66 |
| Proposed Zero Waste Strategy (90%) | \$4.9 | \$63.69 |
| DIFFERENCE | \$1.6 | \$10.03 |
| Current Residential Curbside | \$5.1 | \$32.51 |
| Proposed Residential Curbside | \$5.1 | \$32.51 |
| DIFFERENCE | \$0.0 | \$0.00 |
| Current Disposal Operations | \$6.4 | \$40.78 |
| Future Disposal Operations | \$6.4 | \$40.78 |
| DIFFERENCE | \$0.0 | \$0.00 |
| Total Current SWMP | \$14.7 | \$94.44 |
| Total Proposed SWMP | \$16.3 | \$104.47 |
| DIFFERENCE | \$1.6 | \$10.03 |

Based on 10 year budget 2017 - 2026

Does this explain
the....

