

Alberni-Clayoquot Regional District

SWMP Review & Implementation Process

Carey McIver

Carey McIver & Associates Ltd.

Solid Waste Plan Monitoring Advisory Committee – Alberni Valley
October 30, 2014



Maura Walker & Associates
ENVIRONMENTAL CONSULTANTS

Meeting Agenda

1. Background

- * ACRD Solid Waste Management Plan
- * Existing System Performance & Effectiveness
- * Plan Implementation Schedule

2. Curbside Collection RFP Process

- * Impact of MMBC

3. ICI Disposal Bans

- * Work Plan, Schedule, Budget

4. Organics Diversion Strategy

- * Vancouver Island Update – Issues and Opportunities



ACRD SWMP Review & Implementation Process

Background



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2007 Solid Waste Management Plan

Plan Component	New Diversion	Status
Reduction & Reuse	1-2%	Complete
Residential Recycling	9%	Complete
ICI Recycling	15%	Incomplete
Organic Waste Diversion	5%	Incomplete
Residual Waste Management		Complete
Demolition/Construction/Land Clearing	8%	Incomplete
Promotion & Education		Complete
Bear Awareness		Complete
Illegal Dumping Prevention		Complete
Product Stewardship		Complete
First Nations Linkages		Complete
Total Estimated New Diversion	39%	

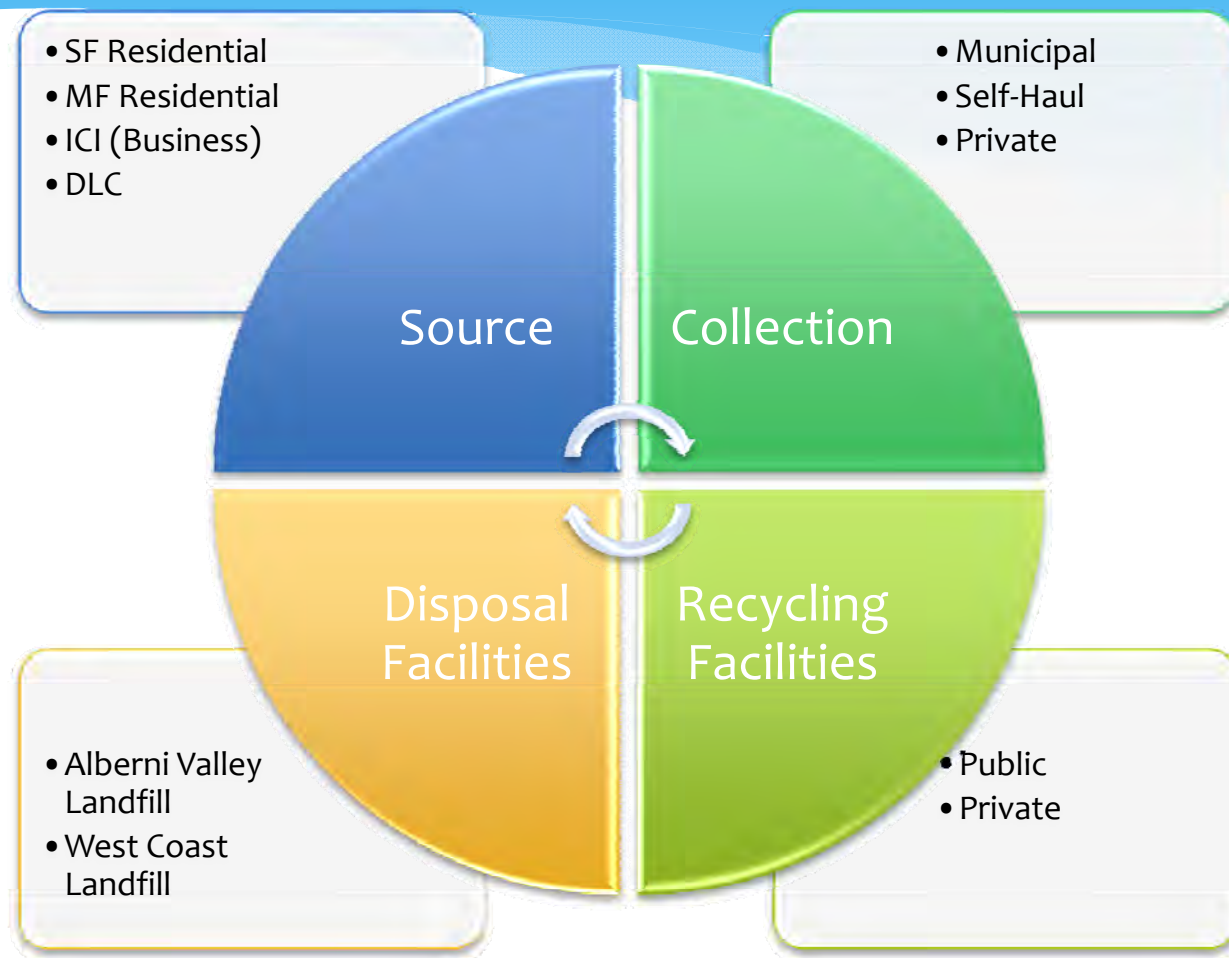


Diversion Potential

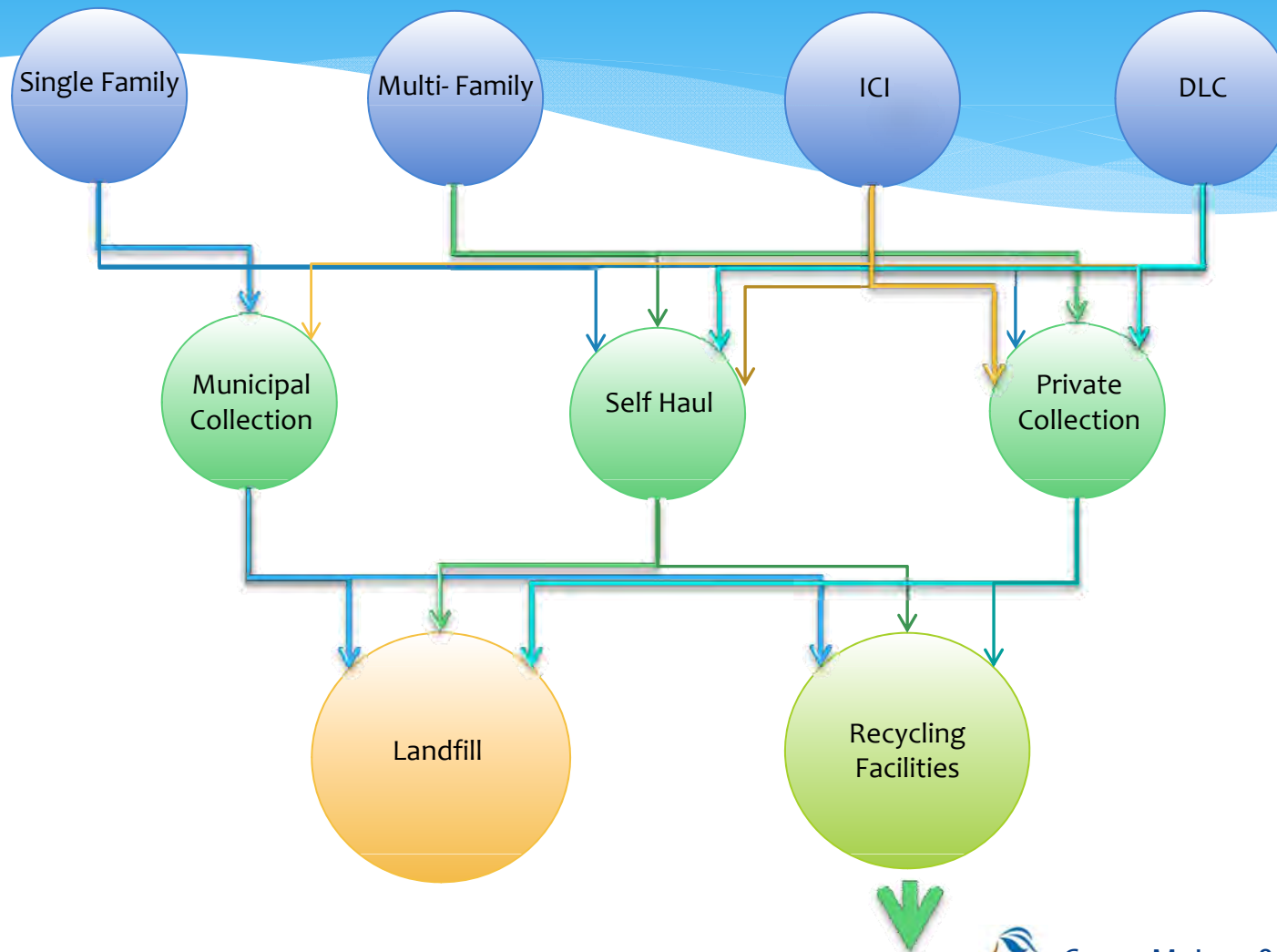
2007 Plan	2005	2012
Diversion Rate	15%	54%
Disposal Rate (kg per capita)	790	400



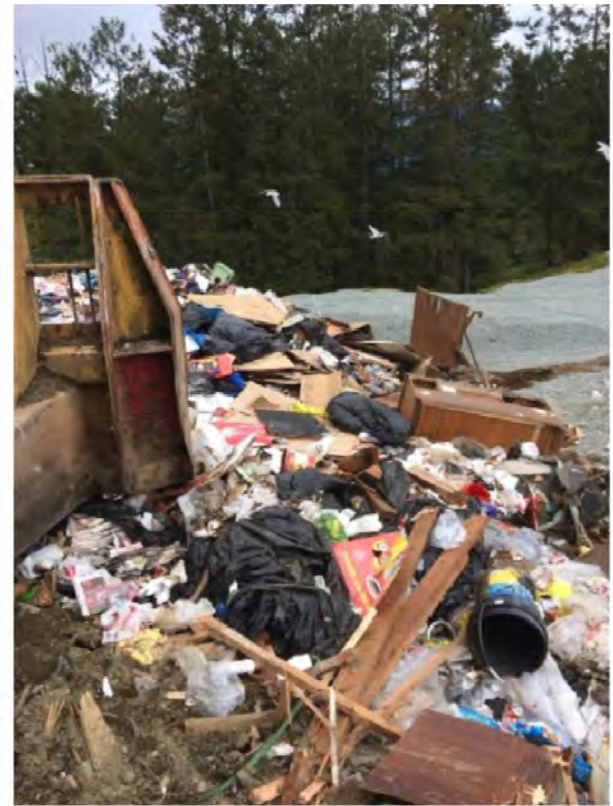
ACRD System Characteristics



Existing System



Alberni Valley Landfill



AV Landfill Recycling Depot



3Rd Avenue Recycling Depot



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Bamfield Recycling Depot



West Coast Landfill



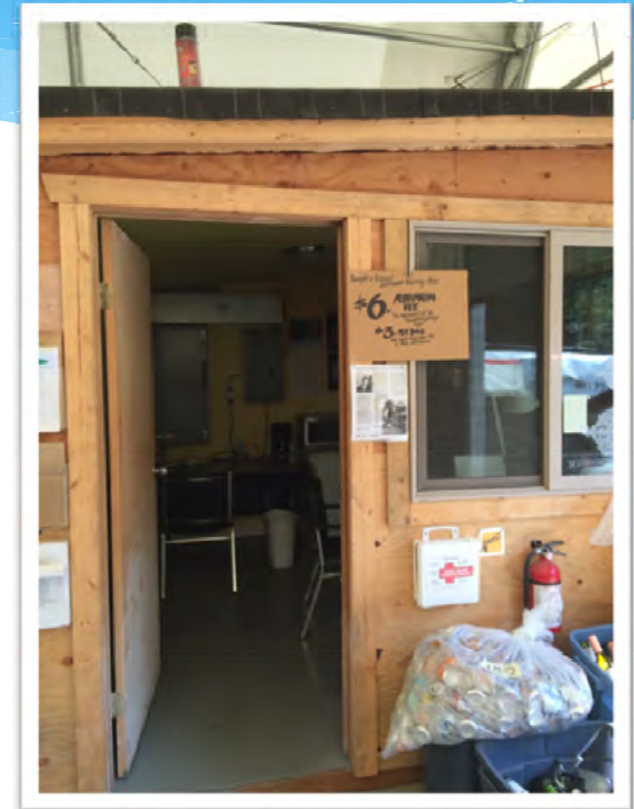
West Coast Landfill



West Coast Bin Area



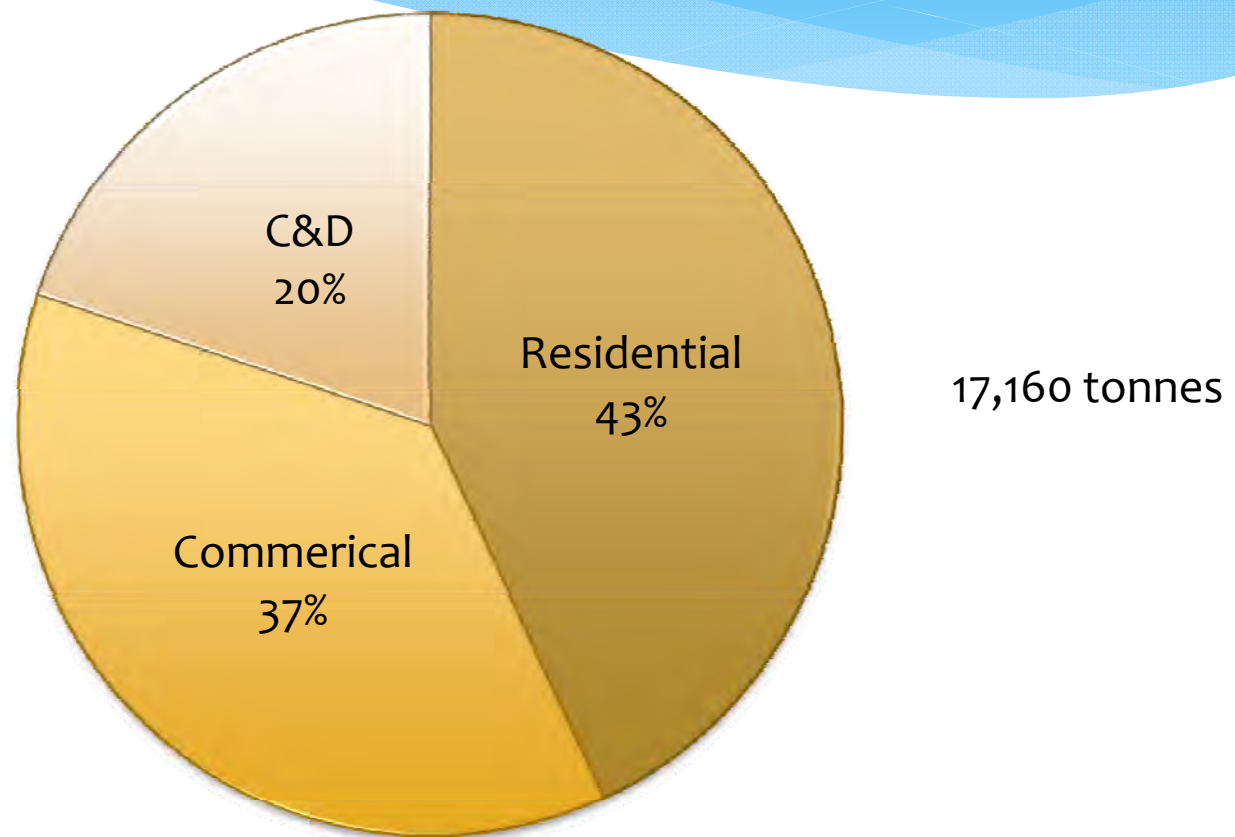
Tofino Recycling Depot



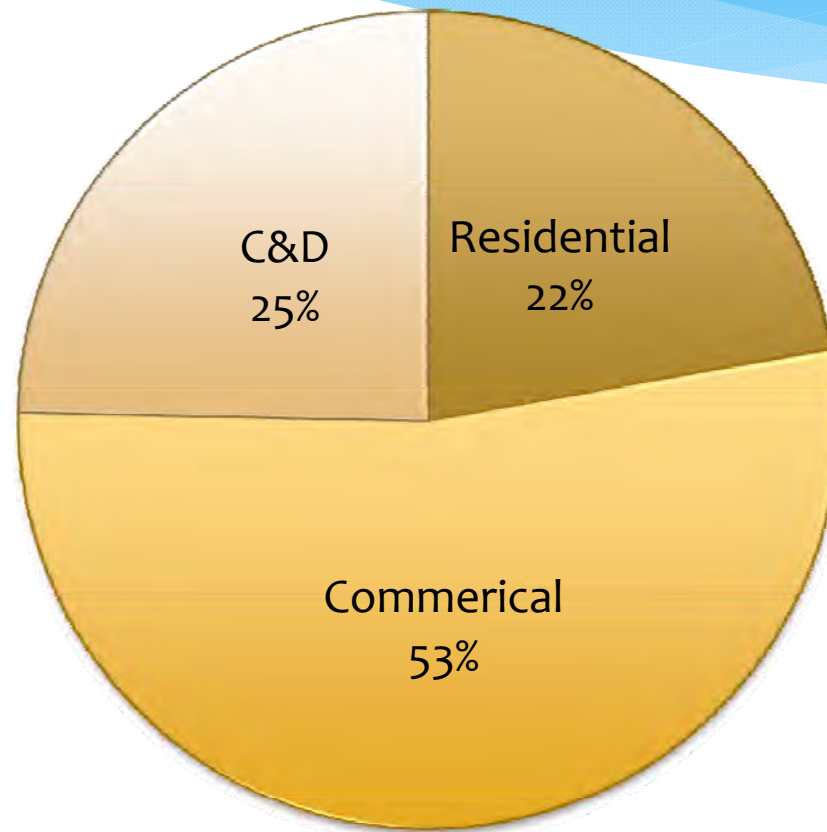
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Alberni Valley Waste Disposal



West Coast Waste Disposal

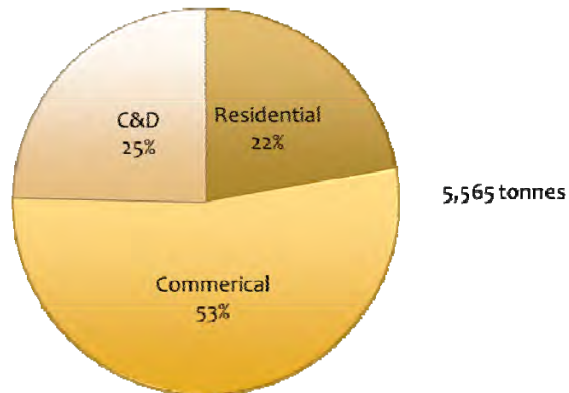


5,565 tonnes

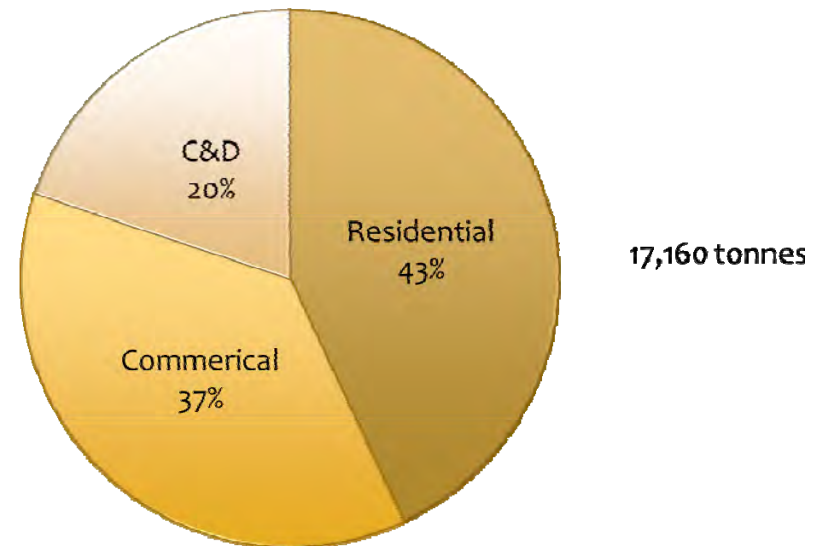


Waste Disposal Comparison

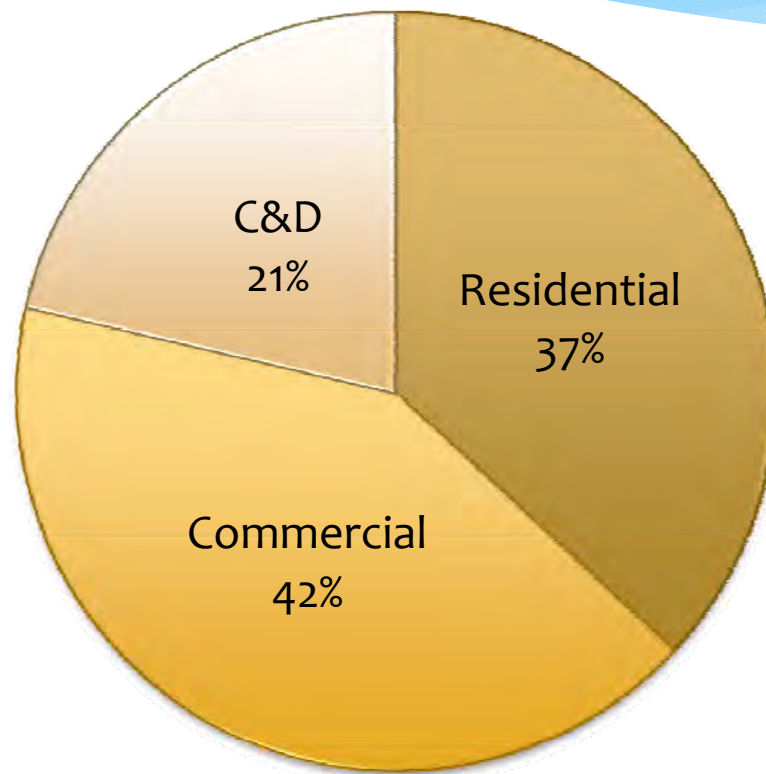
West Coast Landfill



Alberni Valley Landfill



ACRD Total Waste Disposal



22,725 tonnes
740 kg per capita

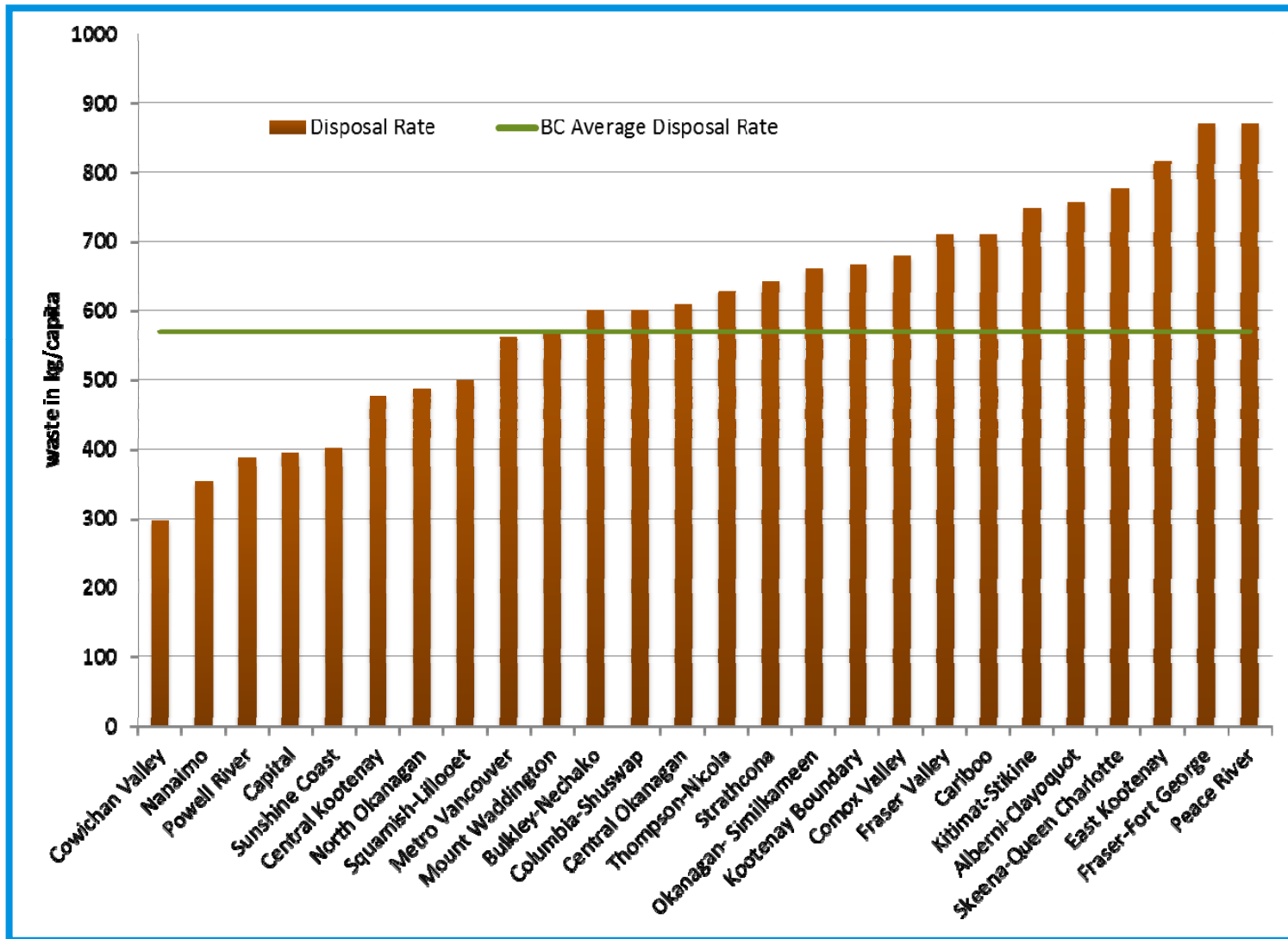


Current Performance

2007 Plan		Current Performance	
Diversion Rate			
2005:	15%		
2012:	54%	2013:	20%+
Disposal Rate			
2005:	790 kg per capita		
2015:	400 kg per capita	2013:	740 kg per capita



Regional District Disposal Rates



Plan Implementation Schedule

Plan Component	Timeline
ICI Disposal Bans	
Stakeholder Consultation	Nov 2014-Feb 2015
Bylaw Amendment	March 2015
Phase-In Enforcement	April 2015-Sept2015
Full Enforcement	Oct 2015
Organic Waste Diversion	
Compost Feasibility Study RFP	Nov 2014
Organics Diversion Strategy	April 2015
Program Implementation	Jan 2016
Construction, Reno & Demolition Waste	
Investigate markets for wood waste	2015
Implement Disposal Ban	2016



Proposed PMAC Schedule

Date	Agenda
Aug 21/28 2014	<ul style="list-style-type: none"> • 2007 SWMP • Existing System Performance & Effectiveness • Implementation Schedule/PMAC Schedule
Oct 16/30 2014	<ul style="list-style-type: none"> • ICI Disposal Bans Work Plan & Schedule • Compost Feasibility Study RFP
Dec 11/18 2014	<ul style="list-style-type: none"> • ICI Disposal Bans – Stakeholder Consultation Results • Communications Plan
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Apr 16/23 2015	<ul style="list-style-type: none"> • ICI Disposal Bans – Progress Report • Organic Waste Diversion Strategy
June 18/25 2015	<ul style="list-style-type: none"> • Organics Waste Diversion – Progress Report • Wood Waste Disposal Strategy



ACRD SWMP Review & Implementation Process

Background *Questions?*

ACRD SWMP Review & Implementation Process

Curbside Collection RFP Process



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Curbside Collection RFP

- * Recycling Regulation – Printed Paper & Packaging (PPP)
 - Residential sector only
- * Multi- Material BC (MMBC)
 - Responsible for collection, processing and marketing
- * ACRD is a sub-contractor to MMBC
 - New contract must be consistent with MMBC
- * RFP Evaluation Process
 - Closing date November 3
 - Residential collection infrastructure uncertain until award



ACRD SWMP Review & Implementation Process

Curbside Collection RFP Process *Questions?*



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ACRD SWMP Review & Implementation Process

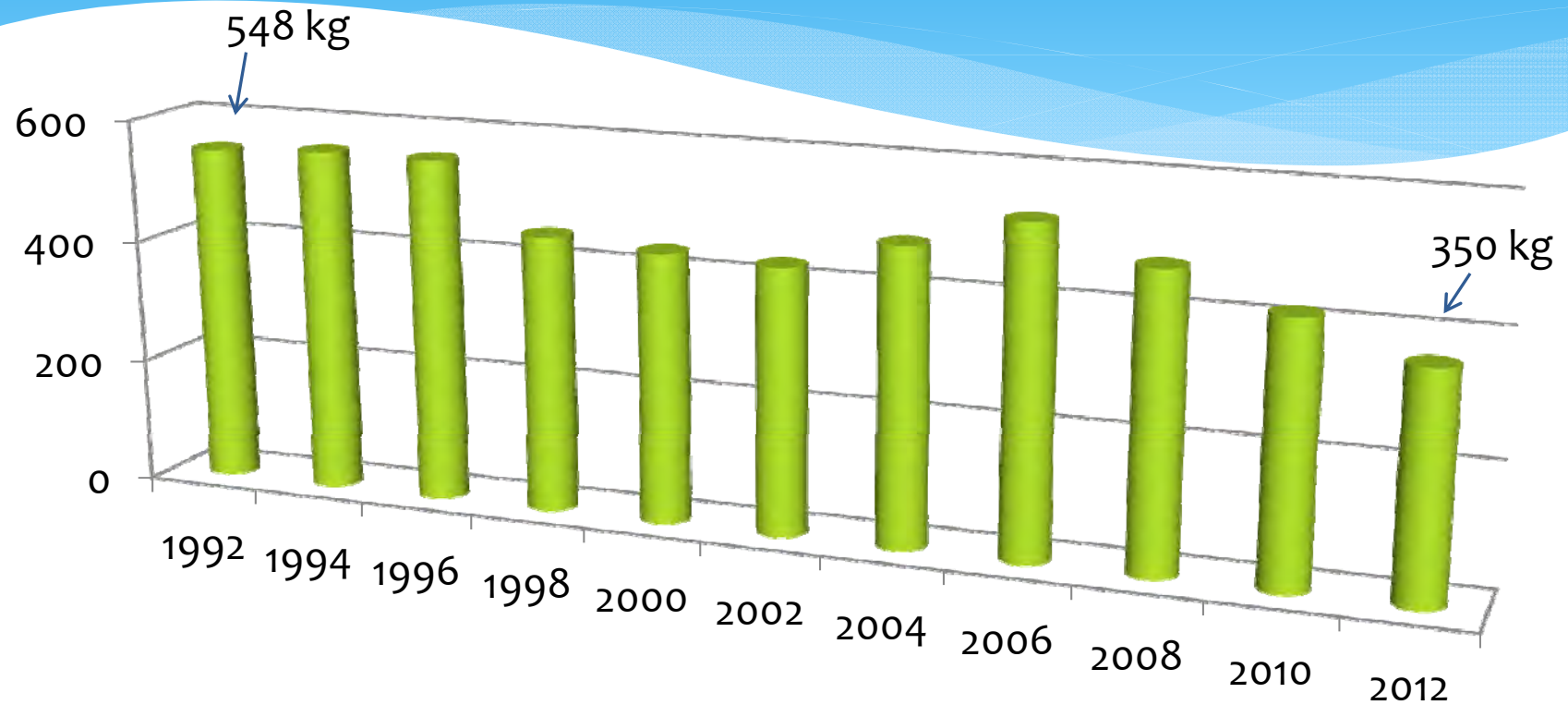
ICI Disposal Bans

RDN Landfill Disposal Bans

- * Gypsum (1991)
- * Land clearing waste (1992)
- * Corrugated cardboard (1993)
- * Recyclable Paper (1997)
- * Scrap Metal (1997)
- * Tires (1997)
- * Commercial organic waste (2005)
- * Garden waste (2007)
- * Wood Waste (2007)
- * Stewardship Materials (2007)
- * Household Plastic Containers (2009)
- * Metal Food & Beverage Containers (2009)



RDN Annual Disposal Rate



2007 SWMP – Disposal Bans

- * Proposed bans on recyclable materials such as:
 - * Cardboard
 - * Paper
 - * Metal
 - * Yard Waste
 - * Stewardship Program Materials
- * Based on stability and capacity of local diversion infrastructure
- * New diversion potential 15% or 3400 tonnes



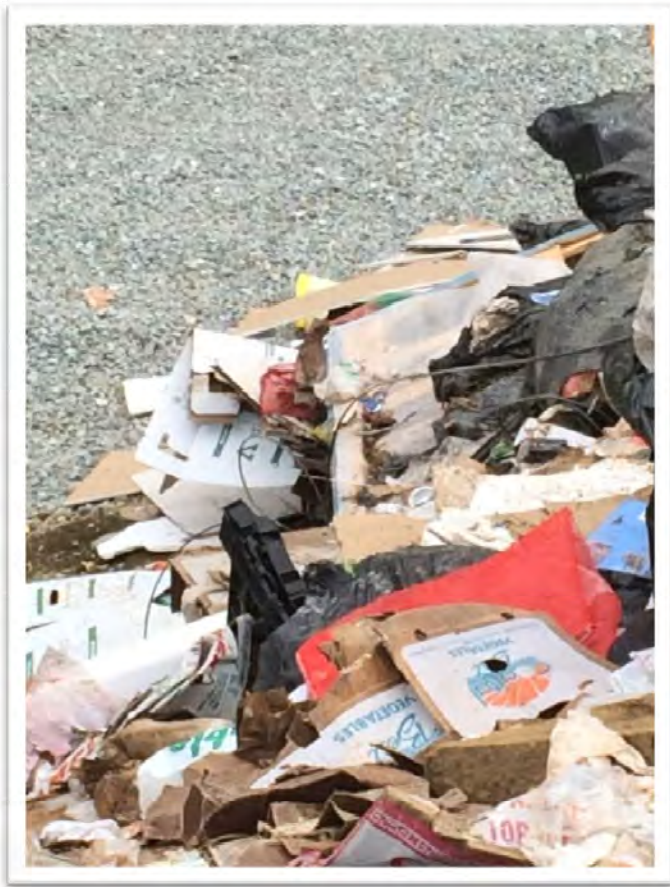
Current Regulations Alberni Valley

Bylaw R1006-5 Alberni Valley Tipping Fee Amendment, 2013

- * Garbage - \$95 per tonne
- * No charge for recyclable material
 - * Paper, metal, boxboard, corrugated cardboard, compostable materials
 - * Excludes any material contaminated by food or oil or a controlled waste
- * Loads containing cardboard or controlled waste at \$130 per tonne



Alberni Valley Disposal



Current Regulations – West Coast

Bylaw R1010-3 – West Coast Tipping Fee Amendment 2013

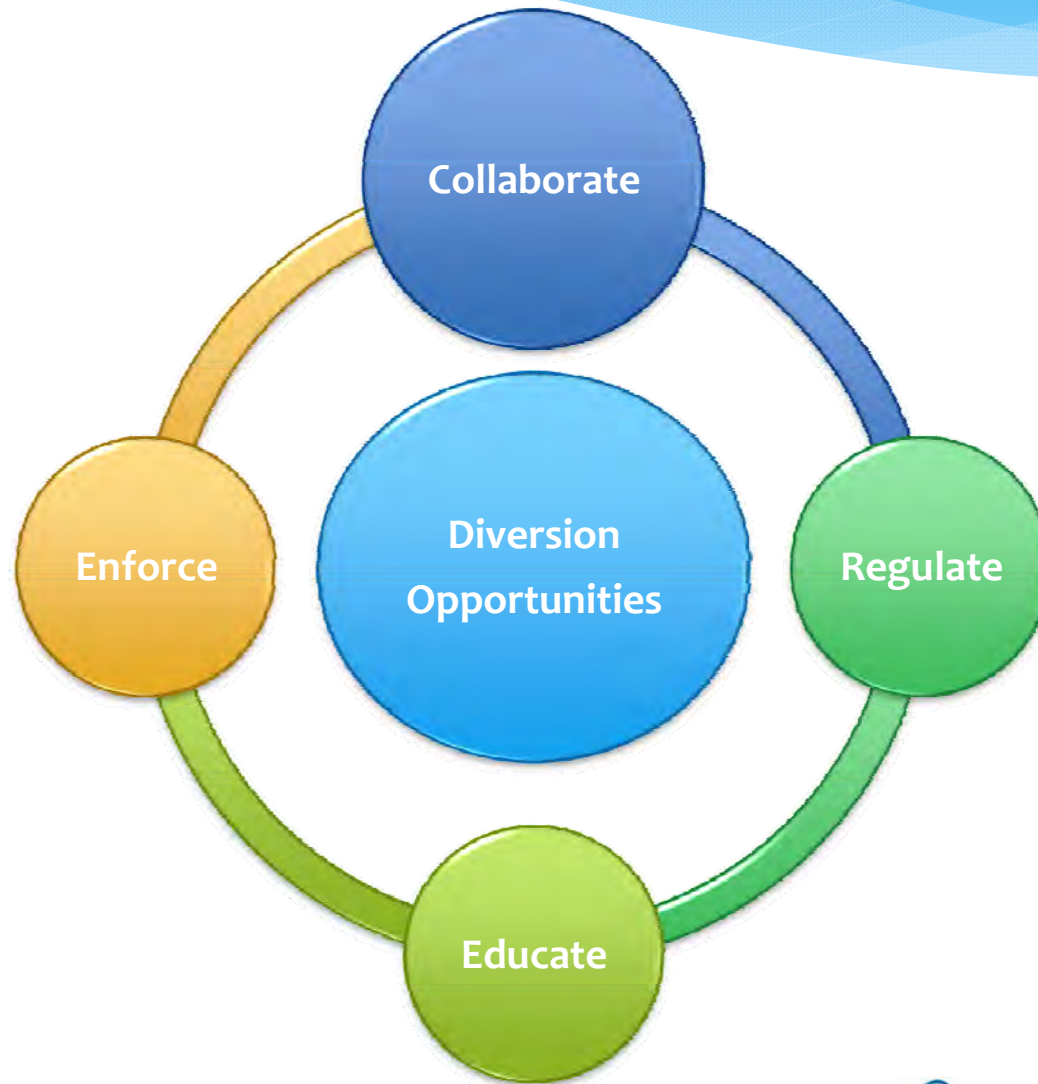
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West Coast Disposal



Process



Work Plan (1)

1. Diversion opportunities

- Assess/confirm diversion opportunities by material
- Review and update diversion quantities by material



2. Collaboration (generators, haulers and processors)

- Provide input to regulations and enforcement protocols
- Provide input to education materials
- Provide feedback on enforcement



3. Regulation

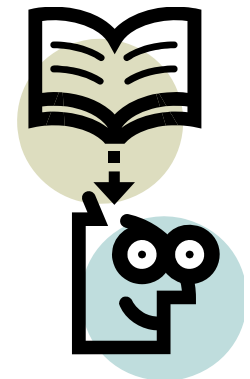
- Review current solid waste system costs and assess impact
- Review and amend current regulatory bylaws



Work Plan (2)

4. Education

- Target based on results of collaboration
- Potential tools
 - Mailer to generators
 - Adverstising
 - Media materials
 - Brochures/posters/flyers
 - Infraction Notices



5. Enforcement

- Review and amend current landfill operations contracts
- Train operations contractor staff
- Phased approach



Schedule and Budget

Work Plan	Timeline	Budget
Diversion Opportunities		
Confirm material and quantities	Nov 2014-Dec 2014	CMA
Stakeholder Collaboration	Nov 2014-Feb 2015	CMA & Staff
Regulation		
Solid Waste System Financial Review	Jan 2015-Feb 2015	CMA & Staff
Bylaw Amendment	March 2015	CMA & Staff
Education	April 2015-Sept 2015	\$5000-\$8000
Regulation		
Train contract operations staff	April 2015	CMA & Staff
Phase-In Enforcement	April 2015-Oct 2015	Staff/Contract

✓ Current CMA contract \$9,000 to disposal bans



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ACRD SWMP Review & Implementation Process

ICI Disposal Bans *Questions?*

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Organics Diversion Strategy: Vancouver Island Update

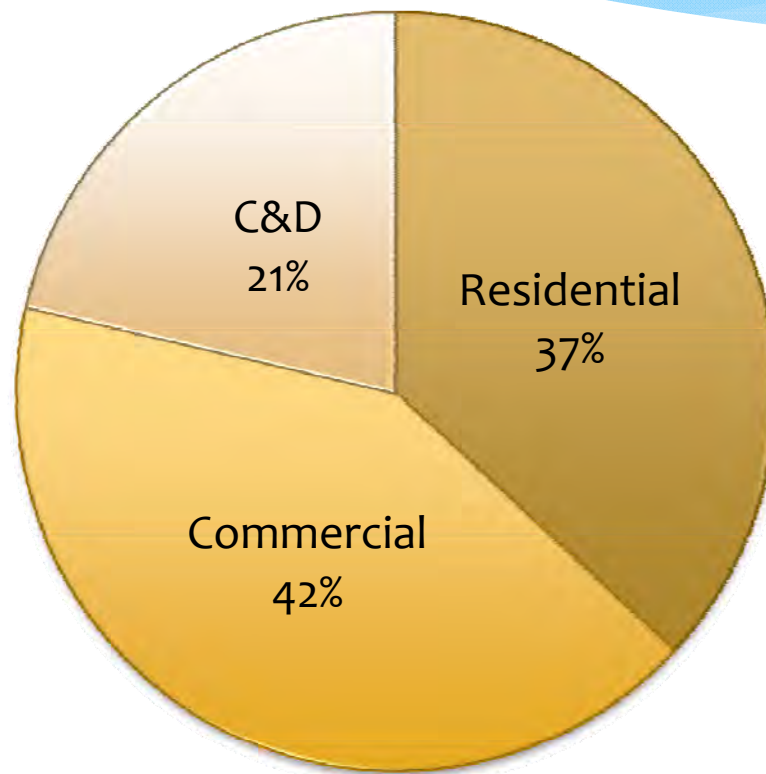


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Bans & Facilities



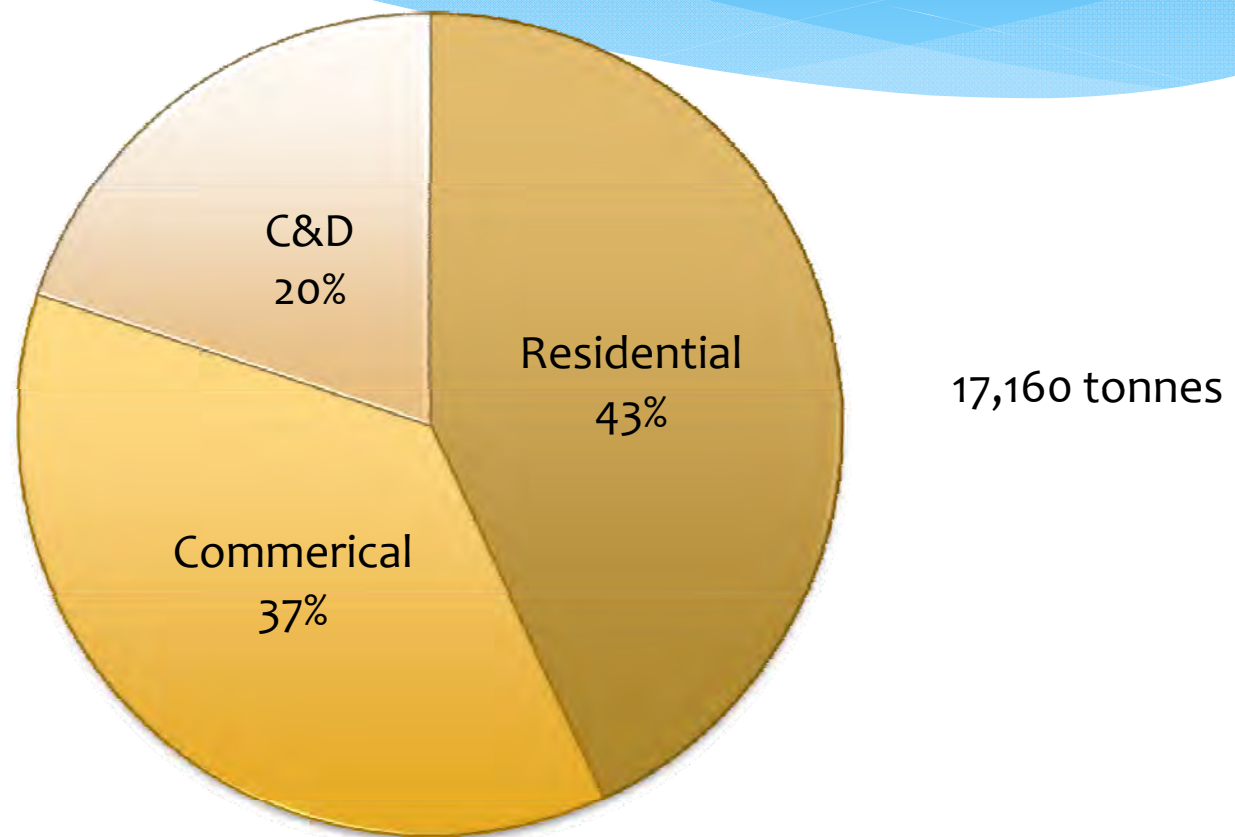
ACRD Total Waste Disposal



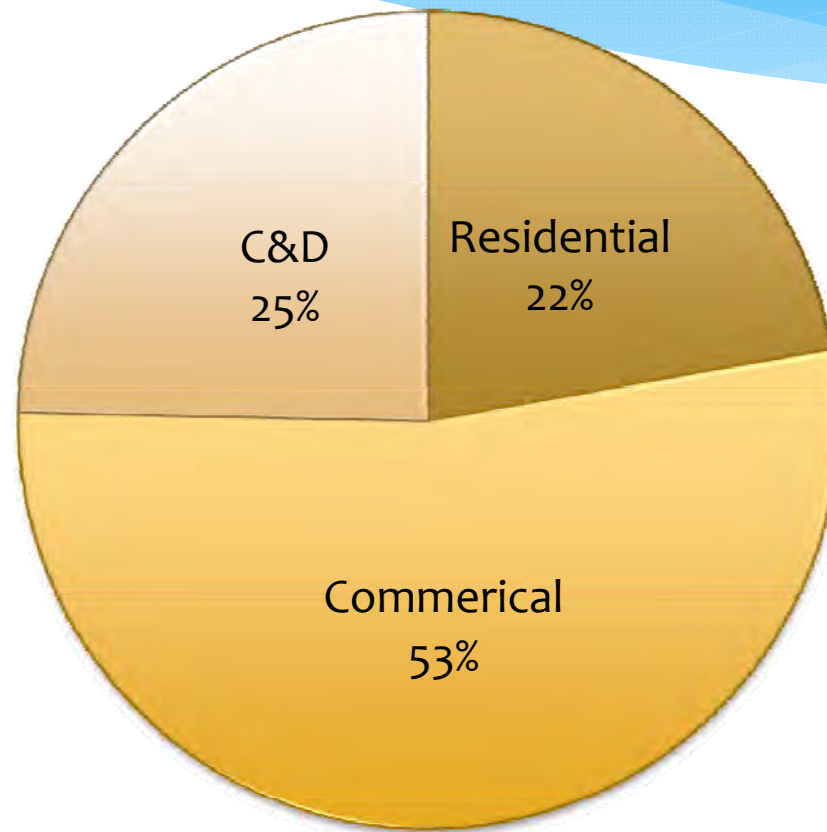
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Alberni Valley Waste Disposal



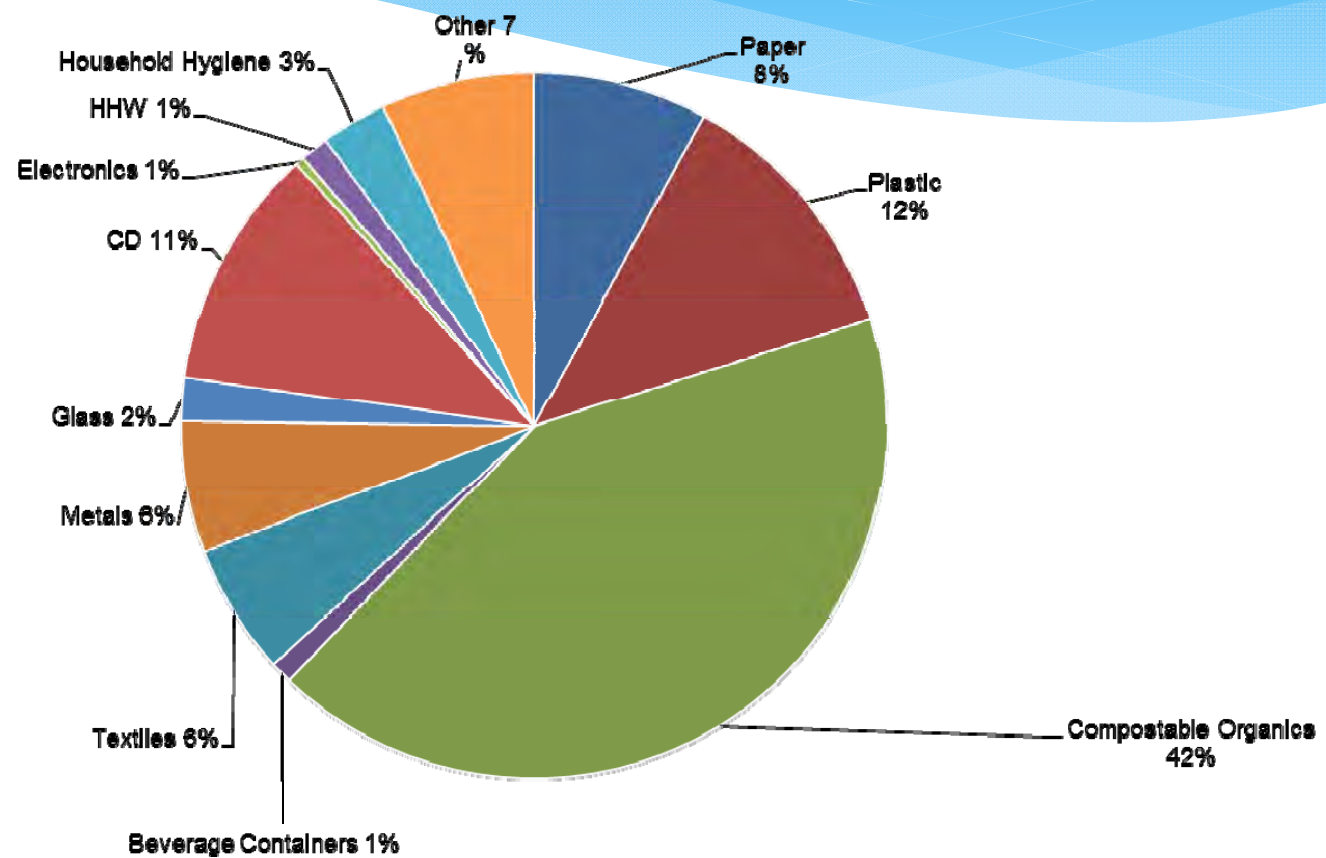
West Coast Waste Disposal



5,565 tonnes



RDN Waste Composition 2004



ACRD Organic Resource

* Alberni Valley

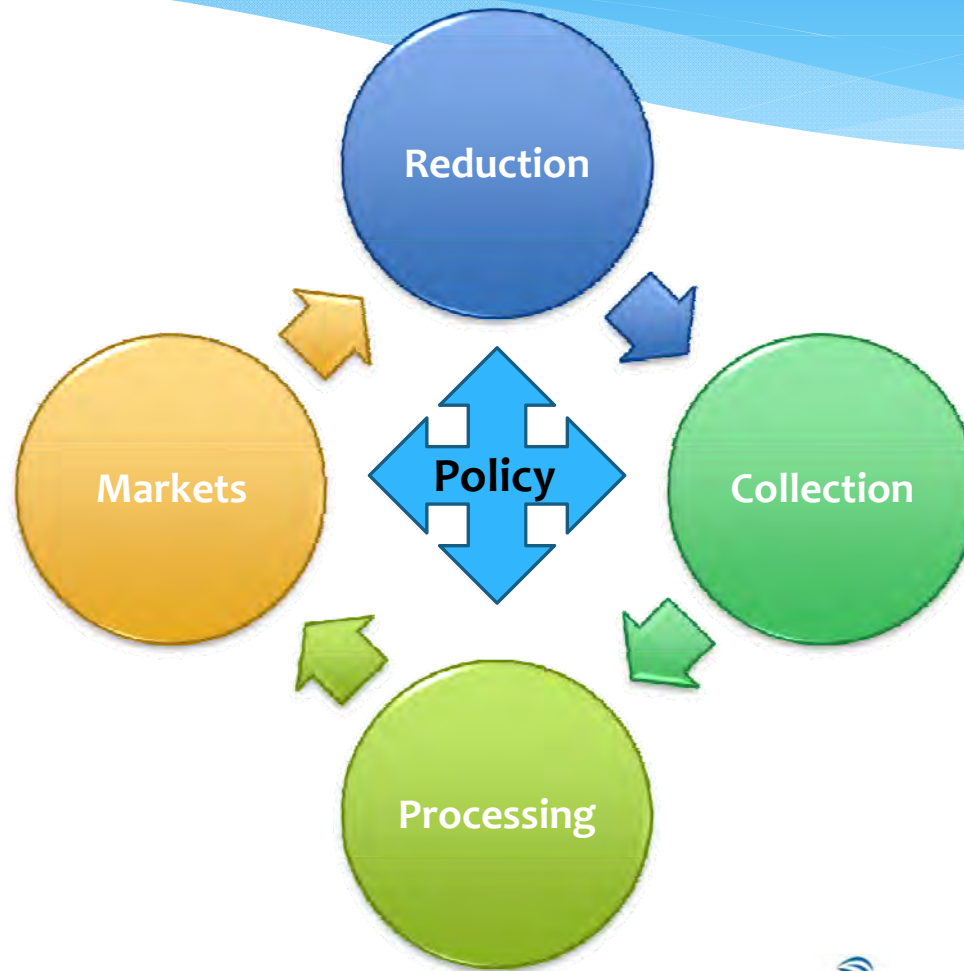
- $17,000 \times .40 = 6,800$ tonnes per year
- Includes yard waste, food waste, compostable paper
- Source ICI and Residential
- Assume 50% recovery = potential 3,400 tonnes per year
- Residential food waste only = 1,000 tonnes per year
- Landfill currently “processes” 568 tonnes of compost material

* West Coast

- $5,500 \times .40 = 2,200$ tonnes per year
- Assume 50% recovery = potential 1,100 tonnes per year
- Residential food waste only = 138 tonnes per year



Assessing Opportunities



Love Food Hate Waste (WRAP)

United Kingdom



- * Population: 63,182,000
- * Help UK households reduce food waste
- * Targeted campaign designed to reduce 7 million tonnes of food waste generated annually (60% could have been eaten)
 - * Planning and shopping tips
 - * Recipes for leftovers
 - * Engaging graphics
- * Avoidable household food waste cut by 21% since 2007
- * Implemented at municipal level and by retail chains

North Shore Recycling Program Compost Coaching



- * Population: 180,292
- * Pilot project, now on-going program using community-based social marketing to reduce organics requiring collection
 - * On-site training and follow-up
- * Reduction & Diversion
 - * 450 kg/hh/yr for non-composters
 - * 90 kg/hh/yr for homes already composting

Green Bin –Beyond Composting

Regional District of Nanaimo



- * Pop: 151,508/53,500 SF households
- * Reduction & Diversion
 - * 2012 collected 117 kg per household
 - * 2012 diversion rate 60% (not including self-haul yard waste)
 - * Composted a private in-vessel facility
- * Disposal Impact
 - * 2012 diverted 42 kg per capita from landfill
 - * Region-wide disposal rate 350 kg/cap

Grand Forks (RDKB) Food Scraps Collection

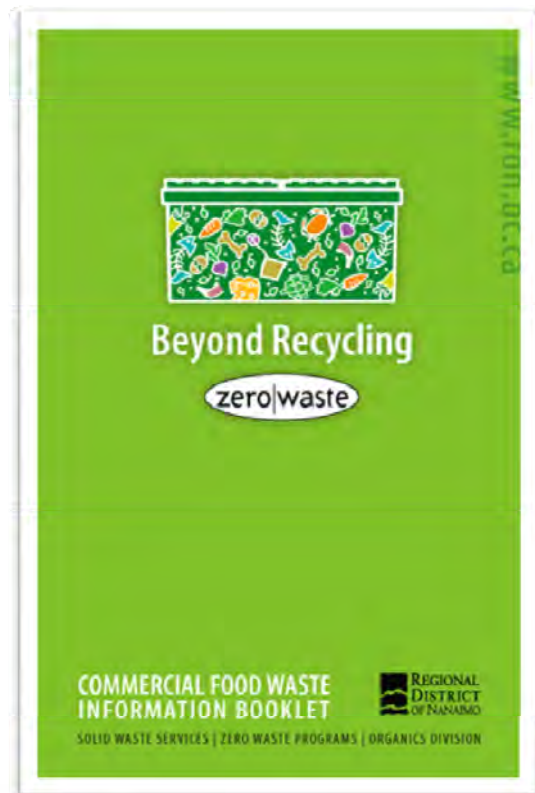


**kNOw
WASTE**

- * Population: 4,026/1,830 SF Households
- * Reduction & Diversion
 - * 2012 collected 123 kg per household
 - * 2012 diversion rate 62% (not including self-haul yard waste)
 - * Composted in windrows at local landfill
- * Disposal Impact
 - * Pre-program per household disposal rate 264 kg/yr
 - * Current per household disposal rate 119 kg/yr (145 kg/hh/yr reduction)

Commercial Food Waste Ban

Regional District of Nanaimo



- * Population: 151,508
- * Reduction & Diversion
 - * 2006 - 4200 tonnes or 30 kg per capita reduction in food waste
 - * Recovery rate 48%
 - * Current recovery rate 33% or 21 kg/c/yr
- * Disposal Impact
 - * RDN annual per capita disposal rate from 553 kg in 2005 to 517 kg/ in 2006
 - * Current rate 350 kg/c/yr

Reduction

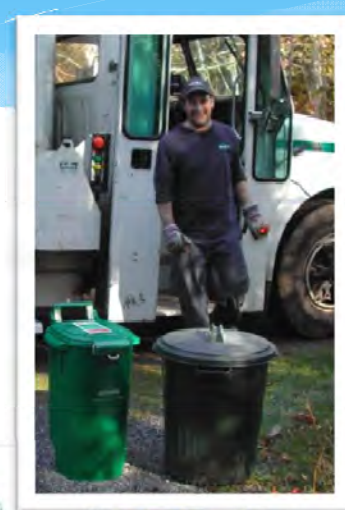


- * Avoid collection, avoid processing
 - Encourage and support backyard composting
 - Love Food, Hate Waste style campaign
 - Linking large generators to users (e.g. food banks)



Collection

- * What to collect
 - * Kitchen scraps
 - * Yard waste
- * How to collect
 - * Separate or combined
 - * Curbside
 - * Depot
- * Target Sectors
 - * Single-family residential
 - * Multi-family
 - * Commercial/Industrial
 - * Institutional



Processing

- * Create your own or used an established facility
- * Technology
 - * Low-tech/High-tech
- * Ownership
 - * Contract out
 - * Own/operate
 - * Partnership
- * Location



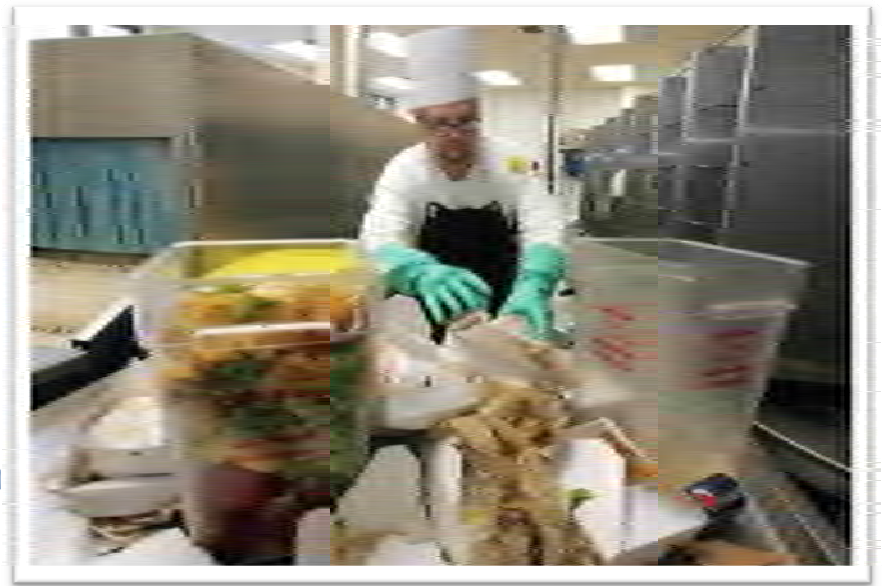
End Markets

- * Agriculture
- * Erosion and sediment control
- * Landscaping
- * Reclamation
- * Garden centres
- * Topsoil Manufacturing
- * Turf application
- * Wholesale Nurseries



Policy

- * Used to support organics diversion objectives
- * Mechanism to encourage participation in programs
- * Encourages organic waste to be diverted to organics processing facilities
- * Examples:
 - * Ban commercial organic waste from landfills
 - * Collection bans (enforced at curbside)
 - * Yard waste and wood waste burning bans



ACRD Organics Diversion Strategy

- * 2007 SWMP proposed compost feasibility RFP at \$45,000
 - Given developments on Vancouver Island since then, is a feasibility study necessary?
- * Recommendation: ACRD Organics Diversion Opportunities Assessment
 - Local opportunities for reduction, collection, processing, markets and policies
 - Reduction and diversion estimates
 - Cost estimates and cost/benefit analysis
- * PMAC to review and provide input on preferred direction(s) for an ACRD Organics Diversion Strategy
- * Estimated cost \$10,000



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QUESTIONS?



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