

## Regional Solid Waste Management Plan Review: *Engaging solutions for tomorrow*

Garbage School 301:  
Policy Instruments

## Policy Options

Options	Residential	ICI	DLC	Gov't
Disposal bans	✓	✓	✓	
Financial tools	✓	✓	✓	
Disposal limits	✓			
Product Stewardship	✓			
Voluntary approaches • Social Marketing	✓	✓	✓	
Green procurement		✓	✓	✓
Carbon credits		✓	✓	✓

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## Disposal Bans

- Enforceable
- Focus on materials with alternate process in place and/or that pose an environmental concern
- Conserve landfill space and assist in extending the life of disposal facilities.
- Encourages recycling
  - The only way to mandate commercial recycling is restrictions at the disposal facility



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## Examples

- Nova Scotia:
  - Wide range – covers recyclables, organics, and materials covered by product stewardship
  - Applies to all waste streams (residential, ICI, DLC)
- Cowichan Valley Regional District
  - 58 items! All recyclables and commercial organics
  - Diversion rate is about 55%
- Massachusetts:
  - Recyclables, hazardous materials, yard waste

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## Advantages of Bans

- Diversion potential is high
- Applicable to ICI and construction waste
- Usually promotes economic development
- Less methane gas produced if organics banned
- Little or no public opposition
- Easy to introduce and administer
- Easily measured



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## Disadvantages of Bans

- Need to have recycling infrastructure in place
- Need a strong public education program
- Waste may move to other jurisdictions
- Illegal dumping
- Higher enforcement costs
- Lost tipping fees



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## Financial Policies

- Variable tipping fees
  - Charge more for items that can be recycled/reused
- Tipping fee surcharge
  - Cover cost of landfill and recycling/composting programs
- Landfill tax
  - Tax tonnage disposed
- Pay as you go (or throw!)
  - Charge per container collected
  - May be combined with disposal limits



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## Variable tipping fee

- Currently being tested in RDCO for construction waste
- Already widely used:
  - Capital Regional District
  - GVRD
- Yard waste and recyclable materials charged less
- Difficult-to-handle materials charged more
- Loads containing designated recyclables charged more



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## Advantages of Variable Fees

- Diversion of prescribed materials
- Applicable to DLC and ICI waste streams
- Greater revenues
  - May be subsidy for recycling programs
- Economic motivator
- Economic development



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## Disadvantages of Variable Fees

- Public's resistance to "double taxation"
- Increased illegal dumping
- Waste to other jurisdictions
- Greater enforcement required



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## Tipping Fee Surcharges

- Tipping fees reflect the full cost of disposal plus an additional charge to support diversion programs
- Can encourage recycling or composting activities
- Only effective if other disposal routes are not available

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## Landfill Tax

- An environmental tax on top of normal rates, more accurately reflecting the environmental costs of landfilling
- Can be used to fund the landfill and other waste reduction and recycling programs
- Transfers costs to waste generator
- Common in the UK
- Presently in place in RDCO



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## Advantages of Landfill Tax

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- Equal access
- Extra funds for education programs



## Disadvantages of Landfill Tax

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- Perception that waste is free
- Over-use of waste system



## Pay As You Go

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- A direct message to residents
- Each bag of garbage costs
  - This model is used on Salt Spring Island
  - A modified version (a can limit, with additional bags for a fee) is in place throughout the GVRD and in RDCO



## Advantages of PAYG

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- Make waste costs more visible
- Encourages personal responsibility
- Reduces waste at curb
- May over-all reduce costs



## Disadvantages of PAYG

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- Public opposition
  - Concern for lower income and larger families
  - Perception that waste removal should be free
- Illegal dumping



## Product Stewardship

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- At the provincial level
- Tends to target hazardous materials
  - Waste oil
  - Paint
  - Pesticides/herbicides
- New initiatives look at E-Waste
  - Already implemented in Alberta



## Advantages of Stewardship

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- Cost shift off taxpayers
- Increases waste diversion
- Promotes better product and packaging design
- Compliance is high



## Disadvantages of Stewardship

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- Out of municipal government's control
- Difficult industry acceptance
- Difficult to administer



## Voluntary Approaches

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- Social Marketing:
  - Evolution from top-down delivery of information to a focus on consumers
  - "Sell" ideas, attitudes and behaviors
  - Influence social behaviors not to benefit the marketer, but to benefit the target audience and the general society



## Focus on Residents: Social Marketing in Edmonton

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- Switch from blue box to blue bag in 1999
- Barriers:
  - loyalty to box
  - cost of bags
  - bags are not reused
- Marketing techniques:
  - Direct mail
  - TV ads
  - Media relations (TV and newspaper coverage)
  - Outreach programs (open house, education resources, exchange of boxes for free bags)



## Advantages to Social Marketing

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- Engage public and shift behaviours
- Higher diversion rates
- Overall environmental benefits
- Publicly well-accepted
- Financially sustainable
- No negative side-effects



## Disadvantages to Social Marketing

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- Information does not equate to behaviour change
- High start-up costs
- May be difficult to administer



## Green Procurement

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- Policy requiring selection of products and services that minimize environmental impacts
- Look at lifecycle impacts



## Green Procurement Advantages

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- Generates a market for green options
- Sets a strong example
- A stronger market will eventually decrease prices
- Products are usually easy to recycle, last longer and/or produce less waste



## Green Procurement Disadvantages

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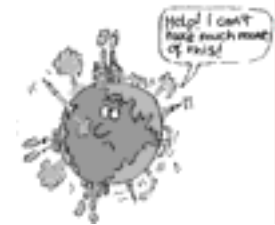
- Green options may cost more
  - The Regional District of Kootenay Boundary, B.C., permits a 10 per cent price preference for green products
- Lack of corporate/political commitment
- Previous poor quality of recycled materials
- Limited availability



## Carbon Credits

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- Greenhouse gases are causing the climate to change
- Kyoto Protocol – countries agreed to reduce GHG emissions
- Waste management can emit or reduce emissions
- GHG "credits" can be sold or traded for money
  - \$10-25/tonne



## Greenhouse Gases and Waste Management

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- Generation of new products
  - Uses fossil fuels
- Waste collection
  - Burns gas → emits CO<sub>2</sub>
- Landfilling
  - Decomposition of organics without oxygen → emits methane
- Combustion
  - Releases CO<sub>2</sub> and N<sub>2</sub>O
  - Energy may be used to replace fossil fuels
- Composting
  - Decomposition of organics with oxygen → emits CO<sub>2</sub>



## Minimizing GHG from Waste

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- Use recycled materials
- Efficient waste collection
- Collect landfill gas; flare/use energy
- Harness energy from combustion
- Compost organics



## Carbon Credits Advantages

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- Additional income can offset operating costs
- Reduces local contribution to climate change



## Carbon Credits Disadvantages

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- Markets are not well established
- Prices may fluctuate

