

the Innovator

Integrated Resource Management



Schematic of possible retrofit James Bay, Victoria, BC

What if there was a simple way to greenhouse gases that didn't add to taxpayer cost? What if it paid for itself? What if it generated electricity, heat and gas?

Traditional waste management is designed to address regulations at the least cost. By contrast Integrated Resource Management (IRM) views waste as a resource from which revenues can be generated. Nothing is wasted, everything has value.

What's Different : Why Change?

As the world adapts to economic pressures and Climate Change, waste must be re-evaluated. IRM is the result.

IRM is an integrated approach to recovering energy and resources from waste. It includes planning for solid and liquid waste, community energy needs, water and greenhouse gas reductions. It links with transportation, infrastructure, planning and buildings. It creates local employment and is a local economic generator.

The main driver is an integrated business case that can turn waste from a disposal cost to a viable business. It can reduce GHGs, so developers, investors, owners and corporations can 'do the right thing' while staying profitable.

The components of IRM are not new but are refocused to maximise value, creating a fundamental shift in how waste is addressed.

IRM Advantages

IRM costs the same or less than traditional waste management, but generates revenues and can thus be profitable, net of costs. This means taxpayer funding is limited or may even potentially be unnecessary.

- IRM can recover enough energy to heat the equivalent of up to 30% of a community's homes. This can replace fossil fuels to heat commercial and residential buildings.
- IRM can produce chilled water to reduce the electricity consumed by air conditioning.
- IRM can generate enough electricity from waste to power 10% of a community's homes.

- IRM can generate enough biofuels from waste to run 10% of a community's cars.
- IRM can reduce a community's greenhouse gas emissions by 25%. Municipalities can exceed most current GHG reduction targets such as the BC Climate Action Charter and even exceed Kyoto.
- IRM can reduce the electricity required for pumping and treating wastewater by 33%.
- IRM uses small, local treatment plants, many of which can be located within buildings or municipal infrastructure, reducing land requirements by 80%.
- IRM's smaller wastewater treatment plants use largely "off the shelf" components and can be built faster than large, centralized plants. IRM plants can thus be upgraded as technology improves, providing superior flexibility & resilience than other systems.
- IRM can quickly meet additional demand, reducing taxpayer cost & risk. Capacity can be added when and where it's needed, rather than having large planned wastewater treatment plants with excess capacity and avoidable debt.
- IRM is a "zero waste" approach which reduces pollution from landfills and incinerators by diverting waste into energy and other resources.
- IRM wastewater treatment can produce high quality water (treated to a tertiary sterile level) usable for nonpotable purposes, reducing the cost of expanding new watersheds, water filtration and treatment plants and piping costs.
- Recovered resources are used locally, reducing transfer costs and GHGs, improving energy generation efficiency and community improving resilience.
- Taxpayer cost can be stabilized, reduced or eliminated, reducing or eliminating reliance on local taxpayer charges or senior governments for capital funding.
- Resource recovery generates local employment, stimulating the economy rather than sending jobs and money offshore to buy fossil fuels.

How IRM Works

- Localized plants treat wastewater to high-quality, sterile level usable for irrigation, commercial or agricultural purposes, recharging creeks or groundwater.
- Treated water is piped to nearby buildings where heat pumps extract both heat and cold for heating and cooling. This maximizes efficiency and value.
- Kitchen and other wet organic waste are converted to biogas to fuel buses and cars.
- Dry organic wastes such as wood wastes produces heat and electricity at plants located close to hospitals, universities or other large energy/heat consumers.
- Nutrients are purified and sterilized into high quality fertilizers, replacing artificial fertilizers.



President's message

We are working toward another end of season, often the busiest time within the industry as our customers finally decide to get the work done they have been putting off. Most of the industry has been "slow and steady" this year due to the general economic slowdown. One of the nice things about our business is, it never stops.

I would like to take the opportunity to inform our membership of the ongoing programs supplied by BCOSSA. I am particularly excited about our group health care (see ad in this edition) BCOSSA has worked hard to deliver inexpensive extended health care insurance for you, your family and your business.

I would like to thank the staff and volunteers at BCOSSA for their continuing work to provide technical support and guidance for our membership.

BCOSSA provides technical support and advice to members who find themselves in problems with the Health Authority, clients or ASTTBC. Sometimes ROWP's get into sticky situations which may result in liability issues, registration problems or even legal situations. ROWP's may not know when to seek legal advice or how to manage the bureaucracy of regulatory authorities or ASTTBC. Sometimes just an unbiased second opinion on a tough decision is helpful. BCOSSA provides help to ROWP's in these situations and advocates for the practitioner's best interest. BCOSSA will provide review of documentation, filings, health orders, practice review documents and related correspondence confidentially. Reviews will be done through the BCOSSA office using the experience and knowledge of staff who have an expert understanding of the Sewerage System Regulation Standard Practice manual and the various regulatory process and procedures.

We are continuing to modify our education delivery model for our member and students, BCOSSA/WOWTC are working with several colleges around BC to deliver courses directly through their facilities. We will soon be offering both our current registration course load and continuing education credits through this model.

I have received a number of enquires from members regarding this years increase in membership fees. This change to fees was made at the last BCOSSA Annual General Meeting in Langley, by the attending membership. The Board had originally requested a 25% increase in fees to cover increasing costs, but through consideration by the membership that no increase had been made to the fees since 2002, a substantial increase was warranted. This was in recognition of the continuing support that BCOSSA gives its membership. I recognize that this increase was a bit of a shock to some but I feel that we all benefit from our association's continued work.

I look forward to seeing you all at our Conference Tradeshow and AGM in Kamloops in February 2012 (see info this edition) and thank you for your continuing support of BCOSSA and the industry.

Steve Warren
President

BCOSSA Board

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President

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Westcoast Onsite Wastewater Training Schedule

	OCTOBER 2011 LANGLEY	
OS INTRO	Introduction to Onsite Wastewater Systems	OCT 5 - 7
OS INSTALL	Onsite installation	OCT 12 - 14
OS PLANNING AND DRAWING	Onsite Planning and Drawing	OCT 17 - 21
OS SOILS	Onsite Soils Assessment	OCT 24 - 27
	NOVEMBER 2011 VICTORIA	
OS INTRO	Introduction to Onsite Wastewater Systems	OCT 31 - NOV 2
OS INSTALL	Onsite installation	NOV 3 - 7
OS SOILS	Onsite Soils Assessment	NOV 14 - 17
OS PLANNING AND DRAWING	Onsite Planning and Drawing	NOV 21 - 25
	DECEMBER 2011 NANAIMO	
OS INTRO	Introduction to Onsite Wastewater Systems	TBA
OS INSTALL	Onsite installation	TBA
OS PLANNING AND DRAWING	Onsite Planning and Drawing	TBA
OS SOILS	Onsite Soils Assessment	TBA
	JANUARY 2012 LANGLEY	
OS INTRO	Introduction to Onsite Wastewater Systems	JAN 11 - 13
OS INSTALL	Onsite installation	JAN 16 - 18
OS PLANNING AND DRAWING	Onsite Planning and Drawing	JAN 19 - 25
OS SOILS	Onsite Soils Assessment	JAN 26 - 31
	FEBRUARY 2012 KAMLOOPS	
OS INTRO	Introduction to Onsite Wastewater Systems	FEB 6 - 8
OS INSTALL	Onsite installation	FEB 13 - 15
OS PLANNING AND DRAWING	Onsite Planning and Drawing	FEB 16 - 22
OS SOILS	Onsite Soils Assessment	FEB 23 - 28

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Members can get more information;
Email our representative at clwhipple@bairdbenefitsplus.com, or phone our representative, Carol-lee Whipple, at 1-888-792-3385 (ext.113)



BC ONSITE SEWAGE ASSOCIATION 16TH ANNUAL CONFERENCE & TRADE SHOW

KAMLOOPS CONVENTION CENTRE
FEBRUARY 10-11, 2012

INVITATION

The BC OnSite Sewage Association is happy to offer you the opportunity to participate in our 16th Annual Conference & Trade Show being held at the Kamloops Convention Centre February 10-11, 2012.

Come and participate in the exciting itinerary and tradeshow! The trade show offers conference attendees an opportunity to see what's new in techniques and technologies!

Installing the Perfect Sand Mound
Subdivision Assessment, Law Policy and Liability
Floats, Pump Chambers and Volume Control
Contract, no such thing as a good hand shake deal
Electrical Connections, providing direction to your electrician
APEGBC. What you should and should not expect from your consulting engineer
Gravity Distribution, it's all downhill from here
Complex Flows and FOG
Hydrogeology Reports, what's in it
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