



Canada Green Building Council

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Leadership in Integrated Resource Management – Rating System

Gaining Ground: Resilient Cities

Creating Resilient Communities through Whole Systems Change

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Canada Green Building Council

- ❑ Coalition of public and private building industry leaders
- ❑ National non-profit organization founded December 2002
- ❑ License holder for LEED® in Canada since 2004, sole developer and administrator for LEED® Canada (certification, accreditation and workshops)
- ❑ Remarkable growth and success in market transformation

Why IRM as a Rating System?

- ✓ Opportunity to rapidly expand benefits of IRM
- ✓ Independent standard for waste management and resource recovery
- ✓ Inform & educate policymakers, government managers, private sector consultants, developers, owners and the public
- ✓ Support communities, consultants, advisors and industry by providing a practical approach & guidance to implementing IRM
- ✓ Aligns with CaGBC's planned introduction of LEED for Neighbourhood Development in 2010

IRM Rating System Value Proposition

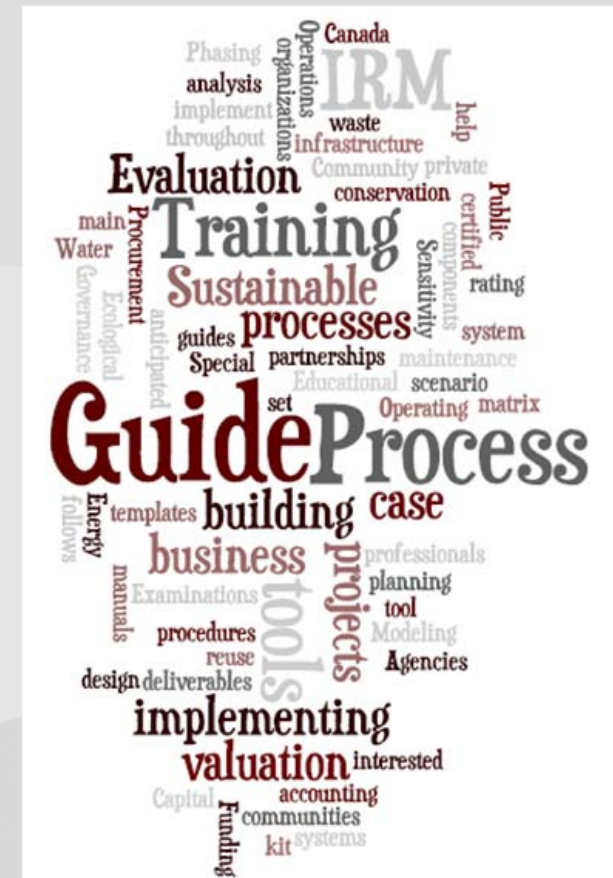
- ✓ **Informs & Supports**
 - Consultants, decision makers, lenders, government, professionals
 - Benefit of accredited IRM expertise
- ✓ **Waste Optimisation “Insurance”**
 - Materials & tools help optimise revenues, costs & time
 - Rating costs are minimal, add assurance, value
 - Ongoing monitoring provides continual assurance of optimisation
 - System continually improved from ongoing project submission feedback
- ✓ **Independent, 3rd Party Certification**
 - Increase accountability, avoid “greenwash”



Rating System Materials and Tools

□ Guide to IRM Processes:

- Energy and waste systems
- Water reuse and conservation
- Ecological design
- Community planning
- Sustainable valuation & business case
- Governance
- Phasing
- Funding
- Operations and maintenance of infrastructure



Rating System Materials and Tools

□ Evaluation Tools:

- Evaluation matrix
- Sensitivity analysis and scenario building
- Building a business case
- Modeling & sustainable valuation

Ref.	Type	Units
1.00 Inputs		
1.01	Wastewater	m ³ /yr.
1.02	Stormwater	m ³ /yr.
1.03	Rainwater	m ³ /yr.
1.04	Sewage sludge	tonnes/yr.
1.05	Oil and grease	tonnes/yr.
1.06	Organic kitchen waste	tonnes/yr.
1.07	Organic waste (composting diversion)	tonnes/yr.
1.08	Paper and paper board	tonnes/yr.
1.09	Wood waste	tonnes/yr.
1.10	Plastics (capable of safe gassification)	tonnes/yr.
2.00 Outputs & Output Indicators		
2.01	Residue from anaerobic digesters	tonnes/yr.
2.02	Ash from gasification	tonnes/yr.
2.03	Methane produced	m ³ /yr.
2.04	Synthesis gas produced	GJ/yr.
2.05	Number of cars which could run on biogas	No.
2.06	Electricity which could be produced	Gwhe
2.07	Heat which could be produced	GJ/yr.
2.08	Total heat energy available from heat pumps	GJ/yr.
2.09	No. of homes which could be heated	No.
2.10	% of homes which could be provide with heat	%
2.11	Electricity which will be displaced by cooling (from heat pumps)	GWh/yr.
2.12	Water reclaimed annually	m ³ /yr.
2.13	CO ₂ e from waste management and energy consumption, current	CO ₂ e/yr.
2.14	CO ₂ e from waste management and energy consumption, projected	CO ₂ e/yr.
2.15	Reduced consumption of land for waste and energy management	Ha/capita

Evaluation Matrix Inputs, Outputs & Indicators

Rating System Materials and Tools

❑ Procurement Tools:

- Public private partnerships
- Special Operating Agencies
- Capital accounting

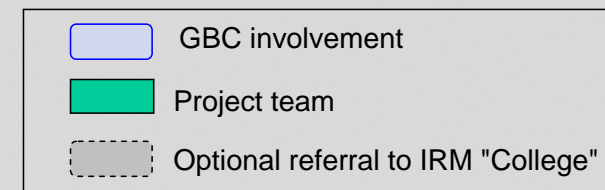
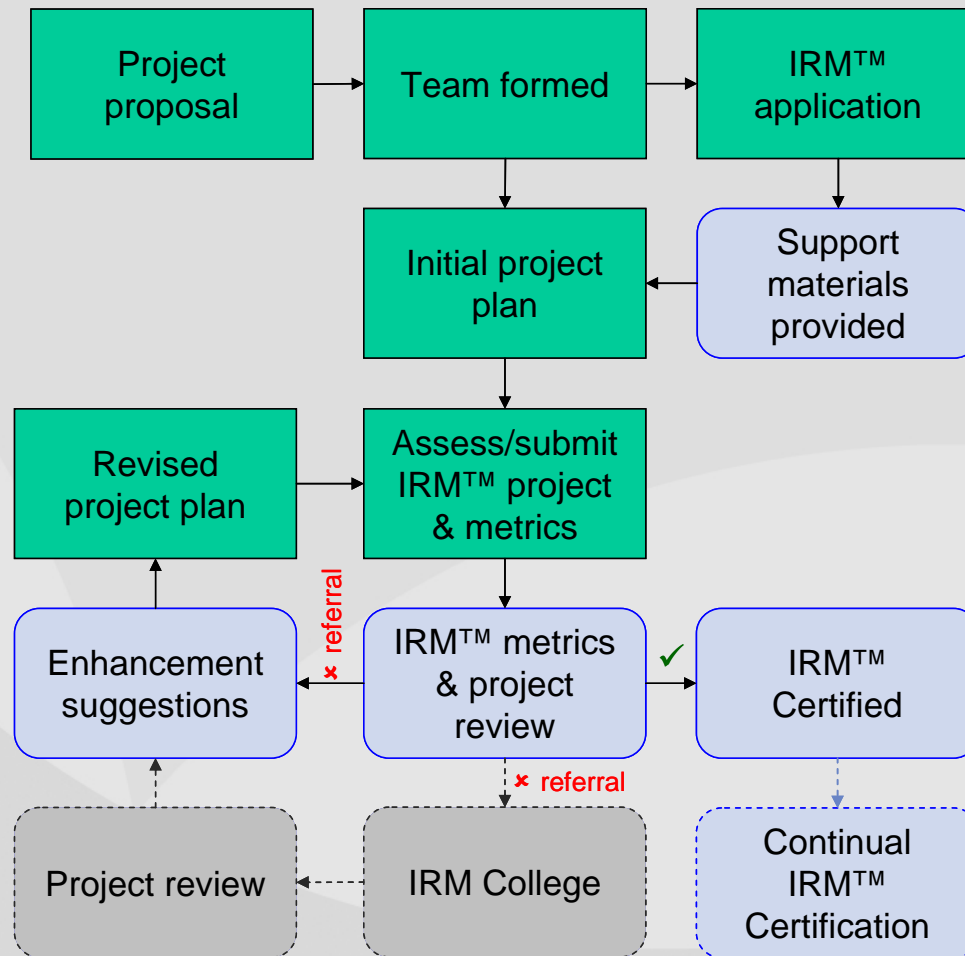


❑ Education and Training:

- Training templates
- Training manuals
- Examinations for accredited professionals



How Would the IRM Rating System Work?



Next Steps

- Seek Funding Support
 - Partial funding confirmed
 - ***Need your help to make it happen***

- Develop Rating System
 - Materials and tools

- Enlist Participants in Pilots
 - Willing communities who want to make a difference



Canada Green Building Council

Building with purpose

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