



PARTNERSHIP OF THE  
**Manitoba Capital Region**

# FROM WASTE TO RESOURCE

An Integrated Approach

January 28, 2016

SUMMARY FINDINGS

# REPORT

From Waste to Resource: An Integrated Approach (#W2R) was held at the Metropolitan Entertainment Centre on January 28, 2016.

Capital Region leaders recognized the need for new and innovative ways to manage waste and hosted a delegation from the Netherlands led by the Consul General, Mr. Anne van Leeuwen. During the three-days of discussions regarding new and innovative approaches to managing our waste. A one-day interactive workshop featured experts on global best practice who presented to over 200 participants from universities, governments, business, industry as well as waste management experts.

Speakers: (in order of appearance)

Braden Smith, Chief Planner - City of Winnipeg  
Mayor Brian Bowman, Mayor of Winnipeg  
Colleen Sklar, Executive Director - Partnership of the Manitoba Capital Region  
Mr. Anne van Leeuwen, Consul General of the Netherlands  
Hank Venema, International Institute for Sustainable Development  
Warren Thompson, Saibal Basu, Don Davies - Stantec Team  
Ruud Cino, Ministry of Infrastructure and the Environment of the Netherlands  
Herman Huisman, Rijkswaterstaat  
Hans van Duijne, Deltares  
Brendo Meulman, DeSaH  
Yvo Veenis, Groundwater Technology  
Mark Vanderbeken, DRYCAKE  
Sepideh Datoobar, eurete

Experts in water and waste management along with government officials from the Netherlands, such as Ruud Cino from the Ministry of Infrastructure and the Environment, had the opportunity to review the Manitoba context, discuss mechanisms for better collaboration between knowledge institutions, local government, business and industry as well as introduced new and innovative practices being undertaken globally. Integrated processes have been introduced and adopted successfully across the globe, many introduced by experts from the Netherlands.

The #W2R workshop was an opportunity for in-depth conversations with national and international industry experts who provided input to regional leaders as they created a vision and long-term strategy to lead our region forward sustainably.

In this report, findings are presented from data collected by the Master of City Planning students from the University of Manitoba who engaged the participants in conversation to gauge their perception of current collaboration level between knowledge institutes, governments and business and industry in the Capital Region and how to improve collaboration. They also solicited input on the top ideas, strategies and actions toward best practice for an integrated approach on managing waste in the Capital Region.

Participants were asked “What are three words you would use to describe our Capital Region TODAY from a Waste to Resource (management) Perspective?”



## Lunch Session – Question 1

What are the benefits of collaboration between knowledge institutes, governments and business (KGB)? What are the barriers to greater collaboration in the Capital region between the KGB and across sectors?

BENEFITS		BARRIERS	
partnerships, networking & relationships	8	politics/political will	11
information/perspective exchange	7	separate goals/narrow thinking/self-interest	8
innovation	7	cost/funding	6
big picture thinking/common goals	6	organization/logistics/time	6
asset management	5	fragmentation	5
public participation/political will	4	lack of education	4
economic growth & development	4	complacency/risk aversion	3
better accessibility/sustainability	2	representation/leadership	2
higher efficiency	1	regulation & enforcement	1
regulation and enforcement	1		

Lunch Session – Question 2

Opportunities: Thinking about the Capital Region, what are some ideas for creating greater collaboration?

municipalities working together, well-defined leadership, more funding (PMCR), best practice (regional planning)	16
Partnership regulations (policy), localizing responsibility	12
showcase successes, education, engage to foster change and action in relationships	8
shared equipment/resource/information/knowledge	7
open-discussion (W2R-style events)	5
start small then build momentum (low hanging fruit)	4
develop risk culture (fail fast and fail cheap)	3
industry responsibility	3
change mentalities (public, private, government officials)	3
better technology (technology transfer)	2
better incentives to innovate and collaborate (NL model)	2
Living lab to build and test new companies	1
task force for consistent focus on issues	1
get down to the details	1
use what has been proven to work	1
idea generation first and foremost	1
create crisis	1
create a 'single language' manual	1
fairness	1
a 'water board'	1

## WRAP-UP DISCUSSION

The top ideas, strategies and actions for designing an integrated approach to waste management in the Capital Region are:

- Changing the mindset – waste isn't waste it's a resource
- Establishing realistic targets and timeframes
- Generally both regulation and incentivize
- Integrated planning process with stakeholders
- Planning incentives for separating waste
- Set local market
- Proximity and locations of transfer stations
- Too many landfills – The PMCR should be looking at reducing numbers – small landfills
- Eliminating miscommunication between the province and all the different sectors
- Getting the public to buy in and educating children
- Paying or employing people for waste separation
- Instead of carbon market/tax have phosphorus market/tax
- Provincial funding for regional projects and initiatives
- North east Capital Region needs processing or multi-material recycling centre – so much bulky waste in ditches and Red River
- Geese biological hazard acute chronic – flight danger with small airports
- Plastic water bottles are a major litter issue – ban
- The Forks, Assiniboine Conservatory Ect. can use those underground bins
- Educational incentives – need to match that the public wants to do “the right thing”
- Generational ethics – public perception
- Reliable and useful data collection to measure so the results can be evaluated
- Conduct a detailed inventory of assets/deficits for comparing the Capital Region to an ideal situation to identify gaps
- Use SWOT and Sustainability Indicators to assess situation
- Procurement pooling/ major savings in buying equipment and services
- Commitment – loyalty is key – change adversary relationships between RM's
- Many parties involved but core leadership the province and national
- Top down regulations with funding incentives for cooperative action
- Every level should understand and share the same goal
- Engineering study for capital/ lifecycle costing of various options
- Province and industry leaders
- Give them knowledge of costs and inaction and cost savings of interests
- PMCR and the province to take leadership role in planning
- Data collection system for inventory of assets to move toward streamlining
- Municipal governments, university and consultants
- Create a local green economy
- Instead of sending used resources somewhere process locally

- Reininvigorate capitals system to create new incentives for business
- Currently little incentive to recycle
- Comprehensive waste audit system
- Who is throwing out what?
- What sorts of soils do areas have?
- Create a comprehensive PMCR for Waste management
- Progressive pilot programs – zero waste programs
- Make garbage pickup container smaller
- Education and gather data
- Levelling the field
- Government and municipalities
- Has to be about the bottom line
- Internalizing the cost as well as prevention
- Data collection regarding waste from the province
- Making a business
- Education to young children
- Adults to ensure compliance
- Inventory
- Data collection and analysis
- Consistent regulation
- Framework and bylaws
- Zero sum circular economy
- Communization of private sector
- One planning district – prevents fence hopping of developers
- Consistent cost
- Regional consciousness
- Province needs to take leadership
- Businesses should have incentives
- Oversight group for incentives and resource support
- Equal voice for all municipalities
- Addressing a community problem
- Industry
- Tax breaks for recycling – No incentives for it
- Policy people and innovators – government must lead
- Construction adds the most waste
- Look at precedents – Edmonton
- Compositions and waste disposal diversion – 90% of waste not to landfill
- Government needs to set goals for recycling benchmarks
- Brady Landfill – larger control to green house emissions to province
- Expensive/ most risk tolerant
- Do not sugar coat – Put the big picture out there
- Urban verses rural – Prepare an experimental municipality – create and R&D – What’s the economic incentive? Business development

- Transfer cost of waste (understand drainage and water protection)
- First Nations – substandard conditions
- Deposit programs (small incentives)
- Think big and identify top concerns – Hog Manure – container composting
- PMCR membership – undertake of study waste and water protection
- Identify economies of scale – options
- Sub committee that tracks progress – Reports
- Consolidating landfills between municipalities – pushing recyclers
- Green Manitoba, PMCR, City of Winnipeg – advocating together, work on projects as partners
- Bio-solids included in governance model
- Fewer but larger waste management facilities – feasibility study
- City of Winnipeg is larger producer/largest player?
- More drop-off facilities
- Must be regional, consider bedroom communities – cooperation
- Separation between waste and facilities
- Government regulations
- Expand upon the number of things we can recycle and waste reduction opportunities
- Partnerships with sectorial or academic
- Initiative lessons from Holland, put them to practice
- Separation of organic waste – a necessity for region
- Centralized vs. decentralized solutions – more opportunity
- Can we skip the incinerate step
- Peak oil?
- Task force to foster partnership and monitor progress
- Can't have too many people involved or nothing will happen
- Keep projects in manageable chunks
- Education and public empowerment to all through municipality and other sources



## Summary of Stakeholder Consultation from W2R

### Feasibility Study

Conduct a feasibility study that examines the potential for moving the region toward zero waste, and is based on an accurate understanding of the current regional situation. The study shall include:

- Identification of stakeholder priorities, along with targets and timeframes
- Circular economy model
- Market incentives
- Carbon and phosphorous taxes
- Complete inventory analysis
- Rational for regional land fill and transfer station coordination
- SWOT analysis to identify sustainability indicators
- Life cycle costing
- Regulation development
- Biosolids and runoff

### Partnership

Partnering together to transform waste to resource, establish shared goals and develop consistency across the region for sustainable waste management. With better inventory data management and stakeholder engagement with members and First Nations communities, shared sustainability indicators can be developed to guide progressive pilot projects and policy that is consistent across the region. In addition to securing strong funding relationships, a Task Force will work with municipal and industry partners to determine consistent user and system costs that provide incentives for increasing diversion.

### Coordinated Communication

To ensure we are on the way to attaining better waste management, the message of waste to resource must be clear and consistent to the public, all levels of government, industry and other stakeholders. Concepts such as the Circular Economy, as well as established goals and rational must be communicated well to educate and empower all stakeholders to work together to enhance sustainable waste processing and management.

### Market Integration

Markets that are integrated within a progressive regulatory framework are key to propelling the diversion of waste and innovative production. Incentives for business and industry to reduce waste, develop better waste processing practices, and to find markets for recyclables and organics will promote the establishment of a local Circular Economy. Investing in research and development pilot projects will demonstrate how best practices locally implemented can move us toward greater sustainability while promoting economic development.

### Waste Reduction

Opportunities to reduce waste shall be examined, such as restricting markets for bottled water and packaging materials in order meet waste reduction objectives. Recycling opportunities can be improved by expanding capacity for a greater variety of materials for local processing and enhancing existing recycling sites or creating additional ones. Comprehensive monitoring of waste and recycling will provide quality data for future strategic planning of waste management infrastructure and sustainability policy development and implementation.

Rapid Fire Question and Answer Session

## Rapid Fire Questions and Responses

Question: What are the key message or points you will take away and what is the key message that should be communicated to all Capital Region leaders?

- It's time to act
- Need for collaboration
- Decision-making requires data
- Be innovate and listen yet don't reinvent the wheel if it works
- Learn from other places
- Change is needed- don't be afraid of change
- Education
- Stay committed
- "Reduce" in mind
- Consequences for failure to act
- Reusing, adapting/ monitoring of plans
- Circular economy
- Separating materials and specialized material collection and management
- Providing public education/awareness
- Ask your neighbour if you're unsure where things go (Green MANITOBA)
- Things are getting better for still have a way to go
- Regional facilities
- Compost life cycle analysis to show its valuable (best waste to resource)

Question: What are some innovative strategies or actions to increase diversion and recycling of construction materials resulting from demolition of aged building stock?

- Use more sustainable, longer lasting building materials
- Promote LEED
- Wood waste -> compressed fuel products
- Separating concrete for valuable components
- Reclaim wood for furniture, etc. (low value waste to high value products)
- Qualification of each section/materials to see value
- Modular materials for easy disassembly
- Charge more for unsorted waste
- Training for construction and demolition workers to encourage better sorting
- Don't reinvent the wheel, just find one that fits
- Deconstruction, not demolition
- Collaborative solutions across regions
- Public education for higher demand of good building materials
- Incentive builders/demolition companies to be more responsible
- Increase waste levies/tipping fees
- Incentivize individuals to recycle properly- attach value to materials
- Data collection
- provincial leadership to mandate construction companies to present data on divertible materials
- Eliminating disagreements between rural and urban governments

Question: How can we get the public and municipalities on board?

- Promote the positive, no more tax narrative
- School level education- practical examples for kids/students
- Practical tour for council members
- Carrot and stick; creating incentives for RMs and consumers; e.g.: cost disposal fees
- Reduce complacency; make the economics/business case
- Information for autonomous decisions
- Publicly available data
- Growth strategy
- Continuous resources/longevity of focus
- Leads to collective long-term goals and commitment and short term steps (incremental track record)
  - leads to public/politician accountability
- Broad public awareness campaign (not just in the hands of municipalities)
  - e.g.: combined media and targeted media

Question: From today's presentations, are there aspects in the governance models, the policy or incentives that should be explored to move us from waste to resource?

- Look at best practice (city of Edmonton in regards to its recycling)
- Engage communities that may lack landfill sites (ie: First Nations communities)
- Consolidate landfill sites
- Looking outside PMCR border (to create a mass of support)
- Creating process that prioritizes convenience, short term and long term goals
- Painting the picture with timelines
- Municipality participation and mandated policy regarding landfill
- Attractive/interesting pilot projects that highlight partnership, galvanizes public support
- Legal agreements between the capital region
- Regulations that create innovation
- Data collection
- Planning and modeling at the regional level

Question: Managing our water resources is critical for our continued economic prosperity, as well as way of life. How can we begin to build an understanding that water runoff as well as wastewater as a resource that must be explored and surface water and ground water must be protected?

- Education
- Small scale projects
- Action
- Hands on/ illustrated education
- Environmental/economic/social cost measures
- Involve farmers/sharing risks
- Pay for environmental restoration/ incentives
- Enforcement
- Innovative design/ water sensitive
- Social entrepreneurship, awareness, clear goals ex. All lakes are swimmable

## Next Steps Forward

Part one of the regional waste study is underway and part two and three will be developed from data collected in Phase I as well as recommendations from our stakeholders compiled from the W2R workshop. From an analysis of the current context and comprehensive data collection of the Manitoba Capital Region the next steps include:

- To undertake a feasibility study on the consolidation of landfills and waste transfer toward the creation of a closed loop regional waste approach that identifies relevant markets and innovative incentives to reduce waste through best practice while stimulating the economy and generating wealth and good jobs here in Manitoba.
- Compile a comprehensive list of all regulations currently in place to examine the feasibility of incentives and regulatory conditions to support Pilot Development Projects for evaluation and the adoption of global best practice, policy and regulation across the region.
- Create opportunities for information sharing on a local and national scale to enhance cooperation, to build trust and to empower leadership while engaging residents on a regional scale positioning the Manitoba Capital Region
- Work with knowledge institutions, government, business and industry to identify and facilitate pilot projects with measurable indicators to evaluate and demonstrate global best practice within the Manitoba context.
- Develop a platform for the sharing of information from pilot projects in an open and transparent manner to encourage continued momentum and action in re-imagining the region from a high-movement and low-risk perspective.
- Develop a comprehensive drainage mapping and runoff assessment of all capital region municipalities based on hydrological projections to 2035 to identify quantity, composition and constituents of runoff for creation of a long-term targeted recommendation for building resiliency and protection of our natural lands and our water.

## Guest List for W2R (does not include university and knowledge institute attendees)

Abi Olubodun – Cypher Environmental	Faisal Islam – Green Manitoba
Adam Fiss – University of Manitoba	Frances Smee – PMCR
Ahmed Shalaby – University of Manitoba	Gavin Van der Linde – EcoOuest
Andrew Weremy – RM of St. Andrews	George Pike – RM of St. Andrews
Anne van Leeuwen – Consulate of the Netherlands	Glenn Manning – HTFC Planning and Design
Asia Shvarzman – Antex Western	Grant Melnychuk – Province of Manitoba
Audrey Boitson – East Lake Conservation District	Hank Venema – International Institute for Sustainable Development
Babette Meier – Consulate of the Netherlands	Hans Till Freihammer – CH2M
Barry Blue – Progressive Waste	Hans Van Duijne – Deltares
Bill Dowie – Ecoplicity Environmental	Herman Huisman – Rijkswaterstaat
Bob Bodnaruk – RM of Springfield	Ian Hall – University of Manitoba
Brad Erb – RM of Macdonald	Ian Tesarski – RM of St. Andrews
Bradley Muller – University of Manitoba	Inez Miller – MWWA
Breanne Jack – University of Manitoba	Jackie Hunt – RM of Ritchot
Breda Vosters – University of Manitoba	James Cohen – Gendis
Brendo Meulman – DeSaH	James Nosedt – Canadian Forces
Brian Drake – John Brooks Co Ltd.	James Platt – City of Winnipeg
Brian Morton – Recovery Cascades	Jan Oleszkiewicz – University of Manitoba
Cedric Vaderbeken – DRYCAKE	Janice Lukes – City of Winnipeg
Chris Luellman – RM of Rockwood	Jason Syvixay – University of Manitoba
Christa Rust –CBCRA/Recycle Everywhere	Jeff Simpson – Aquatic Life
Christian Korell – Barnes Duncan	Jeffrey Hanson – University of Manitoba
Christine Hutlet – RM of Tache	Jessica Russell-Edmonds – University of Manitoba
Cliff Lechow – Progressive Waste	Jim Buys – RM of Niverville
Conor Smith – University of Manitoba	Jim Campbell – RM of Rockwood
Cory Switzer – MB Conservation and Water Stewardship	Joe Cattani – National Research Council
D.J. Sigmundson – RM of St. Clements	Joelle Saltel-Allard – EcoOuest
Dan Powell – CDEM	Kalika Hoogstraten – University of Manitoba
Daniel Benoit – Indigenous and Northern Affairs Canada	Karen Keppler – Cathedral Group
Darren Fast – University of Manitoba	Karen Melnychuk – Multi-Material Stewardship Manitoba
Darryl Chubak – Cypher Environmental	Ken Beerman – City of Selkirk
Darryl Drohomerski – City of Winnipeg	Kerry Weiss – Emterra
David Van Vliet – University of Manitoba	Kristin Houle – Emterra
Debbie Fiebelkorn – RM of St. Clements	Krystyl Bergen (SM) – University of Manitoba
Dennis St. George – Manitoba Hydro	Larissa Blumenschein (SM) – University of Manitoba
Diane Bastiaanssen – Solar Solutions	Larry Johannson – City of Selkirk
Don Davies – Stantec	Len Chambers – Stantec
Dustin Karsin – Stantec	Lisa Quinn – Green Manitoba
Dwayne Clark – RM of St. François Xavier	
Ellen Enns – University of Manitoba	

Manoj Singh – Stantec  
Margo Shaw – MEIA  
Marie Storey – Green Manitoba  
Mark Hidlebaugh – RM of Rockwood  
Mark Miller – Mopia  
Mark Townsley – Composite Innovation Centre  
Mark Vanderbeken – DRYCAKE  
Martin Racicot – Multi-Material Stewardship Manitoba  
Matthew Robinson – University of Manitoba  
Melissa Dorota – CBCRA/Recycle Everywhere  
Michael Solkoski – Tire Stewardship Manitoba  
Michael Erlanger – University of Manitoba  
Mike Curry – Curry Industries  
Mundzir Basri – Stantec  
Nora Sutton – Wageningen University NL  
Pim De Jager – DeSaH  
Randy Park – City of Winnipeg  
Richard Gorsshans – International Institute for Sustainable Development  
Rick Gamble – Village of Dunnottar  
Rick Penner – Emerge Knowledge  
Rick Wilson – RM of Springfield  
Rob Boswick – MB Conservation Water Stewardship  
Robert Rivard – RM of Tache  
Roger Rempel – Consultant  
Ruud Cino – Ministry of Infrastructure & Environment NL  
Saibal Basu – Stantec  
Sepideh Datoobar – Eurete  
Sheldon Stott – Hylife  
Shelley Hart – RM of East St. Paul  
Stan Lozecnik – KGS Group  
Sylvie Herbert – Green Action Centre  
Tanis Osterman – Can Sustain  
Tanner Devlin – University of Manitoba  
Tebesi Mosala – Indigenous and Northern Affairs Canada  
Tony Kuluk – KGS Group  
Trevor Sims – Manitoba Hydro  
Virginie Devisscher – World Trade Centre Winnipeg  
Warren Thompson – Stantec  
Will Darracott – Composite Innovation Centre  
Yifan Yang – Rijkswaterstaat  
Yvo Veenis – Groundwater Technology