

Saskatchewan Environmental Code

Moving Forward in Partnership

**SUMA Convention
Education Session
Sunday January 29, 2012**



**Saskatchewan
Ministry of
Environment**





Today's Discussion

- ❑ Background on Results-based Regulatory Reform
- ❑ Activity Development in a Results-based Regulatory Model
- ❑ Why the Code?, Code Development, Code Format
- ❑ Code Chapters – Waste Management, Water & Sewer Mains, Environmentally Impacted Sites Management
- ❑ Questions / Discussion



Results-based Reform

A stronger ministry and enhanced environmental protection

Previously Command and Control

- Necessary in early years, few rules existed
- Lack of knowledge on everyone's part
- Government imposed rules through prescriptive permit requirements, prescribing the “how”
 - barrier to economic growth and innovation
 - mostly for low risk activities and mostly in permitting rather than compliance
 - not sustainable



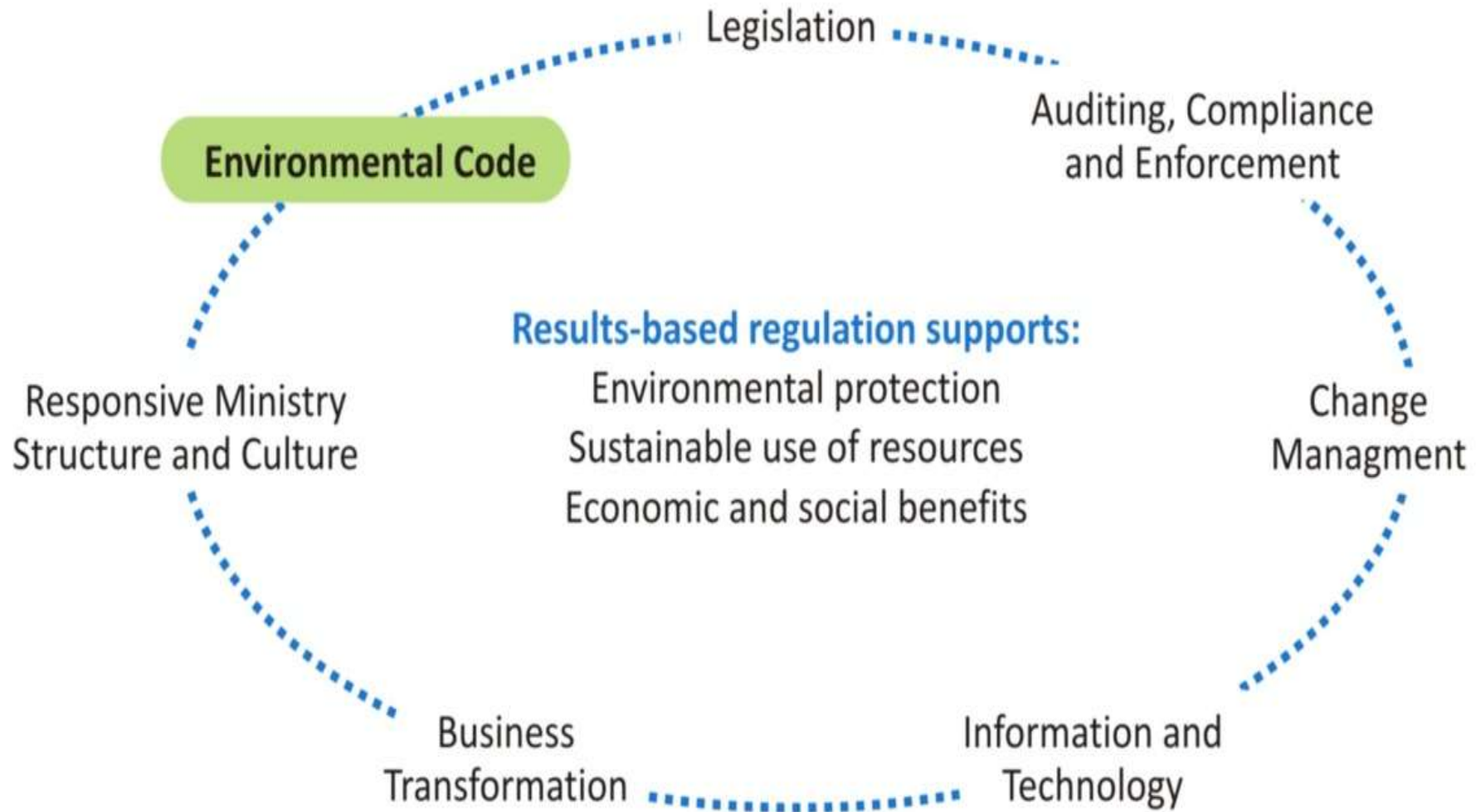
Results Based Regulation

- Focuses on “**what**” environmental outcome is required and leaves the “**how**” to proponent where appropriate
- Government less involved in dictating what the operator does and more on monitoring and enforcing performance
- Operator accountable for performance, MOE accountable to the public



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Code – One Component of RBR





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Why is the Code Needed?

- Provides a **routine delivery** of environmental protection and resource management measures
- **Reduces duplication** and consolidates requirements
- Supports EMPA 2010, FRMA and MRGGA
- Establishes **clear expectations** for projects
- Allows projects to **proceed without permits** in many situations



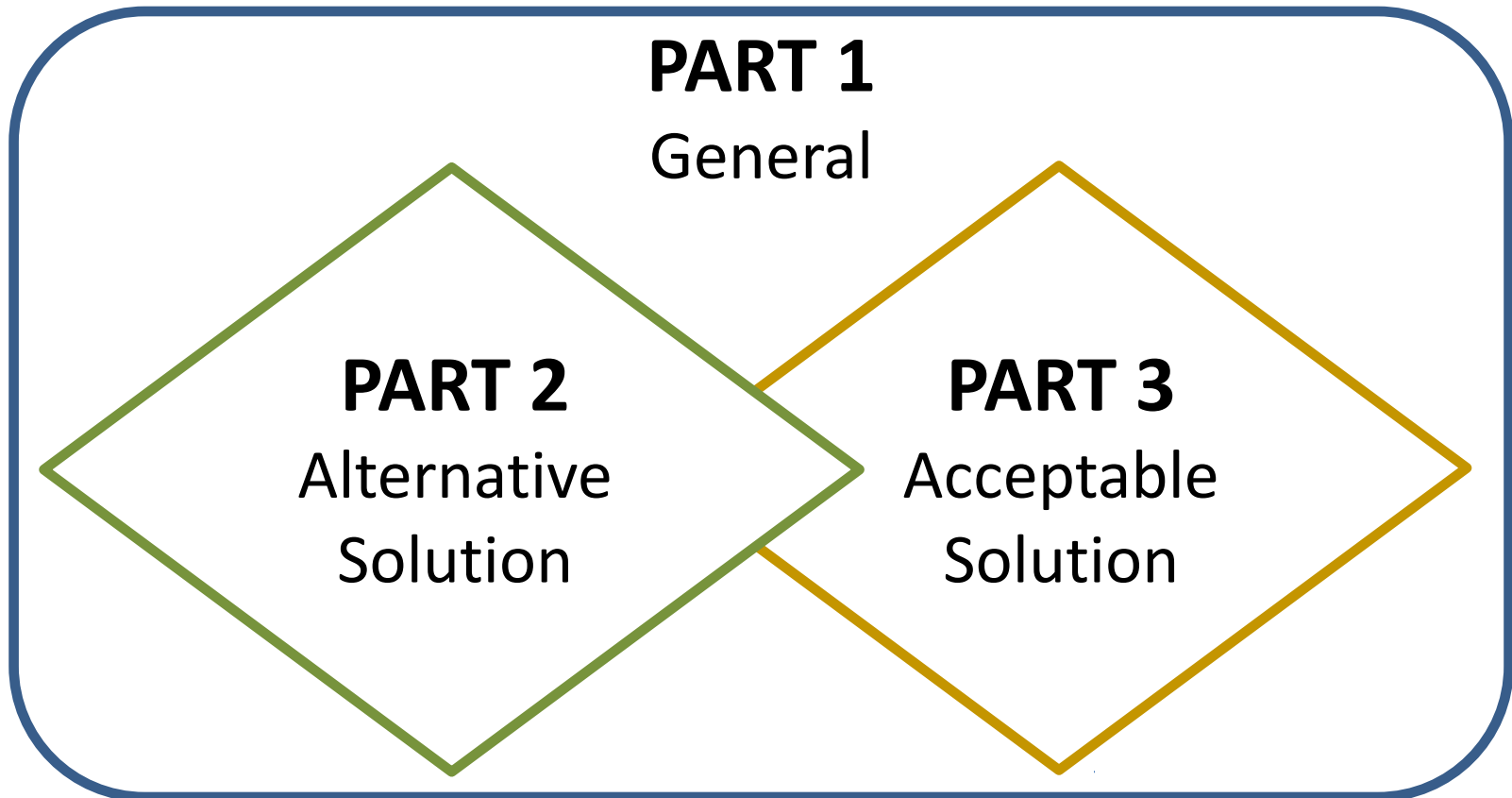
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Code Development

- Stakeholder-led process supported by the ministry
- Collaborative effort involving staff members from many organizations
- Code Development Committee oversaw the code development
- Technical requirements developed by Content Committees coordinated by senior managers and technical experts within the ministry
- Qualified Person Advisory Committee recommended requirements for qualified person(s)
- Managed by the Code Secretariat



Chapter Format





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Waste Management Program Overview

The Environmental Management and Protection Act, 2010

repeal of The Litter Control Act, Litter Control Regulations, 1973 , The Litter Control Designation Regulations and the Municipal Refuse Management Regulations.

The Saskatchewan Environmental Code

- Landfill Chapter
- Transfer Station Chapter
- Liquid Domestic Waste Disposal Chapter



Waste Management – Landfills & Transfer Stations Program Background

- Permits required by the Municipal Refuse Management Regulations since 1986.
- The Permit requires compliance with MRMR, Litter Control Act, Clean Air Regulations and any other applicable Regulations/Act, prohibited refuse burning
- The Permit specifies best waste management practices to be followed by proponents

Status of Known Landfills as of May 20, 2011

Operating	349
Closed	170
Converted to waste bin pickup	178
Total:	697



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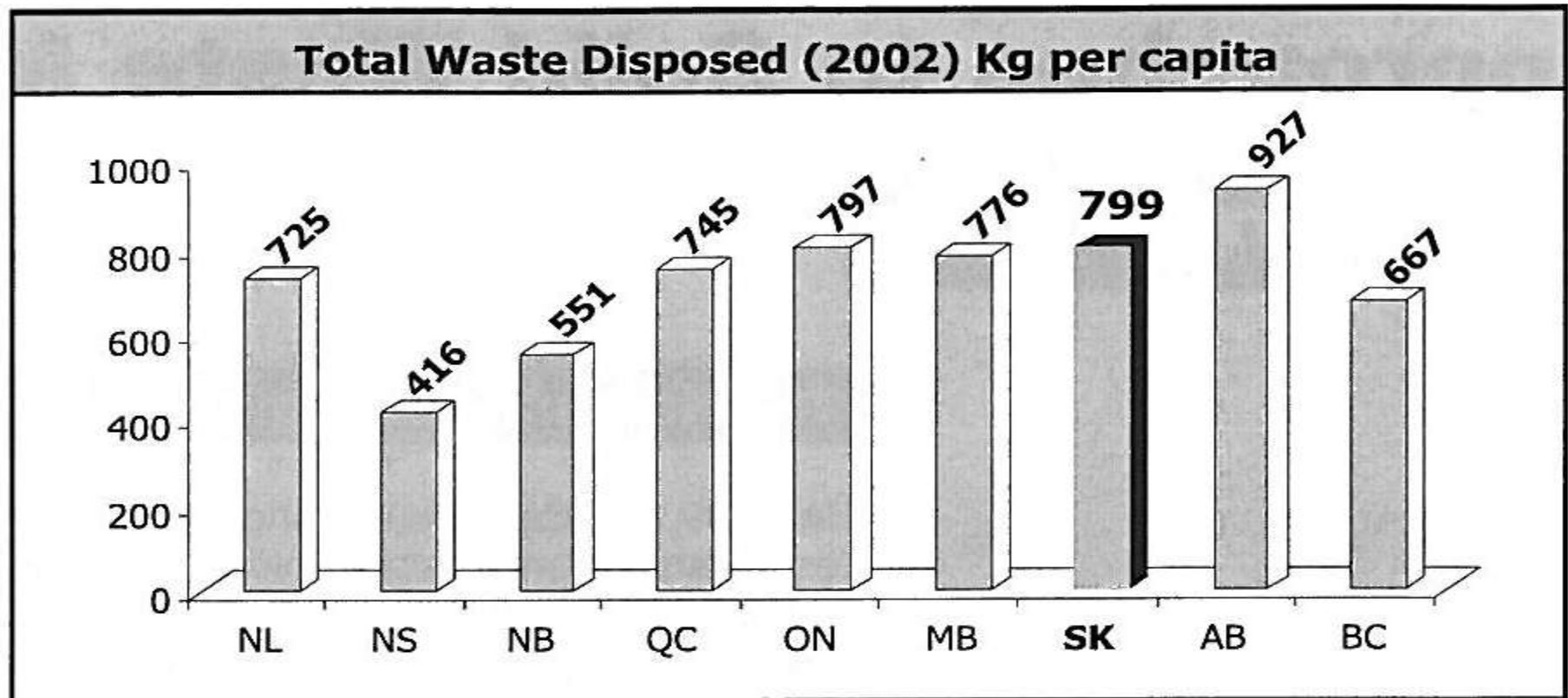
Waste Management Program Background

- Growing public and municipal interest in improving waste management and recycling
- Municipalities, ARWMAS and industry seeking consistent application and compliance
- Historical breaks in ministry's inspection and compliance activities
- Until 2006 no effective enforcement activities and no follow-up on burning
- Points North incident affected "animal management"
- Between 2006 and 2008, the quantity of waste sent for disposal increased in three provinces: Manitoba, Saskatchewan and Alberta
- Per capita our total waste disposal (799 kg/person) is the second highest nationally while our municipalities spend the second least on waste management



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Factors Contributing to Present Waste Management Status

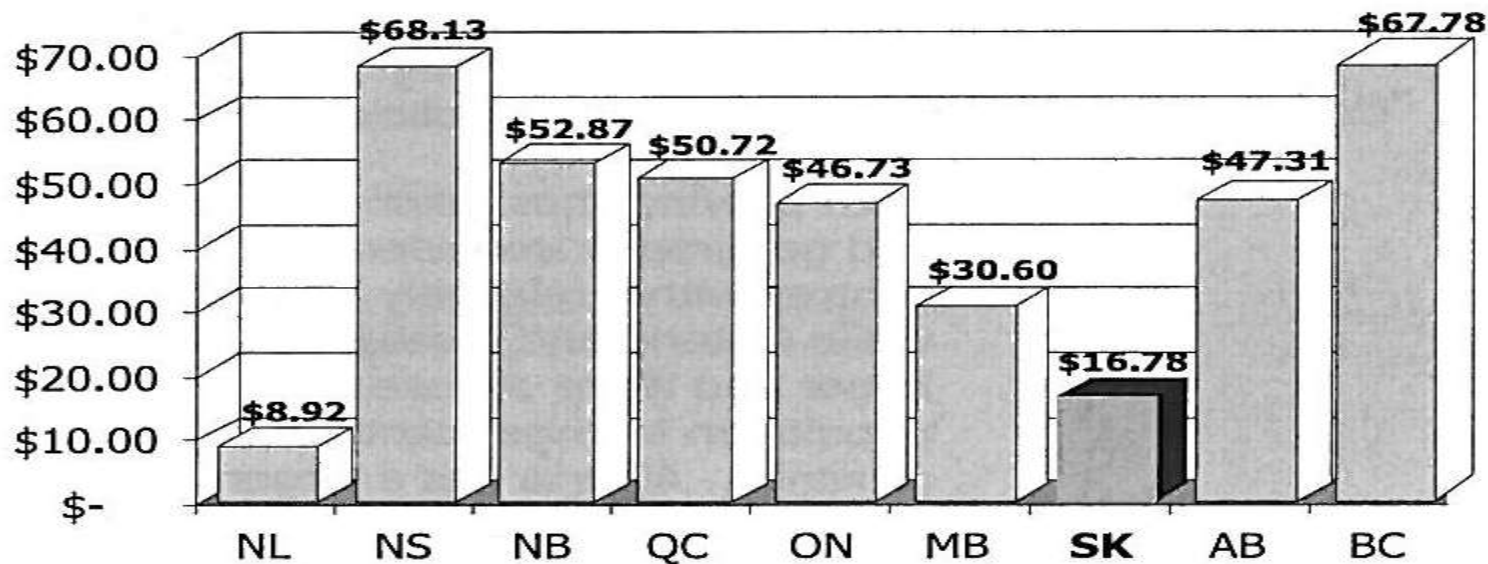




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Factors Contributing to Present Waste Management Status

**Current Expenditures by Local Governments
on Waste Management per capita (2002)**





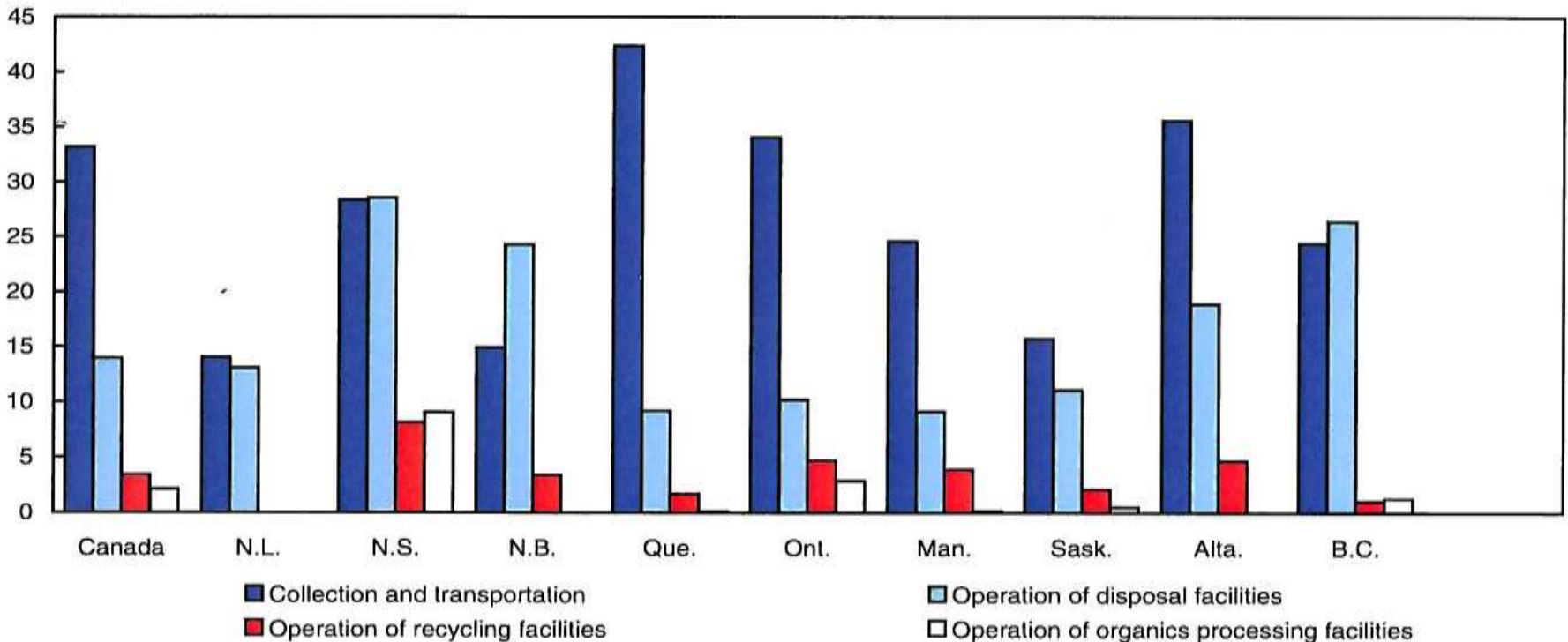
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Factors Contributing to Current Waste Management Status

Chart 1

Selected current local government expenditures ¹ related to waste management, 2008

dollars spent per capita





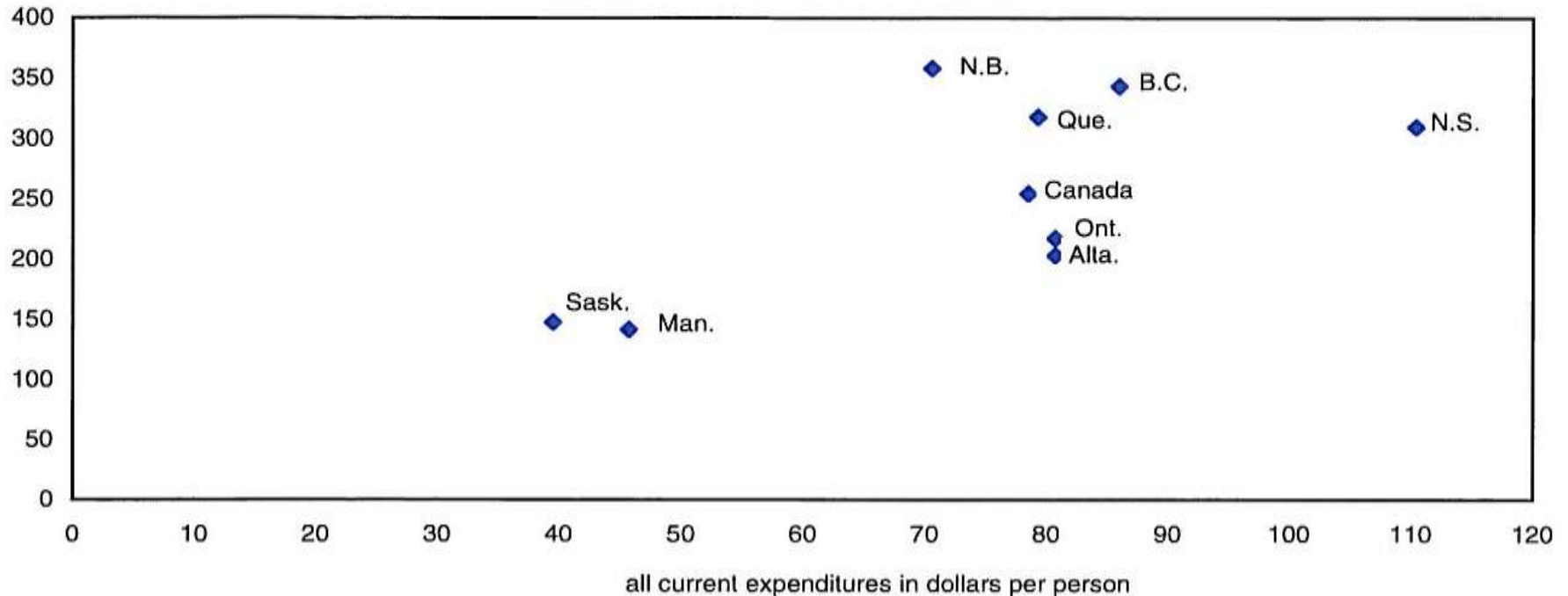
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Waste Management Program Background

Chart 2

Waste diverted and local government current expenditures per capita, 2008

kilograms per person





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Need to change public attitudes and create an understanding of the risks to the environment and public safety







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Program Background

SUMA 2005 Convention

Resolution #15: Supporting the Directions of the Task Force on Regional Waste Recycling:

- 15-5. Urge Saskatchewan Environment to consistently enforce compliance with regulations and standards pertaining to the permitting and monitoring of all landfill operations.
- 15-6. Lobby to have the current regulations amended to require that rural as well as urban municipalities provide for a proper waste disposal site but not require all municipalities to join or form a regional waste management authority.



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Program Background

SUMA 2005 Convention

Resolution #15: Supporting the Directions of the Task Force on Regional Waste Recycling – Cont'd:

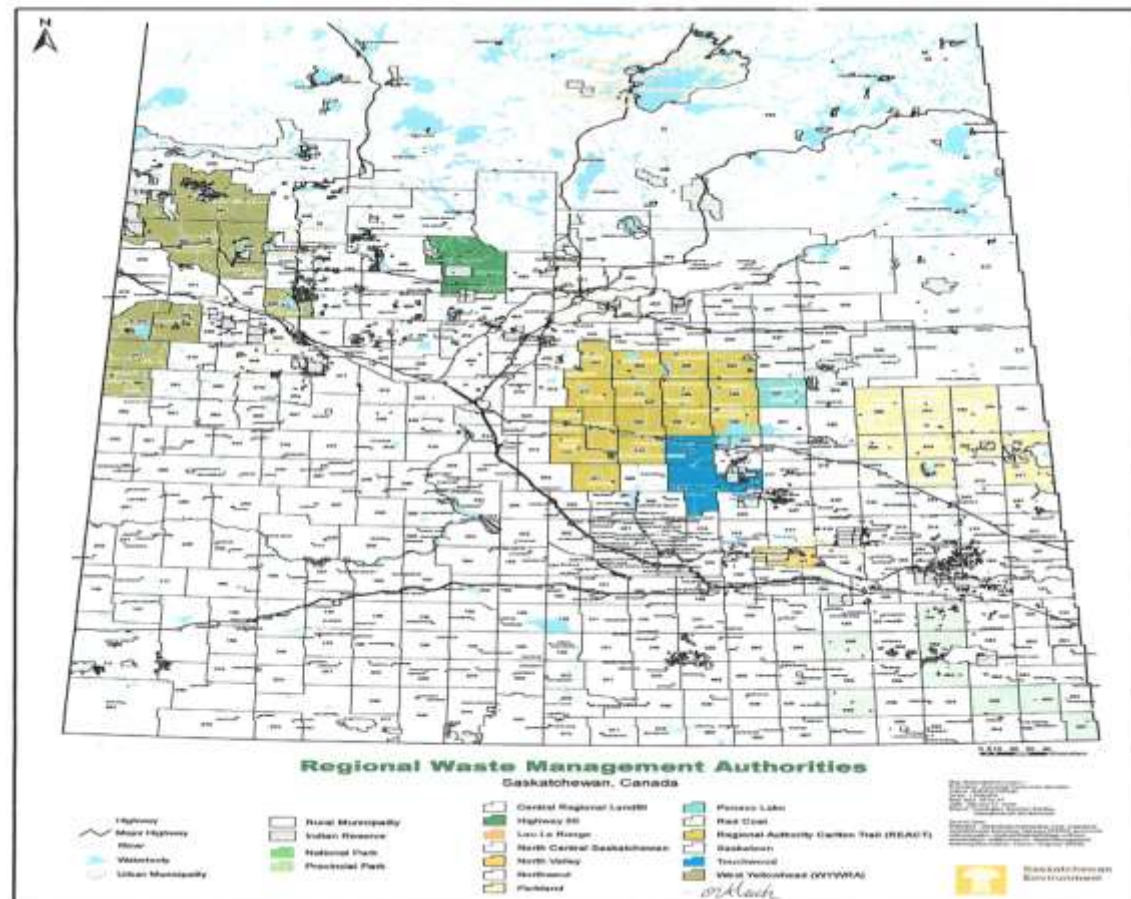
- 15-7. Encourage all municipalities to voluntarily exercise their authority under the proposed Municipal Act to operate their solid waste management services as public utilities, either individually, jointly or regionally.



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Waste Management Program Background

- Transition to regional municipal systems as small landfills fill up
- 18 Regional Waste Management Authorities





Waste Management Program Background

What Does the Future Hold?

- Saskatchewan is becoming more wasteful
- 2006-08: 8.3 % increase in total waste disposed
- Growing waste generation and low expenditure = “Environment is catching it”.
- Movement on legislation and code needed to prevent significant future problems.
- Let’s look at landfills first ...



LANDFILL CHAPTER



Why Worry About Contamination? Landfill Leachate & Gas Emission

- Leachate contamination of ground water and surface water is one of the major concerns of modern landfill management
- Organic contaminants benzene, methylene chloride, organic acids, high BOD (20 to 500 times “stronger” than municipal sewage)
- Biological organisms such as E-coli and protozoans, odours, burning, litter, etc
- Heavy metals, ammonia
- Surface water retention and diversion
- Landfills represent significant green house gas emission, in part because Methane has a global warming potential 21 times worse than CO₂
- **Release of contaminants may result in groundwater, surface water or air contamination, global warming or bioaccumulation of persistent toxics**





Landfill Chapter

Implementation

- Replaces *The Municipal Refuse Management Regulations*
- Provides clear design specifications or outcomes
- Permit and financial assurance requirements for private and non-profit landfill owners but not for municipalities
- Develop own plan through an “Alternative Solution” **or** follow requirements in “Acceptable Solution”

Implications

- Financial constraints on some communities (remote or long haul distance from centralized disposal facility)
- Chapter does not set a requirement for a certified operator



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Landfill Chapter - Transition

Existing Facilities - Permitted

- Existing permits continued in force until July 1, 2017
- Before July 1, 2016 provide a report to minister on progress to switch over to the chapter
- On July 1, 2017 provide notification and comply with chapter by submitting a plan for operations and monitoring, and comply to reporting and record keeping requirements if Acceptable Sol'n, EPP for Alternate Sol'n*. Financial Assurance for private landfill*.
- If operating upon chapter proclamation, not required to comply with siting, design or construction requirements unless expanding landfill

Existing Facilities - Non-permitted

- As above* by July 1, 2013 AND comply with entire chapter

New Facilities

- Comply with the conditions of the entire chapter from start



Landfill Chapter – Alternative Solution

Expected Outcomes

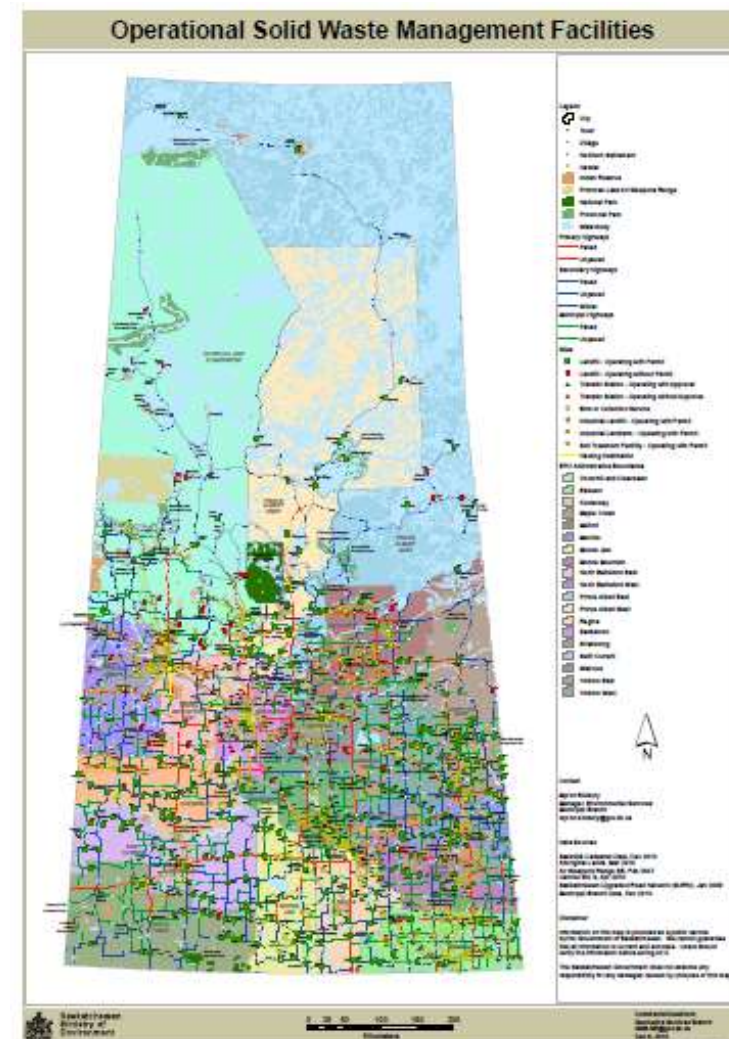
- Manage waste disposal in a safe and effective manner by:
 - siting landfills in acceptable location
 - limiting litter, dust and nuisance to adjacent land uses
 - limiting vector attraction
 - minimizing exposure for safety
 - employing environmental control systems
 - diverting water or controlling run-on and run-off
 - conducting monitoring
 - conducting appropriate closure and post-closure care



What's New or Changing?

- Non Hazardous Waste Facility
 - Includes both municipal and private facilities
- Hazardous Waste Facility
 - Currently none permitted in SK
 - Would require a full environmental assessment to establish

- Type I - Mixed waste generated from household, commercial and institutional sources
- Type II - Non hazardous waste with consistent and predictable composition and properties





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What's Changing or Not Changing?

Qualified Person

- For each general activity to establish and operate a landfill (i.e. siting, design and construction, monitoring, closure and post-closure) Specific Activity Areas and Requisite Skills were identified during code development
- Qualified Person required to certify Environmental Protection Plan or other plans for a landfill – previously required engineering evaluation through permit.

Siting, Technical Investigation, and Site Suitability

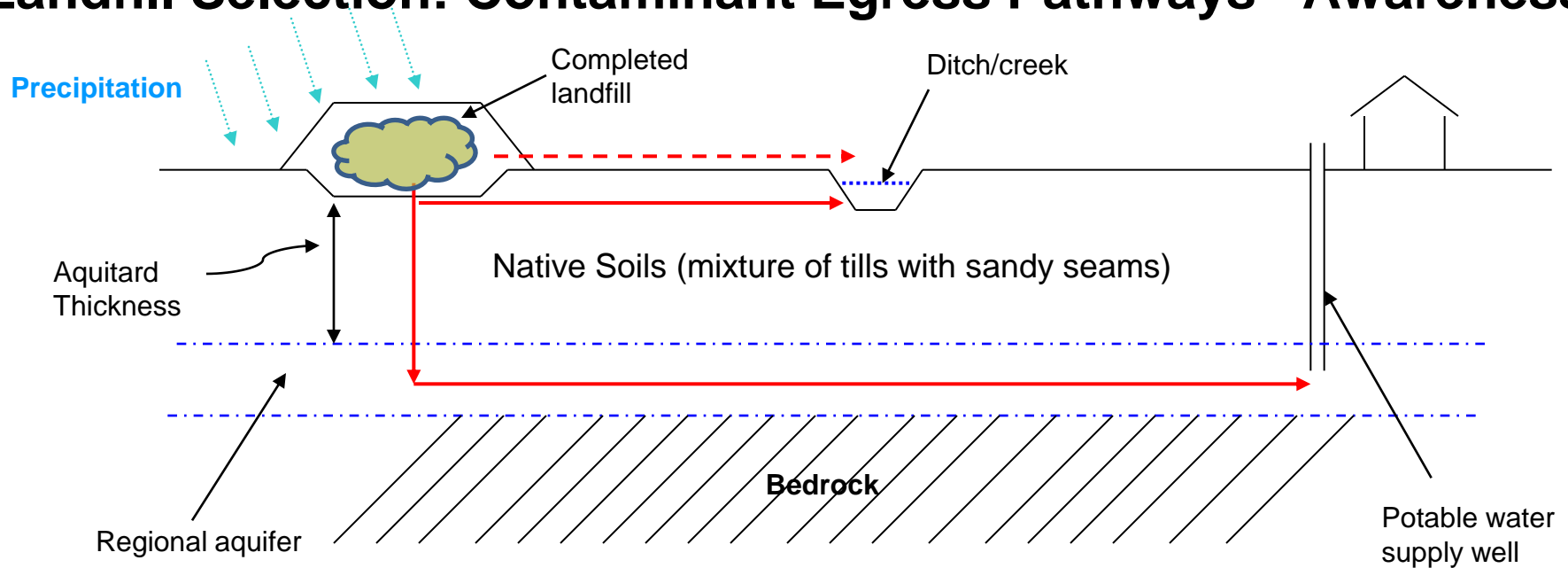
- Setbacks to protect species at risk, ecological reserves, aquatic habitat and public facilities
- Identification of subsurface geologic and hydrogeologic conditions
- Analysis of suitability of proposed landfill site
- Previously performed by consultants during site selection and construction permitting.





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Landfill Selection: Contaminant Egress Pathways - Awareness



- Ground water flow path
- - - - - "Toe" discharge

Typical Permeabilities

$K = 10^{-7}$ cm/sec \equiv 3.2 centimeters/year (clay)

$K = 10^{-5}$ cm/sec \equiv 3.15 meters/year (clay loam – topsoil)

$K = 10^{-3}$ cm/sec \equiv 32 kilometers/year (gravel aquifer)



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Landfill Selection – What's Changing or Not Changing

Acceptable Solution - Site Specific Risk Factors

- Movement of contaminants through soil guidance provided for site engineering
- Previously recommended by consultants at design & site selection stage

Vertical distance below ground between landfill base and the aquifer (meters)	Time for contaminants to travel from landfill base to the aquifer (years)	Site Sensitivity
>15.0	>100	Low
8.0 – 15.0	30 – 100	Medium
<8.0	<30	High

Selection of design from Matrix based on site sensitivity, capacity and waste type

Type I Waste					Type II Waste
	Very Small	Small	Medium	Large	All Sizes
Site Sensitivity	<750 TPY and <15,000 TIP	750 – 2,500 TPY and 15,000 – 70,000 TIP	2,500 – 20,000 TPY and <400,000 TIP	>20,000 TPY and >400,000 TIP	For all values of TPY and TIP
Low	2A	2A	2C	2E	2E
Medium	2B	2D	2E	2F	2F
High	No Acceptable Solution prescribed – must develop Alternative Solution	2E	2F	2G	2G



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What's Changing or Not Changing?

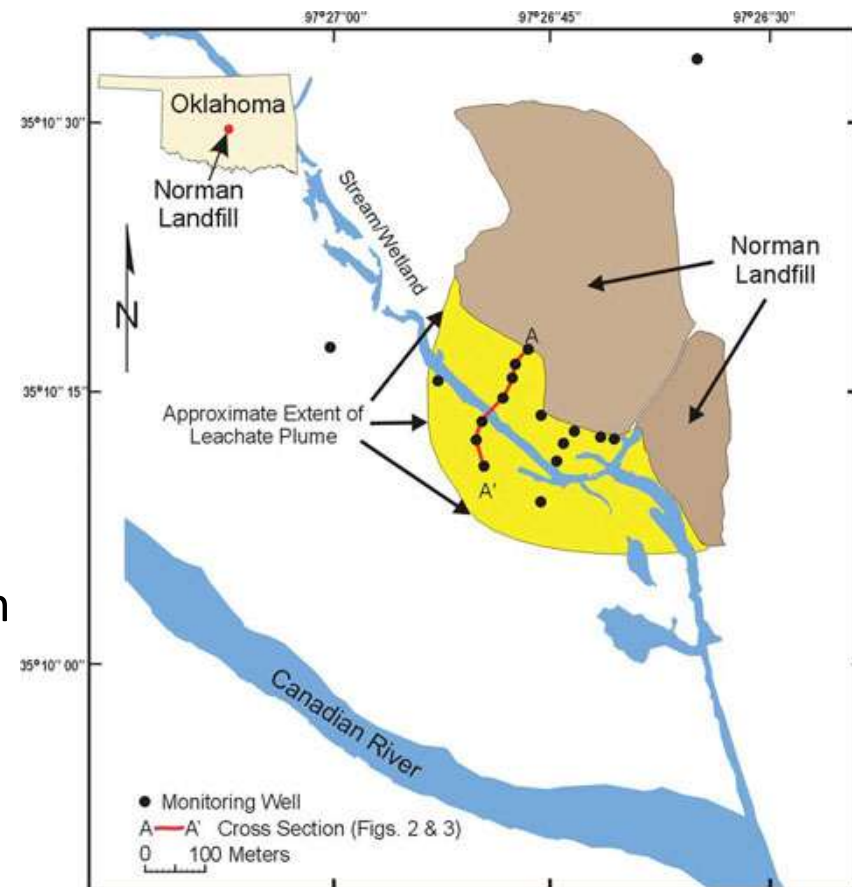
Landfill Technical Aspects – From Best Management Practices

Construction:

- Landfill Design Plan
- Seepage barrier system
- Surface water management
- Groundwater monitoring system
- Landfill gas management
- Leachate management

Operation:

- Operating Plan
- Environmental monitoring plan and program
- Control /Eliminate burning
- Cover, litter control, fencing
- Final cover system, closure plan
- Previously achieved through permits and application of Best Management Practices





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What's Changing or Not Changing? **Records and Reporting**

- Records of description and characterization of waste types disposed at landfill
- Site plan showing major features
- Inspections, audits and environmental monitoring
- Annual reporting of key monitoring activities to ministry through the operating phase of landfill
- Records and reporting submitted by operation staff
- More diligence required given flexibility imparted through the RBR framework.

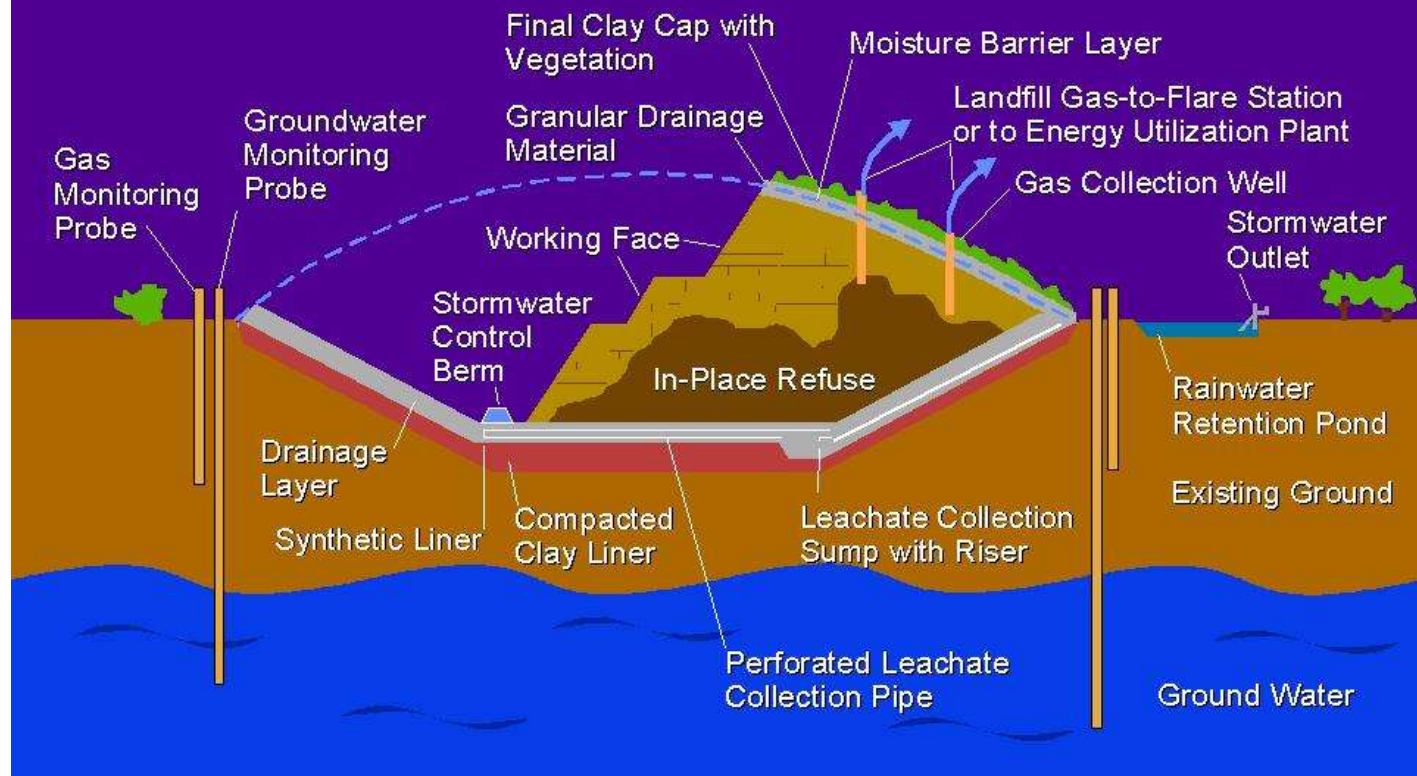




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**Selection: High risk, high volume
Engineered landfill with
leachate collection system**

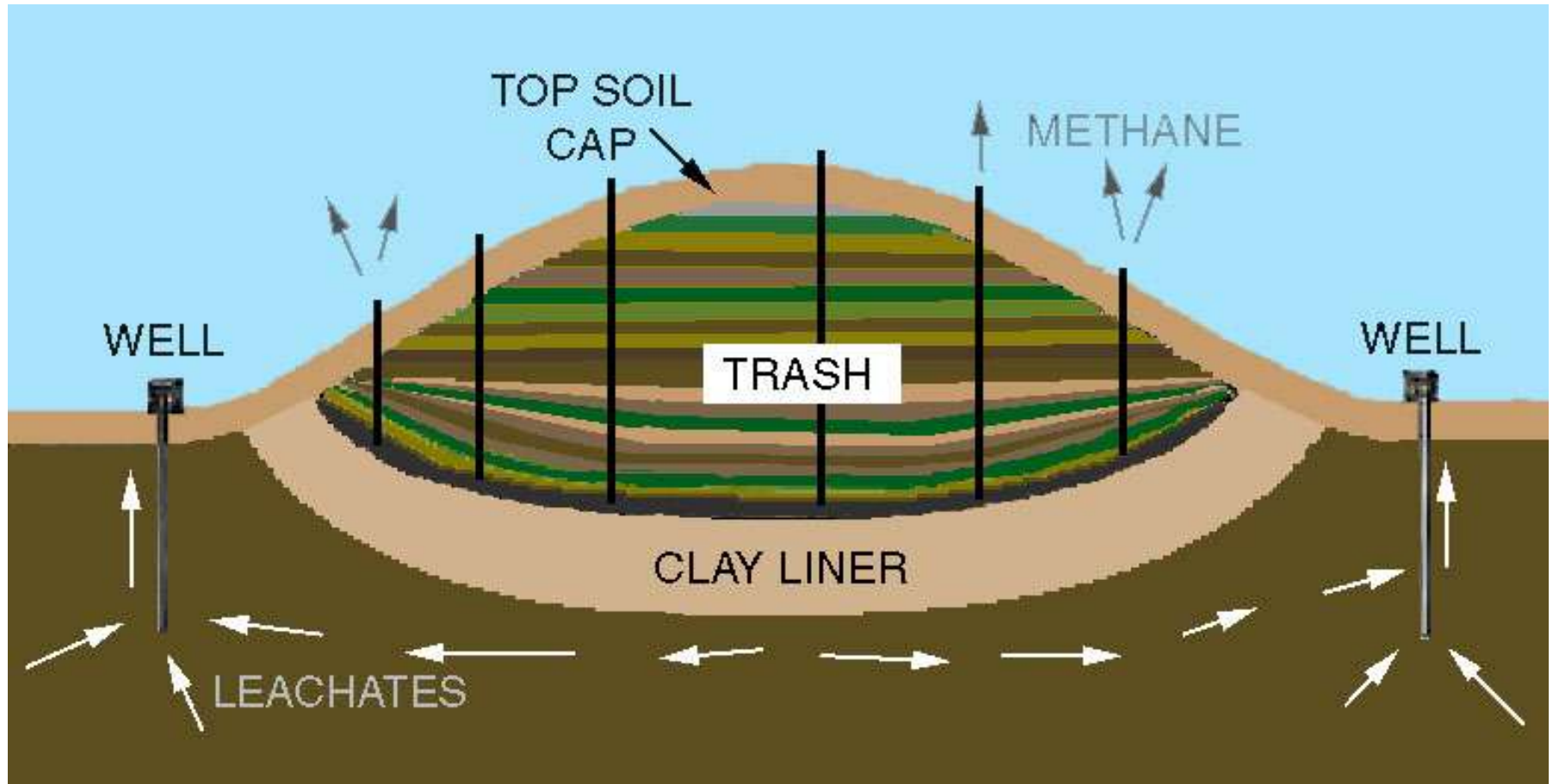
Modern Sanitary Landfill Cross Section





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Selection: Low Risk, low volume natural attenuation landfill





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Landfill Chapter Summary

- Consolidates and clarifies existing policy and requirements for the management of landfills and associated activities previously administered by two separate Branches within the ministry.
- Moves from permits to registration/notification involving QP's.
- Acceptable Solution retains BMP approach while providing aspects for the siting, designing, constructing, expanding, operating, monitoring and closing of a landfill.
- Establishes a classification system based on the waste material being received at the landfill. More diligent record keeping.
- Up to 5 year phase-in for full application, Op & Mon Plan req'd.
- If operating upon proclamation not required to comply with siting, design or construction requirements unless expanding
- Existing facilities may continue to be used while in compliance



TRANSFER STATION CHAPTER



Transfer Station Chapter

Implementation

- Replaces *The Municipal Refuse Management Regulations*
- Provides clear design specifications or outcomes
- Permit and financial assurance requirements for private transfer station owners but not for municipalities
- Develop own plan through an “Alternative Solution” **or** follow requirements in “Acceptable Solution”
- Waste, litter and recycling bins are excluded from Chapter

Implications

- Financial constraints on some communities (remote or long haul distance from centralized disposal facility)



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Transfer Station Chapter - Transition

Existing Facilities - Permitted

- Existing permits continued in force until July 1, 2017
- Before July 1, 2016 provide a report to minister on progress to switch over to the chapter
- On July 1, 2017 provide notification and comply with chapter by submitting a plan for operations and monitoring, and comply to reporting and record keeping requirements if Acceptable Sol'n, EPP for Alternate Sol'n*. Financial Assurance for private Transfer Station*.
- If operating upon proclamation not required to comply with siting, design or construction requirements unless expanding Transfer Station

Existing Facilities - Non-permitted

- As above* by July 1, 2013 AND comply with entire chapter

New Facilities

- Comply with the conditions of the entire chapter from start



Transfer Station Chapter – Alternative Solution Expected Outcomes

- Manage waste at Transfer Stations in a safe and effective manner by:
 - siting transfer station in acceptable location
 - limiting litter, dust and nuisance to adjacent land uses
 - limiting vector attraction
 - minimizing exposure for safety
 - employing environmental control systems
 - diverting water or controlling run-on and run-off
 - conducting monitoring and appropriate closure



Transfer Station Chapter – Acceptable Solution

What is Changing or Not Changing?

- Similar to landfills chapter, however simpler due to reduced risk.
- Still calls on existing Best Management Practices
- As is the case with Landfills, closure notification and report to be submitted to the Minister.
- Chapter does not set a requirement for a certified operator.
- Owner responsible to ensure employee and volunteer training and education meets standards within federal and provincial labour legislation.



Transfer Station Chapter – Acceptable Solution

What is Changing or Not Changing?

- Use of an old landfill site for a transfer station will be allowed as long as the landfill has been properly closed, post-closure care conducted and the landfill does not present an environmental or human safety risk.
- Before the establishment of a new transfer station is authorized it must first meet the siting (location) conditions of the Transfer Station Code.
- Identify the waste the transfer station will accept when developing its Operating Plan
 - ✓ Both the landfill and transfer station chapters are specific as to the types of waste a facility can accept.



Transfer Station Chapter – Acceptable Solution

What is Changing or Not Changing?

- Staff or volunteer understanding of what is acceptable and what is not.
- Monitoring or inspection of waste segregation /placement a requirement.
- Landfill owners retain the right to refuse to accept transfer station waste .
- Periodic inspection and audit by ministry staff.



Transfer Station Chapter – Acceptable Solution

What is Changing or Not Changing?

- Restricts the siting of a facility where species at risk are present
- Establishes setback requirements from waterbodies, ecological reserves and wildlife habitat lands
- Continues requirements for environmental monitoring and reporting to the ministry – may be excluded based on site conditions
- Requires the owner to keep written records of the waste types, volumes or weights received or sent to a landfill or recycling / processing facility



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Transfer Station Chapter Summary

- Consolidates and clarifies existing policy and requirements for the management of transfer stations and associated activities.
- Moves from permits to registration/notification involving QP's.
- Acceptable Solution retains BMP approach while providing aspects for the siting, designing, constructing, expanding, operating, monitoring and closing of a transfer station.
- Continues a requirement for environmental monitoring at a transfer station – may be excluded based on site conditions.
- More diligent record keeping and training for employees.
- Up to 5 year phase-in for full application of Code.
- If operating upon proclamation not required to comply with siting, design or construction requirements unless expanding
- Existing facilities may continue to be used while in compliance



LIQUID DOMESTIC WASTE DISPOSAL



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Liquid Domestic Waste Disposal Chapter

Implementation

- Replaces *The Municipal Refuse Management Regulations*
- Prohibits land spreading as an “Acceptable Solution” in 5 years unless proper controls put in place via EPP under an “Alternative Solution”
- Expands requirements for winter land spreading
- Develop own plan under “Alternative Solution” **or** follow requirements in “Acceptable Solution”

Implications

- May create need for municipalities to build new lagoons or other appropriate sewage treatment works, up to 20 small lagoons may be needed – cost 14 to 22 M\$
- Haulers to comply with transitional rules, obtain written permission of sewage works owner, follow land spreading rules, keep records, etc



Liquid Domestic Waste Disposal Chapter - Transition

Existing Operations / Permits

- Existing hauler permits continued in force until December 31, 2012
- By Jan 1, 2013 hauler to provide notification of disposal and site of disposal of LDW, before disposing of waste and
- Have an EPP approved by the minister where the person is intending to dispose of LDW using an “Alternative Solution”, or
- Dispose of waste by means of an “Acceptable Solution”

New Operations

- Obtain permit until chapter proclaimed, thereafter transition as above



Liquid Domestic Waste Disposal Chapter Expected Outcomes

- **Applies primarily to sewage haulers**
- Dispose in a safe and effective manner by:
 - employing effective treatment
 - limiting pathogens
 - limiting vector attraction
 - minimizing human contact
- **How not to deal with Septic Waste ...**







Liquid Dom. Waste Disposal Chapter Acceptable Solution

What's Changing or Not Changing?

- Coherence of liquid domestic waste chapter to agricultural manure disposal.
- Ministry of Agriculture requires lagoon storage (provides treatment) for manure but does not forbid winter spreading, is a rare practice.
- Restrictions on winter land spreading found in this chapter are now consistent with Ministry of Agriculture winter manure spreading guide.
- Municipalities not forced to take sewage, but doing so may provide revenue – consider current capacity and growth.



Liquid Dom. Waste Disposal Chapter Acceptable Solution

What's Changing or Not Changing?

- Winter land spreading restrictions include:
 - Clearing snow off site
 - Avoiding water erosion areas
 - Not on land that drains off property
 - Increased buffer zone to water and wells
- Land spreading may continue post July 2017 as an “Alternative Solution” along with an associated Environmental Protection Plan signed by a Qualified Person
- Otherwise consistent with previous guidance on septic waste disposal published by MOE (fact sheet)



Water Management & Protection

Drinking Water

- Water Main Chapter

Waste Water

- Sewage Main Chapter



Drinking Water and Waste Water Program Overview

The Environmental Management and Protection Act, 2010

Requires permits for:

- Construction of a water distribution works (water mains) or sewage collection works (sewer mains) for a system serving fewer than 5,000 people,
- Construction of all water and sewage treatment systems
- Operation of all water and sewer systems

The applicable Saskatchewan Environmental Code Chapters:

- Water Mains Chapter (serving ≥ 5000 persons)
- Sewage Mains Chapter (serving ≥ 5000 persons)

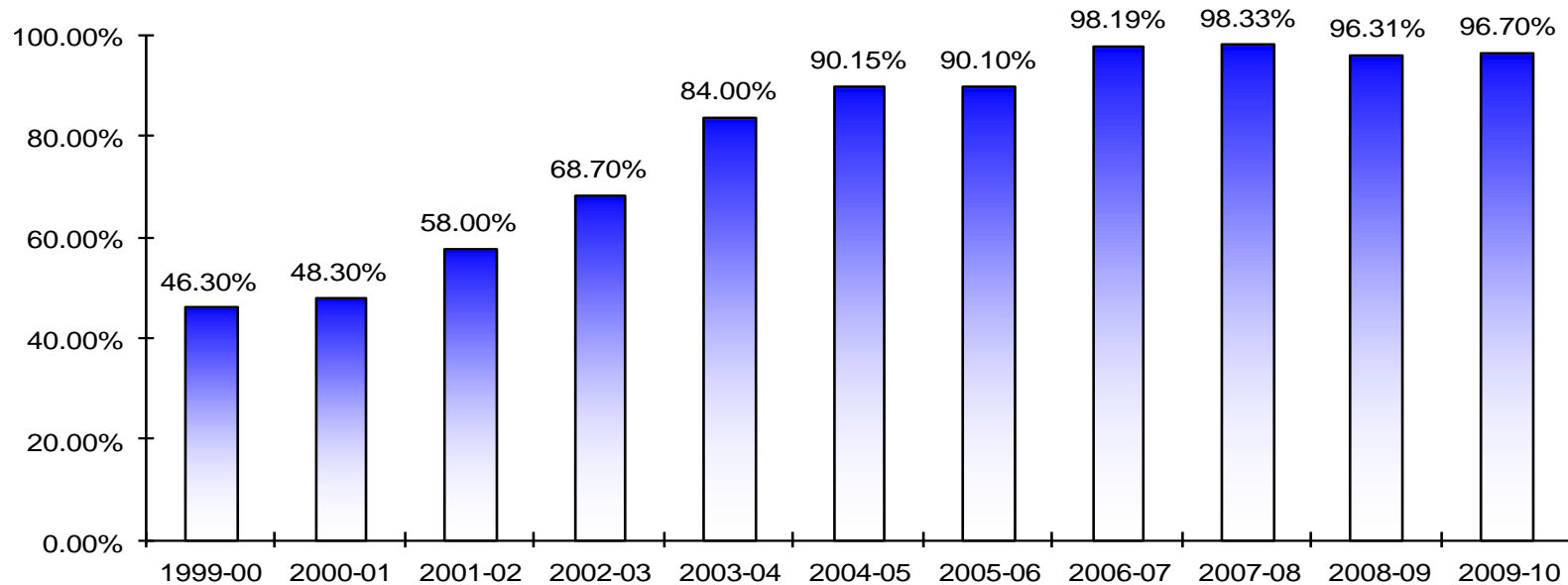


Drinking Water & Wastewater – Program Background

- Comprehensive and modern water regulatory program governing design, construction, upgrading, operation, W.Q. standards and monitoring, emergency management, record keeping, review, reporting, system assessments, lab accreditation, consumer notification, operator certification ...
- Strong operational and communication protocols.
- 772 Waterworks and 574 sewage works governed – slowly growing ...
- 882 waterworks and 534 sewage works inspections – typical annually ...
- 350 water and sewage works construction permits (2010-11) ...
- Online WQ information and permit applications through SaskH2O.
- **SIGNIFICANT INVESTMENT & IMPROVEMENT SINCE 2002.**



Water Main Chapter – Background Disinfection Standards Compliance





WATER MAINS CHAPTER



Water Main Chapter

Implementation

- Applies to municipality with population $\geq 5,000$ persons
- Develop own plan through an “Alternative Solution” **or** follow requirements in “Acceptable Solution”

Implications

- Reduced number of permits for municipalities and ministry
- Quicker start-up times for municipalities
- 50 water main permits of 350 total water and sewer permits issued last year with average 12 ½ day turnaround once info complete
- Directly affects 15 cities with a combined population of over 580,000 persons, and businesses in the province that design and construct water mains.



Water Main Chapter – Alternative Solution Expected Outcomes

- Convey water for human consumptive use by:
 - meeting concentration limits
 - no total coliform or E-coli
 - maintain disinfectant residuals
 - employ effective and safe materials
 - proper design
- Provide longevity of the water main by:
 - proper design and construction
 - pressure testing
- Accommodate growth



Water Main Chapter – Acceptable Solution

What is Changing or New?

- Record keeping and reporting expanded somewhat to provide additional rigor needed to protect the interests of proponents and enable effective compliance management given less “oversight” at the design stage by MOE.
- Expanded scope of application of admin penalties to cover new registration and Qualified Persons (QP) signoff approach. Admin Penalty application to “need to follow plan for construction and pipe alignment/installation” not essentially changed.



Water Main Chapter – Acceptable Solution

What is Changing or New?

- Transitions to a registration based process with associated performance or objective based outcomes, uses Environmental Protection Plans (EPP) (Alternative Solution), and moves away from a permit based approach. Faster for clients and offers more flexibility.
- Includes new elements for QP's to perform monitoring at time of commissioning. Includes technologists and technicians. Typically cities use QP (P. Eng) already to design system improvements as currently req'd under The Engineering and Geoscience Professions Act.



Water Main Chapter – Acceptable Solution

What is Not Changing or New?

- Adopts “Guide to Waterworks Design” as the fundamental design and performance standard currently widely used in the drinking water management and civil engineering fields to manage drinking water projects.
- “Guide” consistent for application with smaller communities.
- Provide drinking water protection outcomes consistent with what is currently being achieved.
- Intended to advance the strategic initiative of infrastructure planning to help assure that affected municipalities are prepared for and can accommodate growth.



SEWER MAINS CHAPTER



Sewage Main Chapter

Implementation

- Applies to municipality with population $\geq 5,000$ persons
- Develop own plan through an “Alternative Solution” **or** follow requirements in “Acceptable Solution”

Implications

- Reduced number of permits for municipalities and ministry
- Quicker start-up times for municipalities
- 44 sewage main permits of 350 total water and sewer permits issued last year with average 12 ½ day turnaround once info complete
- Directly affects 15 cities with a combined population of over 580,000 persons, and businesses in the province that design and construct sewer mains.



Sewage Main Chapter – Alternative Solution

Expected Outcomes

- Limit environmental and public health impacts by conveying wastewater by:
 - employing inert materials
 - proper design and construction
- Accommodate growth
- Provide longevity of the sewage main by:
 - proper design and construction



Sewer Main Chapter – Acceptable Solution

What is Changing or New?

- Record keeping and reporting expanded somewhat to provide additional rigor needed to protect the interests of proponents and enable effective compliance management given less “oversight” at the design stage by MOE.
- Expanded scope of application of admin penalties to cover new registration and Qualified Persons (QP) signoff approach. Admin Penalty application to “need to follow plan for construction and pipe alignment/installation” not essentially changed.



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Sewer Main Chapter – Acceptable Solution

What is Changing or New?

- Transitions to a registration based process with associated performance or objective based outcomes, uses Environmental Protection Plans (EPP)(Alternative Solution), and moves away from a permit based approach. Faster for clients and offers more flexibility.
- Includes new elements for QP's to perform monitoring at time of commissioning. Includes technologists and technicians. Typically cities use QP (P. Eng) already to design system improvements as currently req'd under The Engineering and Geoscience Professions Act.
- Contains provisions for effluent quality testing should need arise.



Sewer Main Chapter – Acceptable Solution

What is Not Changing or New?

- Adopts “Guide to Sewage Works Design” as the fundamental design and performance standard currently widely used in the wastewater management and civil engineering.
- “Guide” consistent for application with smaller communities.
- Provide wastewater protection outcomes consistent with what is currently being achieved.
- Intended to advance the strategic initiative of infrastructure planning to help assure that affected municipalities are prepared for and can accommodate growth.



Land Management & Protection – Wes Kotyk

Environmentally Impacted Sites

- Substance Characterization Chapter
- Discharge and Discovery Reporting Chapter
- Site Assessment Chapter
- Corrective Action Plan and Corrective Actions Chapter
- Transfer of Responsibility for an Environmentally Impacted Site Chapter



Environmentally Impacted Sites Management Program Overview

The Environmental Management and Protection Act, 2010

general prohibition on discharge, duty to report, defines 'person responsible', provides authority for site assessment, corrective action plan, transfer of responsibility, financial assurances and registry

The Hazardous Substances and Waste Dangerous Goods Regulations

no changes – required to handle storage of substances



Land Management & Protection

Environmentally Impacted Sites Process

- 4 Step Process





Environmentally Impacted Sites Management Program Overview

The Saskatchewan Environmental Code

- Substance Characterization Chapter
- Discharge and Discovery Reporting Chapter
- Site Assessment Chapter
- Corrective Action Plan and Corrective Action Chapter
- Transfer of Responsibility for an Environmentally Impacted Site Chapter



Substance Characterization Chapter

to provide a process for classifying substances either by their characteristics or by being designated or listed

- quantity limits now listed
- detailed list of substances provided



Saskatchewan Environmental Code

Discharge and Discovery Reporting Chapter

to ensure the safety of public and protection of environment from the discharge of substances that may cause adverse effect

- replaces *The Environmental Spill Control Regulations*
- amalgamates requirements
- discovery of historical impacts is now reportable
- Harmonizes report forms and timelines with federal
- uses TDG classification system
- Three reporting triggers

Adverse Effect – harm to environment, or human health

Amount – TDG guides

Concentration (Reportable Conc, Table)



Site Assessment Chapter Expected Outcomes

- confirm presence, characterization, location and extent of substances in area of land or water
- assess information on the site including:
 - source(s) of substance(s)
 - geological and hydrogeological conditions
 - transport pathway(s) and
 - receptor(s)
- developing a sampling plan
- planning a site investigation
- conducting site investigation
- providing report on investigation
- conducted in a safe and acceptable manner



Site Assessment Chapter

Implementation

- minister now has ability to require site assessment under the Act
- required to be signed off by QP
- National Classification System for Contaminated Sites
Summary Score Sheet required
- filed in the impacted sites registry
- small discharges may be handled by 'visual site assessment'
- develop own plan **or** follow CSA Standard



Corrective Action Plan and Corrective Actions

Chapter Expected Outcomes

- provide a plan that:
 - establishes endpoints
 - is scientifically defensible
 - is appropriate for site conditions
 - establishes methods to manage site
 - establishes methods to evaluate
- execute the plan
 - to achieve the endpoints
 - to monitor the performance
 - in safe and acceptable manner



Corrective Action Plan and Corrective Actions Chapter

Implementation

- minister now has ability to require corrective action plan under the Act
- required to be signed off by QP
- National Classification System for Contaminated Sites
Summary Score Sheet required
- filed in the impacted sites registry
- develop own plan **or** for Tier 1 or 2 clean-ups:
 - use an approved technology; or
 - where completely contained, fully delineated and on-site



Transfer of Responsibility for Environmentally Impacted Site Chapter

to transfer responsibility for a site to another person

- sets out the requirements for additional contingency amounts for costs of reclaiming the site
- action can be taken against new responsible party



Applicable Standards

- Administrative Control Standard
- Discharge and Discovery Reporting Standard
- Endpoint Selection Standard
- Reclamation Technology Standard
- Visual Site Assessment Checklist Standard
- Saskatchewan Environmental Quality Standards
- Substance Characterization Standard



Saskatchewan Environmental Code

Summary of impacts on Urban Governments

- Minor changes to spill reporting substances and process
- Requirements to report discovery of historical discharge
- Site Assessments and Corrective Action Plans process is now formalized
- Notice of site condition reported in registry – intent is to eventually be publicly accessible information
- Mechanism to transfer responsibility for a site – can result in improved brownfield redevelopment
- Mechanism to allow administrative controls to aid in achieving end point



Next Steps

- Review period ends in mid-March 2012
- Post a summary of feedback on the web
- Proclamation target is summer 2012





Next Step - Implementation

- Similar to other regulations, code requirements are in effect upon proclamation
- “Phase-in” periods have been built into code chapters where appropriate
- Similar to the current program delivery model, each program branch is responsible for ensuring code compliance
- Code is a new regulatory tool - Knowledge transfer is crucial



Saskatchewan Environmental Code

Thank You



Questions

www.environment.gov.sk.ca