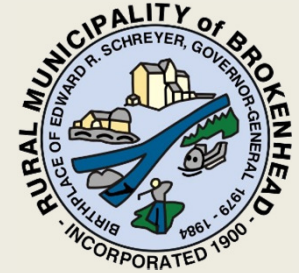


Rural Municipality of Brokenhead

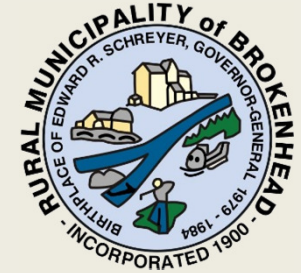
Regarding Local Improvement Plan 16-01
Repair and Expansion of the Wastewater
Lagoon

Summary of Presentation



- Introductions
 - Council, Committee and Staff
- Current Lagoon Status
- Lagoon Expansion Project
- Cost and Payments
- Questions

Current Lagoon

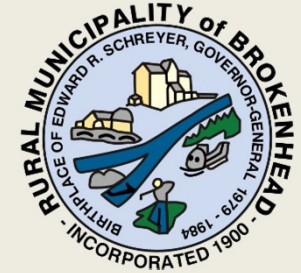


- Constructed in 2004 to service only the L.U.D. of Garson, Tyndall and Henryville

“ The Garson/Tyndall/Henryville lagoon also services the remainder of the RM of Brokenhead rural residents by truck haul from a combination of septic and holding tanks. This was not included in the original design of the lagoon.”

- JR Cousin Consultants Ltd., June 2012, Wastewater Treatment Lagoon Expansion Feasibility Study

Population



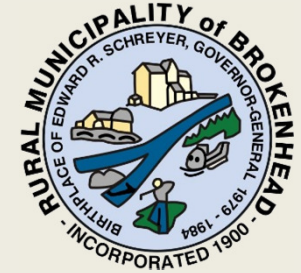
L.U.D. Population	2004 Actual	2011 Actual	2024 Forecasted
Population	1,025	1,451	1,291*

* Initial Population prediction from 2004

Total RM of Brokenhead Population	2006 Actual	2011 Actual	2032 Forecasted
Population	3,940	4,635	8,033 [†]

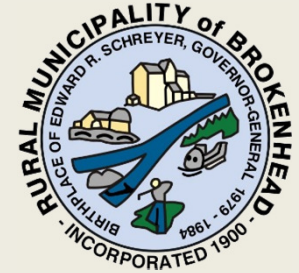
[†] New Population prediction from 2012

Timeline



- 2004: Current Lagoon was constructed
- 2011: Current lagoon reached organic capacity (concentration of solids - kg/BOD_5)
- 2014: Current lagoon reached hydraulic capacity (volume of liquid – m^3)
- 2014: MB conservation issued recommendation that no further building occur in the RM of Brokenhead until lagoon is expanded

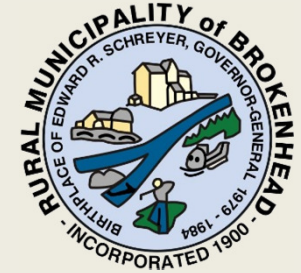
Project Overview



Lagoon Expansion

- Construct 2 new primary cells and 1 new secondary cell, to be connected to the existing lagoon
- Construct new access road, truck dump spillway, forcemain re-routing
- Install rock rip-rap on dikes to prevent erosion

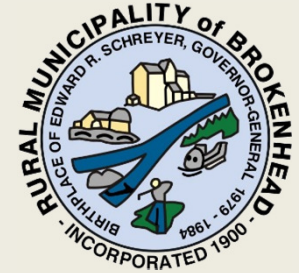
Project Overview



Existing Lagoon Repair

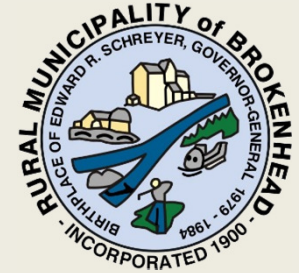
- Re-shape and compact the existing lagoon cell dikes that have eroded
- Install rock rip-rap on to prevent any further erosion from occurring (was not done in original 2004 construction)

Project Overview



Result

- Construction planned May – November 2016
- New lagoon will have a total of 2 primary cells and 4 secondary cells (more treatment)
- Lagoon will support approximately 20 years of population growth in the RM of Brokenhead
- 3.5m high cell dikes with extended rock rip-rap
 - Allows for aeration lines to be installed in the future (no earthwork or rip rap required to increase population serviced)



Lagoon Capacity

Organics (kg BOD5/day)

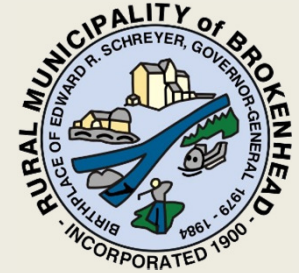
- Existing Lagoon Capacity – 100
- Actual 2015 Loading – 227
- Expanded Lagoon Capacity – 404

Hydraulic Storage (m³)

- Existing Lagoon Capacity – 178,000
- Actual 2015 Volume – 186,000
- Expanded Lagoon Total – 359,000



Facts about the Lagoon

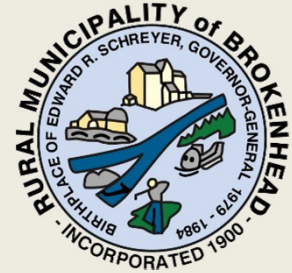


- All residents require the use of the lagoon to remove their waste
- All systems, whether it is connected to the wastewater system or not, have independent systems that require clean out

LAGOON PROJECTED COSTS							
LAGOON EXPANSION		LAGOON EXPANSION DESIGN		ADMIN AND SERVICES		EXISTING LAGOON	
Forcemain to Chemical Feed Building	\$176,700	Predesign Services	\$37,528	Contract Admin.	\$60,470	Scope Change	\$11,040
Mob/demod Insurance	\$101,700	Geotechnical Investigation	\$5,000	Preconstruction Services	\$177,740	Dike Construction	
Access Road, Truck Turnaround and Spillway	\$285,600	Design Services	\$134,360	Record Drawings	\$4,910	Rip Rap for Dikes	\$400,800
Underground Piping	\$341,200						
Fencing and Gate	\$46,200						
Cell Excavation, Dike Construction, Ditches and Seeding	\$1,604,500						
Geotechnical and Density Testing During Construction	\$22,200						
Silt Fence, Signage and O&M Manuals	\$7,000						
Rip Rap for New Dikes	\$585,300						
Construction Sub-total	\$3,170,400						
15% Construction Contingency	\$475,560	PST		PST		15% Construction Cont.	\$60,120
PST	\$340,818					PST	\$23,598
Total Lagoon Expansion Estimate	\$3,986,778	Remaining Design Costs	\$176,888	Admin and Services. Costs	\$243,120	Admin and Services. Costs	\$495,558
TOTAL REMAINING COSTS FOR LAGOON PROJECTS	\$4,902,344						
	\$5,000,000						
PROVINCIAL FUNDING	-\$1,566,666						
FEDERAL FUNDING	-\$1,566,666						
Lagoon Reserves	-\$661,061						
Utility Reserves	-\$288,984						
Other Reserves	-\$238,000						
TOTAL BORROWING REQUIRED	\$678,623						

Reserve Withdrawals

- Utility Reserve \$289,025
- Lagoon Reserve \$661,061
- \$238,000 – Gas Tax
 - Reversal of gas tax spent to buy the property
 - Bridge Reserve - \$78,759
 - General Reserve - \$50,000
 - LUD Road Maintenance Reserve - \$109,200
- Total Reserve Funds \$1,188,045



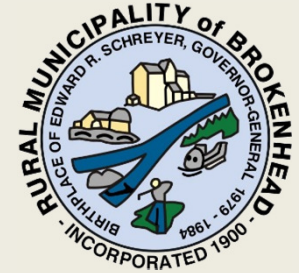
Legislation the *Municipal Act*

Basis for calculating taxes

316 (1) Local improvement taxes or special services taxes must be calculated on the basis of one or more of the following:

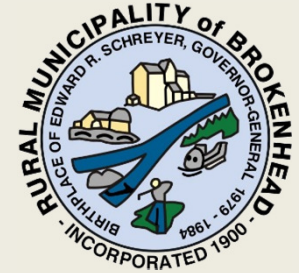
- a) the portioned value of assessable property that is real property;
- b) the annual rental value of premises as assessed for the purpose of a business tax;
- c) an amount for each unit of area of the lands benefited by the improvement or service
- d) an amount for each unit of frontage of the lands benefited by the improvement or service;
- e) An amount for each business;
- f) An amount for each parcel of land

Process for Local Improvement Plan 16-01



- 1) September 8, 2015 – Local Improvement Plan Initiated by Resolution of Council (s. 313)
- 2) Preparation of Local Improvement Plan 16-01
- 3) February 11, 2016 – Council gives notice to each potential tax payer (s. 318)
- 4) February 29, 2016 – Lagoon Open House
- 5) March 16, 2016 – Lagoon Public Hearing Regarding Borrowing By-Law 2165-16
- 6) If 2/3 or more of potential taxpayers object, council must not approve the plan or proposal. Council may propose a similar project after 2 years (s.s. 320(2))

Process for Local Improvement Plan 16-01



- 7) Council gives first reading to By-Law 2165-16 and provides each objector with a notice of their right to object to the Municipal Board
- 8) Administration submits documentation to the Municipal Board
- 9) If 25 or 10% of potential tax payers object, the Municipal Board holds a public hearing (s.s. 321(1))
- 10) The Municipal Board approves/amends By-Law 2165-16 with or without conditions or rejects By-Law 2165-16 and advises municipality. (s.s.321(2))

BORROWING FOR THE LAGOON

		LUD		RM RURAL	
Total Price	\$5,000,000	Cost of Existing Lagoon Repairs	\$ 346,890.60	Cost of Expansion/ Design and Admin	\$ 148,667.40
Federal Funding	\$ (1,566,666.00)	Admin/Services	\$ 76,582.80	Admin/Services	\$ 178,693.20
Provincial Funding	\$ (1,566,666.00)	Utility Reserve	\$ (288,984.00)	Design	\$ 198,210.00
Lagoon Reserve	\$ (661,061.00)			Lagoon	\$ 4,050,956.00
Utility Reserve	\$ (288,984.00)		\$ 134,489.40	Lagoon Reserve	\$ (661,061.00)
Other Reserves	\$ (238,000.00)	Number of Dwellings	748	Federal Funding	\$ (1,566,666.00)
	\$678,623		\$ 179.80	Provincial Funding	\$ (1,566,666.00)
				Other Reserves	\$ (238,000.00)
				Balance	\$ 544,133.60
				Number of Dwellings	1693
					\$ 321.40

Local Improvement Levy 16-01



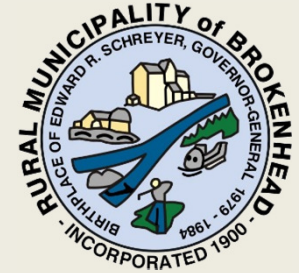
- Levies will be based on a per parcel and dwelling basis
- All properties that has, or has the potential to have, an existing holding tank and/or septic field or injector system
- Excludes vacant residential land over 10 acres and farmland and farm outbuildings
- LUD of Tyndall-Garson - One time payment of ~~\$180~~ **\$175** or ~~\$23.74~~ **\$23.07** for the years 2017-2026
- Rural Area RM of Brokenhead – One time payment of ~~\$323~~ **\$317** or ~~\$42.60~~ **\$41.77** for the years 2017-2026

Previous Lagoon By-Laws



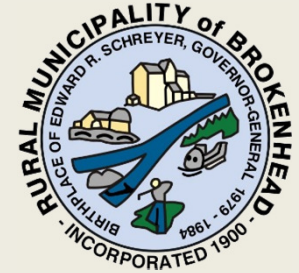
- **Borrowing By-laws for the LUD**
 - **By-law 1977** – April 2003 - Project cost \$8,650,000 – Borrowing of \$3,200,000 – Residents pay \$550 for 20 years - \$6,000 for new developed lots charged on subdivision
 - **By-law 2048-07** - June 2007 - \$2,452,437.15 actual costs – reduced new developed lots to \$3,000 which is still charged today
 - **By-law 2060-08** – Second borrowing \$546,968.12 – Residents pay \$104.26 for 20 years

Other By-laws of Interest



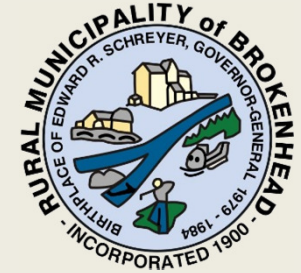
- **By-Law 2075-08** – Establishing Fees for septic hauls – charging started in January 2007 – up to a \$30.00 fee per load
- **By-Law 2036-06** – Creating a special Lagoon Reserve Fund – borne by taxes of the RM rural residents – contribution of \$15,000 per year
- **By-Law 2114-12** – Utility and Sewer Rates – billed on quarterly basis

Objections



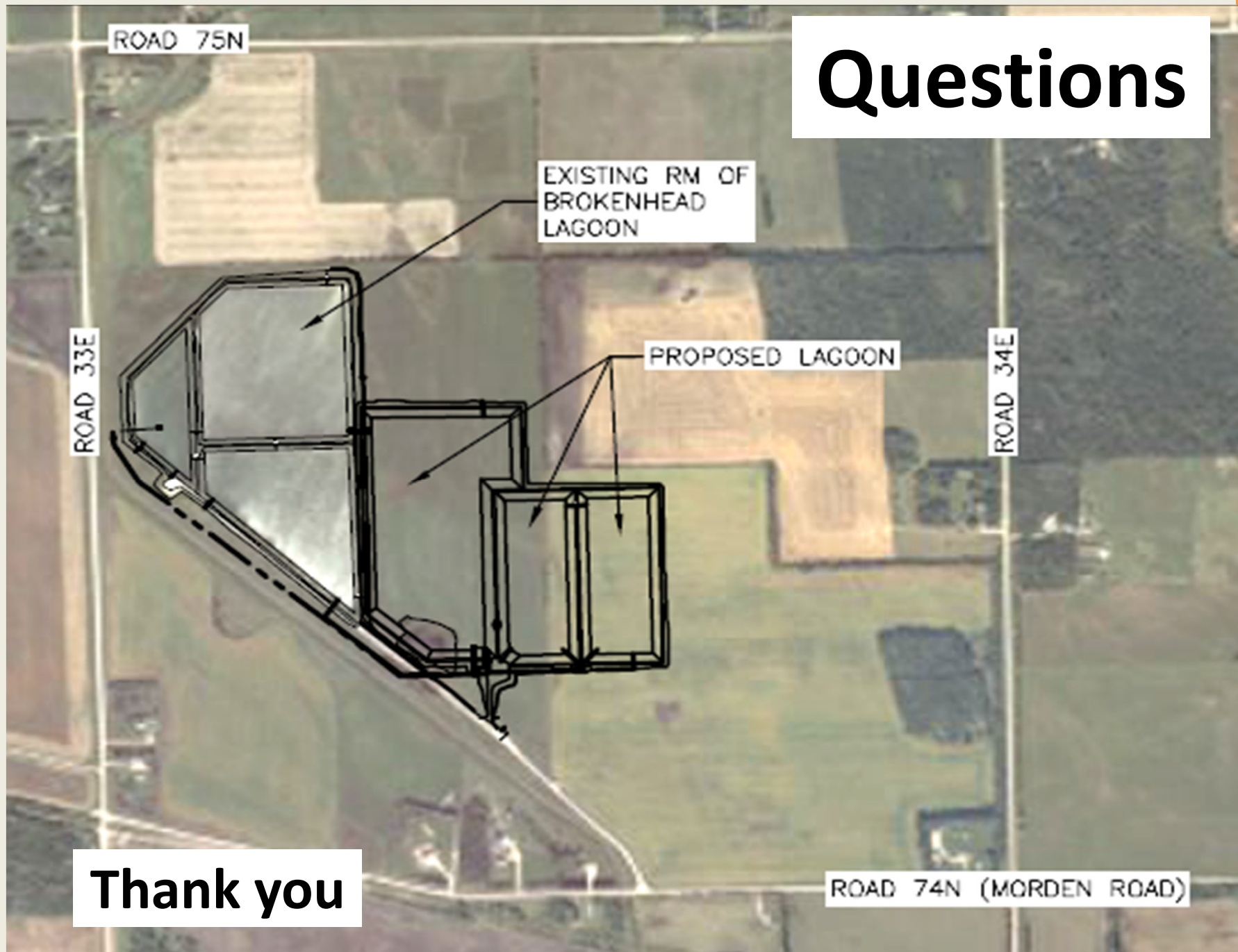
- A written objection may be filed with the Chief Administrative Officer, at 72013 Road 42E prior to the commencement of the hearing. At the hearing, Council will hear any potential taxpayer who wishes to make a presentation, ask questions or register an objection to the local improvement plan.
- All objections, written or verbal, must be filed prior to the adjournment of the hearing and must include the name, address and property description of the person filing the objection and grounds for their objection.

Upcoming Dates



- March 16, 2016 – Public hearing regarding borrowing By-Law 2165-16
- March 22, 2016 – 1st reading of borrowing By-Law 2165-16
- April 26, 2016 – 2016 Financial Plan Public Hearing
- May 26, 2016 – Estimated Lagoon Construction Start Date

Questions



Thank you

What Could Be?

Total Project Cost	\$5,000,000
Federal Funding	-\$1,566,667
Provincial Funding	<u>-\$1,566,667</u>
Total Municipal cost	\$1,866,666
Lagoon Reserve Funds	-\$ 661,061
Other Reserves	<u>-\$ 238,000</u>
Outstanding for Borrowing	\$ 967,605
2441 potential taxpayers	\$ 396.40 levy