



# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## WELCOME AND INTRODUCTION

The Rural Municipality of West St. Paul welcomes you to this Open House to update progress on the design and construction of a new regional wastewater collection system.

Members of Council and Administration from the R.M. of West St. Paul and representatives from The Manitoba Water Services Board (Project Manager) and Stantec Consulting Limited (Project Engineer) are here today to answer questions and provide current information on the project plans. We encourage you to ask any questions that you may have.

Comments sheets are also available if you wish to provide written questions or feedback.

- Welcome and Introduction
- Project Outline
- Red River Corridor Designated Area
- Existing Wastewater Treatment Plants
- Trunk Sewer Service Area
- Main Trunk Sewer Financing
- Phase 1 Trunk Sewer
- Local Improvement Districts
- Riverdale, Maddock & Drury Local Servicing
- Nye, Baldock, Evelyn, Grassmere & Balderstone Local Servicing
- Hiawatha, Minnehaha & Kenabeek Local Servicing
- Lister Rapids Local Servicing
- Riversprings & Rivercrest Local Servicing
- Rossmore & Addis Local Servicing
- Main Street Local Servicing
- Example Sewer Service Connections
- Utility Rates
- Why Connect to the City of Winnipeg?
- Schedule



THE MANITOBA WATER  
SERVICES BOARD





# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## PROJECT OUTLINE

### What are we proposing?

A new regional wastewater collection system to service the R.M. of West St. Paul. Wastewater treatment will be provided by the City of Winnipeg at the North End Water Pollution Control Centre on Main Street.

### Why?

It is believed that there are a large number of failing septic fields within Manitoba Conservation's Red River Corridor Designated Area that require either replacement with holding tanks or connection to an approved wastewater treatment system.

There are also four (4) wastewater treatment plants owned and operated by the R.M. of West St. Paul that do not provide the standard of treatment currently required by Manitoba Conservation.

### Why partner with the City of Winnipeg?

Modern wastewater treatment facilities are complex and expensive to construct, operate and maintain. A service sharing agreement was signed with the City of Winnipeg in January 2013 to provide a cost-effective means of providing wastewater treatment for the R.M. of West St. Paul. Regional infrastructure projects increase the chance of securing funding from Federal and Provincial Governments.

### Who is affected?

All properties within the R.M. of West St. Paul will be affected. The cost of the proposed trunk sewer will be shared equally by existing property owners. The cost and timing of local services will vary from property to property and depend upon where you live.

### How much will the project cost?

The current estimate for the Main Street Trunk Sewer from Fernbank Avenue in the City of Winnipeg to Rivercrest in the R.M. of West St. Paul is \$16M.

### Who will pay for the project?

The Main Street Trunk Sewer will be cost-shared by the Federal, Provincial and Municipal Governments.

- Federal Building Canada Fund Contribution = \$4M
- Provincial Building Canada Fund Contribution = \$4M
- The Manitoba Water Services Board Contribution = \$2M
- R.M. of West St. Paul Contribution = \$6M

### When will the project be constructed?

The first phase of construction is anticipated to begin in Fall 2013. **The Building Canada Funding expires in September 2015.** Future phases will proceed as funding becomes available.



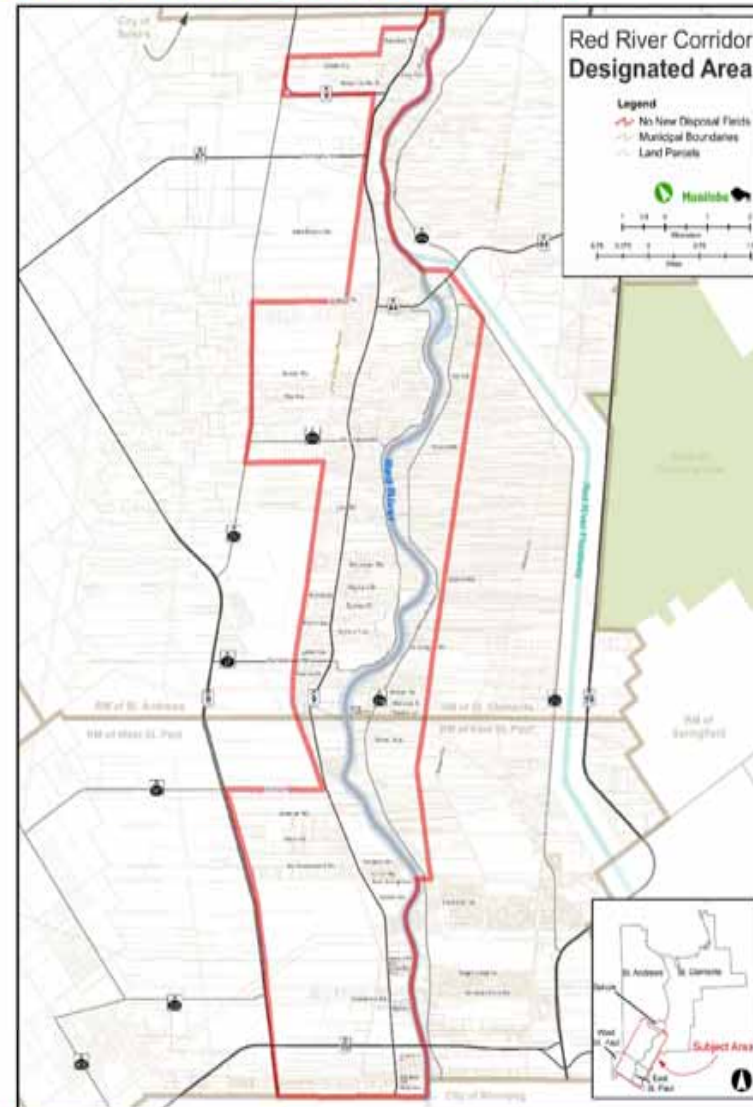
**THE MANITOBA WATER  
SERVICES BOARD**



# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## RED RIVER CORRIDOR DESIGNATED AREA

- Onsite Wastewater Management Systems Regulations (83/2003) pursuant to The Environment Act are administered by Manitoba Conservation.
- The Red River Corridor Designated Area was established in 2009 under an amendment to these Regulations.
- Replacement or modification of existing septic fields and construction of new septic fields are prohibited within this Designated Area.
- Detailed information on the Regulations is available from Manitoba Conservation ([www.gov.mb.ca/conservation/envprograms/wastewater/index.htm](http://www.gov.mb.ca/conservation/envprograms/wastewater/index.htm))







# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## EXISTING WASTEWATER TREATMENT PLANTS

The R.M. of West St. Paul owns and operates four (4) wastewater treatment plants (WWTP) within the proposed Phase 1 service area.

1. **Riverdale WWTP** was constructed in 1979 and serves 152 dwellings.
2. **Lister Rapids WWTP** was constructed in 1985 and serves 68 dwellings.
3. **Rivergate (Riversprings) WWTP** was constructed in 1996 and currently 44 dwellings.
4. **Rivercrest WWTP** was originally constructed in 1946 and upgraded in 1979 and serves 142 dwellings.

These plants are in poor condition and do not provide the level of wastewater treatment required by current standards and regulations. The estimated replacement cost of these facilities is as follows.

- **Riverdale WWTP = \$3M**
- **Lister Rapids WWTP = \$1.8M**
- **Rivergate (Riversprings) WWTP = \$0.9M**
- **Rivercrest WWTP = \$2.5M**

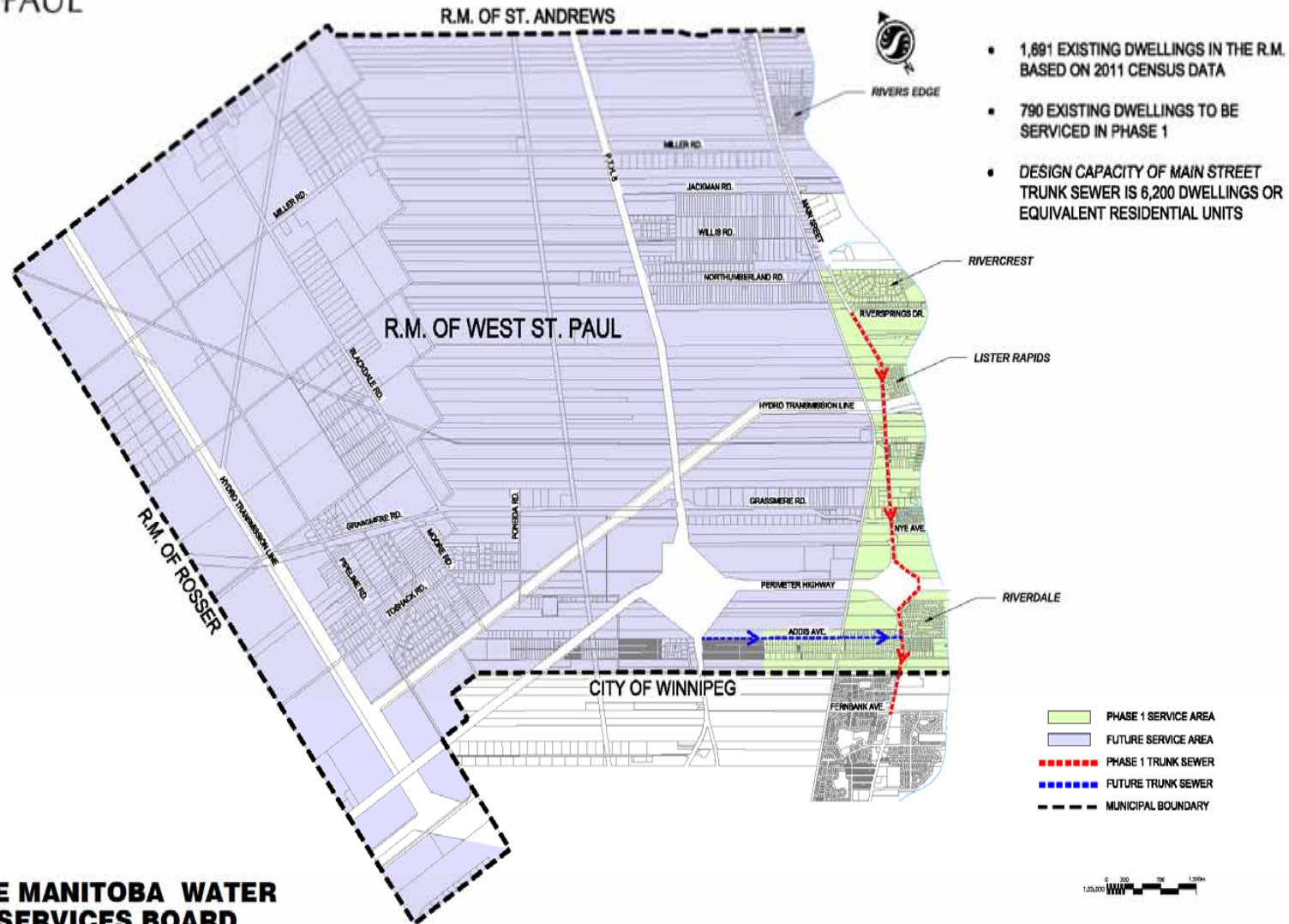


**THE MANITOBA WATER  
SERVICES BOARD**



# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## TRUNK SEWER SERVICE AREA



**THE MANITOBA WATER SERVICES BOARD**



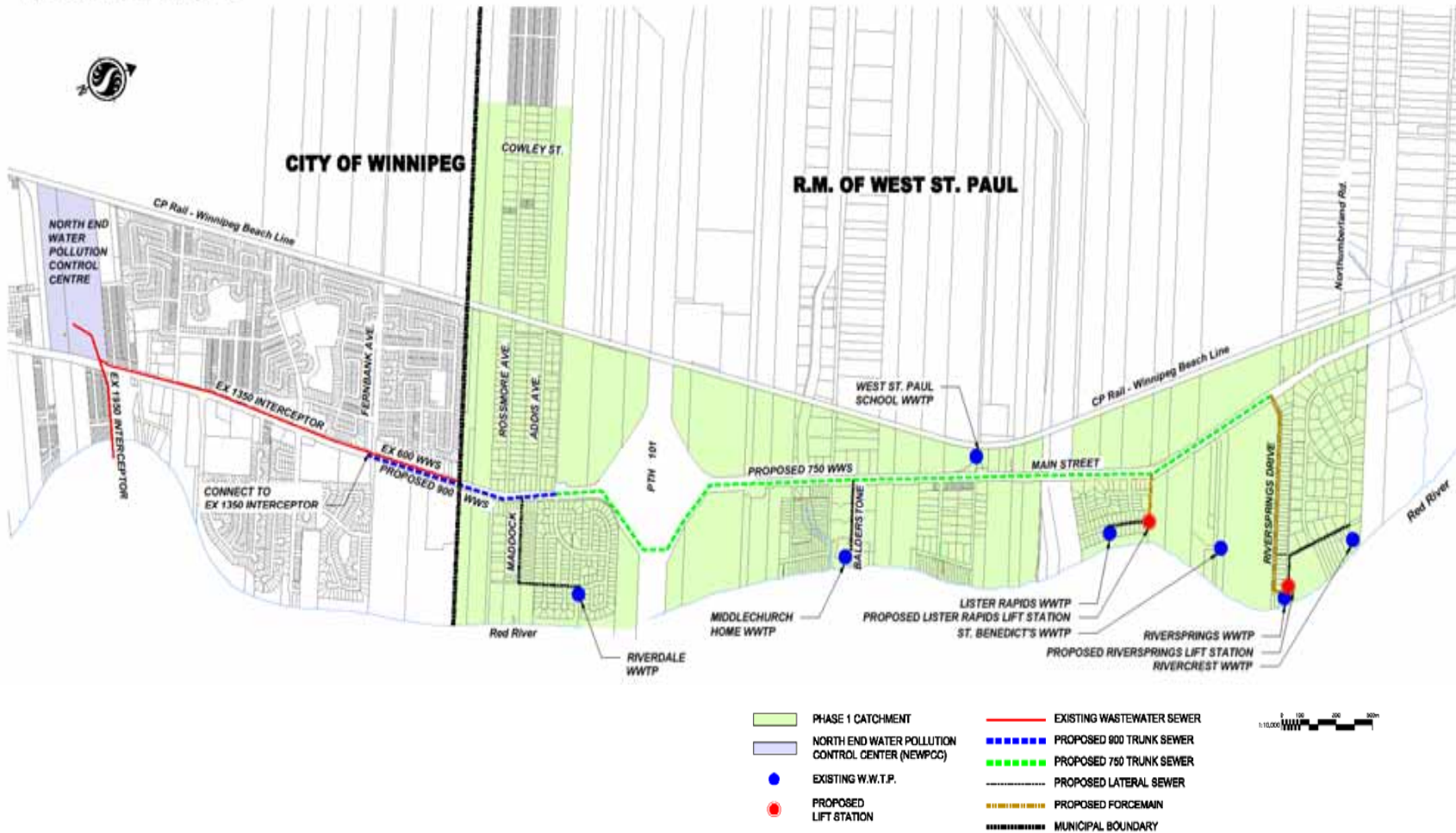
| Phase 1 Main Line Cost Per \$100,000 Assessed |               |               |
|---|---------------|---------------|
|   | Borrowing     | At Large      |
| Phase Cost                                    | \$ 16,000,000 |               |
| Less Grants                                   | \$ 10,000,000 |               |
| Borrowing                                     | \$ 6,000,000  |               |
| Annual Payment over 20 yrs                    | \$ 481,455    |               |
|   |               |               |
| Assessment                                    |               | \$320,000,000 |
| Mill Rate Impact                              |               | 1.5           |
| Cost Per \$100,000 Assessment                 |               | \$ 68         |





# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## PHASE 1 TRUNK SEWER





# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## LOCAL IMPROVEMENT DISTRICTS

A Local Improvement District or LID is a special public improvement area created by a municipality to allow for public financing of a public improvement project that benefits private property. The construction of the lateral sewers that service individual streets and developments is proposed to be paid for through the establishment of numerous LIDs with payment collected through a special tax from benefiting property owners. These taxes can typically be pre-paid in a lump-sum amount or paid annually over a 20-year period on your municipal tax bill.

Local improvement taxes must be calculated on the basis of one or more of the following:

- a. the proportioned 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 area;
- 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.

The local servicing costs presented on subsequent boards at this Open House are calculated on a per parcel basis for existing neighbourhoods within the Phase 1 service area. The final LID boundaries and method of taxation will be determined through discussion with local residents and Council as the project proceeds. Each proposed LID is subject to a By-law approval process prior to implementation.

The R.M. of West St. Paul recognizes that affordability is a key consideration in all aspects of the proposed wastewater sewer project and will continue to pursue funding from Federal, Provincial and private sources to reduce the financial impacts on affected property owners.



THE MANITOBA WATER  
SERVICES BOARD







# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## RIVERDALE, MADDOCK & DRURY LOCAL SERVICING



| RIVERDALE PRELIMINARY<br>OPINION OF PROBABLE COST       |                            |   |
|---|----------------------------|---|
| ITEM  | DESCRIPTION                | AMOUNT                                  |
| 1)  | Gravity Sewer Laterals     | \$ 745,000                              |
| 2)  | Decommission Existing WWTP | \$ 100,000                              |
| Subtotal  |                            | \$845,000                               |
| Construction Contingency & Engineering (25%)            |                            | \$211,250                               |
| <b>Total Municipal Infrastructure Construction Cost</b> |                            | <b>\$1,056,250</b>                      |
| Cost Per Dwelling (154 Existing)                        |                            | \$6,860 (Payable over 20 years)         |
| City of Winnipeg Connection Fee Per Dwelling            |                            | \$ 1,900 (Paid at time of connection)   |
| Water meter   |                            | \$ 600 (Paid at time of connection)     |
| <b>Reserve Account Balance</b>                          |                            | <b>\$243,332 (\$1,580 per dwelling)</b> |
| <b>Total Local Servicing Cost Per Dwelling</b>          |                            | <b>\$7,780</b>                          |

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and forcemains.

| MADDOCK & DRURY AVENUE PRELIMINARY<br>OPINION OF PROBABLE COST |                        |                                       |
|--|------------------------|---------------------------------------|
| ITEM   | DESCRIPTION            | AMOUNT                                |
| 1)   | Gravity Sewer Laterals | \$ 209,000                            |
| Construction Contingency & Engineering (25%)                   |                        | \$52,250                              |
| <b>Total Municipal Infrastructure Construction Cost</b>        |                        | <b>\$261,250</b>                      |
| Cost Per Dwelling (43 Existing)                                |                        | \$6,075 (Payable over 20 years)       |
| Approximate Private Service Connection Cost                    |                        | \$ 6,000 (Paid at time of connection) |
| City of Winnipeg Connection Fee Per Dwelling                   |                        | \$ 1,900 (Paid at time of connection) |
| Water Meter  |                        | \$ 600 (Paid at time of connection)   |
| <b>Total Local Servicing Cost Per Dwelling</b>                 |                        | <b>\$14,575</b>                       |

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and forcemains.





# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## NYE, BALDOCK, EVELYN, GRASSMERE & BALDERSTONE LOCAL SERVICING



### NYE, BALDOCK, EVELYN, GRASSMERE & BALDERSTONE PRELIMINARY OPINION OF PROBABLE COST

| ITEM | DESCRIPTION            | AMOUNT       |
|------|------------------------|--------------|
| 1)   | Gravity Sewer Laterals | \$ 1,600,000 |

|  |                                       |
|--|---------------------------------------|
| Construction Contingency & Engineering (25%)                     | \$400,000                             |
| <b>Total Municipal Infrastructure Construction Cost</b>          | <b>\$2,000,000</b>                    |
| Cost Per Dwelling (69 Existing & 148 ERU from Middlechurch Home) | \$ 9,220 (Payable over 20 years)      |
| Approximate Private Service Connection Cost                      | \$ 6,000 (Paid at time of connection) |
| City of Winnipeg Connection Fee Per Dwelling                     | \$ 1,900 (Paid at time of connection) |
| Water Meter  | \$ 600 (Paid at time of connection)   |
| <b>Total Local Servicing Cost Per Dwelling</b>                   | <b>\$ 17,720</b>                      |

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and forcemains.

The Middlechurch Home is estimated to contribute equivalent wastewater flow of 148 residential dwellings based on the Licensed capacity of its existing wastewater treatment plant.

- EXISTING W.W.T.P.
- PROPOSED 750 TRUNK SEWER
- PROPOSED LATERAL SEWER

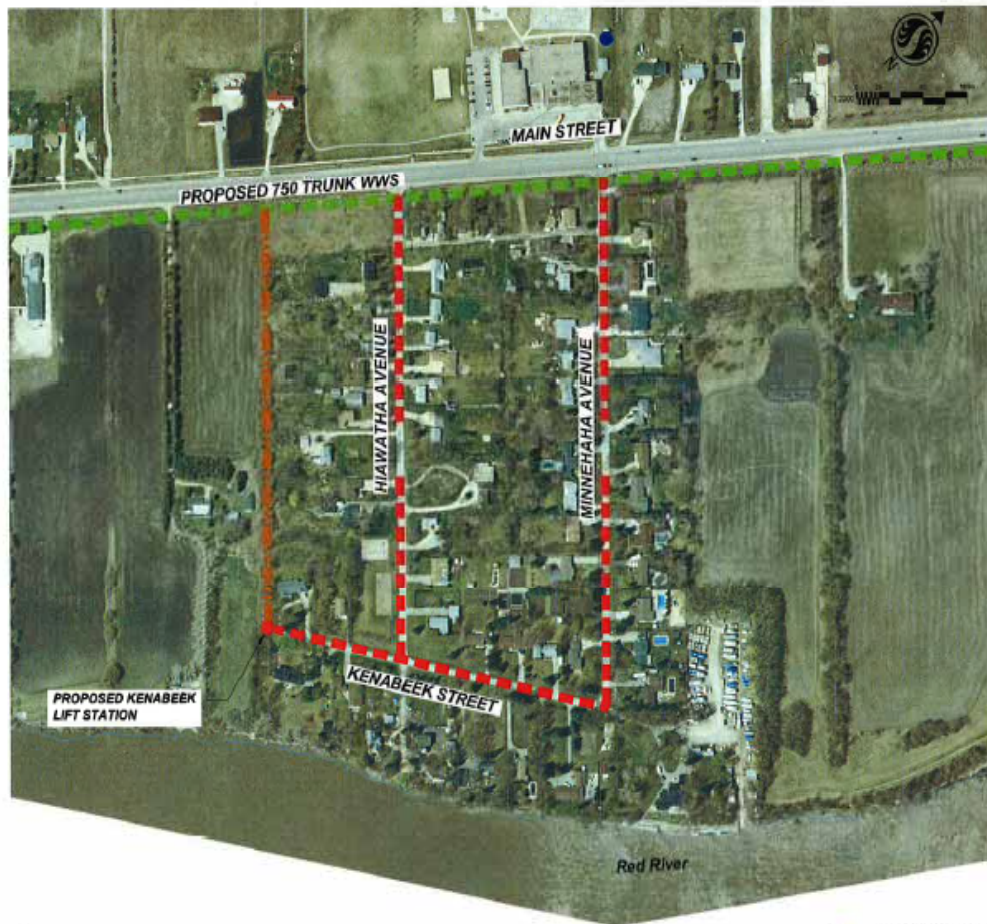






# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## HIAWATHA, MINNEHAHA & KENABEEK LOCAL SERVICING



| PRELIMINARY OPINION OF PROBABLE COST |   |                                       |
|--------------------------------------|---|---------------------------------------|
| ITEM                                 | DESCRIPTION   | AMOUNT                                |
| 1)                                   | Gravity Sewer Laterals                                  | \$ 1,190,000                          |
| 2)                                   | Lift Station & Forcemain                                | \$ 310,000                            |
|                                      | Subtotal  | \$ 1,500,000                          |
|                                      | Construction Contingency & Engineering (25%)            | \$375,000                             |
|                                      | <b>Total Municipal Infrastructure Construction Cost</b> | <b>\$ 1,875,000</b>                   |
|                                      | Cost Per Dwelling (49 Existing & 46 ERU from school)    | \$ 19,740 (Payable over 20 years)     |
|                                      | Approximate Private Service Connection Cost             | \$ 6,000 (Paid at time of connection) |
|                                      | City of Winnipeg Connection Fee Per Dwelling            | \$ 1,900 (Paid at time of connection) |
|                                      | Water Meter   | \$ 600 (Paid at time of connection)   |
|                                      | <b>Total Local Servicing Cost Per Dwelling</b>          | <b>\$ 28,240</b>                      |

A low-pressure sewer system for this area may also be considered in consultation with local residents. A preliminary opinion of probable cost for this alternative is approximately \$18,000 per dwelling. Cost recoveries from adjacent developments that benefit from this infrastructure may also reduce the cost to existing residents.

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and force mains.

The West St. Paul School is estimated to contribute equivalent wastewater flow of 46 residential dwellings based on the capacity of its existing wastewater treatment plant.

- EXISTING W.W.T.P.
- PROPOSED LIFT STATION
- PROPOSED 750 TRUNK SEWER
- PROPOSED LATERAL SEWER
- PROPOSED FORCEMAIN





# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## LISTER RAPIDS LOCAL SERVICING



- EXISTING W.W.T.P.
- ★ PROPOSED LIFT STATION
- EX. WASTEWATER SEWER
- PROPOSED 750 TRUNK SEWER
- PROPOSED LATERAL SEWER
- PROPOSED FORCEMAIN

### PRELIMINARY OPINION OF PROBABLE COST

| ITEM  | DESCRIPTION                | AMOUNT                                  |
|---|----------------------------|---|
| 1)  | Gravity Sewer Laterals     | \$ 267,000                              |
| 2)  | Lift Station & Forcemain   | \$ 286,000                              |
| 3)  | Decommission Existing WWTP | \$ 100,000                              |
| Subtotal  |                            | \$ 653,000                              |
| Construction Contingency & Engineering (25%)            |                            | \$ 163,000                              |
| <b>Total Municipal Infrastructure Construction Cost</b> |                            | <b>\$ 816,000</b>                       |
| Cost Per Dwelling (68 Existing)                         |                            | \$ 12,000 (Payable over 20 years)       |
| City of Winnipeg Connection Fee Per Dwelling            |                            | \$ 1,900 (Paid at time of connection)   |
| Water Meter   |                            | \$ 600 (Paid at time of connection)     |
| <b>Reserve Account Balance</b>                          |                            | <b>\$108,420 (\$1,594 per dwelling)</b> |
| <b>Total Local Servicing Cost Per Dwelling</b>          |                            | <b>\$12,900</b>                         |

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and forcemains.



# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## RIVERSPRINGS & RIVERCREST LOCAL SERVICING



| PRELIMINARY OPINION OF PROBABLE COST |                             |            |
|--------------------------------------|-----------------------------|------------|
| ITEM                                 | DESCRIPTION                 | AMOUNT     |
| 1)                                   | Gravity Sewer Laterals      | \$ 485,000 |
| 2)                                   | Lift Station & Forcemain    | \$ 490,000 |
| 3)                                   | Decommission Existing WWTPs | \$ 200,000 |

Subtotal \$1,175,000

Construction Contingency & Engineering (25%) \$293,750

**Total Municipal Infrastructure Construction Cost \$1,468,750**

Cost Per Dwelling (186 Existing) \$7,900 (Payable over 20 years)

City of Winnipeg Connection Fee Per Dwelling \$ 1,900 (Paid at time of connection)

Water Meter \$ 600 (Paid at time of connection)

Subtotal \$10,400

Rivercrest Reserve Account Balance \$380,905 (\$2,682 per dwelling)

Rivergate (Riversprings) Reserve Account Balance \$46,253 (\$1,051 per dwelling)

Total Local Servicing Cost per Dwelling in Rivercrest \$7,720

Total Local Servicing Cost per Dwelling in Rivergate (Riversprings) \$9,350

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and force mains.

- EXISTING W.W.T.P.
- PROPOSED LIFT STATION
- EX. WASTEWATER SEWER
- PROPOSED 750 TRUNK SEWER
- PROPOSED LATERAL SEWER
- PROPOSED FORCEMAIN









# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## MAIN STREET LOCAL SERVICING



**The costs of individual sewer services for properties that front onto the Main Street Trunk Sewer are proposed to be paid through the establishment of a Local Improvement District (LID). The LID would cover only that portion of the sewer service within the Main Street right-of-way. Service pipe and building connections would be paid for directly by each property owner.**

### PRELIMINARY OPINION OF PROBABLE COST

| ITEM | DESCRIPTION                           | AMOUNT     |
|------|---------------------------------------|------------|
| 1)   | Municipal service connection to trunk | \$ 273,800 |

|   |                   |                              |
|---|-------------------|------------------------------|
| Construction Contingency & Engineering (25%)                | \$ 68,450         |                              |
| <b>Total Municipal Infrastructure Construction Cost</b>     | <b>\$ 342,250</b> |                              |
| Cost Per Dwelling (38 Existing)                             | \$9,000           | (Payable over 20 years)      |
| Approximate Private Service Connection Cost (large setback) | \$10,000          | (Paid at time of connection) |
| City of Winnipeg Connection Fee Per Dwelling                | \$ 1,900          | (Paid at time of connection) |
| Water Meter   | \$ 600            | (Paid at time of connection) |
| <b>Total Local Servicing Cost Per Dwelling</b>              | <b>\$21,500</b>   |                              |

Potential partnering with The Manitoba Water Services Board on future phases of construction may include 33% funding towards local sewers and 50% towards lift station and forcemains.



**PRIVATE WASTEWATER SYSTEM COST COMPARISON:**

- Typical new shallow bury holding tank system (no basement plumbing) installation cost = \$5,000
- Typical new deep-bury large holding tank system installation cost = \$10,000
- Typical new septic tank and septic field installation cost = \$24,000

The work can be completed by a licensed sewer and plumbing contractor of your choosing. The costs presented above are intended only to give you an approximation of what you might expect to pay based on past project experience.







# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## UTILITY RATES

Once constructed, the ongoing operation, maintenance and eventual replacement of the sewer system will be paid for by utility customers based on the amount of water they use. Water usage will be measured by meters installed in homes and businesses and sewer bills will be issued quarterly based on your water usage.

Most domestic water used typically ends up as sewage that is discharged into the wastewater collection system, however, some water may be used for other purposes such as watering a lawn. Water lines that are for external use, such as hose bib connections or sprinkler lines, can be installed before the water meter and therefore will not be included in your metered water use. The water meters will be equipped with remote monitoring capabilities for billing purposes to allow the R.M. to obtain water meter readings from outside the residence. Product information is available from the R.M. upon request.

Sewer utility rates paid by sewer customers in the R.M. of West St. Paul will consist of the following components:

- City of Winnipeg Sewer rate ( \$2.15/cubic meter for 2013 ),
- City of Winnipeg annual administration fee ( \$200 for 2013) and
- Local sewer rate for the wastewater infrastructure owned, operated and maintained by the R.M. of West St. Paul (to be determined)

Utility rates are based on a user-pay philosophy and are subject to review and approval by the Manitoba Public Utilities Board.

The average family of four (4) in the City of Winnipeg paid a total of \$504 on their sewer bill in 2012 and produced 240 cubic metres of wastewater.

**For comparison, this same family of four (4) could expect to pay approximately \$5,300 annually for wastewater hauling, assuming a 4,500 litre (4.5 cubic metre) holding tank and \$100 per pump out.**



**THE MANITOBA WATER  
SERVICES BOARD**







# R.M. OF WEST ST. PAUL WASTEWATER SEWER PROJECT

## WHY CONNECT TO THE CITY OF WINNIPEG?

The R.M. of West St. Paul has considered a number of alternatives over the last several years for the provision of municipal wastewater collection and treatment. The preferred alternative, in terms of least cost, for the Municipality has always been to connect to the City of Winnipeg. The terms of a service sharing agreement that is beneficial to both parties were reached in 2012. A comparison of the capital cost of constructing a new central wastewater treatment plant and trunk sewer in the R.M. of West St. Paul versus connection to the City of Winnipeg is shown below.

### Wastewater Treatment

A 2010 Functional Design Report commissioned by the R.M. of West St. Paul and The Manitoba Water Services Board estimated the cost of construction of a new central wastewater treatment plant with capacity to serve 3,000 dwellings at \$15M. The cost of this project was to be funded by an \$8M grant from the Build Canada Fund and \$7M shared equally by the R.M. of West St. Paul and the R.M. of St. Andrews. The municipal cost was estimated to be approximately \$2,330 per dwelling.

For comparison, the cost for a single family dwelling to connect to the City of Winnipeg wastewater system is currently \$1,900 for a savings of \$430 per dwelling.

### Main Street Trunk Sewer

The 2010 Functional Design Report estimated the cost of the Main Street Trunk Sewer at \$10.7M. Assuming a \$2M grant from The Manitoba Water Services Board, the R.M. of West St. Paul contribution would be \$8.7M.

For comparison, the proposed Main Street Trunk Sewer connecting to the City of Winnipeg is currently estimated to cost \$16M. This project will be funded by an \$8M grant from the Build Canada Fund and a \$2M grant from The Manitoba Water Services Board. The R.M. of West St. Paul contribution is currently estimated to be \$6M for a savings of approximately \$1,600 per dwelling (for 1,691 dwellings).

### Other Considerations

- The R.M. of West St. Paul would require a much higher initial capital contribution to construct a new wastewater treatment facility since the collection system would have to be constructed concurrently in order to provide the wastewater necessary for the plant to function at start-up.
- The proposed Main Street Trunk Sewer has a design capacity of approximately 6,200 dwellings or equivalent residential units whereas the wastewater treatment plant that was under consideration had a design capacity of 1,500 dwellings (R.M. of West St. Paul share).
- Large wastewater treatment plants designed and constructed to current standards and regulations are complex and expensive to operate.



**THE MANITOBA WATER  
SERVICES BOARD**



- **Public Open House #1** **February 19, 2013**
- **Public Open House #2** **March 5, 2013**
- **Public Borrowing By-law Hearing** **May 2013**
- **Detailed Design** **March through June 2013**
- **Construction Tender #1** **August 2013**
- **Construction Contract #1** **Fall 2013 through early 2014**

- **Phase 1 is currently planned to be tendered and constructed under three (3) separate construction contracts.**
- **The scope and timing of these contracts will be developed as the detailed design proceeds.**
- **The total duration of Phase 1 construction is currently estimated to be approximately eight (8) to ten (10) months.**
- **Building Canada Funding (\$8M) expires in September 2015.**

