



City of Moose Jaw - Engineering Department
Executive Committee Report: Sunningdale Sewer System
April 11, 2016

Residents' Concerns

- 2014: 18/33 basements impacted were identified as sewer backups
- 2015: 7/15 basements impacted were identified as sewer backups
- One property was identified as impacted in both 2014 and 2015.
- Remaining basements were impacted by overland flow, seepage or were undeterminable.



Utilities Master Plan

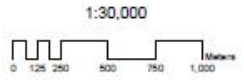
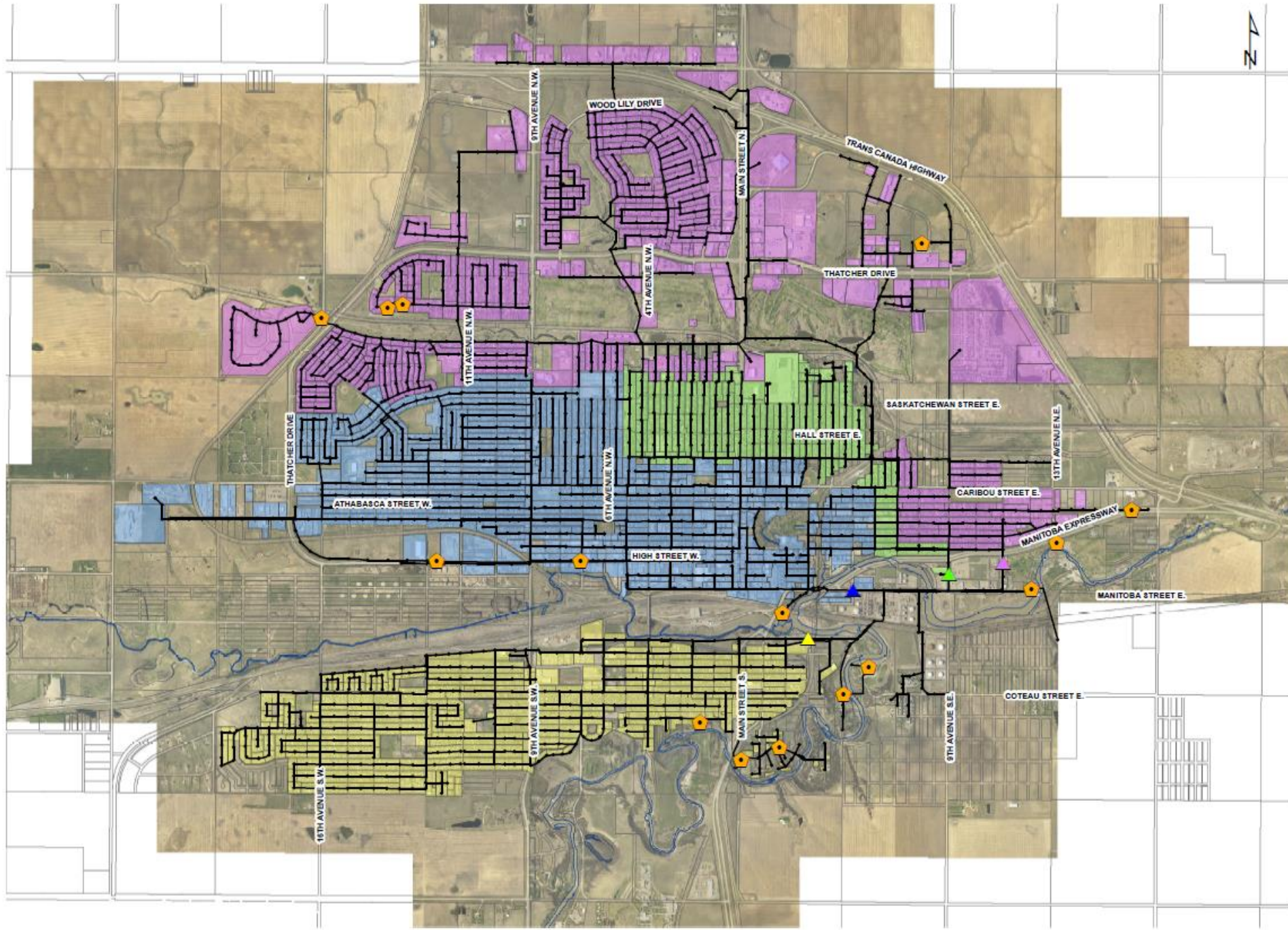
- Planning tool to address growth potential
- Identifies areas where servicing growth is most economical
- Used by many cities in North America
- Draft report presented to City of Moose Jaw Administration/Council during a planning session on December 16, 2015.
- Final report is now available.



FIGURE 4.4

Legend

- Catchment #1
- Catchment #2
- Catchment #3
- Catchment #4
- Flow Monitor #1
- Flow Monitor #2
- Flow Monitor #3
- Flow Monitor #4
- Pipes
- Manholes
- Lift Stations



**THE CITY OF MOOSE JAW
UTILITY MASTER PLAN**

WASTEWATER SYSTEM
EXISTING SANITARY NETWORK
FLOW MONITORING LOCATIONS



Northeast Sewer Improvements

Completed by the City of Moose Jaw in 2014

- Flushing, cleaning, and camera inspection of the North East Trunk Sewer.
- Flushing, cleaning, and camera inspection of the trunk sewer in Sunningdale Park.
- Flushing, cleaning, and camera inspection of the collection lines in Sunningdale where the majority of flooding issues occurred.
- Inspection of the sewer manholes in the area where the majority of the flooding issues occurred.
- Inspection of the majority of the impacted properties.



Total investment in 2014: \$475,000

Northeast Sewer Improvements

Completed by the City of Moose Jaw in 2015

- Restoration work on sections of the North East Trunk sewer by installing a resin-impregnated liner.
- Restoration work on sections of the trunk sewer in Sunningdale Park by installing a resin-impregnated liner.
- Identification of a sag in a section of the sewer pipe in Sunningdale Park.
- Identification and repair to a water connection leak that was directly entering the sewer system upstream of Sunningdale.
- Visual inspection of the system by engineering staff during July 2015 storm.
- Identification and repair of a sewer manhole on the North East Trunk that had appeared to have been intentionally damaged to allow surface water to drain.
- Inspection of all sewer manholes upstream of Sunningdale.
- Preventative maintenance work on several manholes upstream of Sunningdale.
- Identification and repair of a sewer manhole upstream of Sunningdale that appeared to have been intentionally damaged to allow surface water to drain.
- Flow monitoring of collection sewers in September and October.

Total invested in 2015: \$1,285,500



Total investment in Northeast sewer
improvements in 2014-2015:

\$1,760,500



Sunningdale Sewer System (1)



Sunningdale Sewer System (2)



Sunningdale Sewer System (3)



Improvements Completed 2014-15



Improvements Completed 2014-15



Improvements Completed 2014-15



Improvements Completed 2014-15



Improvements Completed 2014-15



2016 Planned Improvements:

- Further reinforce a section of the North East trunk sewer by installing an additional amount of resin-impregnated liner.
- Undertake additional flow monitoring to better understand the response of the sewer system during storm events. This may prompt additional inspection work such as repetitive smoke testing.
- Make observations and react appropriately during spring run-off.
- Have staff available for monitoring sewer flows during major rain events.
- Iris Drive and 9th Ave NW ditch re-grading to limit overland flows experienced in 2015.

