Horizon 2011 Municipal Drain

Presentation to the Hearing Committee October 3, 2012
by
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Drainage Engineer
Whitson River

- Main natural watercourse draining westerly from Falconbridge through Hanmer, through the former City of Valley East and Town of Rayside Balfour
- Val Caron and Chelmsford
- 70 kms long – 324 square kilometre watershed
- ½ of the watershed is east of Val Caron
- 5 of the river’s 11 tributaries are east of Val Caron
- River has a very flat slope; 30 inches over 1,000 km
- River has a relatively small cross-section with limited flow capacity
- Flooding has been common
Whitson River Historic Flooding

- In its natural state, Whitson River flooded annually and caused problems to farming pioneers
- Recent major floods include the Spring of 1985 and the Spring of 1998
- Normal summer waterflow is minimal
- Spring melt flow increases up to 50 times
- Flooding along the Whitson River impacts future development and existing development
- Flood reduction measures are necessary
2005 Horizon Drain

- Engineer’s Report 2005
- New drainage channel from Fifth Street, Val Caron to Belisle Drive
- Minimum standard 2 year storm design
- Project channel watershed 238.4 hectares
- Serviced development of Horizon Park Subdivision for storm sewer outlet
- Provided outlet for Regional Road 80 storm sewer
- Did not provide service for any other subdivision development
- Preceded 2005/2006 new Official Plan Stormwater Standards
Horizon 2011 Municipal Drain

- Section 78 Drainage Act Amendment

- To provide stormwater infrastructure outlet for:
  
  - Dalron Construction Limited’s 600 unit Hidden Valley community development
  
  - Existing City development

- 3.6 hectare stormwater treatment and quality pond

- 550 metres of realigned or widened channel

- 100 year design standard for channel and pond

- Pond designed to limit outflows to 2 year storm downstream existing channel

- Report project watershed 153.8 hectares
Estimated Project Cost

- Pond $904,900
  - Dalron Construction Limited $452,450
  - City of Greater Sudbury $452,450

- Realign widened channel $92,390
  - Dalron Construction Limited $69,290
  - City of Greater Sudbury $23,100

- Dalron Subdivision Pipe Outlet
  - Dalron Construction Limited $63,250
Drainage Act Process

• Council Section 78 engineer appointment

• Public drainage meeting

• Various discussions with Dalron Construction Limited

• Discussions with Department of Fisheries and Oceans (DFO) and Nickel District Conservation Authority (NDCA)

• Pre-engineering analysis and surveys, geotechnical investigations – water table evaluations, engineering design plans, cost estimates

• February 2012 Engineer’s report

• Fair and balanced assessment to Dalron Construction Limited and taxpayers

• July 10, 2012 City Council approval of Front Ending Finance Program for developer’s share @ $1,300 per lot

• October 3, 2012 Hearing Committee Recommendation