



# 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



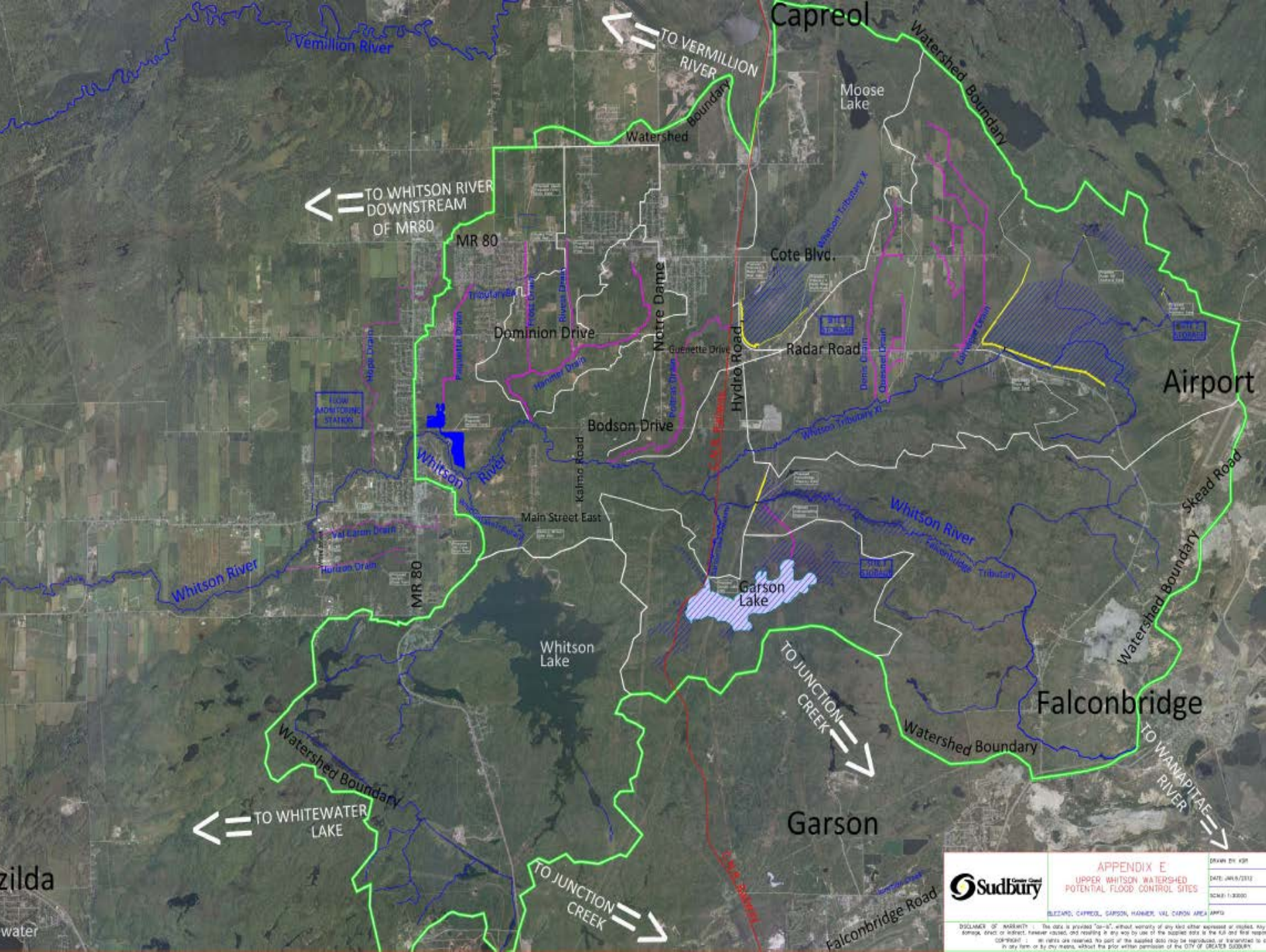
← CAPREOL 12 M. SUDBURY 9 M. →  
← ELA LAKE 14 M. :  
← MILNET 22 M. :  
← HANMER 6 M. :

HALF-LOADING  
REGULATIONS  
IN EFFECT









	<b>APPENDIX E:</b> <b>UPPER WHITSON WATERSHED</b> <b>POTENTIAL FLOOD CONTROL SITES</b>		DRAWN BY: KPM
			DATE: JANUARY 2010
			SCALE: 1:50000
			(BEECHAM, CAPREOL, GARSON, HANMER, VAL CARON AREA) APPD
<small>         DISCLAIMER OF WARRANTY: This data is provided "as-is", without warranty of any kind either expressed or implied. Any use, storage, distribution, or otherwise, and resulting in any way by use of the supplied data in the full and final responsibility of the user. No liability is accepted for any loss or damage caused by the use of the supplied data in any form or by any means, without the prior written permission of the CITY OF GREATER SUDBURY.       </small>			

# 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

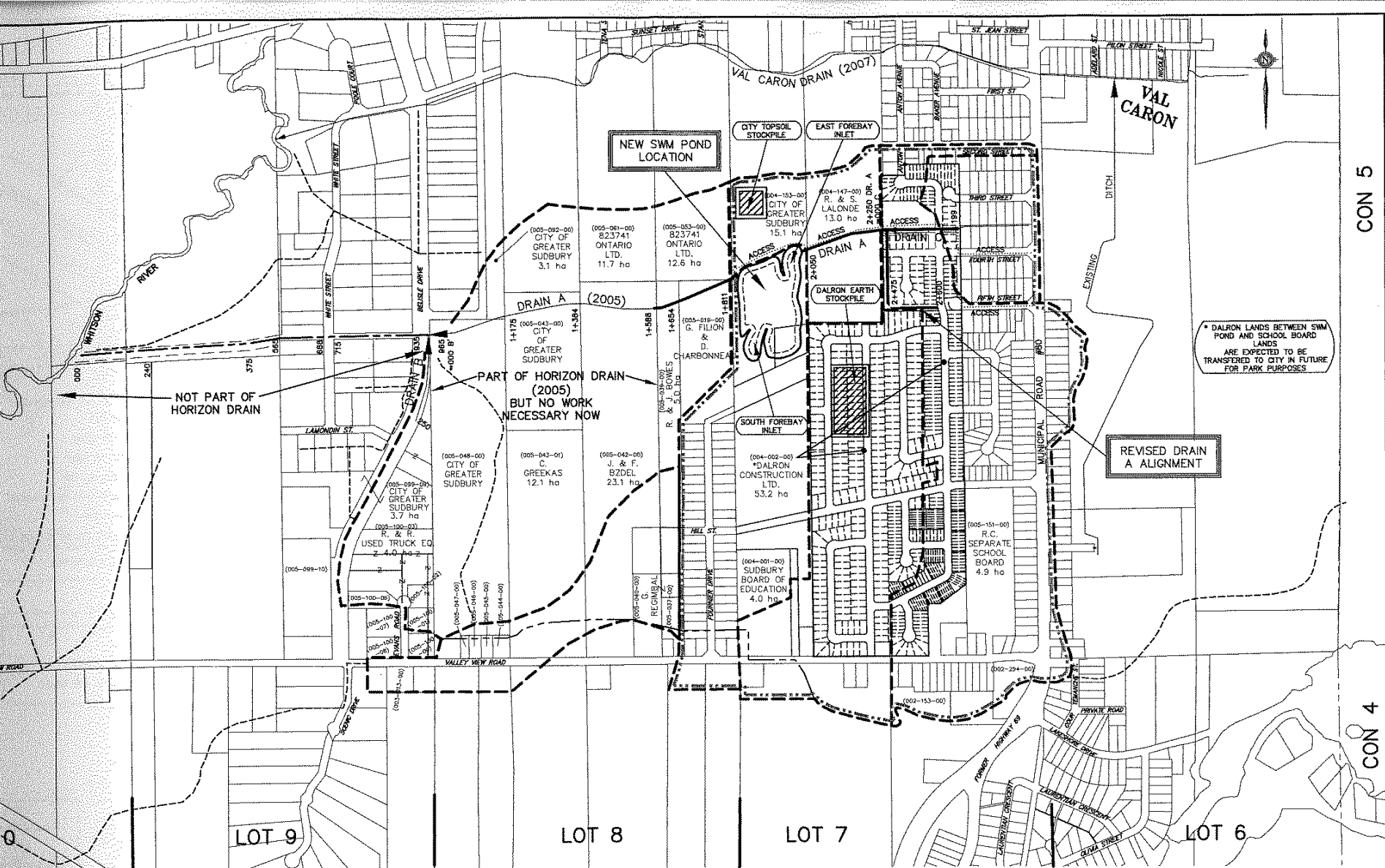






# Horizon 2011 Municipal Drain

- 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



PLAN LEGEND	
--- MAJOR AND SWM WATERSHEDS	5.2 ha. --- HECTARES OWNED
--- EXISTING OR PROPOSED INTERMEDIATE WATERSHEDS	(003-014-00) --- ASSESSMENT ROLL NUMBER
--- PROPOSED WORK OR INCORPORATION	--- LIMITS OF LANDS ALREADY, OR TO BE DEVELOPED WITH DRAINAGE TO NEW SWM POND
--- EXISTING DITCH	--- PROPOSED SUBDIVISION LOTS
--- EXISTING CITY DRAINAGE DITCH WITHIN EASEMENT	--- HORIZON DRAIN (2005) WATERSHED (WHERE DIFFERENT)
--- ACCESS	--- Z --- DENOTES PROPERTY OWNERSHIP ON BOTH SIDES OF LOT LINE

#### GEOGRAPHIC TOWNSHIP OF BLEZARD

DESIGNED BY: H.A.W.  
CHECKED BY: K.A.S.  
DRAWN BY: N.M.B.  
CHECKED BY: K.A.S.



SCALE  
0 100 200

#### HORIZON DRAIN 2011

CITY OF GREATER SUDBURY

#### WATERSHED PLAN

**K. SMART ASSOCIATES LIMITED**  
CONSULTING ENGINEERS AND PLANNERS  
KITCHENER NEW LISKEARD SUDBURY RAINY RIVER

FEB. 8, 2012  
JOB NUMBER: 11-028  
DRAWING: 1 OF 20

# 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