

Parklands at Mulock Drive and Bathurst Street Risk Management / Remedial Action

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Presentation to the Committee of Whole, Town of Newmarket
October 31, 2011

Contaminants of Concern (COC)

- The only COC with concentrations at some locations exceeding the Property Specific Standard is arsenic in soil
- Property Specific Standard developed by the Risk Assessment for arsenic is 58 ug/g.

Exceedances of the Property Specific Standard

- Southern Forested Lands – none
- Trail Lands – two small locations
- Northern Forest Lands – two areas
- William Thomas Mulock Park – two areas.

DEPTH	As	Pb	B
0.3m	3.7	10.4	<0.10
0.8m	2.1	6.1	<0.10
MW-E	<0.6	11	<0.5

**ARSENIC CONTAMINATION
AREA = 98 m²**

DEPTH	As	Pb	B
0.2m	10.5	18.6	0.58

DEPTH	As	Pb	B
0.3m	2.2	6	0.10
2.6m	1.2	5.6	0.19
MW-Fs	<0.6	34.1	<0.5
MW-Fd	2.5	65.2	<0.5

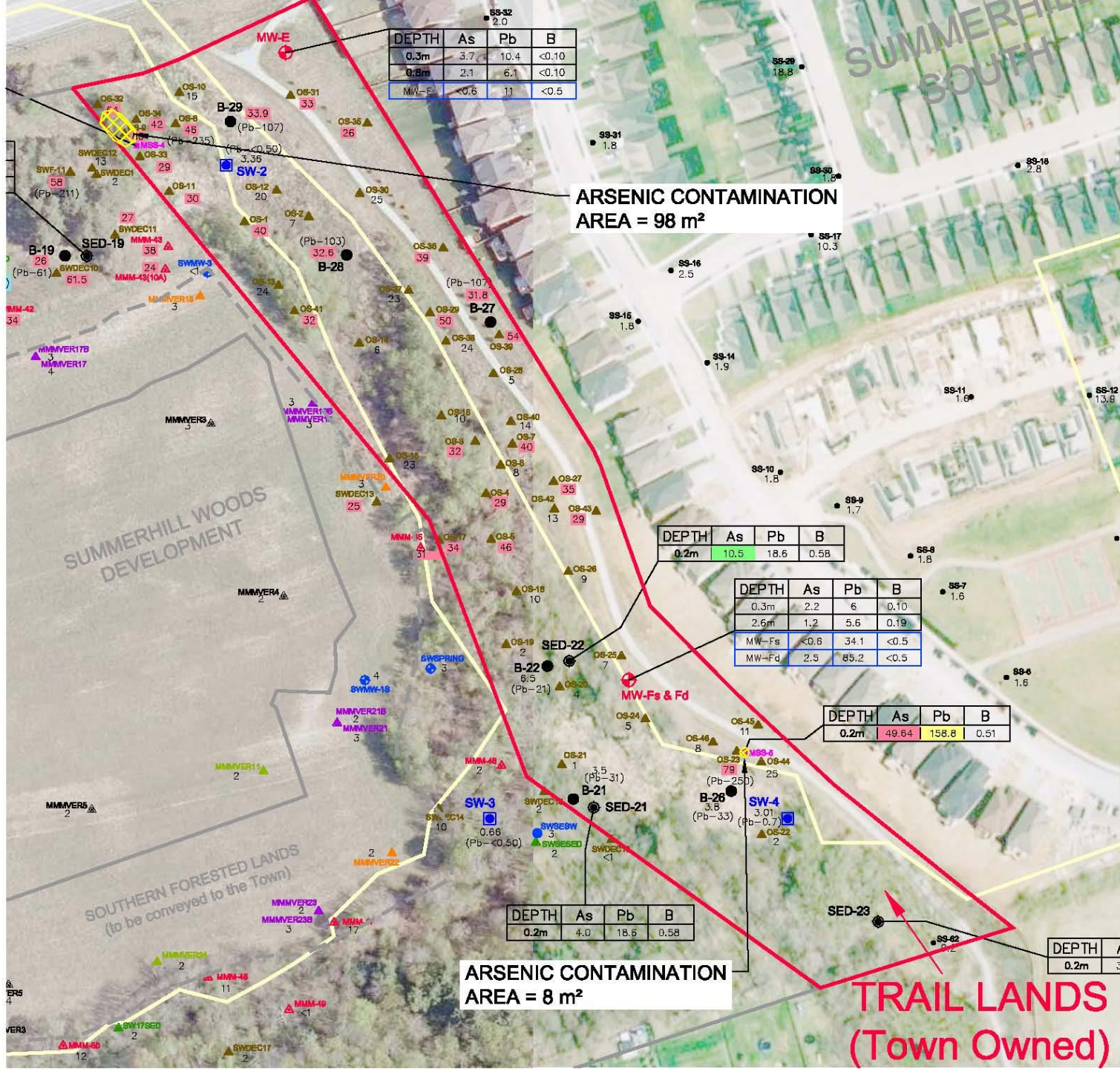
DEPTH	As	Pb	B
0.2m	49.64	158.8	0.51

DEPTH	As	Pb	B
0.2m	4.0	18.6	0.58

**ARSENIC CONTAMINATION
AREA = 8 m²**

DEPTH	As
0.2m	3

**TRAIL LANDS
(Town Owned)**



**TOWN OWNED LAND
WILLIAM THOMAS MULLOCK PARK
ENVIRONMENTAL PROTECTION AREA**

**ARSENIC CONTAMINATION
AREA = 915 m²**

**ARSENIC CONTAMINATION
AREA = 1,311 m²**

DEPTH	As	Pb	B
0.2m	3.6	22.5	0.4

DEPTH	As	Pb	B
0.2m	12.3	56.3	0.45

DEPTH	As	Pb	DDD	DDE	DDT	B
0.2m	72.2	268	0.024	0.44	0.12	0.44
0.55m	39.3	145	<0.005	0.12	0.059	0.26

DEPTH	As	Pb	DDE	DDT	B
0-0.1m	23.72	70.64	0.026	0.021	0.77

As	Pb	B
4.0	27.9	0.58

As	Pb	B
39	110	0.16

H	As	Pb	B
m	1.3	4.0	<0.10
γ	1.6	5.9	0.16
A	1.74	74.1	<0.5

H	As	Pb	B
m	15.2	56.2	0.15

DEPTH	As	Pb	B
0.2m	9.0	33.7	0.25

DEPTH	As	Pb	B
0.2m	6.6	21.7	0.25

DEPTH	ARSENIC	LEAD	DDE	DDT	B
0.2m	25.6	67.9	0.024	0.018	0.29
0.55m	-	-	0.047	0.02	-

DEPTH	As	Pb	DDD	DDE	B
0-0.2m	22.6	44.6	0.013	0.11	0.27
0.65m	6.1	37.4	<0.005	0.039	0.36

DEPTH	As	Pb	B
0.3m	6.5	22.4	0.31

DEPTH	As	Pb	DDD	DDE	DDT	B
0-0.2m	5.3	15.4	<0.005	0.024	<0.005	0.26

DEPTH	As	Pb	B
0.2m	98.9	247	0.25
0.55m	29.3	82.3	<0.10

DEPTH	As	Pb	B
0.3m	85.64	201.16	0.54

DEPTH	As	Pb	DDD	DDE	DDT	B
0.25m	14.1	38.5	<0.005	0.055	0.007	<0.10
2.6m	0.8	2	<0.005	<0.005	<0.005	<0.10
MW-B	0.76	18.9				0.98

DEPTH	As	Pb	DDE	DDT	B
0-0.2m	28.18	66.96	0.005	<0.005	0.12

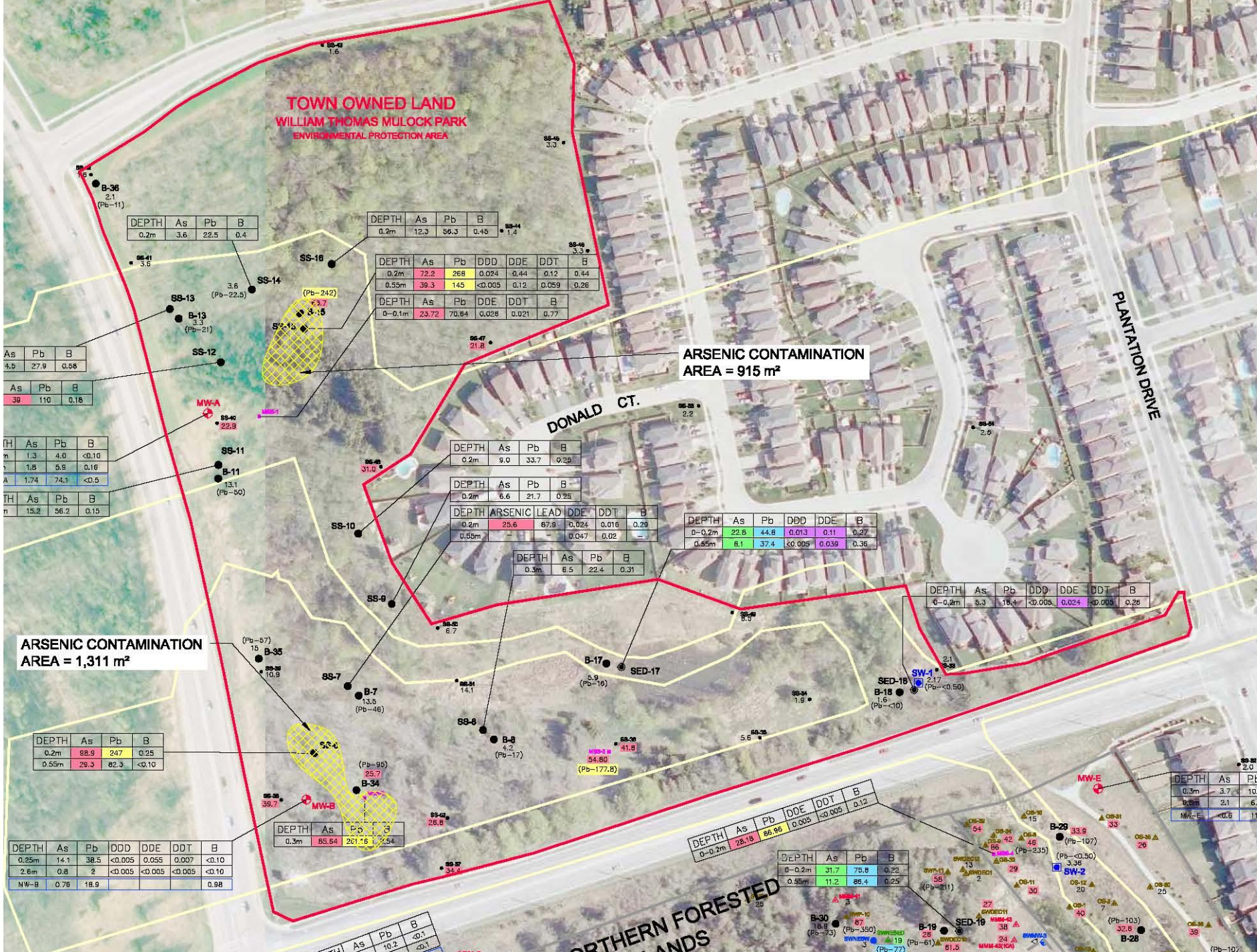
DEPTH	As	Pb	B
0-0.2m	31.7	76.6	0.22
0.55m	11.2	66.4	0.25

DEPTH	As	Pb
0.3m	3.7	10.4
0.6m	2.1	6.3
MW-E	<0.6	11

**NORTHERN FORESTED
LANDS**

PLANTATION DRIVE

DONALD CT.



Risk Management / Remedial Action

- Arsenic is in the topsoil
- Topsoil ranges from 0.2 m to 0.3 m thick
- Must be remediated
- Most practical method is removal.

Remediation Quantities

- Trail lands (32 m³) and northern forested lands (613 m³) – Criterion
- William Thomas Mulock Park (668 m³) – Town of Newmarket.

Next Steps

- Awaiting the Certificate of Property Use (CPU) from the MOE, that will outline the land use restrictions and the long term land maintenance requirements
- The CPU will be registered on title and limit the use of the lands to its current use as forested parkland.

Questions/Comments