

INGERSOLL WATER SYSTEM NORTHEAST WATER QUALITY CONCERNS



OxfordCounty growing stronger...together

**PUBLIC MEETING
MARCH 9, 2011**

WHY WE ARE HERE

- To provide an update on the County's efforts to resolve the water quality issues in NE Ingersoll
- To answer questions you may have in regards to the Ingersoll Water System

INGERSOLL WATER SYSTEM

Treatment Description:

Due to the elevated levels of naturally occurring hydrogen sulphide in the area groundwater, all of the Treatment Facilities have hydrogen sulphide removal equipment consisting of an oxidation and filtration process. The filters also improve the water quality at the source by reducing other parameters such as turbidity and iron.

The system is maintained by licensed water system operators, who operate the treatment and monitoring equipment and collect samples as specified by the Regulation. A SCADA (Supervisory Control and Data Acquisition) system controls the normal operation of the facilities and collects operational data.

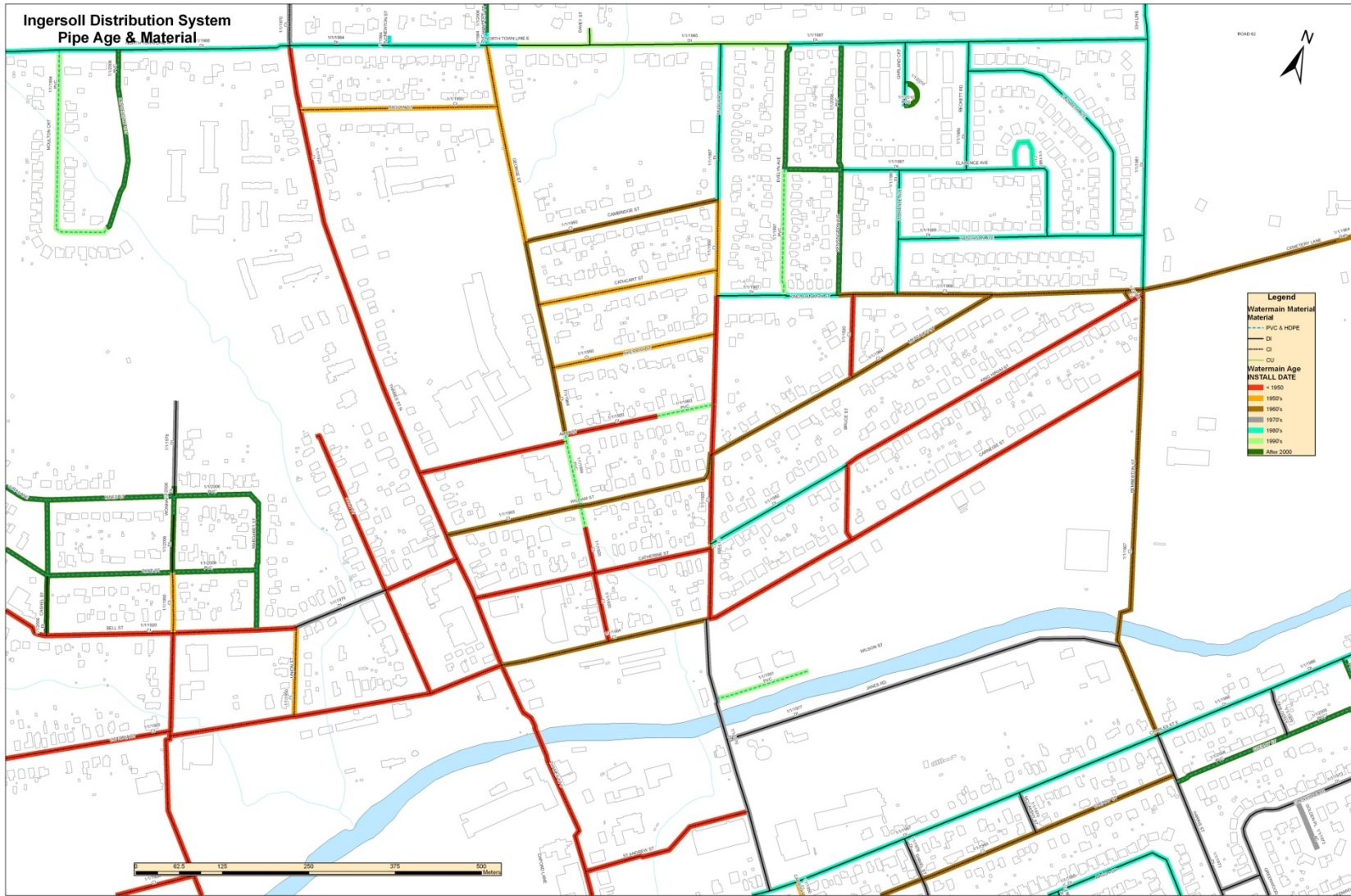
Causes of Discoloured Water

- Mainly due to old cast iron pipes that become tuberculated with minerals as the water flows through the distribution system
- Minerals such as iron and sulphide can be released from the pipe walls later when there are changes in the normal flow pattern of the water and changes in water chemistry
- Prior to 2009 some iron and sulphide was being transmitted into the water system from the wells. Since then the most of the iron, sulphide and other minerals have been filtered out at each treatment facility

Picture of Old Watermain



Age of Watermains



Chemical Analysis

Certificate of Analysis

Final Report

	Analysis Start Date	Maximum Acceptable Concentration	Lab Detection Limit	Aesthetic Objective	Ingersoll King Solomon St
Sample Date & Time					25-Nov-10 13:00
Alkalinity [mg/L as CaCO ₃]	29-Nov-10	---	2	30-500	222
Solids (Total Dissolved) [mg/L]	26-Nov-10	---	30	500	549
Colour [TCU]	26-Nov-10	---	3	5	<3
Ammonia+Ammonium (N) [mg/L]	29-Nov-10	---	0.1	---	0.4
Dissolved Organic Carbon [mg/L]	29-Nov-10	---	0.2	5	1.6
Sulphide [mg/L]	30-Nov-10	---	0.004	0.05	<0.004
Chloride [mg/L]	29-Nov-10	---	0.03	250	62
Sulphate [mg/L]	29-Nov-10	---	0.06	500	140
Antimony [ug/L]	29-Nov-10	6	0.02	---	0.18
Arsenic [ug/L]	29-Nov-10	25	0.2	---	0.5
Barium [ug/L]	29-Nov-10	1000	0.01	---	36.2
Boron [ug/L]	29-Nov-10	5000	0.2	---	127
Calcium [mg/L]	29-Nov-10	---	0.02	---	70.5
Copper [ug/L]	29-Nov-10	---	0.5	1000	2.8
Cadmium [ug/L]	29-Nov-10	5	0.003	---	<0.003
Chromium [ug/L]	29-Nov-10	50	0.5	---	2.9
Iron [ug/L]	01-Dec-10	---	10	300	430
Mercury [ug/L]	02-Dec-10	1	0.02	---	<0.02
Manganese [ug/L]	29-Nov-10	---	1	50	7.52
Selenium [ug/L]	29-Nov-10	10	1	---	<1
Uranium [ug/L]	29-Nov-10	20	0.001	---	0.049
Zinc [ug/L]	29-Nov-10	---	1	5000	7

Actions Since Last Meeting

- Automatic flushing units continued to operate
- Operators have been collecting twice weekly chlorine residual samples in the area - residuals have stabilized
- Followed up with residents in problem areas to track discolouration issue - events less frequent and less severe
- Proceeded to rehabilitate Dunn's Rd Treatment facility
- February 21-25 turned off automatic flushers while 2 additional wells were offline for maintenance
- Further investigation into long term solution of watermain replacement/relining

Next Steps

Dunn's Rd WTF Rehabilitation:

- Backwashing of the new filter media is required and has caused some disturbance this week within the NE area watermains
- The Dunn's Rd WTF should be fully operational the week of March 21st and may cause some discolouration due to changes in flow direction when first started
- The 3 auto-flushers will be used as needed to maintain residuals. It is anticipated that usage will drop substantially.
- The Spring flushing program is scheduled for the week starting April 24th and Notices will be distributed in advance

Communications

- We are attempting to improve communications on this issue by developing a website page that will be updated as new information is available – please see www.oxfordcounty.ca/water
- We recognize not everyone has access to the internet and are looking for other methods of keeping residents up to date. We'd like your suggestions please call 519-539-9800 ext. 3129

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