



**The Need For Back Flow
Prevention Programs**

BY-LAW NUMBER 50-2004

OF THE CORPORATION OF

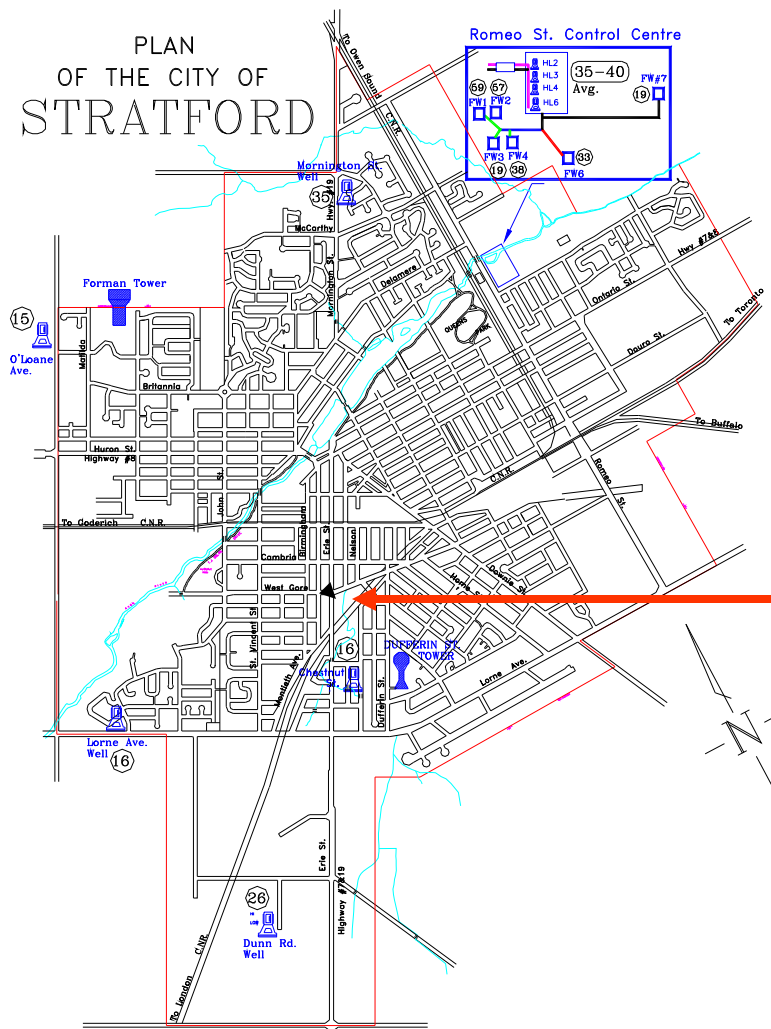
THE CITY OF STRATFORD

BEING a By-law to regulate the supply of safe and wholesome water to the citizens in the City of Stratford (Cross Connection By-law).

Key Events – The First 70 Minutes

- ***10:20 a.m.* – Call into City Water Division “Pink foaming water from Tap”.**
- ***10:30 a.m.* – Water supervisor confirms.**
- ***11:00 a.m.* – Visit Adjacent Car Wash and shut off water. MSDS Obtained.**
- ***11:07 a.m.* – Call Health Unit and MOE.**
- ***11:30 a.m.* – Commence Flushing Hydrants.**

PLAN OF THE CITY OF STRATFORD

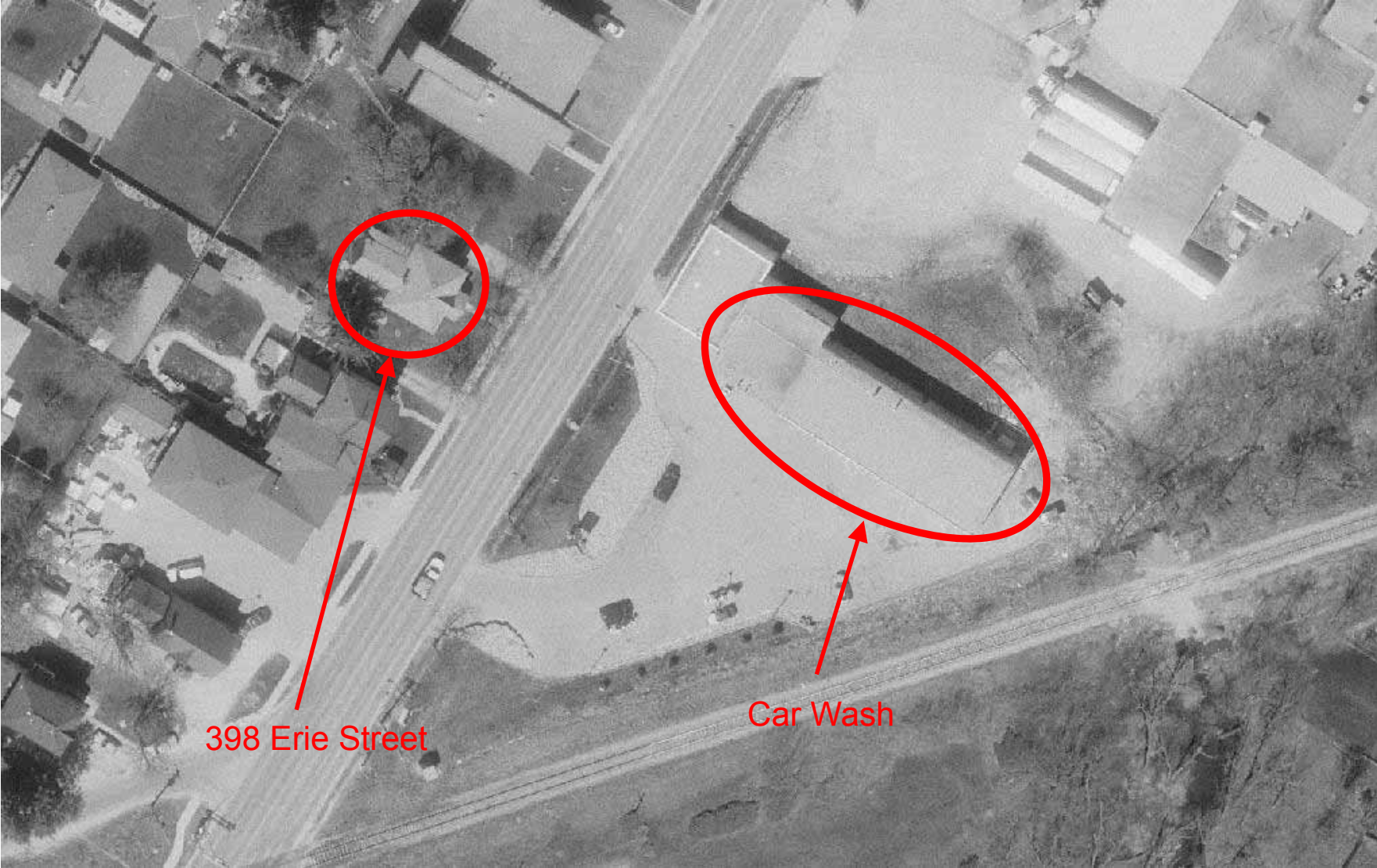


Population – 32,000

11 Wells

2 Elevated Tanks

Car Wash



398 Erie Street

Car Wash



Car wash detergent in toilet bowl



Key Events – The Next 90 Minutes

- ***11:40 a.m.* – City and Health Unit meet and Teleconferenced with MOE.**
- ***12:00 noon* – Drinking Water Advisory.**
- ***12:00 noon* – Emergency Plan call out.**
- ***1:00 p.m.* – Emergency Control Group Convenes.**
- ***1:00 p.m.* – Call Stratford Restaurants**
- ***1:00 p.m.* – Call to arrange alternative water supply.**



MEDIA RELEASE OFFICE OF THE MAYOR

THE CORPORATION OF THE CITY OF STRATFORD
CITY HALL, 1 WELLINGTON STREET, P.O. Box 818
STRATFORD, ONTARIO N5A 6W1
Tel: [519-271-0250 (ext. 267)] Fax: [519-271-2783]

FOR IMMEDIATE RELEASE: March 7, 2005, 12:00pm

DRINKING WATER ADVISORY FOR CITY OF STRATFORD

Stratford-A Drinking Water Advisory is in effect for the City of Stratford. The Ministry of Environment and public utilities are working on the problem. The Advisory is due to a spill into the system.

Until further notification, all residents of Stratford are urged NOT TO CONSUME THE WATER. As well, residents should not feed the water to pets, or use the water for bathing or washing.

Residents will be told when the problem is solved. The Medical Officer of Health, or a Public Health Inspector, is the only person who can lift this advisory.

If you are sick, seek medical assistance by going to Stratford General Hospital.

The City of Stratford will be supplying drinking water to residents. More information will be released as it becomes available.

Issuing a BWA/DWA:

An advisory informs and educates the public on what precautions to take prior to using water for drinking and other purposes until the safety of the drinking-water supply is confirmed or reinstated. **The owner or accredited operating authority is primarily responsible for carrying out the advisory.**

ATTN: Food Premises
RE: DRINKING WATER ADVISORY FOR CITY OF STRATFORD

Any food or drink prepared today, March 7, using tap water must be discarded and not used. This includes produce washed in water, all beverages prepared with water, food that water has been added to.

The food premise must stop using tap water immediately. Please bag all taps that are accessed by the public.

A food premise can remain open to the public if:

- **there is access to bottled water for food and drink preparation**
- **you can provide customers with hand sanitizer in the washroom**
 - **employees can wear gloves**

If these conditions cannot be met, the Perth District Health Unit is advising food premises to cease operation until further notice.

The City of Stratford will be supplying drinking water shortly. The Health Unit will inform you as soon as it is available.

TEMPORARY BULK WATER SUPPLY

Monday, March 7, 2005

- * 5 Potable water stations established. Bulk water arrived in City by 3:30 p.m., with distribution commencing at 6 p.m. until 12:00 a.m.**
- * Potable water supplied by Town of St. Marys (88,000 L), with tanker and delivery supplied by Whirl Creek Logistics in Mitchell**
- * Potable water supplied by Region of Waterloo (54,000 L), with tanker delivery through Brethren Water Service**
- * Regional Municipality of Waterloo also supplied 400 - 20L plastic containers of water for emergency supply throughout the evening and overnight as required**

Drinking Water Depots are set up at the following locations and will be available until the Boil Water Advisory is lifted

- Kiwanis Community Centre
- Coliseum Fairgrounds
- Festival Marketplace Mall
- Fire Station – 388 Erie Street
- Fire Station – 44 McCarthy Road

Anyone needing further information can call City Hall at 271-0250 ext. 237.

BOTTLED WATER SUPPLY - 24,192 cases

Corporate Donor/Suppliers (7560 cases)

- Canadian Tire Foundation**
- Coca Cola**
- Home Depot**
- Pizza Pizza**

Supplied by City of Stratford (16,632 cases)

Key Events – The Rest of the 1st Day

- ***1:30 p.m.* – City staff deployed to issue Don't Use Water Advisory.**
- ***4:00 p.m.* – First News Conference.**
- ***5:00 p.m.* – City Water depots open.**
- ***6:00 p.m.* – Water Samples Taken.**
- ***9:00 p.m.* – Release “Drinking Water Advisory Still in Effect for Stratford; Chemicals Identified”.**

Drinking Water Advisory Still in Effect for Stratford;

Chemical Identified

FOR IMMEDIATE RELEASE

March 7, 2005; 9:10pm

Stratford—The Perth District Health Unit has learned that *approximately 5 gallons of Hyper Concentrate Foaming Brush Detergent, produced by Turtle Wax, and containing the chemical 2-Butoxyethanol*, has been released into the Stratford drinking water distribution system earlier today. This led to the issuing of a Drinking Water Advisory, which remains in effect.

Testing for both the chemical contaminant and possible bacterial contamination has been done, under guidance of the Ministry of the Environment. Results of testing are expected to begin arriving later tonight. It will take 48-72 hours before testing has been completed. The Drinking Water Advisory will be in effect until tests show that the water is safe to drink.

2-Butoxyethanol is a solvent found in industrial and household cleaners, paint thinners and strippers, enamels, lacquers and varnishes. People who swallow large amounts of cleaning agents containing 2-butoxyethanol have shown breathing problems, low blood pressure, low levels of hemoglobin, acidic blood and blood in the urine. The chemical is an irritant and has no long-term or chronic effects. It is not classified as a carcinogen.

In the small amount that entered Stratford's water system, it might be possible that exposed residents experience mouth and throat irritation and stomach upset. *It is expected that testing will show that the City's swift action has prevented harmful levels of the chemical to accumulate in the city's water supply.* However, in the meantime, residents are being asked by the Medical Officer of Health to take precautions by not drinking the water.

2-Butoxyethanol is completely soluble in water and is effectively removed by actions that the city has undertaken.

The Emergency Department at the Stratford General Hospital has been notified and so far there have been no sick residents reported to the health unit.

- 30 -

For more information, contact Rebecca Hill, Communications Manager at 271-7600 ext

Key Events – the Second Day

- ***9:45 a.m.* – CECG & MOE Conference Call to discuss Water Test Issues.**
- ***10:30 a.m.* – 2nd News Conference.**
- ***10:30 a.m.* – Release “Drinking Water Advisory now a Boil Water Advisory”.**
- ***1:00 p.m.* – City delivers flushing procedures.**
- ***8:00 p.m.* – First Bacteriological tests received “negative”.**

Boil Water Advisory Information

The Medical Officer of Health has reduced the Drinking Water Advisory to a Boil Water Advisory, effective 11am on Tuesday, March 08, 2005.

Boil Water Advisory Flushing Procedures Before Using Any Water

- Run **all** cold water taps for 5 minutes.
- For larger multi-unit residences, it will be necessary to run water for a longer time period. Water should run until a constant temperature is noticed; this will indicate that the water is from the watermain.
- Once all cold water lines are flushed (step 1 above), run **all** hot water taps until water cools. Time how long it takes to do this step and then repeat it again. By doing this you will be flushing your hot water tank twice.
- Regenerate water softener, if you have one.
- If you have fibre or carbon water filters, consideration should be given to replacing the cartridges.
- If you have a reverse osmosis system, contact the supplier or manufacturer for advice. In the meantime, you could by-pass the reverse osmosis filter.

Bathing/Showering

Adults, teens and older children can use tap water for baths and showers. Small children can be given sponge-baths instead of tub baths or showers. Do not swallow any unboiled water used for showers and baths.

Handwashing

Wash your hands as you normally do: under warm running water with soap.

What is a Boil Water Advisory?

During a Boil Water Advisory, you can continue to use the safe drinking water being supplied at locations around the city, or boil your water at a rolling boil for at least one minute. Use boiled or bottled water to:

- **Drink**
- **Gargle, brush your teeth or rinse dentures**
- **Feed to pets**
- **Wash fruits, vegetables and other food**
- **Prepare food**
- **Make ice, juices, pudding and other mixes**
- **Make baby food or formula.**

How Long Will the Boil Water Advisory Last?

The Perth District Health Unit is awaiting further test results to ensure that the water is free of any harmful bacteria and is safe to drink. We expect these results by the end of the week. When the results are received, the Medical Officer of Health will lift the Advisory.

Can I Bathe and Shower with Tap Water?

When bathing or showering, it's important not to swallow any water. For this reason:

- Adults, teens and older children can use tap water for baths and showers.**
- Wash small children with a sponge or cloth instead of tub baths or showers.**

Can I Wash My Hands with Tap Water?

Yes, you can wash your hands as you normally do under warm running water with soap.

I have a water filtration device installed. Does this make the water safe for drinking or cooking?

No. Filtered water should also be brought to a rolling boil for one minute before drinking or using it for cooking. Consider replacing your filters.

What about My Laundry?

Under a Boil Water Advisory, tap water may be used for doing laundry.

How do I Wash My Dishes?

Use boiled or bottled water to hand wash dishes in the sink. If you have a dishwasher, the Health Unit recommends that if your dishwasher has a “High Temperature” cycle, then it is safe to use. If your dishwasher does not have a High Temperature cycle, after finishing the cycle, soak dishes for one minute in a solution of 30 ml (1 ounce) of bleach mixed with 13.5 litres (3 gallons) of lukewarm water. Let dishes air dry.

What if I or my child drinks tap water by mistake?

If you or your child develops any symptoms, such as vomiting, fever and/or diarrhea, seek medical attention at Stratford General Hospital.

What about indoor swimming pools in Stratford?

Swimming pools are currently closed and will remain closed until test results from the Ministry of the Environment show the water is safe.

How do I Regenerate my Water Softener?

Check your manual book for instructions or call the store where you purchased it or the manufacturer for instructions.

Key Events – The Third Day

- **9:00 a.m.** – **Release “MOH Expects to Lift Boil Water Advisory Tonight”.**
- **7:40 p.m.** – **Second Bacteriological tests received and Boil Water Water Advisory Lifted.**
- **9:00 p.m.** – **Final teleconference between MOE, MOH and city officials.**

Medical Officer of Health Expects to Lift

Boil Water Advisory Tonight FOR IMMEDIATE RELEASE March 9, 2005 Stratford—The first set of bacterial test results on the Stratford water system came back clear of harmful bacteria last night. Eleven samples had been taken throughout the city on Monday, March 7 and tested for harmful bacteria. However, the Boil Water Advisory remains in effect until a second set shows the same result. The second set of test results is expected tonight. The Perth District Health Unit is acting under guidelines from the Ministry of the Health and Long-Term Care. **The guidelines require two sets of tests to be done 24 hours apart before a Boil Water Advisory can be lifted.** “We are optimistic about these initial results,” says Dr. Rosana Pellizzari, Medical Officer of Health. “If the second set of tests is also clear, I will discontinue the Boil Water Advisory.” **Fifteen residents visited Stratford General Hospital on March 7, the day of the spill, with potential water-related symptoms. Four of these people were children. There were no admissions, and the residents were treated and released. Yesterday, two people — one child and one adult — visited emergency with gastrointestinal illness, and they were also treated and released.** “We are investigating all reported cases to determine if they were related to the water spill,” says Dr. Pellizzari. “Fortunately, none of the illnesses have been severe.” The Perth District Health Unit was made aware of a spill of car wash chemicals into the water supply system on March 7. A Drinking Water Advisory was announced at noon for the City of Stratford. **Test results from samples taken on March 7 between 6 and 8 pm did show trace amounts of the chemical at six different points throughout the city. But because of the City’s swift action in flushing out the system, subsequent testing confirmed that the chemical was not detectable.** Therefore, a Boil Water Advisory was put in effect at 11am on March 8, while bacteriological testing continued. The second bacteriological test results are expected tonight. If they are also clear, Dr. Pellizzari will lift the Boil Water Advisory immediately. The Health Unit and the City will communicate these results to the media right away. Tomorrow, the City of Stratford is instructing residents to check their mailboxes, community mailboxes, or apartment mailboxes for a notice that their water is now safe to drink. The Health Unit asks residents to tune into local radio station CJCS or MixFM 107.7 to get the results immediately. The lifting of the advisory will also be posted on the Health Unit web site at www.pdhu.on.ca and on www.city.stratford.on.ca. - **30 - Contact:**

Rebecca Hill, Communications Manager

271-7600 ext 279 or email: hill@pdhu.on.ca THE CORPORATION OF THE CITY OF STRATFORD

MEDIA RELEASE

OFFICE OF THE MAYOR

FOR IMMEDIATE RELEASE: March 9, 2005

MEDICAL OFFICER OF HEALTH LIFTS BOIL WATER ADVISORY

Stratford, Ontario Late this evening, Wednesday, March 09, 2005,

Medical Officer of Health Dr. Rosanna Pellizzari notified the City of Stratford that the Boil Water Advisory, issued to the City of Stratford on March 8, 2005, has been discontinued.

Dr. Pellizzari lifted the Boil Water Advisory after ensuring that the results of two sets of bacteriologic samples, taken 24 hours apart on March 7th and March 8th, showed that the water is safe to use and drink.

The tests results had been performed at multiple locations throughout the water distribution system. The tests also confirmed that chlorine levels meet the standards set by Ontario's Safe Drinking Water Act Regulations.

This testing fulfills requirements established by the Ministry of Health and Long Term Care for the management of Boil Water Advisories, and indicates that the City of Stratford's drinking water is safe to consume.

Noting that "the protection of our water and our citizens is paramount",

Key Events – The Day After

- **Further dealing with press and public inquiries.**
- ***3:00 p.m.* – Community Emergency Control Group Debriefing with related agencies.**

Water Emergency Statistics

- How long did water emergency last: **56 hours**
- How many volunteers (not staff) were involved: **80**
- How many volunteer hours for deliveries: **640 hours**
- How many flyer deliveries were done to homes: **4**
(13,161 addresses x 4)
- How many home water deliveries to residents: **391**
- How much bottled water: **24,192 cases**
- How much water was given out: **199,584 litres**
- Hours manned at water depots: **825**
- Cost to the City at this point: **\$188,000**
- Web-site hits during Advisory: **4506 (usually 450-550/mth)**

Call Centre

- **Call Centre began Monday afternoon and was staffed through until Tuesday evening at 10:00 pm (33 hours straight)**
- **Call Centre started up on Wednesday - 8:00 am to 10 pm**
- **Call Centre comprised of 11 telephones in Corporate Services Department and the City Hall switchboard**
- **In total, Call Centre was staffed for 47 hours**
- **391 calls alone were requests for bottle water deliveries**
- **Due to the volume of calls received in total, unable to track total number of calls received**
- **Call Centre dealt with public inquiries regarding: flushing procedures, water softeners and water heaters, pet safety, use of water questions, and compensation concerns**



Engineering and Public Works Department

Water Division

82 Erie Street, 3rd Floor

Stratford ON N5A 2M4

(519) 271-0250 Ext. 222

Fax: (519) 271-1427

www.city.stratford.on.ca

MEMORANDUM

To: Everyone

From: Tom Crozier

Date: March 14/05

Re: Water Emergency

I would like to take this opportunity to add my voice to the praise of staff and volunteers who assisted during our recent water emergency. Your help was vital and truly appreciated. The quick response of all staff and volunteers enabled us to get information out to the citizens of Stratford in a timely fashion. As the water staff worked to contain the contamination and do the required sampling others were busy obtaining sources of water, plotting routes to inform the public, manning to telephones to handle the huge number of calls, delivering notices and manning the water depot sites. This emergency showed the strength and commitment of all involved. Management and the citizens of Stratford are thankful and proud of your efforts.

Municipal Lessons Learned

What Went Well

- Strong leadership from Mayor and CAO
- Good emergency plan as foundation
- Solid partnerships with MOH & MOE
- Water supplied within 5 hours of DWA
- Water delivered to people in need (391)
- “One stop Shopping” Phone Line

Municipal Lessons Learned

What Went Well

- Help from Waterloo Region and St. Marys
- Information on Website & “Hot Button”
- Volunteerism!
- Communications with Public

Media Messaging:

- Collaboration between City and Public Health helpful
- Messaging determined after each ECG meeting (except one!!)
- Media Conferences efficient
- Public given timely information and told what to expect

Municipal Lessons Learned

What Are We Doing to Improve

- Pre-arranged GIS flyer routes – keep updated
- Ensure internal communications person attends Emergency Control Group
- Hospital to Attend Emergency Control Group
- Ensure “*immediate*” internal communications
- Complete One Stop Shopping for calls including all parties (e.g. Health and Water)
- Careful preparation for Press Conferences
- Officially declare an emergency

Municipal Lessons Learned

What Are We Doing to Improve

- Formalize Incident Management System
- Use community email systems (e.g. Chamber membership)
- Looking at Emergency Broadcast system.
- Looking at more emergency generators.
- Finalizing Supplementary Emergency Plans
 - Integrated Emergency Communications Plan
 - Social Services Plan

“Houston, We Have a Problem...”

Six 2005 MOE reports for Perth County municipal systems reviewed:

- Only 1 had backflow preventers installed at each lateral connection to major industries
- Stratford was encouraged to continue its efforts to install backflow prevention devices at all major and high risk industries (February inspection)
- 4 reports included an MOE recommendation for a Cross Connections By-law

Next Steps

- MOE has requested assistance of OWWA and OMWA to review regulations that prevent back flow into drinking water systems
- Ministry of Municipal Affairs and Housing will also be involved in the review
- OWWA established a Cross Connection Control Committee (Chaired by Mark Pinkney)

For Immediate Release

June 23, 2006

‘FESTIVAL U WASH’ AND MANAGER FINED TOTAL OF \$75,000

STRATFORD—McHugh Holdings Inc. and Timothy McHugh were fined a total of \$75,000 today, after each was convicted of violating a section of the *Safe Drinking Water Act (SDWA)*.

Within approximately the three following hours, flyers alerting residents to the situation were delivered to all 10,000 to 12,000 homes in Stratford by fire fighters and other municipal workers.

City plumbing inspectors discovered that an unauthorized cross-connection between the Festival U Wash plumbing system and the city water plumbing system had inadvertently been opened, allowing car wash water to flow into the city’s distribution system. The car wash water was responsible for the pink colour in the city’s system.

The Court was told that municipal and provincial officials’ extraordinary efforts undoubtedly prevented the contamination from spreading further and kept the situation under control.

Water mishap leads to six-figure settlement

Posted By DONAL O'CONNOR

Posted 4 days ago

The City of Stratford will receive \$100,000 as the result of an out-of-court settlement between the corporation and the owners of the company responsible for a spill of detergent into the city's water distribution lines March 7, 2005.

City council last night authorized legal counsel to accept the offer to settle litigation brought by the city against Timothy McHugh, McHugh Holdings operating as Festival City U Wash and Ingrox Ltd. operating as Festival City U Wash.

CAO Ron Shaw said the amount of the settlement represents the municipality's out-of-pocket expenses associated with the emergency.

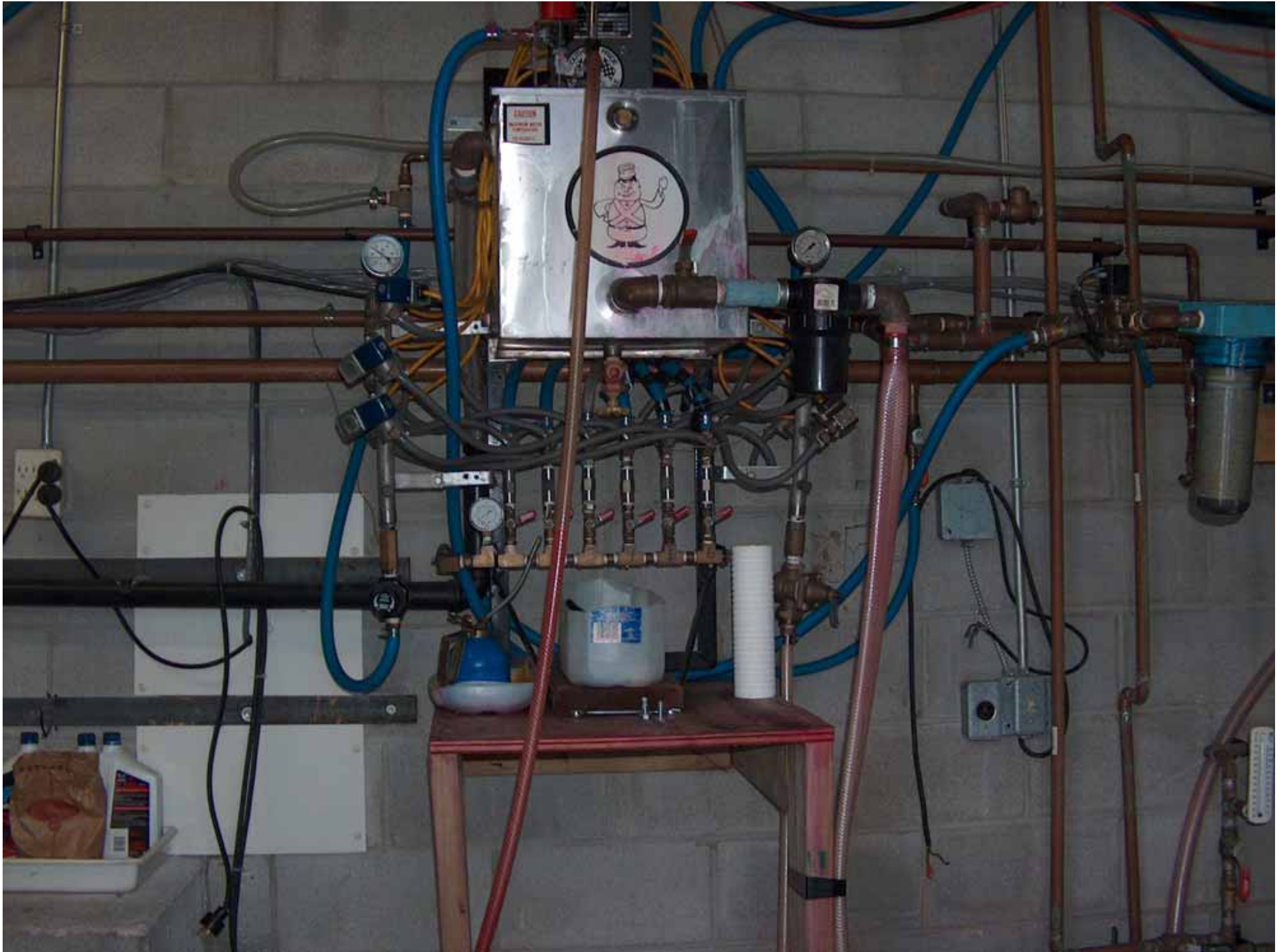


Booster Pump 80 PSI
City Pressure 65 PSI

Cross Connection











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2 P
3 A
4 BK
5 S
6 OR

