

For Information Only

Water & Wastewater Emergency Response Plan Thawing Improvements

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Recommendation

For Information Only

Background

The purpose of this report is to update the Committee on improvements to response procedures and processes related to thawing frozen services.

Water & Wastewater Services uses an Emergency Response Plan (ERP) to provide a framework to safely and effectively respond to emergencies and other significant events. The "all hazards" format of the Plan was designed to be flexible and applicable to a wide variety of emergencies. The Plan is intended to be a "living document" that will be improved over time based on experience.

The Plan was established to achieve the following objectives:

- To respond safely and within applicable guidelines (such as the Safe Drinking Water Act and the Employment Standards Act);
- To prevent injuries and save lives;
- To minimize the impact on customers;
- To protect City infrastructure; and,
- To protect the natural environment

2014-2015 - Significant Winter Weather Event:

During the winter of 2014-2015 CGS experienced a significant winter weather event that caused an unprecedented number of issues with frozen water services, water mains, and sewer services.

In accordance with the Continuous Improvement & Change procedures identified in the Plan, "after action" meetings were held shortly after return to normal operations and many staff who participated in the event response were debriefed. A list of potential communication, work flow, resource, and preparation improvements were noted on the recent experiences of responders. The debrief sessions yielded

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significant value and since that time staff has been working to modify the Plan to benefit from the experience gained in 2015 and incorporate the suggested improvements.

Staff suggestions for improvements were reviewed and evaluated. Once accepted, suggestions were collated into an Appendix tailored to promote an effective response specifically tailored to a Frozen Services Emergency. The specific & unique response framework for a frozen water services event requires a modified version of both the Emergency Operations Centre and field staff roles & responsibilities.

Summary of Improvements Specific to Frozen Water Services Event:

Many "after action" suggestions were evaluated and several important specific enhancements to the ERP response framework include:

- **Work Flow:**

Business processes have been streamlined to improve the customer experience and modified to improve transparency. Customers will now access thawing services via a single call and customer agreements have been introduced on the initial visit to authorize any thawing work. Agreements will also be used to authorize the installation of temporary services (bib hose).

- **Equipment & Preparations:**

Additional hot water/steam thawing units have been procured and critical spare parts inventories have been replenished. The CGS electrical thawing unit was been fully refurbished including both the trailer and the electrical components. A substantial inventory of temporary service hose and fittings is being made ready.

- **Water Wastewater Services (Frobisher EOC):**

Additional phone lines and upgraded computer systems including additional monitors have been configured. Emergency response resource allocations have been enhanced and integrated into the Water Wastewater Services EOC organizational structure to promote improved information, oversight, and records availability.

- **Integrations with 311/Active Citizen Request System:**

Improvements will promote more accurate and timely tracking of service activity information for customers current to end of the calendar day so staff can track progress and predict wait times more accurately. A suite of preconfigured reports is now available to facilitate reporting of key performance indicators to customers, council, senior management, and other interested stakeholders.

- **Integrations with CityWorks Computerized Maintenance Management System:**

With the implementation of Cityworks, work flow improvements will be supported by work requests and work orders that will aid in deployment, monitoring, and facilitating improved information flow & reporting to customers and other stakeholders.

- **Communications:**

A number of new communication instruments have been developed both to assist in proactively averting potential frozen services and improving the understanding and transparency with customers who experience a frozen service issue.

Staff has completed the necessary transitional steps to implement these changes in time to take effect for the upcoming winter season. It is expected that the improvements will enhance the customer experience and mitigate the operational impacts should an extreme event reoccur.

Water/Water Emergency Response Plan (ERP) For A Frozen Water Services Event

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Introduction

This Appendix has been designed as supplement to the Water/Water Emergency Response Plan (ERP) to assist in the specific response required for a Frozen Water Services event.

History has shown that extreme frozen service events have occurred relatively infrequently and have been correlated to weather conditions combining an unusually wet fall (that saturates the ground) combined with / followed by stretches of extreme cold winter weather.

Planning

ANNUAL PREPARATIONS

Preplanning Requirements:

Each year cycle of preplanning should be conducted prior to the winter conditions to ensure the organization has completed the required proactive activities necessary to be ready for frozen services responses.

Equipment Storage & Maintenance:

The maintenance plan should be updated to include work orders to complete preparatory tasks during the off-season so all equipment & supplies necessary to conduct an effective response are located, inventoried and ready to go prior to the season.

Such tasks would include a review of the state of readiness of equipment such as the location & condition of the CGS' inventory of steam/hot water thawing machines, electrical thawing machine (including trailer), temporary service hoses & fittings, & peripherals.

Annual Planning Meeting:

A planning meeting should be held each November to confirm readiness for the upcoming thawing season while there remains ample time to correct any deficiencies prior to the onset of winter conditions.

The goals of this meeting should be to review & confirm that equipment, training, and other proactive actions are under way to prepare for the upcoming season. This agenda may include the following items:

- Review of W/WW Emergency Response Plan c/w refresher sessions for staff on ERP roles & responsibilities;
- Update on training for electrical employees relating to safe & effective operations of DBH, reading & interpreting as-built drawings and customer service;

- Status update on the MFW policy, list & mail out;
- Review / report on condition of operational state of readiness of thawing tendered contracted services;
- Review / report on condition of operational state of readiness of thawing equipment, temporary service hoses & fittings, forms etc;
- Discussion with 311 staff and review of ACR case types & system protocols;
- Confirmation of public communications strategy, materials and schedule for proactive PSA's

Meeting minutes of all preparations should be kept & circulated to all attendees.

W/WW Emergency Operations Centre

W/WW EOC Activation Trigger Criteria

In accordance with Section 2 (p2-3) the W/WW Emergency Response Plan criteria:

1. Should the response require resources beyond the scope of Section or personnel available, activate the Emergency Response Plan;

Further, Notification of the designated Emergency services Department contact in relation to the Corporate Early Notification Protocol. Such notifications should be considered for any incidents where the service EOC is activated as per the SOP WWS-GE-S008 – Reporting significant Incidents.

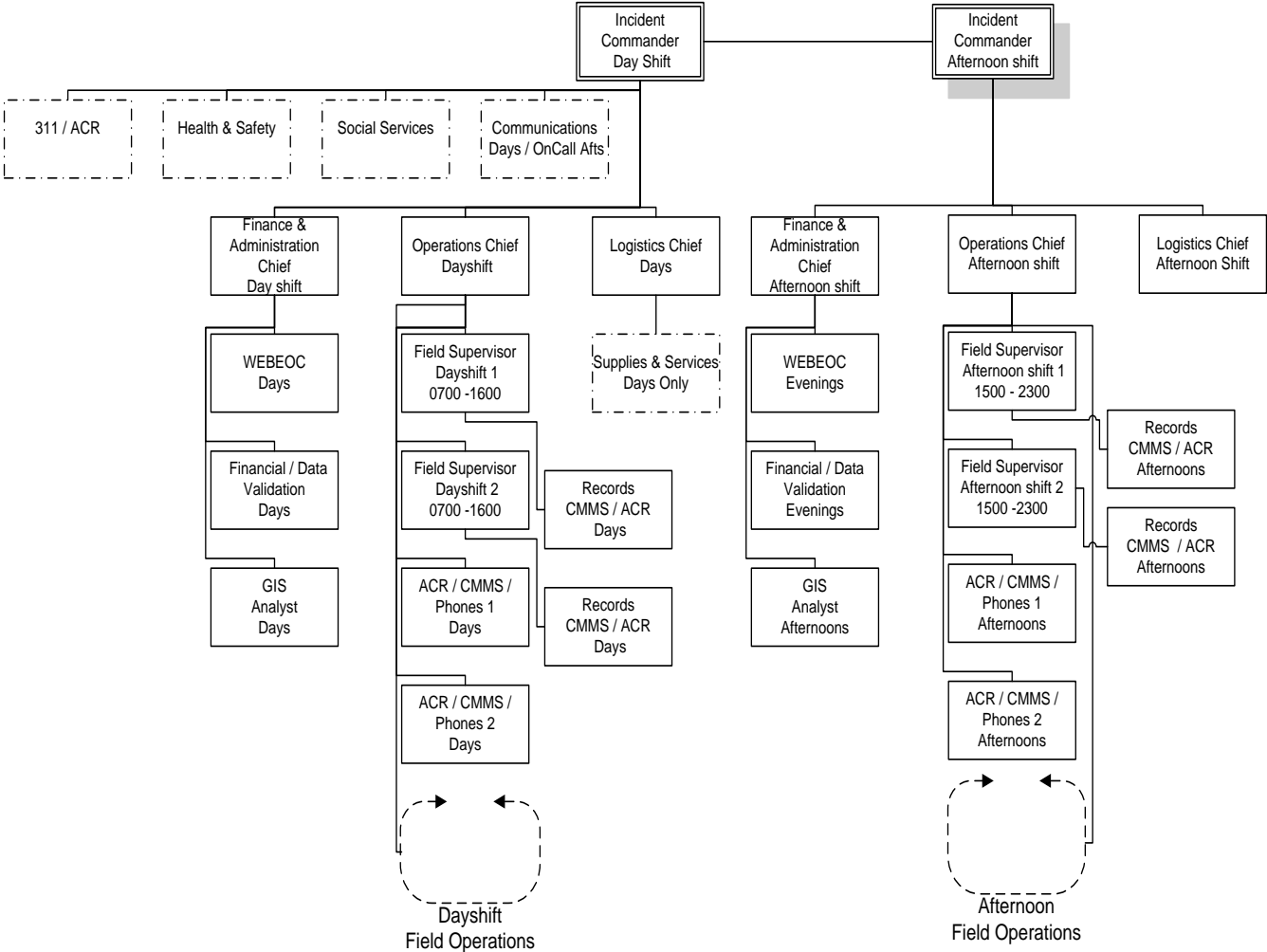
Organizational Structure

Due to the specific requirements of a significant frozen services event a modified version of the EOC & field roles & responsibilities is recommended to support an effective response framework. The recommended organizational structure is laid out in the Diagram below.

CGS Frozen Services Response Organization Structure Chart

CGS Frozen Services

Response Organization Structure (v.07/08/2015)



Emergency Standard Operating Procedures

Procedures governing the operations at the EOC are found in Appendix A (Emergency SOP's) of the W/WW ERP. It is vital that these procedures are followed to ensure critical information is logged and available during and after the event.

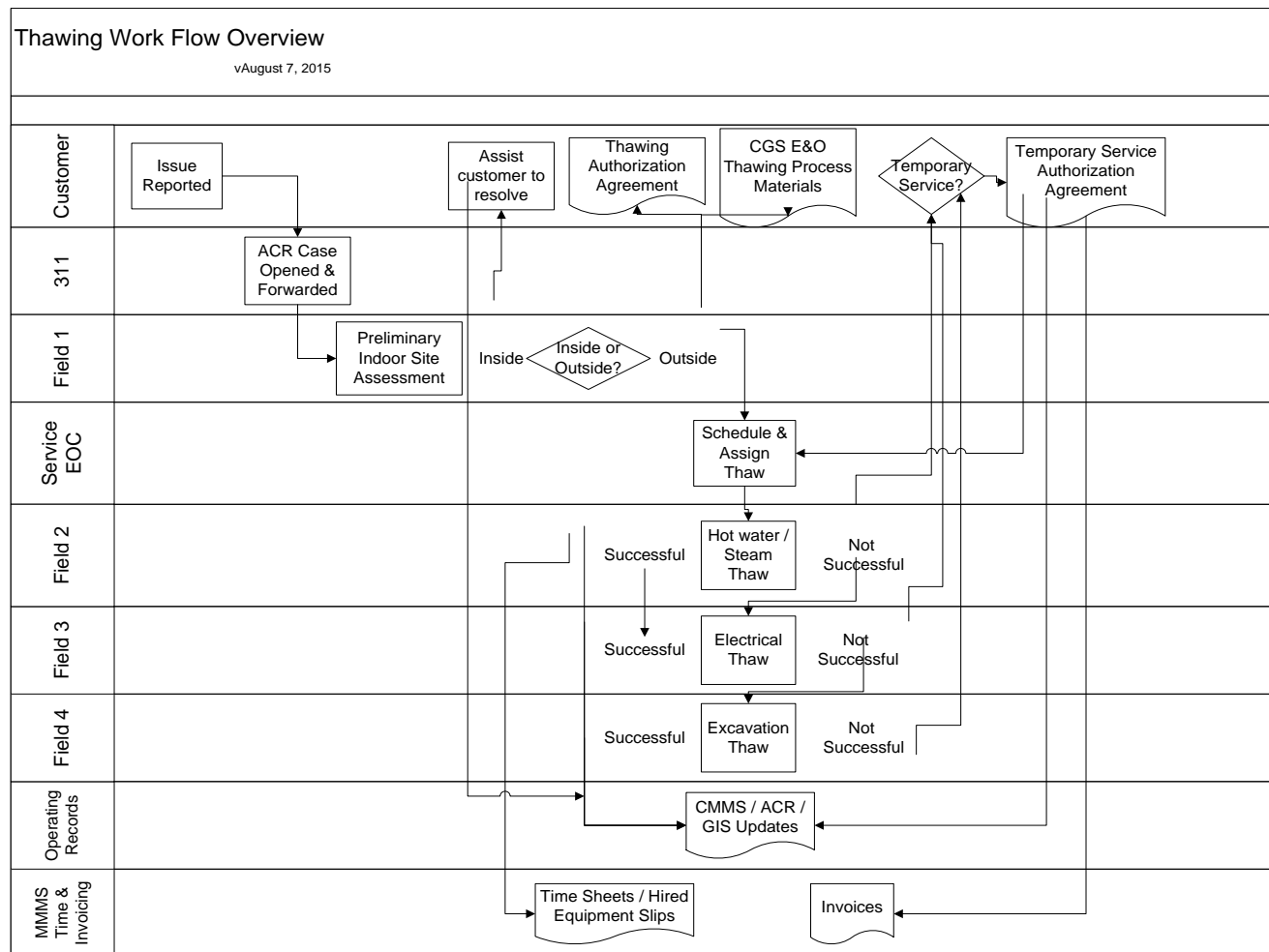
Role Guidance

Guidance for individuals with specific roles & responsibilities can be found in the ERP checklists covering the major expectations of their role in the response framework. These checklists are found in Appendix B of the W/WW ERP (Checklists)

Individuals should access and refer to these checklists and fulfill their roles accordingly.

Work Flow Diagram

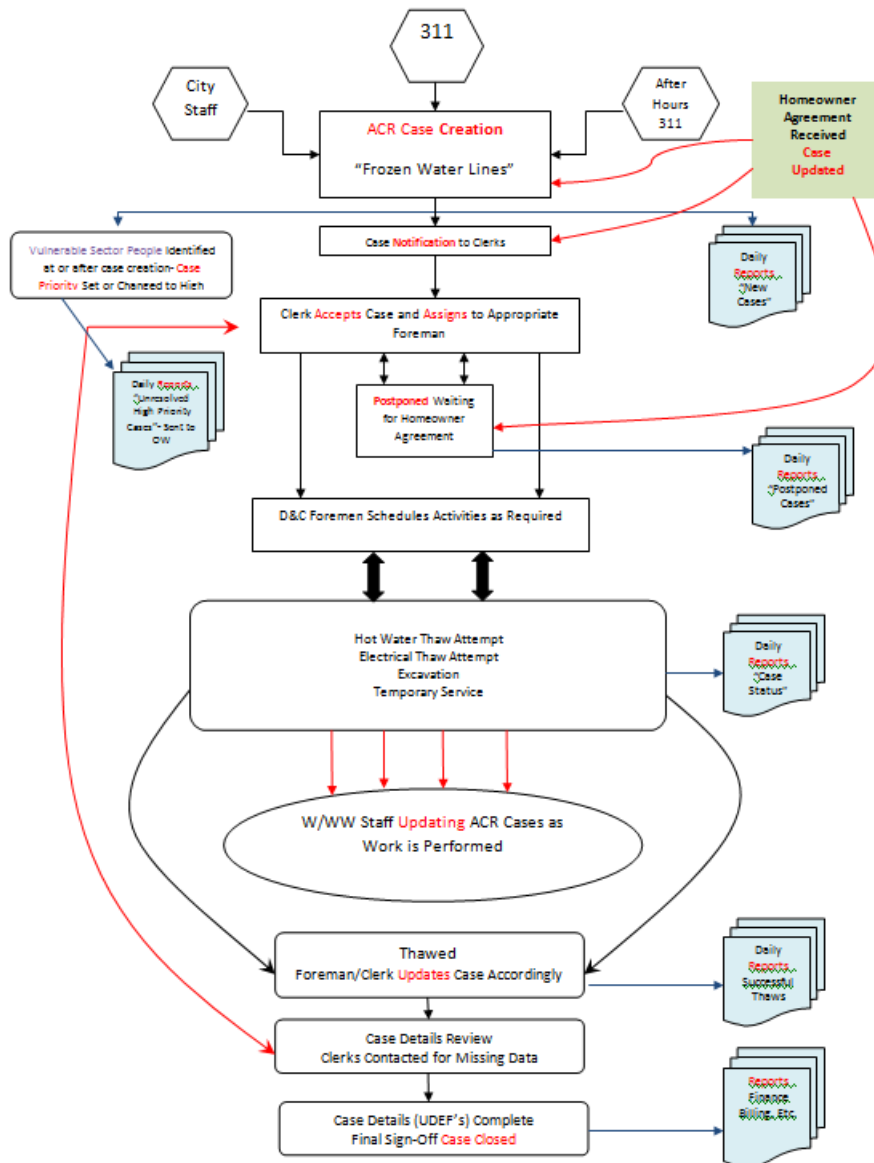
Due to the specific requirements of a significant frozen services event a specific work flow has been designed to streamline the customer experience as well as facilitate an effective response. The specific work flow is depicted in the diagram below:



Integrations with the Active Citizen Request System (ACR)

311 - ACR Frozen Water Lines Work Flow

ACR Frozen Water Lines Flow Chart



Frozen Water Lines Case Creation

Resident calls in 'No Water/Frozen Water' during business hours, 311 staff will submit a new case. Resident calls in 'No Water/Frozen Water' after business hours or on a weekend, Northern staff will submit a new case. W/WW staffs that become aware of a Frozen Water Line while in the field are responsible to submit a new case.

Homeowner Agreement Required

Irrespective of how the ACR case was created, whether the caller/resident is the tenant, homeowner(as listed on the tax roll) or family member of homeowner, they are advised that prior to any work commencing a homeowner agreement must be signed and received by the City'.

The agreement can be faxed, e-mailed, dropped off in person at Frobisher or the TDS-CSC or signed while staff is on site and will be attached, by the receiving party, to the existing ACR Frozen Water Lines case and update the case details reflecting receipt of agreement.

Case Notification/Acceptance

All EOC clerks assigned to assist the Operations Chief / Field Supervisors will receive an e-mail notification when a new case is created. The clerk will accept the case and then forward the case to the Supervisor responsible to oversee/schedule the work provided that the homeowner agreement has been received.

Case Postponement

The clerks are not to forward cases to the Supervisors if the homeowner agreement has not been received, instead they are to postpone the case with the reason code "Homeowner Agreement Required". In the event the resident calls back, 311 staff will be able to reiterate that the homeowner agreement has not yet been received and that no work can commence without it.










Case Assignment

Any new cases received that have the homeowner agreement attached can immediately be assigned through the EOC to the Supervisor responsible to oversee/schedule the work. The clerks will also be responsible to regularly check their postponed cases to verify which ones are in receipt of the homeowner agreement, these cases will then be forwarded to the Supervisors.

Case Updated Regularly While Work Performed

As the work is being performed, EOC clerical support staff will be responsible to update the case with all pertinent information. User Defined Fields, which are all reportable, are included in the Additional Case Information section of each case (see below). These fields should be updated by the end of each shift so that the resident and all pertinent City Staff are kept apprised of the progress. If there is a lag in the inputting of information, the daily reports will be inaccurate and 311 will not be able to provide residents with up to date information creating additional calls to the W/WW Department.

Additional Case Information

Homeowner Agreement Received:	<input type="text"/>	
Hot Water Thaw Attempt Date:	<input type="text"/>	
Hot Water Thaw Attempt Crew:	<input type="text"/>	
Hot Water Thaw Attempt Successful?:	<input type="radio"/> Yes <input type="radio"/> No	
Electrical Thaw Attempt Date:	<input type="text"/>	
Electrical Thaw Attempt Crew:	<input type="text"/>	
Electrical Thaw Attempt Successful?:	<input type="radio"/> Yes <input type="radio"/> No	
Excavation Thaw Attempt Date:	<input type="text"/>	
Excavation Thaw Attempt Crew:	<input type="text"/>	
Excavation Thaw Attempt Successful?:	<input type="radio"/> Yes <input type="radio"/> No	
Distance Service Thawed?:	<input type="text"/>	
Temporary Service Required:	<input type="radio"/> Yes <input type="radio"/> No	
Temporary Service Installed Date:	<input type="text"/>	
Temporary Service Installed Crew:	<input type="text"/>	
Donor START - Meter Reading:	<input type="text"/>	
START Date Donor:	<input type="text"/>	
Donor END - Meter Reading:	<input type="text"/>	
END Date Donor:	<input type="text"/>	
Donor Address:	<input type="text"/>	
Receiver START - Meter Reading:	<input type="text"/>	
START Date Receiver:	<input type="text"/>	
Receiver END - Meter Reading:	<input type="text"/>	
END Date Receiver:	<input type="text"/>	
Service Restored:	<input type="radio"/> Thawed - City <input type="radio"/> Thawed - Private <input type="radio"/> Owner Hired Private Contractor	

Successful Thaw

Upon service restoration the clerk will update the case by indicating whether the line was thawed on City or Private property. If the case is abandoned due to the resident hiring their own contractor, this is to be noted in the file and the case is to be closed.

Case Details Review

Designated EOC staff member(s) (see Financial / Data Validation role above) will be responsible to review all case data where service has been restored and ensure that all pertinent information is included in the case prior to closing it. They will advise the EOC clerks of any missing data and obtain it in a timely manner.

Final Signoff- Case Closed

The EOC staff member(s) responsible for ensuring that all of the required case details have been entered into the system will sign off on the case as being fully completed and close it in ACR.

Vulnerable Population Referrals

In some cases, field staff may encounter customers who may be unprepared or unable to provide water for consumption and / or sanitation purposes because of an infirmity, age or other circumstances or be in need of some special assistance that could have health related implications if left unaddressed. Such customers have been referred to as 'vulnerable'.

Should field staff identify a vulnerable customer or if a customer requests assistance of a non-operational nature, such customers should be referred through the eoc command structure as soon as practically possible to the designated cgs social services / ow contact person(s) so assistance can be arranged.

Vulnerable Sector People that are identified at any stage of a Frozen Water Line case will have their cases changed to "High Priority" in ACR. Daily ACR reports will then be made available to Ontario Works staff on all unresolved high priority cases. CGS Social Services / OW will be able to ascertain from the reports what stage each case is at and act accordingly.

Reporting on Event progress

Update reports will be tailored to the specific event however information should be readily available to support the development & release of daily reports of thawing related key performance indicators (KPI's), historical comparison information, and cumulative statistics.

ACR Reports

Provided that the case details are continually updated in a timely manner, the automatic reporting feature in ACR will produce accurate weekly, daily or hourly reports and distribute them via email to the appropriate staff. Automated reports can be modified as required. See attached flow chart for examples of reports to be run and distributed daily.

Integrations with the Cityworks computerized maintenance management system

When a resident calls 311 for low water pressure / no water a service request in ACR will be created and an investigation work order will be created in City Works.

The issue will be investigated (typically by a Trouble Investigator) and a determination will be made as to whether the frozen issue is inside the residence or outside.

If thawing is required the property owner will decide whether to have the work completed by their own contractor or request City involvement. If they decide to involve the City, the property owner must authorize the work by completing and signing a thawing agreement as noted above.

Once the Agreement is completed it should be appended to the work request for thawing to enable a work order to be made and provided to the Emergency Operations Centre for distribution to field crews. The EOC operations group will then create a thawing work order and close the Investigation work order in City Works, which will automatically update and close the ACR case.

Once the thawing work order is complete and closed in City Works a clerk will enter the pertinent information into the original ACR case by the end of business that day to ensure that 311 has current information and is equipped to provide informative updates to customers and accurate reports to track event activity.

Field Operations

Field operations should be consistently conducted in accordance with the city's applicable bylaws, policies, and standard operating procedures as outline in this appendix and the erp.

Hiring Contractors without Contracts in an Emergency

Purpose

In the event of a W/WW emergency additional contract resources that do not have an existing contract with W/WW may be required. This procedure will outline the how to hire these additional resources and reduce the risk to the City.

Background

Examples of additional contract resources may be hiring plumbers to thaw frozen pipes or hiring additional contractors to repair watermain breaks that do not have contracts with the City. Hiring these additional contractors without contracts opens the City to high levels of risk associated with health and safety, indemnification, WSIB and confidentiality for example.

The City has standard terms and conditions for all contracts, whether capital or service contract, additionally there are terms and conditions for Purchase Orders (PO) (included in Appendix A) that would cover the majority the City's risk. In the event of an emergency the City would not have to ask for quotes, we could contact additional contractors capable of completing the required work and ask them for rates. If we are agreeable with their proposed rates we could issue a PO and the contractor could begin working under the PO. In working under the PO the contractor is held to the terms and conditions of PO's. In addition we could add specific terms to the scope of work of the PO.

Procedure

1. Determine what additional contract resources are required beyond the established contracts in place.
2. Contact contractors able and qualified to complete the work to determine if they are available and interested.
3. If the contractor is interested and able to do the work, complete a scope of work and establish unit items for the contractor to provide rates for. A scope of work and unit items is included in Appendix B, current contract scopes could be utilized to develop scopes for emergency situations.

Note: The scope included in Appendix B is suitable for use in situations where additional contractors may be required to make buried infrastructure repairs. There are many items included in the scope; some can be crossed out if not applicable to the tasks.

4. Provide the contractor the scope of work and unit items to fill out their rates.
5. Once the contractor provides their rates provide the information to purchasing to have a PO created.

6. Issue the PO to the contractor; do not authorize the contractor to initiate any work until they have been issued the PO number. Agreeing to complete the work under the PO implies that they are working under the terms and conditions of the PO and the City has reduced their risk.
7. Direct the contractor to initiate work and supervise as required.
8. Payment of invoices are to be processed only if they reference the PO number, if there is no reference to the PO number return the invoice to the contractor to be corrected.
9. Report to council any work completed by contractors that did not follow a competitive process as described in the purchasing bylaw due to the nature of the emergency.

CGS Standard Terms & Conditions for POs (November 2014)

PURCHASE ORDER/STANDING OFFER STANDARD TERMS AND CONDITIONS

- 1) **APPLICATION OF TERMS AND CONDITIONS:** The Goods or Services specified on the Purchase Order are hereby purchased by the City of Greater Sudbury (the "City") subject to the terms and conditions (the "Terms") contained herein (the "Contract"). The provision of any Goods or Services hereunder by the Supplier shall constitute acceptance of the Purchase Order and Terms.
- 2) **PAYMENT AND INVOICING:** Unless stated otherwise, all amounts stated herein are in Canadian dollars and the terms of payment for all invoices are net 30 days. Invoices shall be mailed to: **City of Greater Sudbury – attention Accounts Payable, P.O. Box 5000, Station A, Sudbury, ON P3A 5P3**. Failure to indicate the Purchase Order number and any Contract number, where applicable, on invoices may result in the delay or non-payment of invoices.
- 3) **VARIATIONS/SUBSTITUTIONS:** There shall be no variation or substitution from the Purchase Order unless approved in writing by the City's Purchasing Agent or his or her authorized designates. The City shall not be liable for payment of any quantities in excess of those required in the Purchase Order.
- 4) **TIME OF THE ESSENCE:** The time of delivery, provision or completion of the Goods or Services shall be of the essence and any failure by the Supplier to deliver or provide the Goods or Services at, by or within the time specified shall entitle the City, at its sole discretion, to terminate the Purchase Order upon notice in writing effective immediately without any liability for doing so.
- 5) **TERMINATION FOR CONVENIENCE:** The City shall have the right, in its sole discretion and without any liability for doing so, to terminate or cancel all or part of the Purchase Order upon 30 days notice in writing for convenience at any time in relation to any Goods or Services not delivered or provided to that time.
- 6) **TERMINATION FOR CAUSE:** The City may, by notice in writing, terminate the Purchase Order effective immediately, and without any liability for doing so, in the event the City, in its sole discretion, determines that the Supplier has contravened any of its obligations hereunder.

7) **NON-EXCLUSIVITY:** The City makes no guarantee of the value or volume of Goods or Services to be purchased from the Supplier. This Purchase Order is not an exclusive contract for the provision of the stated Goods or Services. The City may contract with others for the same or similar Goods or Services to those described or may obtain the same or similar Goods or Services internally. Standard T&Cs for POs November 2014

Provisions Specific to Purchase of Goods

8) **QUALITY OF GOODS:** Unless specifically stated otherwise herein, Goods of any type purchased by the City shall be compliant with stated requirements, new and unused, of good quality and free from defects in workmanship, material and design. Receipt by the City of any Goods shall not waive any of the Supplier's obligations and any defective Goods shall be returned and replaced by the Supplier at its sole expense.

9) **MATERIAL SAFETY DATA SHEETS:** Material Safety Data Sheets must accompany each shipment of controlled products ordered.

10) **SALVAGE GOODS:** Unless otherwise stated, where the provision of Goods or Services herein involves the removal or replacement of any materials or equipment that may be of some continuing value, such materials or equipment shall remain the property of the City.

Provisions Specific to Purchase of Services

11) **INCLUDED SERVICES:** The Services described in the Purchase Order shall include all those Services necessarily incidental to those identified in order to complete the scope of Services described therein.

12) **COMPETENCE:** The Supplier represents that it has the expertise, experience, facilities, skilled personnel and knowledge necessary or required to deliver the Services in a competent and professional manner. The Supplier acknowledges that the City is relying upon this representation in issuing this Purchase Order.

13) **RECORD KEEPING:** The Supplier will maintain proper records and prepare and submit to the City, upon request, comprehensive reports or any other documentation related to the Services provided. The Supplier shall permit the City or its representatives to enter at all reasonable times any facilities used by the Supplier for the provision of the Services for the purpose of observing and evaluating the Services.

General Provisions

14) **INDEMNIFICATION:** The successful Proponent shall indemnify and save harmless the City, its elected and unelected officials, officers, employees and agents (the "Indemnified Parties") from and against all costs (including, without limitation, legal fees, disbursements and administrative costs), claims, actions, losses, injuries, expenses, damages, fines, judgments or recoveries suffered by or made, brought or recovered against the Indemnified Parties, or any of them, resulting from any act or omission, willful misconduct or errors of the successful Proponent, its directors, officers, employees, agents, assigns or anyone for whom at law the successful Proponent is Standard T&Cs for POs November 2014 responsible in connection with the Work provided, purported to be provided or required to be provided hereunder unless the injury, loss or damage is caused solely by the negligence of the Indemnified Parties while acting within the scope of their respective employment, roles or duties.

15) **INSURANCE:** The Supplier shall maintain insurance coverages stated in the Purchase Order. In the absence of any stated insurance requirements the Supplier shall, at minimum, have commercial general liability and automobile policies containing standard industry wording and coverages of no less than two million dollars, respectively. The City shall be added as an additional insured with respect to the Supplier's obligations pursuant to the Purchase Order. Throughout the duration of the Purchase Order, the Supplier shall ensure that the City is provided with certificates of insurance on the City's standard form showing that the Supplier is maintaining the necessary insurance coverages.

16) **SET-OFF:** The City reserves the right to set-off any indebtedness of the Supplier to the City, regardless of how such indebtedness arises, against amounts owed to the Supplier hereunder.

17) **COMPLIANCE WITH LAW:** In providing the Goods or Services hereunder the Supplier shall comply with all applicable laws, regulations, rules and bylaws of the federal, provincial and municipal governments. This Contract shall be construed in accordance with the laws of the province of Ontario and any legal proceeding shall be commenced before the Superior Court of Justice in the District of Sudbury.

18) **HEALTH AND SAFETY:** The Supplier acknowledges that it has read, understood and shall at all times comply and ensure compliance by its workers and any subcontractors with all applicable federal, provincial or municipal legislation relating to occupational health and safety, all applicable regulations thereunder and any and all applicable industry standards and guidelines pertaining to the provision of the Goods or Services. The Supplier shall be responsible for taking every precaution in the circumstances for the protection of all workers associated with the provision of the Goods or Services, whether employed by the Supplier or a third party. Unless stated otherwise, where the work hereunder involves Construction the Supplier shall be the constructor for the purposes of the *Occupational Health and Safety Act*.

19) **WORKPLACE SAFETY AND INSURANCE BOARD:** The Supplier shall, at all times during the provision of the Goods or Services hereunder ensure that the City is provided with a current certificate of clearance from the Workplace Safety and Insurance Board. Standard T&Cs for POs November 2014

20) **CONFIDENTIALITY:** The Supplier agrees that all personal information, including any personal health information where applicable, that it acquires knowledge of as a result hereof will be used, retained, protected, disclosed and disposed of in accordance with all applicable municipal, provincial and federal laws and regulations governing the collection, use, retention, disclosure and disposal of such information, including but not limited to the *Municipal Freedom of Information and Protection of Privacy Act* and the *Personal Health Information Protection Act*. The Supplier shall not at any time before, during or after the provision of the Goods or Services hereunder, use or disclose any personal information, personal health information or confidential information communicated to it or acquired by it in the course of providing the Goods or Services herein for any other purpose than the provision of the Goods or Services, in accordance with applicable law or as specifically agreed in writing by the City.

21) **DELIVERABLES:** Unless otherwise stated and to the extent permitted by law any deliverables prepared, compiled and submitted to the City shall be the exclusive property of the City. The City shall own all rights of copyright and such deliverables shall not be used, copied or modified by anyone without the prior written permission of the City.

22) **ACCESSIBILITY:** The Supplier shall comply and ensure compliance with all applicable regulations under the *Accessibility for Ontarians with Disabilities Act, 2005* in providing the Goods or Services.

23) **FAIR WAGE:** The Supplier agrees that it shall comply with the City's Fair Wage Policy where the Services involve new building and renovation construction in excess of \$160,000.00.

24) **CONFLICT OF INTEREST:** The Supplier shall not engage in any activity or provide any Services to the City where such activity or the provision of such Services would create an actual or perceived conflict of interest pursuant to this Contract.

25) **WARRANTY:** All Goods must carry a minimum one year warranty from the later of time of receipt or installation by the City.

26) **ASSIGNMENT:** The Supplier will not assign this Contract, or any part thereof, without the prior written approval of the City, which approval may be withheld by the City, in its sole discretion, or may be given subject to such terms and conditions as the City may impose.

27) **ENTIRE CONTRACT:** Unless specifically incorporated herein, the Purchase Order, the Terms and any schedules or documentation attached hereto shall constitute the entire Contract between the City and the Supplier.

Standard Operating Procedures

THE SOP FOLDER ON THE CGS INTRANET IS AVAILABLE AT:

J:\S_PLANTS\COMPLIANCE\SOP'S\WEB\D&C

Investigating Suspected Frozen Water Services:

City staff called upon to investigate suspected frozen services should conduct their investigation in accordance with SOP #WWS-DC-S016 v2.0. Any questions should be brought to the immediate Supervisor and/or EOC Operations Chief.

Customer Agreements

Prior to attempting any thaw any suspected frozen service authorization must be obtained from the owner of the account as thawing attempts may generate a financial commitment for the account owner.

Legal Services has coordinated with W/WW to develop a CGS "Thawing Agreements" for the purpose of authorizing work to be done and documenting the arrangements between the account owner and the City. No work should be commenced until such time as the agreement has been completed fully and signed by the account owner. The agreement can be found at the following link:

Thawing Agreement



AGREEMENT FOR THAWING SERVICES BY THE CITY OF GREATER SUDBURY

Instructions: To be completed by the Property Owner(s) or Authorized Representative of the Property Owner(s) prior to commencement of thawing services by the City of Greater Sudbury.

Service Request Reference # _____ Date service requested: _____

Property Owner Name(s): _____ Authorized Representative Name: _____

Property Owner(s) Contact Address/Telephone Number: _____

Contact Name/Telephone Numbers: (H) _____ (C) _____ W) _____

Billing name & address: _____

Property Address: _____

Date of thawing service: _____ Start Time of thawing service: _____

Completion time of thawing service (to be completed after thawing service): _____ Property Owner Initials: _____

I/We, the Property Owner(s), understand, acknowledge and agree that:

- a) I/We have requested that the City of Greater Sudbury thaw the Property's frozen water service(s);
- b) I/We am under no obligation to use the City of Greater Sudbury's services to thaw the frozen water service(s);
- c) If it is decided, in the sole discretion of the City of Greater Sudbury, that the water service is frozen, not on the City's property but on my/our Property, I/We will be charged the hourly amount described on the reverse for each two person crew conducting the thawing services provided by the City of Greater Sudbury, including interest where applicable;
- d) It is advisable to keep a faucet open, with the opening being the size of a standard pencil top eraser, and to ensure that exterior facing interior water pipes are warm in an effort to reduce the possibility of the water service(s) freezing, and that I/We open the faucet and run the water at my/our expense;
- e) Additional charges may apply should the water service freeze again; and
- f) I/We indemnify and save the City and its elected and unelected officials, directors, officers, employees, representatives and agents harmless from any and all manners of action, causes of action, suits, damages, losses, costs, claims and demands of any nature whatsoever arising out of the thawing service, including such by its employees, contractors, agents and representatives, including:
 - i) Any breach, violation or non-performance of any covenant, condition or agreement set forth in this Agreement to be fulfilled, kept, observed or performed by the City pursuant to this Agreement;
 - ii) any injury to person or persons, including death resulting at any time from such; and
 - ii) any damage to or loss of property, except to the extent that such causes of action, suits, damages, losses, costs, claims and demands are due to the negligence or wrongful acts or omissions of the City or persons for whom they are responsible for under law.

Signature of Property Owner(s)/Authorized Representative: _____ Date: _____

Witness Signature: _____ Witness Print Name: _____

RATES

(Charged in accordance with By-law 2015-5, *A By-law of the City of Greater Sudbury to Establish a Water and Wastewater Policy and Water and Wastewater Rates and Charges in General and for Special Projects*) Hourly rate for each 2 person crew for thawing of water service at request of Owner:

a. per hour, regular hours rate: \$ _____ * b. per hour, after hours rate: \$ _____ *

*Hourly rates for each 2 person crew shall be prorated to the nearest half hour on site

Temporary Service Agreement

Legal Services has coordinated with W/WW to develop a CGS "Acknowledgement of Temporary Service Installation" Agreement for the purpose of authorizing the installation of a temporary service. This document identifies the parties to the agreement, authorizes the work to be done, and documents the arrangements between the account owner and the City. No temporary service installation work should be undertaken until such time as the agreement has been completed fully and signed by the donor account owner, and receiver account owner. The agreement can be found at the following link:

Temporary Service Agreement



AGREEMENT FOR THE INSTALLATION OF A TEMPORARY WATER SERVICE BY THE CITY OF GREATER SUDBURY

Instructions: To be completed by the Property Owner(s) or Authorized Representative of the Property Owners prior to commencement of the installation of a temporary water service between two properties.

Receiving Property Owner Name(s): _____ Receiving Authorized Representative Name: _____

Receiving Property Address: _____

Contact Name/Phone #'s: (H) _____ (C) _____ (W) _____

Billing name & address: _____

Receiving address meter reading at install: _____ Receiving address meter reading at removal: _____

Supply Property Owner Name(s): _____

Supply Property Owner Authorized Representative Name: _____

Supply Property Address: _____

Contact Name/Phone #'s: (H) _____ (C) _____ (W) _____

Supply address meter reading at install: _____ Supply address meter reading at removal: _____

Date and Time of Installation of temporary water service: _____ Property Owner Initials: _____

Date and Time of Removal of temporary water service (to be completed upon removal): _____ Property Owner Initials: _____

Signature of Receiving Property Owner(s)/Authorized Representative: _____ Print Name: _____

Signature: _____ Date: _____ Witness Signature: _____ Witness Print Name: _____

Signature of Supply Property Owner/Authorized Representative: _____ Print Name: _____

Signature: _____ Date: _____ Witness Signature: _____ Witness Print Name: _____

RATES

(Charged in accordance with By-law 2015-5, A By-law of the City of Greater Sudbury to Establish a Water and Wastewater Policy and Water and Wastewater Rates and Charges in General and for Special Projects)

Installation or removal of temporary water service system per hour during regular hours: \$ _____ per hour after hours: \$ _____ .

Hourly rates for installation or removal of the service shall be prorated to the nearest half hour on site. Disconnect/Re-connect
Water usage to be charged out at a rate of \$_____/m³

AGREEMENT FOR RECEIVING PROPERTY OWNER(S)

I/We, the Receiving Property Owner(s), understand, acknowledge and agree that:

- g) I/We have requested that the City of Greater Sudbury install a hose that runs from the Receiving Property to the Supply Property to provide water service(s) to the Receiving Property (a "temporary water service") while the water service is unavailable at the Receiving Property;
- h) I/We will be charged at the rate specified on the reverse to install, maintain and remove the temporary water service;
- i) For each day that the temporary water service is operational, I/We will be charged an amount the same as the amount charged for water service based on consumption based on the daily average last year in the same calendar month for water service to the Receiving Property ("Consumption Rate"), in addition to a monthly fixed charge, both of which are determined by the City;
- j) Commencing on the date that the temporary water service is no longer operational, I/We will resume being charged the Consumption Rate, in addition to the monthly fixed charge and including interest where applicable;
- k) It is advisable to keep a faucet open, with the opening being the size of a standard pencil top eraser, and to ensure that exterior facing interior water pipes are warm in an effort to reduce the possibility of the water service(s) freezing and that I/We open the faucet and run the water at my/our expense;
- l) The temporary water service should not be tampered with and that I/We will be held liable for any demands, losses, damages or claims resulting from tampering with the temporary water service; and
- m) Additional charges may apply should a temporary water service be required again; and
- n) I/We indemnify and save the City and its elected and unelected officials, directors, officers, employees, representatives and agents harmless from any and all manners of action, causes of action, suits, damages, losses, costs, claims and demands of any nature whatsoever arising out of the installation, use or removal of the temporary water service, including such by its employees, contractors, agents and representatives, including:
 - i) any breach, violation or non-performance of any covenant, condition or agreement set forth in this Agreement to be fulfilled, kept, observed or performed by the City pursuant to this Agreement;
 - ii) any injury to person or persons, including death resulting at any time from such; and
 - iii) any damage to or loss of property, except to the extent that such causes of action, suits, damages, losses, costs, claims and demands are due to the negligence or wrongful acts or omissions of the City or persons for whom they are responsible for under law.

AGREEMENT FOR SUPPLY PROPERTY OWNER(S)

I/We, the Supply Property Owner(s), understand, acknowledge and agree that:

- a) The Receiving Property Owner(s) have requested that the City of Greater Sudbury install a hose that runs from the Receiving Property to the Supply Property to provide water service(s) to the Receiving Property (a "temporary water service") while the water service is unavailable at the Receiving Property;
- b) For each day that the temporary water service is operational, I will not be charged the Consumption Rate for water service;
- c) For each day that the temporary water service is operational, I will be charged an amount the same as the amount charged for water service based on consumption based on the daily average in the same calendar month last year for water service to the Receiving Property, in addition to the monthly fixed charge and including interest where applicable;
- d) The temporary water service should not be tampered with and that I/We will be held liable for any demands, losses, damages or claims resulting from tampering with the temporary water service;
- e) I/We indemnify and save the City and its elected and unelected officials, directors, officers, employees, representatives and agents harmless from any and all manners of action, causes of action, suits, damages, losses, costs, claims and demands of any nature whatsoever arising out of the installation, use or removal of the temporary water service, including such by its employees, contractors, agents and representatives, including:
 - i) any breach, violation or non-performance of any covenant, condition or agreement set forth in this Agreement to be fulfilled, kept, observed or performed by the City pursuant to this Agreement;
 - ii) any injury to person or persons, including death resulting at any time from such; and
 - iii) any damage to or loss of property, except to the extent that such causes of action, suits, damages, losses, costs, claims and demands are due to the negligence or wrongful acts or omissions of the City or persons for whom they are responsible for under law.

Thawing Frozen Services by Hot Water Recirculation Machine:

City staff called upon to thaw frozen services using the Hot Water Recirculation Machine should conduct the thawing operation in accordance with SOP #WWS-DC-S037 v1.0. Any questions should be brought to the immediate Supervisor and/or EOC Operations Chief.

Thawing Frozen Services by Electrical Thawing Machine:

City staff called upon to thaw frozen services using the Electrical Thawing Machine should conduct the thawing operation in accordance with SOP #WWS-DC-S036 v1.0. Any questions should be brought to the immediate Supervisor and/or EOC Operations Chief.

Installing a Temporary Service (Bib) Line Hose:

City staff called upon to install a temporary service should conduct the installation / operation in accordance with SOP #WWS-DC-S035 v1.0. Any questions should be brought to the immediate Supervisor and/or EOC Operations Chief.

Public Communications

Communications Plan

During a thawing event situation all public communications must be coordinated through CGS Corporate Communications.

Public Service announcements

The following Public Service Announcements (PSA's) have been developed to help customers prevent and deal with frozen service lines.

Public Service Announcement

Winter is Coming: What you can do to Protect your Pipes from Freezing

As winter approaches, it's a good time to prepare your home's pipes for cold weather. The City of Greater Sudbury is encouraging residents to take a few steps to keep their pipes protected in cold temperatures.

- Ensure everyone in your home knows where the main water shut-off valve is located inside your home so water can be turned off in an emergency.
- Mark your valve with an identification tag to make it easy for others in your home to locate it. Typically the valve is located where the water line enters your home, and this could be in the basement, crawlspace or utility closet.
- If you have unheated rooms, check for pipes, such as in crawlspaces, and areas in your basement.
- Protect exposed pipes by wrapping them with heat tape, pre-molded foam rubber sleeves or fiberglass insulation. These can all be found at your local hardware store.
- Drain all outdoor garden hoses and roll them up inside to prevent cracking.
- If you have an indoor valve for outside faucets, shut it off and drain water from pipes leading to the faucet. Also, turn off your irrigation system.
- If you are going away on vacation for an extended period of time, leave your thermostat at 13 degrees Celsius to prevent freezing.
- If you are away, have someone check your home regularly.
- Alternatively, you can consider hiring a plumber to drain your system and turn your water off. That way, if your furnace stops working, there will be no water in your pipes to freeze.

For those residents who have consistently experienced freezing over several winters, consider allowing a small trickle of water to run overnight to keep pipes from freezing. The cost of the extra water is typically lower than the cost of repairing a broken or frozen pipe.

If your pipes do freeze, turn off your water immediately. Do not attempt to thaw frozen pipes unless the water is shut off. Call 3-1-1 to report the incident. If you are calling after hours, your message will be forwarded to the appropriate supervisor on call. Please note that during cold weather, crews may be required to service many locations. It may be several days before crews can visit your property.

For more information about frozen water services, or tips to help prevent freezing pipes please visit www.greatersudbury.ca/frozenwater

Customer handouts


The following customer handouts have been developed to help customers understand work processes and other relevant information:

Frozen Water Services Brochure

Municipal Water
Every Drop Counts

Frozen Water Services

Note your case number here
for future reference:
Case # _____



Greater | Grand
Sudbury
www.greatersudbury.ca

If you have any questions about
the status of your service thawing
or billing, please dial 3-1-1.

What should I do if I suspect a Frozen Water Service?

If you experience a frozen water service, please contact the City of Greater Sudbury by dialing 3-1-1. If you are calling after hours, your message will be forwarded to the appropriate supervisor on call. Please note that during cold weather, crews may be required to service many locations. It may be several days before crews can visit your property.

Why Did my Service Freeze?

Most water services in the City of Greater Sudbury are deeply buried for protection against frost. Some water service lines, however, are at a shallow depth by today's standards. Extremely cold temperatures, or fluctuations between warm and cold temperatures, can sometimes push frost to a depth that will freeze water services.

How can I reduce the risk of frozen water pipes this winter?

- When the temperature is below freezing, you can leave a cold water tap running at a steady stream of about 6 mm or ¼ inch (approximate thickness of a drinking straw).
- Leave the cupboard doors under your kitchen and bathroom sinks open if piping is located next to exterior walls. Please take care to remove household cleaners and other items that could harm children or pets while the cupboard doors are open.
- Do not turn your furnace below 13 degrees C (55°F) at night or when the house is vacant.
- Shut off and drain pipes leading to outside faucets.
- Wrap foam pipe insulation around pipes most susceptible to freezing (e.g. near outside walls, crawl spaces, attics).
- Seal air leaks in your home and garage, especially in areas where pipes are located.
- If you are away, have someone check your home regularly.

I've got a temporary service connection installed (bib system). What should I expect?

You will be asked to continuously run your water, the width of a pencil, to ensure that the temporary service connection does not freeze. It's very important to keep the water running because the temporary service has a high risk of freezing and the moving water decreases that risk.

IMPORTANT: Never use an open flame to thaw a frozen water pipe. Always use caution when applying any heat source near insulation or other flammable materials.

I was told to run my water, how will this affect my water bill?

If frozen on the private (owner's) side, the owner will be responsible for the full cost of running the water. The charges will appear on the next water bill. Each thaw request will be billed to owner.

If frozen on the public (City) side, a meter reading is taken and your billing type will change to the rate that was billed over the same period last year.

Thawing Methods

Can I do the work myself?

If you are able to determine that the frozen section of water pipe is located inside your home, you can try the following methods. If you are unable to locate the frozen section of pipe or are unsure what to do, please contact a licensed plumber.

- Open a cold water tap nearest the frozen section so you will know when the pipe is thawed.
- Apply heat using an electric heating pad wrapped around the pipe or an electric hair dryer.
- You may also use a portable heater with caution, especially around flammable materials.

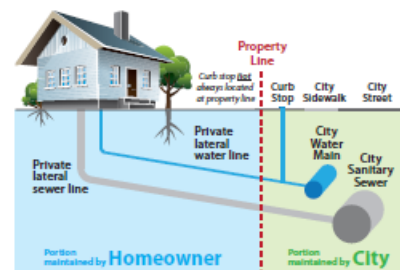
Steam/Hot Water Thawing: This process involves inserting a hose into the frozen pipe from one end and injecting hot water and steam.

Electrical Thawing: This approach involves passing an electric current between two connection points. It is capable of thawing larger areas at greater distances.

Temporary Service Connections: If both thawing approaches fail to work, a bib system may be implemented which involves running a hose from your neighbour's home to yours.

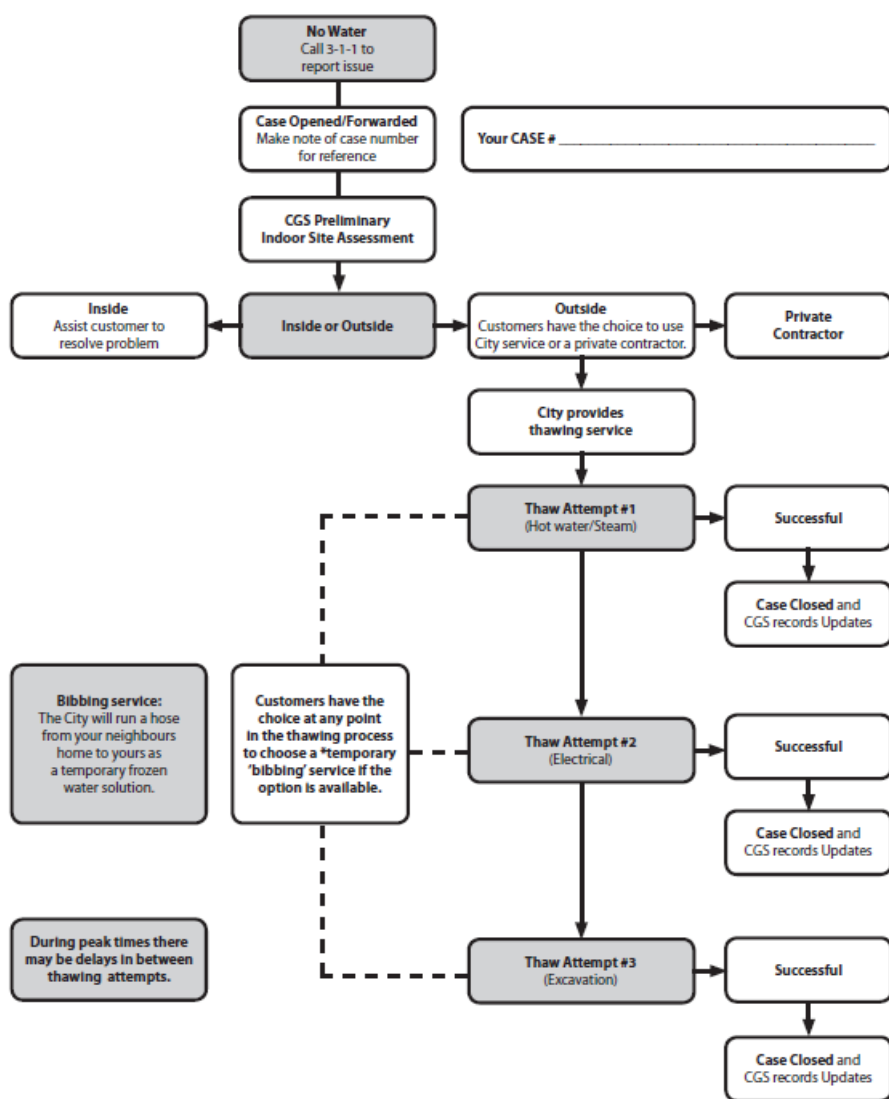
A Shared Responsibility

Maintenance of the private portion of the water service that supplies water to your premises is the owner's responsibility.



Thawing Work Flow Diagram

Residential Water Line Thawing Work Flow



Are you prepared?

Below is a list of basic items that you should have in your home so you can take care of yourself and your family for a minimum of 72 hours (3 days).

- Water - at least 4 litres of water per person per day for drinking, cooking, cleaning and bathing.
- Change of clothing which are seasonally appropriate
- Toilet paper