

SERVICE CONNECTION FAILURE ASSISTANCE FUND

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Overview

The Service Connection Failure Assistance Fund (SCFA) was set up as a type of insurance coverage for residents who have a problem with their water and sewer service.

Water and sewer service connection failures are generally due to freezing water lines. The cost of carrying out emergency repairs under winter conditions can exceed \$10,000. The SCFA applies also to failure of sewer service connections. A failure of a sewer system requires work to correct the situation.

Council established the SCFA to provide municipal service customers with low-cost insurance to cover repair costs.

The majority of customers participate in the program which, in the event of a failure, covers repair costs above \$1,000 and up to a maximum of \$25,000. The property owner pays the first \$1,000 (the deductible) and all costs exceeding \$25,000. The premium, currently set at \$10.00 per equivalent residential unit per month, is collected through a levy on the City water bill.

The program applies to failure of water or sewer services that occur between the building envelope and the City main. To qualify for the program a customer must have:

- A properly installed, operated and maintained freeze protection system
- Water and sewer service connections in accordance with the applicable by-laws and codes

The costs that are covered under the program are those associated with the excavation, water and sewer repair or replacement, backfilling, placement of topsoil on the customer's property, pavement and sidewalk repair on City roadways.

Standard Water and Sewer Service Connection

In 1984 the City adopted the two-line circulation system as its standard water service connection that proved to be the most cost-effective freeze protection system available. The system consists of two insulated copper lines connected by a small pump located in a heated area inside the premises, which continuously circulates water back to the City main to prevent freezing. Some downtown blocks also utilize a two-line water system, but with an orifice system rather than a circulating pump. The orifice system works on pressure differential of supply and return lines.

Prior to 1984 a variety of freeze protection systems were being installed. These were typically single lines with either bleeders, heat tape, or the Aquaflow system to provide freeze protection.

The problems with the freeze protection systems associated with single line services are:

- Bleeders waste a huge volume of treated water and add to the volume of sewage that must be pumped to the sewage lagoon. This wasted water can affect the volumes stipulated under the City's mandated water licence.
- Heat tape has a relatively short lifespan and leads to frequent freeze-up problems.
- The Aquaflow system is noisy and, as the system pumps water into the City's potable water system, it is not tamper-proof.

As the City continues to reconstruct streets and services in older sections, service connections are upgraded to the current standard. Water and sewer service connections that are repaired under the SCFA are upgraded to the current standard, as well.

2013 Highlights

Highlights of the Service Connection Failure Assistance Fund for 2013 include the:

- Anticipated repair of 75 services by Public Works & Engineering staff, with 52 done to date. Ten of these required complete upgrades due to sewer failure that needed immediate attention.

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2014/2015/2016 Goals

The goals of the Service Connection Failure Assistance Program include:

- Continue to be responsive to the residents of Yellowknife by minimizing the amount of time that they are without essential services
- Provide a reliable supply of high quality, potable water to Yellowknife citizens, and efficiently and responsibly dispose of waste water, as mandated under the *Cities, Towns and Villages Act*
- Maintain piped water and sewer systems in good functional condition
- Continue to eliminate water losses and wastage on mains and services
- Continue upgrading the City water and sewer systems, improving service to residents and reducing maintenance requirements and cost
- Hire qualified people to maintain a high standard of repair and maintenance of all City assets
- Conduct regular upgrading of supervisory staff through courses and conferences to learn about new technology and explore how it could benefit the City.

2014/2015/2016 Objectives

The objectives of the Service Connection Failure Assistance Program include:

- Continue to reduce the number of single-line water services and services having bleeders, heat trace and Aquaflo units by upgrading to current standards through capital improvement projects, as resources and budgets permit
- Provide the community with potable water that meets or exceeds the Canadian Drinking Water Quality Guidelines, the requirements of our Water License, and territorial/federal environmental and public health regulations, as established by the Mackenzie Valley Land and Water Board and the *Public Health Act*
- Eliminate water main and service losses through annual leak detection and repair, eliminate bleeders, improve system efficiencies and reduce operation and maintenance cost.
- Track repair costs and data to portray the status of the fund accurately



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Service Connection Failure Assistance Fund

Service Connection Failure Assistance Fund provides for the repair and maintenance of the water supply and sewage lines from the City mains to the customer's building, and provides assistance to customers.

	2012 Actual (\$000's)	2013 Budget (\$000's)	2013 Forecast (\$000's)	2014 Budget Recommended (\$000's)	2015 Budget (\$000's)	2016 Budget (\$000's)	Note
Revenue							
Insurance Premium	816	1,170	1,151	1,153	1,156	1,158	(1)
Insurance deductible	51	70	60	60	60	60	
	<u>867</u>	<u>1,240</u>	<u>1,211</u>	<u>1,213</u>	<u>1,216</u>	<u>1,218</u>	
Expenditures							
Contracted Services	262	909	880	874	869	865	
Materials	80	54	54	55	56	58	
Labour/ Equipment	558	277	277	284	290	296	(2)
	<u>900</u>	<u>1,240</u>	<u>1,211</u>	<u>1,213</u>	<u>1,216</u>	<u>1,218</u>	
Net Revenue (Expenditures)	(33)	-	-	-	-	-	
Interfund Transfers							
(To) From Capital Fund	-	-	-	-	-	-	
Change in Fund Balance							
		-	-	-	-	-	
Opening Balance	33	33	-	-	-	-	
Closing Balance	-	33	-	-	-	-	

Notes:

- (1) See the following schedule of the Service Connection Failure Assistance Program premiums and deductibles.
- (2) Labour and equipment are the internal charges from the Water and Sewer Fund.

Budgeted revenue is based on the following:

	Rate	Number/ Volume	2014 Budgeted \$
Premiums Per Equivalent Residential Unit	\$10.00	9,610	1,153,200
Deductible-(Average # of Monthly Charges)	\$1,000.00	5.00	60,000
Total Revenue			<u>1,213,200</u>

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Service Connection Failure Assistance Performance Measures

	Projected 2012	Actual 2012	Projected 2013	Forecasted 2014	Forecasted 2015	Forecasted 2016	Notes
Workload Indicators							
No. of services repaired/replaced under SCFAF:							
Public Works (in-house)	60	81	75	50	50	50	
Contracted Out	15	10	10	25	25	10	
Total	70	91	85	75	75	60	
Effectiveness Measures							
Average cost to repair/replace service with dual circulating water service under SCFAF	\$8,614	\$8,700	\$9,000	\$9,200	\$9,500	\$9,900	(1) & (2)

Notes:

- (1) Pavement and sidewalk repairs are now included in the cost of performing a SCFA repair.
- (2) Average cost of service replacement/repair subject to inflation of material cost.

