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**DIRECTION GÉNÉRALE DE  
L'APPLICATION DE LA LOI**  
Application de la loi en environnement

## INSPECTOR'S DIRECTION

*Fisheries Act*  
Subsection 38(7.1)

March 5, 2013

File No: 4408-2012-10-01-001  
PROTECTED B  
ENFORCEMENT

**Registered with acknowledgement of receipt**

**TO:**

City of Iqaluit  
P.O. Box 460  
Iqaluit, NU  
X0A 0H0

**AND TO:**

John Hussey  
Chief Administration Officer  
P.O. Box 460  
Iqaluit, NU  
X0A 0H0

**RE: *FISHERIES ACT* INSPECTOR'S DIRECTION**

This document constitutes an Inspector's Direction to the persons named above pursuant to 38(7.1) of the federal *Fisheries Act*, R. S. C. 1985, c. F-14, as amended, hereinafter referred to as the *Fisheries Act*.

### **REASONABLE GROUNDS FOR BELIEF**

I, Curtis Didham, an Inspector designated under subsection 38(1) of the *Fisheries Act* believe based on the following reasonable grounds that there has occurred a deposit of a deleterious substance(s) in water frequented by fish not authorized under the Act, or there is a serious and imminent danger of a deposit of a deleterious substance in water frequented by fish, that detriment to fish or fish habitat or the use by humans of fish results or may reasonably be expected to result from the occurrence and that immediate action is necessary to take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent any such occurrence or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result from it.

That I have personal knowledge of the matters, except where stated to be based upon information and belief, and where so stated, I believe the same to be true.

**Canada**

My reasonable grounds for belief are:

1. That the City of Iqaluit Sewage and Waste-Water Treatment Plant (SWWTP) operates 24 hours a day, 7 days a week and discharges effluent from the SWWTP discharge pipe on a continual basis into Koojesse Inlet, Frobisher Bay, Arctic Ocean.
2. That the City of Iqaluit SWWTP is a primary treatment plant. It receives sewage and waste-water from the underground sewage and waste-water utilidor that is connected via underground piping to the buildings in the City and also by trucked sewage and waste-water that is pumped via vacuum truck from buildings in the City and input into a dispensing pipe that flows to the SWWTP for treatment and discharge.
3. That the sewage received by the City of Iqaluit SWWTP is passed through a mechanical auger screen and salnes filter that removes all the sewage solids (sludge). The sludge generated by the SWWTP falls onto a trailer located directly below the primary treatment room of the SWWTP. The trailer is unloaded in a designated area at the West 40 Landfill. The sewage effluent is then pumped through a pipe into a drainage area that drains into Koojesse Inlet, Frobisher Bay, Arctic Ocean where it is naturally diluted by the tides.
4. That the City of Iqaluit owns the deleterious substance, that is, effluent from the SWWTP, or has the charge, management, or control thereof, or has caused or contributed to the causation of the deposit of the deleterious substance or serious and imminent danger thereof. Additionally, I am aware that Mr. John Hussey in his capacity as Chief Administrative Officer of the City of Iqaluit, has the charge, management or control thereof, or has caused or contributed to the causation of the deposit of the deleterious substance or serious and imminent danger thereof.
5. That the City of Iqaluit has a type A water licence 3AM-IQA0611 issued by the Nunavut Water Board under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* for water use and waste disposal with respect to a municipal undertaking. Given the proximity of the discharge effluent pipe to fish bearing waters, Aboriginal Affairs and Northern Development Canada (AANDC) made a formal request to have Environment Canada (EC) conduct a joint inspection at the City of Iqaluit's SWWTP.
6. That on October 1, 2012 EC Fishery Inspectors DIDHAM and RUMBOLT conducted a joint on-site inspection with Aboriginal and Northern Affairs Canada Water Resource Inspector Andrew KEIM at the City of Iqaluit SWWTP in the Territory of Nunavut.
7. That during the on-site inspection inspectors observed effluent discharging from the City of Iqaluit SWWTP effluent discharge pipe. Inspectors also observed the effluent migrating South-East and entering into Koojesse Inlet, Frobisher Bay, Arctic Ocean which at the time the tide was approximately 100 meters away from the discharge effluent pipe.
8. That during the on-site inspection EC collected six 20 litre white plastic pails of samples for an LC50 bioassay analysis and three 500ml samples for a total suspended solids analysis, total metals analysis, and ammonia analysis. Samples were also collected by AANDC for analysis of pH, Alkalinity, hardness, color, Nitrates and Nitrites as Nitrogen, Calcium, Magnesium, Sodium and Potassium, Total Suspended Solids, Ammonia and a visible Oil & grease screening, Biological Oxygen Demand ( 5 Days) or BoD5 Test, Mercury, Hexane Extractable materials (Oil and grease); and Benzene. Ethylbenzene, toluene and Xylenes (BTEX). All samples were collected near the City of Iqaluit SWWTP end of effluent discharge pipe.
9. That on October 19, 2012, a lab analysis report was received from the EC laboratory in Edmonton for the LC50 bioassay analysis from the samples collected on October 1, 2012 at the City of Iqaluit SWWTP effluent discharge pipe. The LC50 bioassay is a standard test for determining the toxicity of effluent to fish. Samples submitted are considered toxic or deleterious to fish if 50% or more of the test fish die during a 96-hour period. The lab analysis report indicated that the effluent samples submitted to the EC laboratory failed the 96 hour Rainbow Trout multi-concentration Bioassay test at 32% concentration. This in turn is a determination that the effluent sample from the City of Iqaluit



SWWTP is deleterious to fish as defined in subsection 36(1) of the *Fisheries Act*, R.S.C. 1985, c. F-14, as amended.

10. That I am aware that Koojesse Inlet, Frobisher Bay, Arctic Ocean is a fish bearing water based on a conversation I had with the Department of Fisheries and Oceans Biologist Zoya Martin on October 19, 2012 who advised me of the following;
  - a) That Zoya Martin has worked as an Aquatic Science Biologist with Fisheries and Oceans Canada in Iqaluit since 2010.
  - b) That Koojesse Inlet, Frobisher Bay, Arctic Ocean contains the following species which are fish within the definition of that term in the *Fisheries Act*; Arctic Char, Arctic Cod, Arctic Stag Horn Skulpin, Fur Horn Skulpin, Arctic Skulpin, Ring seal, Harp Seal, Walrus, Beluga Whale, and Bowhead Whale.
  - c) That local Inuit and non-Inuit harvest via angling, netting, and hunting fish in Koojesse Inlet, Frobisher Bay, Arctic Ocean.
11. That on October 23, 2012, a lab analysis report was forwarded by AANDC Water Resource Officer Andrew Keim who received the results from the Taiga laboratory in Yellowknife, NT for the samples collected on October 1, 2012 at the City of Iqaluit SWWTP effluent discharge pipe. The lab analysis report indicated that effluent from the SWWTP contains total suspended solids (TSS) at a concentration of 112 mg/l, a biological oxygen demand (BOD) at a concentration of 158 mg/l, ammonia at a concentration of 29.1mg/l and some elevated metal levels.
12. That on October 24, 2012 EC Operations Manager BROOME informed EO DIDHAM that he forwarded the AANDC's Taiga lab analysis results to Anne Wilson. (EC Aquatic Specialist) Based on her review she stated she would expect the samples of effluent to fail the bioassay and therefore deleterious to fish. The failure was most likely attributed to high ammonia levels, high BOD and then further impacted by the elevated levels of Aluminium and Copper.
13. That on November 6, 2012, a lab analysis report was received from the Environment Canada laboratory in Edmonton for samples collected on October 1, 2012 near the City of Iqaluit SWWTP effluent discharge pipe. The lab analysis report indicated the effluent from the SWWTP contains TSS at a concentration of 114 mg/l, ammonia at a concentration of 22.7 mg/l and some elevated metal levels. These EC lab analysis results were very similar with the Taiga lab analysis results received from AANDC Water Resource Officer Andrew Keim.
14. That on January 11, 2013 EC Fishery Inspectors DIDHAM and RUMBOLT review the City of Iqaluit's water licence 3AM-IQA0611 renewal application submitted to the Nunavut Water Board on October 2, 2012. This information was obtained on the Nunavut Water Board's FTP public website. In the Executive Summary - City of Iqaluit Water License Renewal Application it stated: "A funding application for priority municipal infrastructure projects has been submitted to the Government of Nunavut (includes upgrading the SWWTP, which is currently on hold due to funding constraints)". Based on this statement it appears that the City of Iqaluit has the sewage and wastewater treatment facility put on hold and no upgrades are scheduled to be completed to come into compliance with the *Fisheries Act*.
15. That the *Fisheries Act*, subsection 36(3), prohibits depositing or permitting the deposit of a deleterious substance of any type in water frequented by fish.

### **MEASURES TO BE TAKEN**

Under the authority given to me pursuant to subsection 38(7.1) of the *Fisheries Act* I direct the City of Iqaluit, and Mr. John Hussey, in his capacity as Chief Administration Officer for the City of Iqaluit, to immediately take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the deposit of the aforementioned deleterious substance in water frequented by fish, namely Koojesse Inlet, Frobisher Bay, Arctic Ocean, and to counteract, mitigate or remedy any

adverse effects that have resulted or may reasonably be expected to result from the above mentioned occurrence(s), including

1. Develop and submit a detailed written report to me Curtis Didham an Environment Canada Fisheries Act Inspector, no later than July 3, 2013 on the City's plans to address this non-compliance. This plan shall specify the proposed method to manage the Sewage and Wastewater effluent and/or the planned changes to the Sewage and Wastewater Treatment Plant and shall include a detailed chronology of the short and long term progress, measures and activities that have and will be taken and provide dates when each progress measure and activity was initiated and concluded such that it will be compliant with subsection 36(3) of the *Fisheries Act*.
2. Advising me, Curtis Didham an Environment Canada *Fisheries Act* Inspector, in writing each calendar quarter starting as of the day hereof of the measures which were taken in the previous calendar quarter until such time that the SWWTP will be compliant with subsection 36(3) of the *Fisheries Act*.

## **THE LAW**

### *Fisheries Act*

#### **Application**

- 3.(2) This Act is binding on Her Majesty in the right of Canada or a province.

#### **Deleterious Substance**

- 34.(1) For the purposes of sections 35 to 43,

"deleterious substance" means

(a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or

(b) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water,

and without limiting the generality of the foregoing includes

(c) any substance or class of substances prescribed pursuant to paragraph (2)(a),

(d) any water that contains any substance or class of substances in a quantity or concentration that is equal to or in excess of a quantity or concentration prescribed in respect of that substance or class of substances pursuant to paragraph (2)(b), and

(e) any water that has been subjected to a treatment, process or change prescribed pursuant to paragraph (2)(c);

#### **Duty to notify – deleterious substance**

- 38.(5) If there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under this Act, or if there is a serious and imminent danger of such an occurrence,



and detriment to fish habitat or fish or to the use by humans of fish results or may reasonably be expected to result from the occurrence, then every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations if the person at any material time

- (a) owns or has the charge, management or control of
  - (i) the deleterious substance, or
  - (ii) the work, undertaking or activity that resulted in the deposit or the danger of the deposit; or

- (b) causes or contributes to the occurrence or the danger of the occurrence.

#### **Duty to take corrective measures**

- 38.(6) Any person described in paragraph (4)(a) or (b) or 5(a) or (b) shall, as soon as feasible, take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the occurrence or to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it.

#### **Report**

- 38.(7) As soon as feasible after the occurrence or after learning of the danger of the occurrence, the person shall provide an inspector, fishery officer or an authority prescribed by the regulations with a written report on the occurrence or danger of the occurrence.

#### **Corrective measures**

- 38.(7.1) If an inspector or fishery officer, whether or not they have notified under subsection (4) or (5) or provided with a report under subsection (7), is satisfied on reasonable grounds that immediate action is necessary in order to take any measures referred to in subsection (6), the inspector or officer may, subject to subsection (7.2), take any of those measures at the expense of any person described in paragraph (4)(a) or (b) or (5)(a) or (b) or direct such person to take them at that person's expense.

#### **Power to recover costs**

- 42.(1) Where there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under section 36 or a serious and imminent danger thereof by reason of any condition, the persons who at any material time
- (a) own the deleterious substance or have the charge, management or control thereof, or
  - (b) are persons other than those described in paragraph (a) who cause or contribute to the causation of the deposit or danger thereof,
- are, subject to subsection (4) in the case of the persons referred to in paragraph (a) and to the extent determined according to their respective degrees of fault or negligence in the case of the persons referred to in paragraph (b), jointly and severally liable for all costs and expenses incurred by Her Majesty in right of Canada or a province, to the extent that those costs and expenses can be established to have been reasonably incurred in the circumstances, of and incidental to the taking of any measures to prevent any such deposit or condition or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result therefrom.
- 42.(2) All the costs and expenses referred to in subsection (1) are recoverable by Her Majesty in right of Canada or a province with costs in proceedings brought or taken therefor in the name of Her Majesty in any such right in any court of competent jurisdiction.

#### **OFFENCE(S)**

Failure to take reasonable measures as required by subsection 38(5) of the *Fisheries Act* and failure to comply with an Inspector's Direction issued under subsection 38(6) of the *Fisheries Act* are offences under paragraphs 40(3)(e) and 40(3)(f) of the *Fisheries Act*

40.(3) Every person who

(e) fails to take any reasonable measures that he is required to take under subsection 38(5) or fails to take such measures in the required manner, or

(f) fails to comply with the whole or any part of a direction of an inspector under subsection 38(6),

is guilty of an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding two hundred thousand dollars and, for any subsequent offence, to a fine not exceeding two hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both.

78.1 Where any contravention of this Act or the regulations is committed or continued on more than one day, it constitutes a separate offence for each day on which the contravention is committed or continued.

### **CONCLUSION**

This Direction is **WITHOUT PREJUDICE** to any further course of action that Environment Canada may take with respect to any violation of the *Fisheries Act*, including an amended Inspector's Direction, prosecution or injunction under the *Fisheries Act* or any other Act.

This Direction and the circumstances to which it refers will form part of Environment Canada's records of the City of Iqaluit and its responsible officials and will be taken into account in future responses to alleged violations of the *Fisheries Act* and for internal purposes such as setting the frequency of inspections. Environment Canada will consider taking further action if you do not take all necessary corrective steps to comply.

I wish to further advise the City of Iqaluit, and Mr. John Hussey in his capacity as Chief Administration Officer for the City of Iqaluit, that Environment Canada will be conducting further inspections of the site to verify compliance with this Inspector's Direction.

This Direction is issued in accordance with the Compliance and Enforcement Policy for Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*. The complete text of this policy is available at Environment Canada's website: <http://www.ec.gc.ca/ele-ale/default.asp?lang=En&n=D6765D33-1>. The complete text of the *Fisheries Act* is available on the Department of Justice website: <http://laws.justice.gc.ca/en/search>.

For more information or to respond to the alleged facts contained in this Direction, please call or write the undersigned. Your comments will be considered, and where appropriate, a response provided. Any comments you make, as well as Environment Canada's response, will be maintained on file with this direction in Environment Canada's records.

Curtis Didham



MARCH 5, 2013

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