

IONA WASTEWATER TREATMENT

Commission for Environmental Cooperation

Response to Submission SEM 10-003

Prepared by:
Environment Canada
for the Government of Canada
February 2012

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1. INTRODUCTION

On 7 May 2010, Fraser Riverkeeper, along with 10 other environmental non-governmental organizations, presented a submission (SEM-10-003) to the Secretariat of the Commission for Environmental Cooperation asserting that Canada is failing to effectively enforce the *Fisheries Act* with respect to sewage discharges from the Iona Island Wastewater Treatment Plant (“Iona WWTP”), in Richmond, British Columbia.

More specifically, the submission alleges that Canada, in this case Environment Canada, is failing to effectively enforce the pollution prevention provisions of the *Fisheries Act*, in particular, subsection 36(3) in connection with the discharge of a substance deleterious to fish from the Iona WWTP between 2001 and 2009.

The Secretariat concluded that the submission met the criteria set out in Article 14 of the *North American Agreement on Environmental Cooperation* (NAAEC). In accordance with Section 2 of the same Article, it determined on 16 December 2011 that the submission merits a response from Canada.

In its determination, the Secretariat requested that Canada consider providing information in the following areas:

- enforcement of the *Fisheries Act* at the Iona WWTP from 2001 to 2009 with respect to discharges in excess of the 96-hour Rainbow Trout bioassay LC₅₀ test for: a) 2001-2004, b) 2005-2006, c) 2007-2009; and on any discharge exceedances recorded for 2010 (please refer to Annex 1 and section 4.1 for information);
- prosecutions involving Iona WWTP and on other enforcement activities related to the above dates, or any other dates on which documented discharges in excess of the 96-hour Rainbow Trout bioassay LC₅₀ test occurred (section 4.2);
- the effectiveness of Canada’s efforts in conserving and protecting fish in accordance with the laws at issue in the area at issue (sections 4 and 6);
- any special arrangements in place or planned to ensure the Iona WWTP’s compliance with the *Fisheries Act* from May 2010 until the date of the future planned upgrade of the Iona WWTP facility (section 5);
- how the Federal Government ensures the effective enforcement of the *Fisheries Act*, specifically with respect to the issuance of the Operational Certificate for the Iona WWTP by British Columbia (section 4.3); and
- warning letters issued for exceedances on 13 February 2001 and on other dates specified in the submission (section 4.2).

This document represents Canada’s response to the Secretariat, in accordance with NAAEC Article 14(3), and provides information concerning the six areas identified by the Secretariat. It has been prepared by Environment Canada.

In order to provide the most up-to-date information on Canada's enforcement of the *Fisheries Act* at the Iona WWTP, the response also contains relevant factual information from 2011 and 2012, consistent with Article 14(3)(b) of the NAAEC, where available.

This response may include information, provided for background purposes only, which predates the entry into force of the NAAEC on January 1, 1994. Consistent with Article 28 of the *Vienna Convention on the Law of Treaties*, Canada maintains that the NAAEC should not be applied retroactively.

Canada affirms its support for the citizen submission on enforcement matters process under Articles 14 and 15 of the NAAEC. We consider this process to be an essential element of the Agreement.

2. EXECUTIVE SUMMARY

There are more than 3 700 wastewater systems in Canada, many of which, built in the 1960s, have passed most of their useful life. At the same time, the percentage of Canadians being served by public wastewater treatment plants has grown. In essence, we are asking more of Canada's aging wastewater treatment infrastructure than ever before. All levels of government have recognized the need to upgrade these systems and to improve the quality of the effluent—often times a combination of sewage and storm run-off—released into the environment.

Over the past decades, and most recently through the Government of Canada's Economic Action Plan, the federal government, in partnership with provinces and municipalities, has made significant investments to improve wastewater systems in Canada. For instance, the Building Canada Plan provides \$33 billion for infrastructure needs across the country, including water and wastewater, the Gas Tax Fund accounts for \$11.8 billion of funding which can be allocated to infrastructure, including water and wastewater projects. Still, approximately 950 treatment plants across the country provide less than secondary treatment and it is estimated that these facilities require an additional \$6 billion in upgrades to meet the secondary treatment standard. Federal and provincial governments, and the municipalities, continue to take positive steps to confront the challenges posed by wastewater. Mindful of the scope of work that remains, it is recognized that accomplishing this task will require time, significant public resources and the sustained efforts of multiple jurisdictions.

From the perspective of the *Fisheries Act* and its enforcement, wastewater treatment plants interact with the environment in two key ways. The first way in which a treatment plant impacts the environment is through the day-to-day discharge of treated effluent into water frequented by fish. In this respect, the *Fisheries Act* is a blunt instrument, providing a general prohibition in subsection 36(3) against the unauthorized deposit of deleterious substances. However, the *Fisheries Act* does provide for the establishment of regulations, tailored to specific sectors, that may authorize the deposit of deleterious substances in prescribed circumstances. While regulations have been established for several sectors in Canada, none had been developed for the wastewater sector until now.

The second way in which a wastewater treatment plant can interact with the environment is through deposits out of the normal course of events ("DONCE"), such as extreme weather events, spills and power outages. Here, the *Fisheries Act*, under section 38, requires that wastewater facility operators reduce the likelihood of DONCE, mitigate their effects, and report any such events.

In Canada, responsibility for the management of wastewater is subject to shared jurisdiction between the federal and provincial governments and the municipalities. Through various consultation processes, interested parties have consistently indicated the need for all orders of government to develop a harmonized approach to managing the wastewater sector in Canada. Towards this goal, there has been a strong history of

consultation and cooperation on the management of wastewater in Canada since 2002-2003. In this context, the federal government began a process to develop new wastewater regulations to support the operators of those 950 plants to: plan for the facilities upgrades required to meet new standards pertaining to day-to-day discharge of treated effluent; and, comply with the *Fisheries Act* in the intervening period by regulating the discharge of existing effluent into the environment. The proposed *Wastewater System Effluent Regulations* were published in Canada Gazette, Part I on 20 March 2010 and publication in Canada Gazette II is anticipated in 2012.

Given Environment Canada's broad enforcement responsibilities, the Department has established an annual priority-setting process to determine national enforcement and compliance priorities. While the specific priorities differ each year, and within each region, enforcement of the pollution prevention provisions of the *Fisheries Act* is a constant, given the potential impacts of pollution on the environment. The exercise of discretion in carrying out enforcement is also done in a manner consistent with Environment Canada's *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act*, taking into account the nature of the alleged violation, effectiveness in achieving the desired result with the alleged violator, and other, how similar situations have been handled. Collectively, these priority-setting decisions demonstrate Canada is effectively enforcing its environmental laws in a manner consistent with the NAAEC, including within the scope of this term in Article 45(1).

With respect to the wastewater sector specifically, owing to the expected outcome of the regulatory development process, Environment Canada began to shift its finite enforcement resources away from proactive enforcement of subsection 36(3) for wastewater effluents and prioritize other regional and national issues where limited public resources could have a greater positive impact, and better serve the interests of Canadians. Environment Canada's Enforcement Officers adopted a more reactive approach to enforcing the pollution prevention provisions of the *Fisheries Act* for wastewater effluents, by responding to DONCE notifications made under subsection 38(4). As a result, since 2002-2003, the provisions under s. 38(4) and 38(5), which focus on DONCE occurrences, have been Environment Canada's principle vehicle for enforcement in the area of wastewater.

The Iona WWTP is the country's 8th largest facility in terms of discharge volume (CEC Taking Stock 13 report available at: www.cec.org/Storage.asp?StorageID=4303). It was built in 1963 and provides primary treatment to more than 600 000 people in and around Vancouver, in high compliance with provincial requirements and municipal plans. Its effluent poses no significant risk on the receiving environment located more than 7.5 kilometers from the shoreline.

Over 2001 and into early 2002, Environment Canada undertook a series of enforcement activities at Iona WWTP, including inspections and a warning letter, to enforce the

general prohibition of subsection 36(3). These actions were effective in bringing about a commitment to take action at the plant. Since 2002, the Department's Enforcement Officers¹ have concentrated their efforts on DONCE occurrences reported under section 38(4). Inspections and investigations were undertaken, and a warning letter was issued, and plant operators undertook the necessary steps to address the situations.

Our record of enforcement at Iona WWTP throughout the last decade and the outcomes of such actions in this regard clearly demonstrate effectiveness and it is consistent with the aim of achieving high levels of environmental protection and compliance with environmental laws further to the goals of the NAAEC. Therefore, it is Canada's position that our actions at the Iona WWTP are effective enforcement of the *Fisheries Act*.

¹ Environment Canada's Enforcement Officers are also designated as Fisheries Officers and Fisheries Inspectors under the *Fisheries Act*. For purposes of this response, they will be referred to as only Enforcement Officers.

3. WASTEWATER AND THE *FISHERIES ACT*

3.1 Wastewater in Canada

Wastewater systems are owned and operated by municipalities, provinces, territories, federal departments, agencies and other entities. They vary in terms of design, depending on the specific needs of communities, the quantity and quality of wastewater to be treated, and financial considerations. The treatment from such systems can be generally categorized into three levels—primary, secondary, or tertiary (advanced) treatment. Each level of treatment typically begins with a preliminary screening to remove large solid objects, debris, and grit. Primary treatment is the most basic form of treatment that relies on a mechanical process to physically separate suspended solids from the water. Secondary treatment utilizes biological processes to remove additional solids from the water. The more advanced tertiary treatment is generally used to target specific substances of concern or to achieve a particular level of desired effluent quality. It can be accomplished using a number of physical, chemical or biological processes (e.g. carbon filters, reverse osmosis).

To protect the treatment plant and prevent sewage backups, wastewater treatment plants also provide for plant bypass to manage extreme inflows, power failures or other occurrences out of the normal course of events.

There are over 3 700 wastewater systems in Canada and the number of Canadians receiving wastewater treatment has increased substantially since 1983, when approximately 70% of the population on sewers was served by some form of treatment. According to Environment Canada's 2007 Municipal Water Use Report, more than 28 million people (88%) living in 1 294 municipalities were being served by wastewater collection and treatment in 2004. Of these, 68% were receiving at least secondary treatment and 29% were receiving primary treatment or served by stabilization ponds. In spite of this progress, many parts of the country continue to discharge untreated wastewater into Canadian waters. Nationally, 3.2% of the population served by sewer systems had no treatment for their wastewater effluent.

Environment Canada has responsibility for administration and enforcement of the pollution prevention provisions of the *Fisheries Act*. There are two areas of operation within a typical wastewater treatment plant that are relevant to and captured under the pollution prevention provisions of the *Fisheries Act*: day-to-day deposits and DONCE.

The first area of operation concerns the quality of the day-to-day effluent being deposited from the wastewater treatment plant at its final point of discharge into the receiving environment. Subsection 36(3) of the *Fisheries Act* provides a general prohibition that states that: “no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water”. The deposit of a deleterious

substance to water frequented by fish constitutes a violation of the *Fisheries Act*, whether or not the receiving water itself is made deleterious by the deposit.

The *Fisheries Act*, however, authorizes the establishment of federal regulations under the Act, or under another federal Act, to permit the discharge of deleterious substances to levels prescribed in such regulations. Currently there are regulations that authorize the deposit of effluents from metal mines, pulp and paper mills, petroleum refineries, chlor-alkali mercury plants, and meat and potato processing plants. At this time, there are no regulations under subsection 36(5) of the *Fisheries Act* that apply to wastewater effluents. In the absence of such specific regulations for the wastewater sector, the general prohibition of section 36(3) applies, meaning that wastewater treatment plants are not authorized to deposit deleterious substances into fish bearing waters.

Consistent with the aim of continuing the improvement of Canada's environmental laws and regulations, it is central to this submission to note that Environment Canada is in the final stages of the process to develop regulations for wastewater effluent under subsection 36(4) of the *Fisheries Act*, which if approved, would provide an exemption to the general prohibition, require secondary treatment standards for the day-to-day discharge of treated effluent, and enable facilities that currently do not meet that standard to deposit deleterious substances as they upgrade their facilities. The proposed *Wastewater System Effluent Regulations*, developed following consultation with other orders of government, create national standards at the secondary treatment level for wastewater effluent and will provide time for the owners and operators of treatment systems to make necessary infrastructure upgrades under a harmonized approach to wastewater management. More information on the proposed regulations is contained in subsequent sections of this response.

The second area of operation at a wastewater treatment plant that is relevant to enforcement of the *Fisheries Act* and to Canada's response is DONCE. These DONCE could include overflows, spills, leaks, by-passes and regulatory exceedances of the *Fisheries Act*. Section 38 of the *Fisheries Act* require any person who owns, has the charge of, manages or controls the deleterious substance or causes or contributes to causing DONCE or a serious and imminent danger of such a deposit to report such occurrence to a fishery inspector or the person or authority prescribed by the regulations. Subsection 38(5) of the *Fisheries Act* requires any person referred to in subsections 38(4)(a) or (b) to take all reasonable measures to prevent a deposit out of the normal course of events or a serious and imminent danger of such a deposit, or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result from the DONCE. The regulations referred to in 38(4) are the *Deposit Out of the Normal Course of Events Notification Regulations* (Annex 2).

3.2 Proposed *Wastewater System Effluent Regulations*

In Canada, responsibility for the management of wastewater is subject to shared jurisdiction between the federal and provincial governments and the municipalities. This

has led to inconsistent regulatory regimes and varying levels of treatment across the country, with levels ranging from very good in many areas to poor or no treatment in others, primarily along Canada's coasts (Fig. 1). In British Columbia, for example, 36% of the served population is receiving less than secondary treatment. Through various consultation processes, interested parties have consistently indicated the need for all orders of government to develop a harmonized approach to managing the wastewater sector in Canada.

Towards this goal, there has been a strong history of consultation and cooperation on the management of wastewater in Canada since 2002. This culminated in 2009, when the Canadian Council of Ministers of the Environment (CCME) endorsed the Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CCME Strategy)². This strategy (Annex 3) facilitates the development of a harmonized approach for the management of wastewater effluent in Canada. To help implement the CCME Strategy, the federal government committed to developing regulations under the *Fisheries Act* using the national wastewater effluent quality standards established in the CCME Strategy. The proposed *Wastewater System Effluent Regulations*, published in Canada Gazette, Part I on 20 March 2010 (Annex 4), deliver on that commitment. Publication in Canada Gazette II is anticipated in 2012.

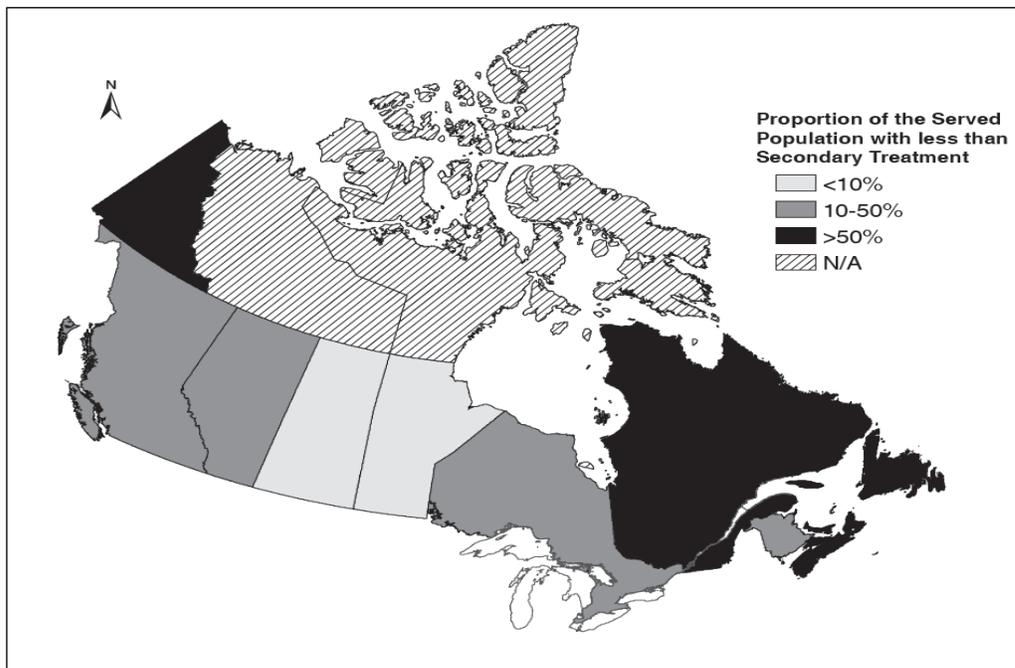


Figure 1. Canadian wastewater performance, 2004.

The objective of the proposed Regulations is to reduce the risks to ecosystem health, fisheries resources and human health by decreasing the level of harmful substances

² The strategy was endorsed by the CCME but not signed by all jurisdictions.

deposited to Canadian surface water from wastewater effluent. To achieve the objective, the proposed Regulations establish national effluent quality standards that would drive secondary wastewater treatment, or equivalent, in wastewater systems across Canada (Fig. 2).

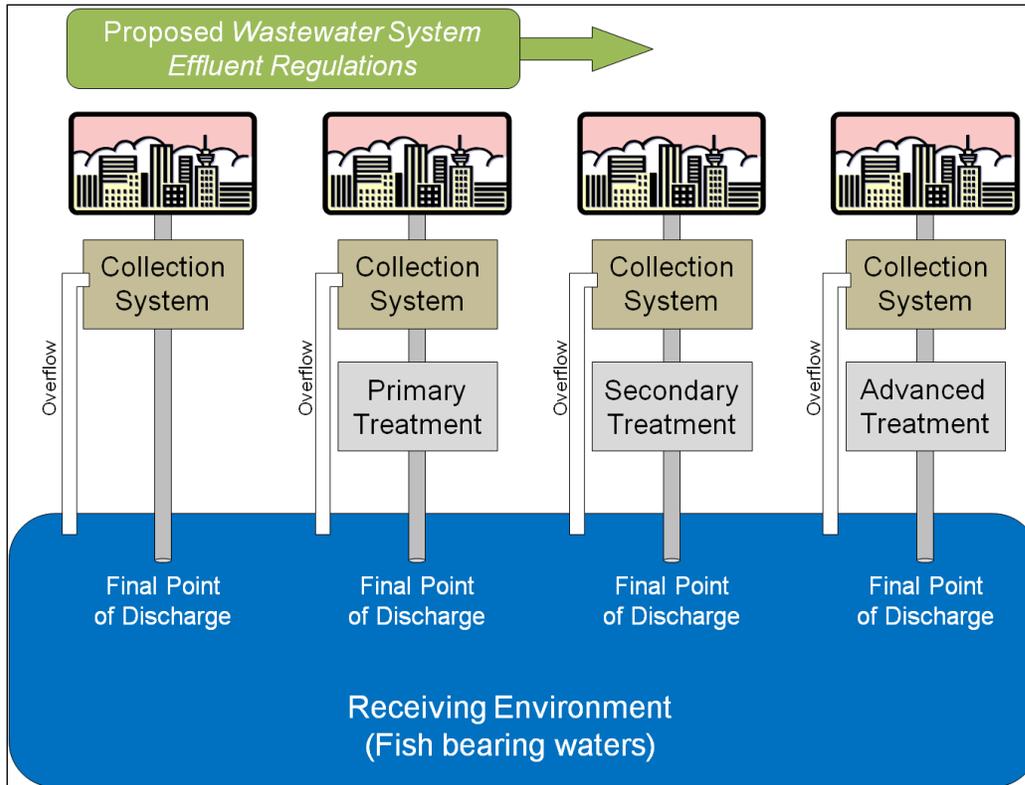


Figure 2. Types of wastewater treatment systems in Canada and the objective of the proposed *Wastewater System Effluent Regulations*.

In addition to recognizing the need to establish nation-wide regulations for wastewater, the federal government has sought to address the challenges posed by Canada’s aging wastewater system. A large percentage of Canada’s wastewater systems were constructed in the 1960s and, as of 2007, it was estimated that many facilities had passed over 60% of their useful life nationally.

Over the past decades, the federal government has made many significant public infrastructure investments to address wastewater, including various programs of Infrastructure Canada and the Green Infrastructure Fund of the Government of Canada’s Economic Action Plan. For instance, the Building Canada Plan, first announced in Budget 2007, provides \$33 billion for infrastructure needs across the country, including water and wastewater. The cornerstone of the Plan, the Building Canada Fund, has wastewater infrastructure designated as one of five national priority categories among other eligible project categories. Also under the Plan, the Gas Tax Fund (<http://www.infrastructure.gc.ca/prog/gtf-fte-eng.html>), accounts for \$11.8 billion of

funding which can be allocated to infrastructure, including water and wastewater projects. Budget 2007 committed to making the Gas Tax Fund permanent after 2014. In Budget 2009, the federal government accelerated and expanded its infrastructure spending with almost \$12 billion in new stimulus funding over two years to help Canada emerge from the global economic downturn. These funds will support priority infrastructure projects across all eligible categories, including water and wastewater. To build on these previous funds, significant new investment will be required for this sector. Indeed, it has been estimated that the improvements required to bring the wastewater treatment plants lacking secondary treatment to the level required by the Regulations will cost \$5.9 billion.

The deleterious substances specified under the proposed Regulations include carbonaceous biochemical oxygen demanding (BOD) matter and suspended solids. The proposed effluent quality standards for these substances, which would require secondary treatment or equivalent, include:

- average carbonaceous biochemical oxygen demand due to the quantity of BOD matter in the effluent of less than or equal to 25 mg/L; and
- average concentration of suspended solids in the effluent of less than or equal to 25 mg/L.

Recognizing both the impact of sewage on the environment and the significant capital investments required to improve wastewater systems, the objectives of the proposed *Wastewater System Effluent Regulations* are expected to be fully achieved through risk-based implementation timelines that extend over 30 years.

This approach provides time for owners and operators of systems requiring infrastructure upgrades to plan, finance, and implement cost-effective measures to meet the required standards and considers the characteristics of the system's effluent, the receiving environment and, if applicable, characteristics of overflow locations from combined sewers. Wastewater systems posing a high risk would be required to meet the effluent quality standards by 2020, those posing medium risk by 2030, and those posing low risk by 2040. However, a significant proportion of wastewater systems not currently meeting the standards are anticipated to be high risk and would be required to meet the national standards by 2020.

3.3 Environment Canada's Priority-Setting Process for Enforcement

Environment Canada's Enforcement Officers are responsible for enforcing a number of acts and regulations, including:

- the *Canadian Environmental Protection Act, 1999* (CEPA, 1999);
- more than 50 regulations under *Canadian Environmental Protection Act*;
- the pollution prevention provisions of the *Fisheries Act*; and
- six *Fisheries Act* regulations.

Approximately 40-50% of Environment Canada's environmental enforcement inspections and investigations are on the pollution prevention provisions of the *Fisheries Act* and the regulations under the *Fisheries Act* for which Environment Canada is responsible. The remaining 50-60% of Environment Canada's environmental enforcement efforts are typically devoted to enforcing the *Canadian Environmental Protection Act, 1999* and its regulations.

Inspection activity under the *Fisheries Act* spans numerous sectors including for example, the petroleum and chemicals industry, logging, mining, agriculture, manufacturing and food processing in addition to the wastewater sector. Enforcement Officers respond to complaints, referrals and incidents, and conduct planned activities specified as national priorities and other geographic- and sector-specific targets.

Given this large number of ongoing responsibilities, a priority-setting process has been established to determine Environment Canada's annual national enforcement and compliance priorities. This process is a collaborative effort involving Environment Canada's Enforcement Branch, Environmental Stewardship Branch, and Science and Technology Branch, and culminates in a multi-day national compliance workshop, during which each *Canadian Environmental Protection Act* and *Fisheries Act* regulation and instrument is ranked against a number of weighted criteria to determine annual priorities. The criteria include: risks to environment and human health, the maturity of the instrument (new instruments are typically higher priorities), and the compliance history of the regulated sector, among others.

National Enforcement Plans

The resulting list of national enforcement priorities is incorporated into the development of a National Enforcement Plan (NEP). The NEP then forms the cornerstone of the environmental enforcement efforts for the next fiscal year. A copy of the 2011-12 NEP is attached (Annex 5) to support the Secretariat's understanding of this process. As this document is confidential, we request that the Secretariat safeguard it from disclosure in accordance with Article 39(2) of the NAAEC and section 17 of the Guidelines for Submissions on Enforcement Matters.

Enforcement of the pollution prevention provisions of the *Fisheries Act* is a perennial priority (including since 2001) because direct discharge of pollution to waterways pose a high risk to the environment, and protecting water quality is a departmental responsibility and a necessary function for maintaining and sustaining all fishery resources in Canada.

Based on the priorities established at the National Compliance Workshop, each of Environment Canada's five enforcement regions (Fig. 3) then develops a regional work plan that feeds into the NEP.

Pacific and Yukon Region (PYR) Priorities

With specific regard to the Pacific and Yukon Region, which is home to the Iona WWTP, the coastal geography (over 2 500 km of marine coastline in B.C.), significant rivers and streams, and the economic importance of fisheries generate a large amount of inspection activity under the *Fisheries Act*.

To provide a sense of scale of the enforcement workload in the region, the 33 Enforcement Officers in the PYR expect to carry out a total of 368 inspections in 2011-12 to verify compliance with the pollution prevention provisions of the *Fisheries Act*: 120 off-site, such as incident and report reviews, and 248 on-site, directly at regulatee locations.

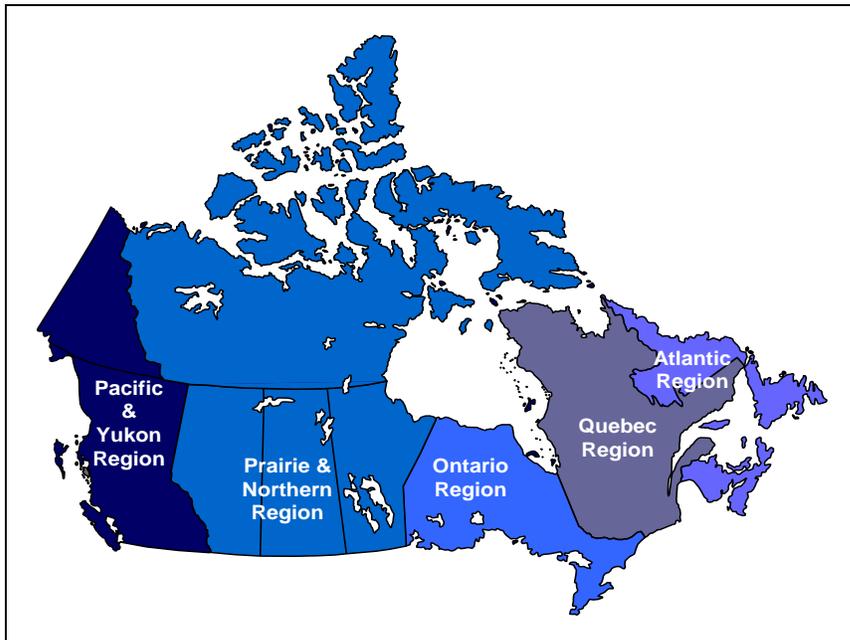


Figure 3. Environment Canada's five enforcement regions.

In addition to planned enforcement activities, PYR receives a significant number of referrals from the public and partner agencies (e.g. Department of Fisheries and Oceans, BC Ministry of Environment, Provincial Emergencies Program). In fact, PYR Enforcement Officers receive over 1 000 Dangerous Goods Incident Reports annually from the regional Environment Canada office for review and response. Most referrals are spill incidents that may be violations of the *Fisheries Act*. In addition, the Provincial Emergency Program – point of contact in the PYR for calls related to environmental issues – refers over 5 000 Dangerous Goods Incident Reports to Environment Canada annually.

From 2001 to 2012, the general prohibition of the *Fisheries Act* was a priority for the department and for the PYR. In order to target enforcement actions, specific *Fisheries Act* priorities for PYR for that period were further refined (see Table 1).

As noted in Table 1, municipal wastewater was a regional priority in the PYR at the beginning of the period referred to in the submission, which accounts for the inspections done at the Iona WWTP in 2001-2002 and 2002-2003 (see section 4.1 below). However, due in part to the ongoing efforts to create a regulation authorizing deposits from wastewater treatment facilities, proactive enforcement activity in the wastewater sector was not a priority for PYR from that point forward. Rather, the region began to focus efforts on responding to DONCE occurrences and high risk facilities, such as those operating near shellfish harvesting areas. This is reflected in the 2009-2010 PYR regional priorities, which included “high risk municipal wastewater”. Iona is expected to be considered “medium risk” based on the criteria outlined in the proposed Regulations (see Annex 4).

Table 1. Pacific and Yukon Region annual *Fisheries Act* enforcement priorities*

2001-2002	2002-2003	2003-2004	2004-2005
<ul style="list-style-type: none"> • Metal mining • Pulp and paper • Log sort/wood waste sites • Carpet cleaning • Wood processing • Fish processing • Agriculture • Bulk terminals and shipyards • Municipal sewage treatment plants 	<ul style="list-style-type: none"> • Metal mining • Pulp and paper • Wood waste/ log sorts • Contaminated sites • Industrial storm waste discharge • Fuel spills • Fuel storage sites • Fish processing • Municipal waste water 	<ul style="list-style-type: none"> • Metal Mining • Pulp and paper • Pesticide applications • Shellfish closures • Industrial/municipal storm water run-off • Spill response (based on referrals from other departments and public) 	<ul style="list-style-type: none"> • Metal mining • Pulp and paper • Ship yard/boat repair operations
2005-2006	2006-2007	2007-2008	2008-2009
<ul style="list-style-type: none"> • Ship yard/ boat repair operations • Storm water run-off and deliberate dumping 	<ul style="list-style-type: none"> • Boat hull maintenance facilities • Pesticide application • Agriculture • Shellfish water quality impacts • Ship yard/ boat repair operations • Storm water run-off and deliberate dumping 	<ul style="list-style-type: none"> • Metal mining • High risk boat hull maintenance facilities • Commercial fisheries 	<ul style="list-style-type: none"> • High risk boat hull maintenance facilities • Commercial fisheries • Non-MMER mines • Coal bed methane • Fish processing • Cruise ships (greater than 100 passengers)
2009-2010	2010-2011	2011-2012	2012-2013
<ul style="list-style-type: none"> • Cruise ships • Fish processing • High risk municipal waste water 	<ul style="list-style-type: none"> • High value salmon habitat • Prince Rupert Gateway Ecosystem • Coal mines • Metal mining 	<ul style="list-style-type: none"> • <i>CONFIDENTIAL</i> 	<ul style="list-style-type: none"> • <i>Under development</i>

* Within each year, the priorities are listed in no particular order.

Environment Canada's Compliance and Enforcement Policy

The *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* (Annex 6) outlines how Environment Canada will administer and enforce the pollution prevention provisions of the *Fisheries Act* in a fair, predictable and consistent manner. (The habitat protection provisions of the Act are enforced by the Department of Fisheries and Oceans.)

If Enforcement Officers are able to substantiate that an alleged violation of the pollution prevention provisions of the *Fisheries Act* has occurred and there is sufficient evidence to proceed, the Policy provides for discretion for a range of responses, including warning letters and prosecutions, applying criteria such as the nature of the alleged violation, the effectiveness in achieving the desired result with the alleged violator, and ensuring consistency in enforcement across the country. Enforcement measures are directed towards ensuring that violators comply with the *Fisheries Act* within the shortest possible time and that violations are not repeated.

Warnings letters may be used in circumstances where the degree of harm or potential harm to the fishery resource, and its supporting habitat or to human use of fish, appears to be minimal and where the alleged violator has made reasonable efforts to remedy or mitigate the negative impact of the alleged offences on the fishery resource and its habitat. When Enforcement Officers use a warning, it brings an alleged violation to the attention of an alleged violator, in order to promote any necessary action by the recipient. Warnings do not have the legal force of an order, nor are they a finding of guilt, civil liability or an administrative decision.

Prosecution is the preferred course of action where evidence establishes that, among other facts, the alleged violation resulted in risk of harm to fish or fish habitat, the alleged violator had previously received a warning for the activity and did not take all reasonable measures to stop or avoid the violation, or the alleged violator had previously been convicted of a similar offence. Prosecution will always be pursued where evidence establishes that:

- there is evidence that the alleged violation was deliberate;
- the alleged violator knowingly provided false or misleading information to enforcement personnel;
- the alleged violator obstructed enforcement personnel in the carrying out of their duties or interfered with anything seized under the Act;
- the alleged violator concealed or attempted to conceal or destroy information or evidence after the alleged offence occurred; or
- the alleged violator failed to take all reasonable measures to comply with a direction or an order issued pursuant to the Act.

Prosecution may be recommended by Enforcement Officers to the Public Prosecution Service of Canada, however, it is the role of the Attorney General to approve prosecutions based on evidentiary and public interest considerations. This usually

includes consideration of whether or not there is sufficient evidence in light of the provable facts and whether or not prosecution is in the public interest. For example, prosecution of a regulatee that is under a provincial pollution abatement program is not necessarily in the public interest.

In *R v. Cyanamid Canada*³, the Attorney General prosecuted Cyanamid Canada Ltd for a subsection 36(3) violation. The Court found Cyanamid Canada guilty of an offense, but sentenced it only to a \$1.00 fine. One of the elements that led to this very low fine was that this regulatee deposited effluents while complying with a provincial Control Order issued by Ontario environmental officials and under their daily monitoring and supervision. This outcome has further guided Environment Canada in allocating its enforcement resources and selecting among the range of allowable enforcement actions. If certain enforcement actions (e.g. prosecution under the general prohibition of the *Fisheries Act*) cannot lead to tangible benefits for Canadians, it is more efficient to shift resources elsewhere.

To summarize, the discretion to choose from among the various enforcement actions takes into account a number of factors, including the actual harm or perceived risk of harm to the environment, the compliance history, and the extent of corrective action taken or committed to be taken by the alleged violator in order to comply with the *Fisheries Act*. In addition, specific enforcement actions with respect to the *Fisheries Act* take into consideration compliance factors such as provincial pollution programs, whether or not there is sufficient evidence to support each element of the offence, and in considering a prosecution, the evidence of due diligence or other defences available to the accused, the likelihood of a guilty verdict, and the public interest.

No enforcement action is taken in situations where, for example, the release was not preventable, all measures to mitigate are taken, or there is a lack of evidence.

3.4 Enforcement of the *Fisheries Act* at Wastewater Treatment Plants

In light of Environment Canada's broad enforcement responsibilities, the Department has established the previously outlined annual priority-setting process to determine national and regional enforcement and compliance priorities. While the specific priorities differ each year, and within each region, enforcement of the pollution prevention provisions of the *Fisheries Act* has been a constant since 2001, including in PYR.

Given the extensive number of human activities subject to the general prohibition of the *Fisheries Act* (i.e., any deposit of a deleterious substance into fish bearing waters that is not authorized by a regulation), finite resources and competing priorities, the Department and the regions select priority *Fisheries Act* sectors during the annual priority setting process described above, in order to target enforcement actions. Due to the ongoing efforts to create a regulation authorizing deposits from wastewater treatment facilities,

³ *R v. Cyanamid Canada* (1981) 3 F.P.R., 151

proactive enforcement activity in the wastewater sector was not a priority for Environment Canada during the years relevant to the submission. Rather, the Department has typically focused its efforts on responding to DONCE occurrences.

Discussion on the enforcement of the *Fisheries Act* with respect to wastewater treatment plants must include consideration of the general prohibition and the DONCE components. As noted above, enforcement of the pollution prevention provisions of the *Fisheries Act* is carried out in two key ways. The first is through proactive enforcement of releases of effluents containing deleterious substances into water frequented by fish (section 36); and, the second is a reactive approach to DONCE notifications for releases caused by extraordinary circumstances, such as extreme weather events, spills and power outages (section 38).

Once the process to explore and develop the proposed Regulations began in 2002-2003, enforcement at wastewater treatment plants began to shift from a proactive to a reactive approach, focusing on DONCE notifications (section 38)—such as a system failures, spills or overflows. This decision was taken in accordance with the *Compliance and Enforcement Policy* and reflected in subsequent *National Enforcement Plans*. Until the proposed regulations come into force, enforcement actions with respect to the deposit of municipal waste water into waters frequented by fish have been and will be carried out on a case-by-case basis in response to specific incidents such as DONCE. Should there be a deposit out of the normal course of events that results in significant impacts on the receiving environment, Environment Canada takes appropriate enforcement action, exercising its discretion in line with the *Compliance and Enforcement Policy*. In addition, Environment Canada continues to respond to complaints.

This approach to enforcement of the *Fisheries Act* to address ‘significant’ risks associated with non-compliance is also in line with the 2009 Spring Report by the Commissioner for Environment and Sustainable Development (Annex 7), which recommended that Environment Canada “*develop a risk-based approach to the Fisheries Act pollution prevention provisions to identify, assess, and address significant risks associated with non-compliance with the Act.*” (emphasis added).

4. ENFORCEMENT OF THE *FISHERIES ACT* AT THE IONA WWTP

Built in 1963, the Iona WWTP, located at 1000 Ferguson Road, Richmond, British Columbia, provides primary treatment to wastewater from approximately 600 000 people in Vancouver and parts of Burnaby and Richmond, before discharging it through a 7.5 km, deep-sea outfall into the Strait of Georgia. The Iona WWTP has a combined sanitary/storm water collection system. Variations in annual rainfall greatly influence average flow, BOD and total suspended solids (TSS) loadings, and at times, storm water is a major component of the Iona WWTP combined wastewater effluent. In 2010, the plant treated a total of 207 billion litres.

Since 2000, municipal authorities have undertaken regular environmental monitoring of the receiving environment around the Iona WWTP outfall. According to their results collected during the period in question in this submission, Iona WWTP discharges posed an insignificant environmental risk based on comparisons to the relative sediment quality and there was no appreciable effect on the benthic communities, which had remained stable in the Iona receiving environment for several years. Further information on environmental monitoring, upgrades to Iona WWTP facilities, and the Metro Vancouver and municipal commitments made in the Liquid Waste Management Plan, can be found at: <http://www.metrovancouver.org/services/wastewater/planning/Pages/Reports.aspx>

Since 2001, Environment Canada has conducted a total of nine (9) inspections and one (1) investigation at the Iona WWTP, issuing two (2) warning letters. Details regarding these events were requested by the Secretariat and are listed below.

4.1 Environment Canada Enforcement Action - Final Discharges & DONCEs

As previously noted, discussion on the enforcement of the *Fisheries Act* with respect to wastewater treatment plants must include consideration of the general prohibition of section 36 and the DONCE components of section 38.

Final Discharge Point Deposits (Section 36)

In a 25 May 2000 letter (Annex 8) from Environment Canada to the Iona WWTP, Environment Canada enforcement officials articulated the departmental preference for the plant operators to run monthly 96-hr Rainbow Trout LC₅₀ bioassays on full-strength effluent and follow-up tests to determine the cause of effluent toxicity. Since then, Iona WWTP operators have conducted and reported on the monthly 96-hr Rainbow Trout LC₅₀ tests and follow-up tests.

The submission makes reference to the results of 25 such monthly testing days between 2001 and 2009 that failed to meet the 96-hr Rainbow Trout LC₅₀ standard. A review of monthly compliance reports corroborates this. The Secretariat has requested that Canada provide information related to enforcement activities with respect to these exceedances during specific time periods. These are summarized below in Table 2.

Table 2. Results of monthly toxicity testing and number of Environment Canada inspections at the Iona WWTP.

Time Period	Monthly Compliance with the 96-Hour Rainbow Trout LC ₅₀ standard	Number of Inspections/ Investigations	Warning Letters
2001-2004	83.3%	7 (6 in 2001; 1 in 2002)	20 March 2001
2005-2006	66.7%	0	NIL
2007-2009	69.5%	1	NIL
2010	66.7%	0	NIL
2011	66.7%	2	5 July 2011
Total:		10	2

As a plant providing primary treatment, the monthly compliance results in Table 2 are not unexpected. Under the proposed *Wastewater System Effluent Regulations*, Iona WWTP will move to secondary treatment over the coming 20 years, which will significantly improve both carbonaceous BOD and TSS quality parameters of the effluent at the final point of discharge. Until upgrades are made, and assuming operating circumstances of the Iona WWTP are maintained (e.g., the size of the community being served and the nature of the influent), then a minority proportion of the monthly samples would be expected to fail the 96-Hour test.

Environment Canada conducted seven inspections in **2001 and 2002** at the Iona WWTP as part of the PYR regional inspection plan: 13 February 2001; 25 April 2001; 21 June 2001; 5 September 2001; 3 October 2001; 17 December 2001; 14 February 2002. Five of the samples collected during these inspections failed the LC₅₀ test.

On 20 March 2001, Environment Canada issued a warning letter to the operators of the Iona WWTP in order to bring to the attention of the regulatee alleged contraventions of subsection 36(3) of the *Fisheries Act* (Annex 9). In response to this warning letter (Annex 10), on 30 March 2001 the Iona WWTP operators committed to continue all reasonable measures to achieve optimal fish bioassay results at the Iona WWTP. Further discussion between Environment Canada and municipal authorities regarding such measures continued in 2001 (Annex 11) and, as noted above, six inspections were conducted subsequent to the warning letter.

During the three year period of **2007-2009 and in 2011**, Environment Canada conducted two inspections and one investigation related to the Iona WWTP; a warning letter was issued in relation to the 2011 inspection (see “Overflows and Spills” section below).

Overflows and Spills (Section 38)

In **December 2009**, Environment Canada was informed of a DONCE occurrence in accordance with subsection 38(4) of the *Fisheries Act*, and as a result conducted an investigation into the discharge of 116 million litres of sewage from the Iona WWTP. The discharge was due to a power interruption, which caused influent and effluent pumps to stop working for two hours 48 minutes. Samples of the effluent were collected and

were found to pass the 96-hr Rainbow trout LC₅₀ test. As such, no further action was undertaken.

On **7 August 2010**, one of the plant's pumps stopped working for 12 minutes. During this time, approximately 0.2 million litres of a mixture of treated and untreated effluent bypassed the plant and went directly to the deep sea outfall. This event was reported to Environment Canada as per subsection 38(4) of the *Fisheries Act*. However, the limited duration of the spill made sampling impossible. As such, no actions were taken.

In 2011, Environment Canada conducted an inspection of the Iona WWTP regarding a DONCE notification by the operators that occurred on **31 March 2011**. A power interruption occurred which resulted in 20.5 million litres of untreated sewage being discharged into the Georgia Strait. A warning letter was issued on 5 July 2011 to the Iona WWTP (Annex 12). The decision to issue a warning letter, rather than a more severe measure, took into consideration the diligence taken by the operators of the Iona WWTP to prevent the release. In a response letter sent to Environment Canada on 8 August 2011 (Annex 13), Iona WWTP operators confirmed that they reported all relevant information in accordance with provincial regulatory and environmental requirements, and that they implemented a number of actions with a view to preventing a recurrence, including upgrades to computer control systems, revised procedures with respect to power-related factors, and training staff on both the upgrades and the new procedures. Due to the nature of the incident, and the actions taken by the operators of the Iona WWTP to prevent a future release, Environment Canada was satisfied that no follow up was necessary and this matter was closed.

On **4 July 2011**, Environment Canada conducted another inspection of the Iona WWTP regarding a DONCE notification by the operators. A power interruption occurred and there was a potential of a sewage release. All material was contained and there was no sewage release.

4.2 Warning Letters and Prosecutions

As mentioned above, Environment Canada has taken enforcement action against the Iona WWTP pursuant to the *Fisheries Act*. This includes the issuance of warning letters to Iona WWTP operators on 20 March 2001 and 5 July 2011, in accordance with the *Compliance and Enforcement Policy*. In both cases, plant operators responded to the warning letters with commitment to action.

These warning letters and the circumstances to which they refer form part of Environment Canada's records for this plant, and will be taken into account in future responses to alleged violations and for internal purposes such as setting frequency of inspections. The desired result of enforcement is compliance with the *Fisheries Act* and any failure to take appropriate corrective measures to address future violations is taken into account in the selection of the enforcement response.

The Secretariat has removed from further consideration the Submitter's claim that the decision by the public prosecutor to stay the charges associated with a private prosecution involving Iona WWTP represents a failure to effectively enforce the *Fisheries Act*. However, the Secretariat has requested information concerning prosecutions. There are no other actions related to prosecution to report with respect to the Iona WWTP. However, this is not the extent of Canada's enforcement with respect to the *Fisheries Act* at Iona WWTP. Information on other enforcement actions is provided in subsequent sections.

4.3 With Respect to the Issuance of an Operational Certificate by British Columbia

The British Columbia Ministry of Environment, under the provisions of the provincial *Waste Management Act* and in accordance with Metro Vancouver's Liquid Waste Management Plan (approved 4 April 2002), issued an Operational Certificate (OC) ME-00023 on 23 April 2004, which replaced PE-00023 issued in March 2000. The new operational certificate includes compliance levels for BOD and TSS concentration (Table 3). Separate from compliance levels, the certificate also requires monitoring of 24 other parameters, including effluent toxicity measured using the 96-hr Rainbow Trout LC₅₀ test.

Table 3. Current compliance levels specified in Operational Certificate ME-00023 for the Iona WWTP.

Parameter	Maximum Compliance Level
1. Total flow discharge	1 530 000 cubic meters/day
2. BOD concentration	130 mg/L
3. TSS concentration	100 g/L

Environment Canada does not enforce provincial permits such as the Operational Certificate issued by British Columbia for the operation of the Iona WWTP. The treated sewage discharges allowed under the Liquid Waste Management Plan are not exempt from the general prohibition of the *Fisheries Act*. However, upon an alleged violation, Environment Canada would take into consideration compliance with other similar legislation (e.g., provincial waste management acts) in determining the type of enforcement action to be taken under the *Fisheries Act*.

Environment Canada is also involved in other appropriate governmental action consistent with Article 5 of the NAAEC by engaging with provincial and municipal authorities:

- Environment Canada, in tandem with the province of British Columbia, receives the monthly compliance reports filed by the operators of the Iona WWTP as a requirement of the provincial operational certificate. The findings of these reports could be considered by Environment Canada during a DONCE inspection or investigation.
- As mentioned above, the Iona WWTP is currently operating under a Liquid Waste Management Plan, which municipal officials are required to review every five years. On 13 August 2007, Environment Canada sent a letter to the municipal

officials regarding the five year review (Annex 14). It outlined the progress being made on the CCME Canada Wide Strategy for the Management of Wastewater and the proposed federal wastewater effluent regulations. For the latest information on the Liquid Waste Management Plan, please visit:

<http://www.metrovancouver.org/services/wastewater/planning/Pages/Reports.aspx>

- Since 2001, Environment Canada's activities on municipal wastewater in the Vancouver area have included participating on municipal committees and responding to questions and requests for information. Environment Canada continues to be engaged on issues related to the Iona WWTP through its role in such committees. At one such committee meeting on 13 December 2007, Metro Vancouver presented timelines for wastewater system upgrades. Given the benefits of the upgrades, Environment Canada encouraged municipal officials to consider advancing their upgrade timelines for their WWTP (Annexes 14 and 15).
- Following the issuance of the 2001 warning letter, the provincial government responded to federal concerns about effluent toxicity by requiring that Iona WWTP operators investigate the causes of failed bioassay toxicity tests, evaluate options and provide a plan for reducing non-ammonia related toxicity at the point of discharge.
- Since wastewater is an area of shared jurisdiction, Environment Canada is working cooperatively with our provincial and territorial colleagues, through the CCME, on a national strategy for sewage management.

These are appropriate government actions in the factual circumstances.

5. SPECIAL ARRANGEMENTS TO ENSURE FUTURE COMPLIANCE WITH THE FISHERIES ACT AT THE IONA WWTP

There are no special, site-specific arrangements with the operators of the Iona WWTP to ensure their future compliance. Rather, it will be managed as part of a broader process:

- The CCME Strategy and the proposed *Wastewater Systems Effluent Regulations* are national in scope, setting a national effluent quality standard at the secondary or equivalent level, which will drive improvements at the approximately 950 wastewater treatment plants requiring such upgrades across the country, including Iona WWTP.
- Through various consultation processes associated with the development of the CCME Strategy and the proposed regulations, the approach to risk-based implementation timelines has been communicated to potentially affected parties to allow time for planning and building the required infrastructure. The Iona WWTP, as a primary treatment plant depositing into the marine environment, is expected to rank among medium risk facilities which would mean that secondary treatment would need to be in place by 2030.
- Once the regulations are in force, Iona WWTP operators would be expected to request a transitional authorization which would authorize the continued deposit of their existing effluent within specified conditions until the system is upgraded to secondary treatment. As long as the standards and other requirements in their transitional authorization are met, Iona WWTP operators would be in compliance.
- In the meantime, enforcement actions by Environment Canada will continue to be carried out on a case-by-case basis in response to specific incidents out of the normal course of events, in line with the *Compliance and Enforcement Policy* and National Enforcement Plans.⁴
- Environment Canada is also promoting compliance and working with the provincial and municipal authorities to support the wastewater sector, including the Iona WWTP, as outlined in Subsection 4.3 and Section 6.

⁴ Although the proposed *Wastewater Systems Effluent Regulations* include requirements regarding notification of deposits out of the normal course of events, Environment Canada has clearly indicated during stakeholder engagement since the publication of the proposed Regulations in Canada Gazette I that these requirements would be removed from the final Regulations.

6. OTHER GOVERNMENT ENFORCEMENT ACTION TO ENFORCE THE FISHERIES ACT IN THE WASTEWATER SECTOR

6.1 Strengthening Environment Canada's Enforcement Capacity

Since 2007, Environment Canada has significantly increased its enforcement capacity and processes for identifying compliance promotion and enforcement priorities. Environment Canada has focused on building its organization, and hired, trained, equipped, and deployed 50% more officers (program support and field officers) over this period, including nine new environmental Enforcement Officers in PYR alone, in addition to opening new offices, and restructuring its workforce to accommodate program growth. Not only do these recent investments allow for more environmental inspections and investigations in general but it means more resources dedicated to the *Fisheries Act* in all sectors.

Environment Canada Enforcement Officers are provided with extensive training with respect to the application of the *Fisheries Act* and the use of other enforcement tools. Enforcement Officers must successfully complete the Basic Enforcement Training which consists of nine weeks of in-class training complemented by field training on all possible enforcement activities and measures undertaken by Enforcement Officers. Other training sessions on regulations and on enforcement measures/activities are also provided to Enforcement Officers.

6.2 Other Government Enforcement Action

Environment Canada considers that information, education and other means are effective tools in securing conformity with the law. As outlined in the *Compliance and Enforcement Policy*, Environment Canada undertakes significant effort to promote compliance with the pollution prevention provisions of the *Fisheries Act*.

Between 2001 and 2010, the PYR regional office had between five and 13 full time equivalent (FTE) employees responsible for compliance promotion across the range of Acts and regulations for which Environment Canada is responsible. Their duties included:

- promoting public awareness of the provisions through education and information campaigns;
- promoting technology development and evaluation and technology transfer;
- consulting on regulation development and amendments; and
- promoting environmental audits and compliance monitoring

Additionally, during the same period, the PYR regional office had between 1.5 and 2.5 FTEs devoted to risk management activities within the wastewater sector. These activities included assessing the risks associated with the wastewater sector, determining the appropriate regulatory tool to manage these risks, and developing the regulatory tool and any associated licenses, permits or authorizations. They also provided expert

scientific and technical advice to Enforcement Officers in their reasonable use of discretion.

In conjunction with the ongoing consultations with municipalities on the proposed *Wastewater System Effluent Regulations*, Environment Canada employees in the PYR have also been engaged with Metro Vancouver and other British Columbia municipalities at several events, including:

- 2009 Federation of Canadian Municipalities conference;
- 2010 British Columbia Wastewater Association conference;
- 2010 Union of British Columbia Municipalities Trade Show;
- August 2010 meeting with Metro Vancouver to review comments provided by Metro Vancouver on the proposed *Wastewater System Effluent Regulations*; and
- April 2010 meeting with Metro Vancouver to discuss the proposed *Wastewater System Effluent Regulations*.

Though active participation in these events, Environment Canada has sought to deliver compliance promotion and education, increase compliance with the *Fisheries Act* in the municipal wastewater sector, and foster dialogue about the upcoming *Wastewater Systems Effluent Regulations* in the region at stake.

7. CONCLUSIONS

The Iona WWTP is a municipally-operated facility. The plant was built in 1963 and provides primary treatment to more than 200 billion litres of wastewater each year.

In order to ensure a high level of consistent environmental protection, Canada has been working with the provinces since 2002 to develop a harmonized framework for the management of wastewater. This has led to the development of proposed federal *Wastewater System Effluent Regulations* under the *Fisheries Act*, expected to be published in the Canada Gazette, Part II, in 2012. Under the proposed regulations, wastewater systems such as Iona WWTP would be expected to be authorized to improve effluent quality to secondary wastewater treatment by 2030 and to also maintain their current effluent quality.

Given Environment Canada's broad enforcement responsibilities, the Department has established an annual priority-setting process to determine national enforcement and compliance priorities. While the specific priorities differ each year, and within each region, enforcement of the pollution prevention provisions of the *Fisheries Act* is a constant. However, owing to the expected outcome of the regulatory development process in the wastewater sector, Environment Canada began to shift its finite resources away from proactively enforcing the general prohibition in that sector. In parallel, the provisions which focus on DONCE, have been and remain Environment Canada's principle vehicle for enforcement in the wastewater sector.

With respect to the Iona WWTP, this shift in enforcement priorities has been visible. Over 2001-2002 and 2002-2003, Environment Canada undertook a series of enforcement activities, including inspections and a warning letter, to enforce the general prohibition of the *Fisheries Act*. In 2001 in particular, Environment Canada was proactively involved in enforcing the general pollution prevention provisions both in terms of effluent at the final point of discharge and in terms of DONCE occurrences. The number of inspections carried out in 2001 and the warning letter clearly demonstrate this. The limited number of inspections at Iona WWTP post 2002-2003 reflects the circumstances that once the process to explore and develop the proposed wastewater regulations was launched, the Department's Enforcement Officers began to shift from a proactive to a reactive approach, focusing their efforts on responding to DONCE occurrences. Inspections and investigations were undertaken, a warning letter was issued, and plant operators undertook the necessary steps to address the situations.

With a view to address other important considerations of the citizen submission process under the NAAEC, Canada would also highlight the following:

7.1 Canada exercises its discretion in a reasonable manner

In order to ensure the reasonable exercise of its enforcement discretion to address any discharge of deleterious substances, including at the Iona WWTP, Environment Canada follows its *Compliance and Enforcement Policy* to choose from a range of enforcement responses under the *Fisheries Act*.

The decision of the Attorney-General not to pursue prosecution by the Public Prosecution Service of Canada is further evidence that Environment Canada exercised the appropriate level of enforcement discretion as it concerns the Iona WWTP facility. In the past, investigations under the *Fisheries Act* in the pursuit of prosecutions concerning the release of deleterious substances under similar factual circumstances where the regulatee deposited effluents contrary to the *Fisheries Act*, but operated in compliance with a provincial Control Order, have resulted in a fine of \$1.00⁵.

7.2 Canada uses a good-faith priority setting process

Decisions concerning the appropriate enforcement response, and the allocation of departmental resources, are guided by national enforcement and compliance priorities developed and validated each year under Environment Canada's National Enforcement Plan. The plan takes into account the pending *Wastewater System Effluent Regulations* and the proposed risk-based approach for implementation, the discretion afforded to officers in considering enforcement action, the public interest, and the significant public resources required to reach Canada's objective of secondary treatment as a baseline at wastewater treatment plants.

Since 2002, once discussions on the development of the CCME Strategy and the process to develop the wastewater regulations began, Environment Canada's enforcement priorities shifted to DONCE occurrences with significant impacts and remains here. The factual information provided in this response demonstrates this.

In addition, Environment Canada has taken additional enforcement action in the wastewater sector nationally and in the PYR. This includes the appointment and training of Enforcement Officers; monitoring compliance and investigating suspected violations; and seeking assurances of compliance.

7.3 Canada's enforcement actions are effective

Environment Canada assumes its role of enforcing the pollution prevention provisions of the *Fisheries Act* very seriously and responds in a timely fashion when spills and releases are reported. This includes wastewater from municipal wastewater treatment plants.

In response to Environment Canada inspections, investigations and warning letters, Iona WWTP operators implemented upgrades, revised procedures and provided new training for staff, demonstrating that this was the appropriate government response, bringing

⁵ R v. Cyanamid Canada (1981) 3 F.P.R., 151

about effective change. Municipal monitoring indicated that – during the period in question in this submission – Iona WWTP discharges posed an insignificant environmental risk based on comparisons to the relative sediment quality and there was no appreciable effect on the benthic communities.

In conclusion, Environment Canada’s approach to enforcing the *Fisheries Act* at the Iona WWTP constitutes effective and appropriate government action with respect to this enforcement matter. Our record of enforcement throughout the last decade and the outcomes of such actions in this regard clearly demonstrate effectiveness and it is consistent with the aim of achieving high levels of environmental protection and compliance with environmental laws.

ANNEXES

- Annex 1 96-hour Rainbow Trout LC₅₀ Bioassay (RM-13)
- Annex 2 *Deposit Out of the Normal Course of Events Notification Regulations*
- Annex 3 Canada-wide Strategy for the Management of Municipal Wastewater Effluent
- Annex 4 Proposed *Wastewater System Effluent Regulations*, Canada Gazette I
- Annex 5 National Enforcement Plan 2011-2012 (CONFIDENTIAL)
- Annex 6 Compliance and Enforcement Policy
- Annex 7 Audit of the Commission for Environment and Sustainable Development
- Annex 8 Letter from Environment Canada to Greater Vancouver Regional District
25 May 2000
- Annex 9 Warning Letter: 20 March 2001
- Annex 10 Response to 20 March 2001 Warning Letter
- Annex 11 Written communications between Environment Canada and Greater Vancouver Regional District in 2001
- Annex 12 Warning Letter: 5 July 2011
- Annex 13 Response to 5 July 2011 Warning Letter
- Annex 14 Letter from Environment Canada to Greater Vancouver Regional District
13 August 2007
- Annex 15 Letter from Environment Canada to Metro Vancouver
24 April 2009