BY MAIL AND EMAIL

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Dear Mr. Meades:

Re: Wastewater Systems Effluent Regulations, *Fisheries Act*
Notice published in the *Canada Gazette*, Part I on March 20, 2010

Please find enclosed comments from Lake Ontario Waterkeeper, Ottawa Riverkeeper, and Fraser Riverkeeper on the proposed Wastewater Systems Effluent Regulations under the *Fisheries Act*.

Yours Truly,

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EXECUTIVE SUMMARY

Environment Canada has proposed the enactment of a Wastewater Systems Effluent Regulation to address the ongoing and serious problems caused by sewage pollution in Canadian waters. The most significant aspect of the proposed change is that the regulation would decriminalize sewage discharges that are currently illegal under the *Fisheries Act*. The regulation would allow wastewater systems to discharge substances in quantities and locations that would otherwise violate s.36(3), one of the main pollution prevention provisions of that *Act*, and one of the strongest sources of environmental protection in Canada.

Based on our organizations' considerable experience with sewage policy and law, we reviewed the proposed regulation and made 16 specific recommendations to Environment Canada. First, we emphasized the importance of enforcing Canada's environmental laws while achieving real solutions to sewage pollution. We submit that Environment Canada can achieve these dual purposes by preserving the applicability of section 36(3) of the *Fisheries Act*, while also providing detailed requirements for wastewater systems operators that focus on transparency, access to information, enforcement, and solutions for the full array of pollutants in sewage.

Canada must improve wastewater systems regulation without decriminalizing sewage pollution. Ottawa Riverkeeper, Fraser Riverkeeper, and Lake Ontario Waterkeeper submit that to effectively address sewage pollution in Canada, section 36(3) should apply in tandem with a regulation that addresses the following issues:

A strong regulation would address substances of emerging concern found in wastewater effluent rather than focusing solely on traditional contaminants.

A strong regulation would set enforceable targets for the reduction and elimination of combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs).

A strong regulation would include a detailed, daily administrative fine schedule for any violation of its conditions, as well as an allocation of administrative power to an appropriate governmental agency to assess and collect any fines.

A strong regulation would include improved mechanisms for the public to access compliance and monitoring records as well as revised document retention schedules.

CONTEXT

The federal Department of the Environment has proposed the enactment of a Wastewater Systems Effluent Regulation under the *Fisheries Act*. The regulation would implement a Canada-wide Strategy for the Management of Municipal Wastewater Effluent developed by the Canadian Council of Ministers of the Environment (CCME) in 2009. The proposed regulations would apply to any wastewater system, which includes sewage treatment plants, storage ponds, and pipes, that deposits more than 10 m3 of effluent per day, if the effluent qualifies as a deleterious substance for the purposes of s.36(3) of the Fisheries Act.[1] It would add four substances to the list of substances prescribed as deleterious: biochemical oxygen demanding matter; suspended solids; total residual chlorine; and un-ionized ammonia.[2] It would not apply to any wastewater system located in the Northwest Territories, Nunavut, and north of the 54th parallel in the provinces of Quebec and Newfoundland and Labrador.

The most significant aspect of the proposed change is that the regulation as proposed would decriminalize sewage discharges that are currently illegal under the *Fisheries Act*. The regulation would allow wastewater systems to discharge substances in quantities and locations that would otherwise violate s.36(3), one of the main pollution prevention provisions of the *Fisheries Act*. Section 36(3) is one of the strongest and most environmentally protective provisions in Canadian law. As the Standing Committee on Environment and Sustainable Development found in their May 1998 Report:

> **[T]he purposes served by effectively enforcing environmental laws like CEPA and the pollution prevention provisions of the *Fisheries Act* cannot be over-emphasized**…. We are talking about providing Canadians with safe, clean water that they can drink and in which they can swim without being placed at risk. …If toxic and other harmful substances are not adequately regulated and kept in check through effective enforcement, all of these vital needs and interests are imperiled and might be irretrievably lost. That such might be the outcome must be resisted at all costs. The public interest demands no less.[3]

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[1] Proposed Wastewater Systems Effluent Regulation, s.2.

[2] *Ibid.,* s.3.

[3] Standing Committee on Environment and Sustainable Development (1998), "Enforcing Canada's Pollution Laws: The Public Interest Must Come First!", accessible online at <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=1031521&Language=E&Mode=1&Parl=36&Ses=1>.

The decriminalization of sewage pollution in the proposed regulation is particularly concerning because it comes at a time when other environmental laws in Canada are being rolled back. In 2009, the *Navigable Waters Protection Act*, one of Canada's oldest laws, was amended to reduce protections for the environment and navigation. Changes to the *Canadian Environmental Assessment Act* that would undo a recent Supreme Court decision preventing "project-splitting" are currently being considered by the federal Finance Committee. As communities have fewer and fewer options to protect their local environment, the maintenance of a strong and effective *Fisheries Act* is especially important.

Municipal sewage is the largest source of pollution discharged to surface water bodies in Canada. According to Environment Canada, whether treated or untreated, sewage represents one of the largest single effluent emissions in Canada.[4] Nationally, we flush some 200 billion litres of raw sewage into our waterways every year, enough to fill more than 40,000 Olympic sized swimming pools and generate an impressive three trillion litres of sewage annually: a mix of water, human waste and the pathogens it can contain (such as cholera, typhoid and hepatitis B), microorganisms, toxic chemicals, heavy metals and excreted pharmaceuticals. The waste threatens drinking water, as well as recreational users and fisheries.

The composition of sewage releases, both treated and untreated, makes this a complex issue. Harmful substances like grease, motor oil, antifreeze, pharmaceuticals, toiletries, and other harmful household and industrial substances are emitted along with biological byproducts. Contaminants and pollutants accumulate at increasing levels up the food chain to the point of toxicity. There is documented evidence to show that these contaminants negatively affect both the endocrine and reproductive systems of organisms (mainly mammals) within contaminated ecosystems.

Sewage releases, even those that follow primary or secondary treatment, can be toxic to fish and wildlife, cause bacteria levels that make beaches unsafe for swimming, and threaten the integrity of our aquatic ecosystems. Health risks associated with recreational water use are due primarily to the presence of pathogenic microorganisms, including bacteria, viruses, and protozoa, which cause clinical symptoms of gastroenteritis. Due to the impacts of sewage on Canadian waters, each of our organizations faces issues related

[4] Environment Canada (1999) "Summary and Update of the 1997 Science Assessment of the Impacts of Municipal Wastewater Effluent (MWWE) on Canadian Waters and Human Health", accessed online at: <http://www.ec.gc.ca/eu-ww/default.asp?lang=En&n=8406F10A-1>.

to sewage discharge in our watershed and has considerable experience with sewage policy and law.

Fraser Riverkeeper

FRK is a registered Canadian charitable organization committed to protecting the public's right to clean water and a healthy watershed through citizen involvement and community action. FRK participates in the legal processes that are part of Canada's environmental protection system and helps members of the public understand how these systems work. FRK takes on an enforcement and action role in the watershed to more efficiently and effectively evaluate, prevent, and mitigate pollution problems, with the goal of providing long-term solutions through participatory methods.

FRK recently filed a submission pursuant to Article 14 of the North American Agreement on Environmental Cooperation ("NAAEC") based on the Canadian federal government's failure to enforce the federal Fisheries Act with respect to sewage discharges from the Iona Island Wastewater Treatment Plant (the "Iona WWTP") in Richmond, a suburb of Vancouver.

Ottawa Riverkeeper

Ottawa Riverkeeper is a citizen-based action group that brings people together to protect and promote the ecological health and diversity of the Ottawa River and its tributaries. In 2006, Ottawa Riverkeeper released a report that identified the cumulative effects of municipal wastewater as a major threat to the Ottawa River.[5] More than 50% of the more than 90 wastewater treatment facilities in the Ottawa River watershed provide only primary treatment.

In 2008, Ottawa Riverkeeper helped to uncover a large sewage spill (15 continuous days) from the City of Ottawa into the Ottawa River, and the City was ultimately fined under the *Ontario Water Resources Act*. Since that time, Ottawa Riverkeeper has been raising public awareness about Combined Sewer Overflows (CSOs) from the City of Ottawa and advocating for real time reporting on spills to the public. After consultation with Ottawa Riverkeeper and the public, the City of Ottawa is moving forward with an action plan to significantly reduce CSOs in Ottawa.

Lake Ontario Waterkeeper

[5] Ottawa Riverkeeper, "River Report: Issue N°1 - Ecology and Impacts", (Ottawa Riverkeeper/Sentinelle Outaouais, 2006), ISBN 0-9739791-0-0.

LOW is a charitable organization dedicated to restoring and protecting a "swimmable, drinkable, fishable" watershed for everyone who lives on or visits Lake Ontario. Founded in 2001, LOW has participated in numerous federal environmental assessments, including screenings, comprehensive studies, and review panels. We have worked with proponents and government to review projects in a variety of areas, including nuclear waste management, nuclear fuel manufacturing, wind turbine development, bridge construction, and contaminated sediments management.

Sewage discharges into Lake Ontario have been a major focus for LOW since the group was founded in 2001. In 2005, LOW submitted an Application for Review to the Ministry of the Environment with respect to consistent sewage bypasses in Kingston, Ontario. LOW worked with a community member to submit an Application for Investigation into a sewage pipe in Coburg that was polluting a local beach. Every summer, LOW monitors and reports on beach conditions in our watershed, which depend in large part on municipal sewage discharge.

COMMENTS

Canada must improve wastewater systems regulation without decriminalizing sewage pollution.

We understand that a regulation could be a source of structure and guidance for wastewater operators during facility upgrades and could help bring operators into compliance with the law. Federal enforcement teams face a significant challenge in balancing law enforcement with achieving the goal of improving sewage systems. However, it is not clear that a regulation that exempts operators from the pollution prevention rule in section 36(3) of the *Fisheries Act* will bring operators into compliance. When the federal Standing Committee on Environment and Sustainable Development issued a report on the enforcement of environmental law in 1998, they stated that, "it is as important that Environment Canada inform the public about how it proposes to enforce the pollution prevention provisions of the *Fisheries Act*, including the general prohibition under section 36(3), as it is to inform them of its enforcement policy in relation to *CEPA*."[6]

The *Fisheries Act* is one of Canada's oldest laws and strongest sources of environmental protection. Enacted by Parliament in 1868, its promulgation reflected the cultural, social, and economic importance of healthy fisheries for Canadians. These protections have

[6] Standing Committee on Environment and Sustainable Development, *supra,* at 65.

come to mean even more since the law was enacted, as our waterways face increasing threats from a variety of pollution sources. Far from needing "modernization", the criminal prohibitions in the *Fisheries Act* are even more important for environmental protection today than they were in the year following Confederation.

One of the most effective provisions in the *Fisheries Act* is section 36(3), which prohibits the deposit of deleterious substances into water frequented by fish:

> Subject to subsection (4), 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.

Section 40(2) of the *Act* makes a contravention of s.36(3) a criminal offence:

> (2) Every person who contravenes subsection 36(1) or (3) is guilty of
> (a) an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding three hundred thousand dollars and, for any subsequent offence, to a fine not exceeding three hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both; or
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> (b) an indictable offence and liable, for a first offence, to a fine not exceeding one million dollars and, for any subsequent offence, to a fine not exceeding one million dollars or to imprisonment for a term not exceeding three years, or to both.

Canada must improve wastewater regulation without decriminalizing sewage pollution. As the Yukon Territorial Court stated in *R. v. Dawson*, municipalities are major polluters of the environment in Canada and should not be exempted from or face less severe penalties under the law.[7] However, it is important to bolster environmental protection as much as possible when dealing with sewage pollution. We submit that this goal can be achieved without decriminalizing the release of toxic sewage effluent into Canadian waterways.

The strength of section 36(3) of the *Fisheries Act* is that it provides a clear, uniform standard based on the nature of the effluent. The acute lethality test, used in a majority of prosecutions under s.36(3), serves as an accessible and unequivocal way to identify a problem with sewage discharges. Like the canary in the gold mine, the acute lethality test provides a way to identify potentially harmful discharges before further harm is caused to the environment. Without the accessible form of proof provided under s.36(3), it will be more difficult for communities to ensure their waterways are clean.

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[7] *R. v. Dawson (City)* [2003] Y.J. No. 22 at 38.

When Fraser Riverkeeper submitted an application to the CEC in May 2010, the City of Vancouver cited the two most common defences used in relation to sewage pollution. First, representatives of the City stated that, though the effluent failed acute lethality tests, it does not impact the environment once it is diluted in the ocean. Second, they stated that the costs of upgrading the sewage treatment plants in Vancouver are prohibitively high and will require long time frames.[8]

The courts have found that, while relevant to the potential solutions, these defences do not have a bearing on whether s.36(3) has been violated. In *Fletcher v. The Corporation of the City of Kingston*, the court found that s.36(3) applies to substances at the point of deposition, rather than once they are diluted in receiving water.[9] Therefore, s.36(3) does not require the receiving water to be deleterious to fish; the offence will be made out if the substance is deleterious when added to *any* amount of water.

Further, the cost and time required to upgrade plants has been shown to go to sentencing, rather than to negating an offence. When a wastewater operator is charged with violating s.36(3), the courts have the authority to use sentencing to set timelines and ensure wastewater plants comply with the law. In *R. v. Dawson (City)*, the City of Dawson was charged under s.36(3) of the *Fisheries Act* with depositing a deleterious substance into waters frequented by fish. It was ordered to pay a fine and to update its sewage system to secondary treatment by September 1, 2004. In a subsequent decision, the court heard that the cost of the upgrades had doubled, and the city was facing financial trouble. The court amended its order to give the city more time to upgrade its sewage treatment plant to secondary treatment.[10] In contrast to the 10, 20, and 30 year timelines in the proposed regulation, the court gave the city an additional four years, to December 31, 2008, to come into compliance with the *Fisheries Act*. As Chief Justice Lilles states in the decision, "The new timeline is not generous but it is realistic".[11]

If the application of the pollution prevention provisions in the *Fisheries Act* is preserved, a regulation can be developed without compromising the strength of the law. A helpful model for developing a regulation that provides guidance and promotes reform for

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[8] Mark Hume, "Environmentalists want investigation of toxic waste in Georgia Strait: The federal government is not enforcing its own laws, coalition says", *Globe and Mail* (4 May 2010).

[9] *Fletcher v. The Corporation of the City of Kingston* [2004] O.J. No. 1940 (Ont. C.A.), leave to appeal to S.C.C. refused, [2004] S.C.C.A. No. 347 (QL). See also *R. v. Williams Operating Corp.*, 39 C.E.L.R. (3d) 66 at 85.

[10] *R. v. Dawson (City)* [2004] Y.J. No. 94.

[11] *Ibid.* at 19.

wastewater system operators is the diversion system used in other types of criminal prosecutions. For certain offences, the Attorney General can offer a charged person the opportunity to comply with the terms of a diversion agreement. These terms can include a variety of requirements, from writing a letter of apology, making a charitable donation, or participating in an educational program about the offence.

In the case of wastewater systems that violate the criminal prohibition in the *Fisheries Act*, the government could use the proposed regulation as a form of diversion. Offending operators would continue to be charged criminally, preserving the right of communities to actively enforce the law, but could then opt to comply with the terms of the regulation. If they successfully comply, the charges would be withdrawn. If they do not comply, the charges would stand. This system would avoid the need to decriminalize sewage pollution in Canada, while allowing the government to provide a more tailored and specific form of guidance to offending operators to help them improve their facilities.

Recommendation 1: Maintain the applicability of s.36(3) of the *Fisheries Act* to all wastewater systems.

Recommendation 2: Create a strong and enforceable regulation that operators charged under s.36(3) could comply with in order to have the charges withdrawn, modeled on diversion agreements used in criminal courts across Canada.

We understand that Environment Canada faces a daunting task in enforcing the law while ensuring that real results are achieved in sewage regulation. We submit that these dual purposes can be achieved through a balanced approach that preserves the application of the pollution prevention provision, while ensuring that the added guidance and regulatory requirements are put in place. **A strong regulation would complement the criminal prohibition in the *Fisheries Act*, while providing detailed requirements for wastewater systems operators that focus on transparency, access to information, enforcement, and solutions for the full array of pollutants in sewage.** We submit that such a regulation should address the following issues in order to most effectively address sewage pollution in Canada:

1. A strong regulation would address substances of emerging concern found in wastewater effluent rather than focusing solely on traditional contaminants.

A deleterious substance is defined in subsection 36(3) of the *Fisheries Act* as something that would degrade or alter the quality of water so that it is rendered deleterious to fish or fish habitat or to the use of fish by people. The deleterious substances specified under the proposed regulation include biochemical oxygen demanding (BOD) matter, suspended solids (SS), total residual chlorine and un-ionized ammonia. There are numerous chemicals found in wastewater that could be defined as deleterious. As proposed, the regulation would not provide any new way to hold WWTPs accountable for treating today's chemicals of emerging concern.

It is well known that municipal wastewater is a mix of hundreds of substances that behave in synergistic ways that are poorly understood. Many of the substances found in wastewater effluent are known endocrine disruptors and can alter an organism's ability to reproduce.

Endocrine disruptors in particular have long been suspected of negatively affecting populations of aquatic species, and recent research focused on estrogenic chemicals in aquatic environments has shown that these chemicals can impact hormone regulation and reproductive systems in fish and other aquatic species. These impacts can include decreased fertility, feminization, and hermaphroditism, and can cause a population's overall reproductive capacity to decrease significantly.[12]

In addition, organic chemicals and metals do not have to be discharged in large quantities to result in environmental degradation, regardless of their very low concentrations in wastewater effluent. Many of these chemicals can be toxic at low levels and can remain in the environment for very long periods. Consequently, large amounts of these substances can build up in sediments over time or be transported by water and air currents to other environments far from the original point of discharge. Some of these substances also tend to accumulate in living tissue and be passed up the food chain. As a result, concentrations in top predators such as fish-eating birds can reach very high levels, despite very low ambient concentrations in the water.

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[12] See generally: Ankley, G.T., *et al*. (2007). Ketoconazole in the fathead minnow (*Pimephales promelas*): Reproductive toxicity and biological compensation. *Environ. Toxicol. Chem.* 26: 1214-1223; Gagné, F., Blaise, C. & André, C. (2006). Occurrence of pharmaceutical products in a municipal effluent and toxicity to rainbow trout. *Ecotoxicoloty & Environmental Safety*. 64(3): 329-336; Goodhead, R.M. & Tyler, C.R. (2008). *Endocrine disrupting chemicals and their environmental impacts.* In: Organic Pollutants – An Ecotoxicological Perspective, Walker, C.H., Ed. CRC Press: Boca Raton, FL; Kidd, K.A., Blanchfield, P.J., Mills, K.H., Palace, V.P., Evans, R.E., Lazorchak, J.M. & Flick, R.W. (2007). Collapse of a fish population after exposure to a synthetic estrogen. *Proc. Natl. Acad. Sci. U.S.A.* 104: 8897-8891; Thorpe, K.L., Maack, G., Benstead, R. & Tyler, C.R. (2009). Estrogenic wastewater treatment works effluents reduce egg production in fish. *Environ. Sci. Technol.* 43: 2976-2982; Santos, E.M., Paull, G.C., VanLook, K.J.W., Workman, V.L., Holt, W.V., van Aerle, R., Kille, P. & Tyler, R. (2007). Gonadal transcriptome responses and physiological consequences of exposure to oestrogen in breeding zebrafish (Danio rerio). *Aquatic Toxicology,* 83:134-142.

If impact to the aquatic environment is not enough of a concern, we need to give some thought to drinking water. In many cases the same water body that is receiving our municipal wastewater is also providing drinking water to many people. Our filtration processes are not designed and operated to filter out many of the new and emerging chemicals of concern. As a result, it is common to find trace amounts of pharmaceuticals and endocrine disruptors in our drinking water.

Although the CCME Strategy provides an agreed-to framework for jurisdictions to manage site-specific pollutants, this will not be an effective method to reduce the amount of these chemicals that are entering our surface waters.

In addition to the chemicals of emerging concern, there are more traditional substances such as phosphorus that are easy to remove from effluent and easy to regulate. In many cases, secondary treatment is inadequate to protect receiving waters from excessive phosphorus loading.

Recommendation 3: The regulation should recognize that the standard as set out may not sufficiently protect receiving waters and human health where effluent is discharged into sources of drinking water.

Recommendation 4: The regulation should encourage and provide incentives for municipalities to provide tertiary treatment or pursue treatment technologies that do not direct effluent to surface waters that are also sources of drinking water.

Recommendation 5: The government should be required to undertake long-term monitoring of aquatic species to determine chronic lethality from long-term exposure to wastewater effluent.

2. A strong regulation would set enforceable targets for the reduction and elimination of combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs).

The effluent discharge standards set out in the proposed regulation do not apply to unplanned discharges, including SSOs and CSOs, nor do they set targets for the reduction and ultimate elimination of such discharges.

On the Ottawa River, the cities of Ottawa and Gatineau are two large municipalities situated directly across from each other. Each of these cities discharges significant amounts of raw sewage through their combined sewer systems, often 50 or more times a year, through dozens of outlet pipes that drain directly into the river. This situation is replicated in almost every large municipality across Canada. Combined, these municipalities are dumping billions of litres of untreated sewage into our waterways each year. With climate change, the intensity of storms is predicted to increase, which will exacerbate this problem.

Given the severity of the problem of CSOs and the high risks posed to human health and the environment from releasing untreated wastewater into surface waters, we believe these regulations should provide incentives and enforceable targets to eliminate or significantly reduce CSOs and SSOs. The proposed regulation provides no legal mechanism requiring municipalities to ensure a serious reduction in CSOs and SSOs.

Furthermore, the proposed regulation would allow a municipality to apply for a transitional authorization if they have a plan in hand to reduce CSOs. Not only does the regulation fail to contain enforceable outcomes to ensure elimination of the CSO or reduction targets for overflows, it allows municipalities a loophole to apply for more time to meet the national standards, regardless of the quality of the effluent from their WWTP.

Recommendation 6: Binding discharge limits and enforceable reduction targets should be set for SSOs and CSOs.

Recommendation 7: The filing of a CSO plan should not be used to allow a final effluent of high or medium risk to jump to the low risk transitional authorization timeframe.

Recommendation 8: Effluent discharged from CSOs and SSOs should be required to meet national effluent standards.

3. A strong regulation would include a detailed, daily administrative fine schedule for any violation of its conditions, as well as an allocation of administrative power to an appropriate governmental agency to assess and collect any fines.

In 1998, the Standing Committee on Environment and Sustainable Development identified the promulgation of unenforceable regulations as a major problem, noting, "a further problem precluding effective enforcement concerns the state of the regulations".[13] They recommended that all regulations be developed in conjunction with enforcement staff and in compliance with the rules of evidence, to ensure they are enforceable in practice.

The proposed WSERs presently make no mention of any administrative fine assessment for WWTPs who fail to meet the compliance standards set forth therein. For wastewater systems operators who cannot comply with s.36(3), the regulation should include a fine schedule to act as a significant, additional deterrent to non-compliance. In the United States, where no equivalent criminal sanction exists, monetary fines have been shown to provide incentive for WWTPs to ensure the existence of proper equipment maintenance, infrastructure development, and environmental effects monitoring under water pollution regulations.

> "One clear message from empirical studies over the last two decades is that monetary fines for water pollution violations get results: plants increase compliance and reduce pollution discharges for many months after receiving a fine. In a recent paper, we showed that fines also spill over to deter violations and reduce discharges at plants beyond the sanctioned entity. By fining one violator, the regulator signals a credible threat to fine future violations by other facilities. This amplifies the overall deterrence effect far beyond the impact on the original violator and can produce a very big compliance payoff."[14]

However, in order to be effective as a deterrent to non-compliance, the fine schedule must proscribe per day fines that are substantial enough to induce the rapid implementation of change by the WWTP to achieve immediate compliance. In other words, such a daily fine assessment must cause the WWTP to "spring into action." Although we hesitate to name such a figure, it is possible to reference and compare the administrative fine schedules presented in the wastewater regulations of other, similarly-situated countries. For instance, the American *Clean Water Act* permits a fine range of $2,500 to $25,000 per day

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[13] Standing Committee on Environment and Sustainable Development, *supra*, at 68.

[14] Jay P. Shimshack and Michael B. Ward, Resources for the Future, "Improving Clean Water Act Enforcement" (January 2010), accessed online at: <www.rff.org/Publications/WPC/Pages/Improving-Clean-Water-Act-Enforcement.aspx>.

to be assessed administratively for criminal negligence or up to $250,000 for knowingly placing another person in imminent danger of death or serious bodily injury.[15]

Simply put, it is advisable to not only provide a detailed, daily fine schedule, but also allocate administrative powers to Environment Canada or another appropriate regulatory body to assess and collect fines. To do so would undeniably add a significant incentive for WWTPs to more consistently comply with the WSERs. For those WWTPs that continue to fail to comply with the regulation, despite the imposition of fines, charges under the *Fisheries Act* would provide a significant deterrence from continued violations.

Recommendation 9: Develop and include a detailed, daily fine schedule for compliance violations of the WSERs.

Recommendation 10: Allocate sufficient administrative powers to Environment Canada or another federal agency to assess and collect fines for compliance violations in accordance with the fee schedule outlined in the WSERs.

Recommendation 11: Include a clear threshold for the number of days fines can be applied under the regulation, after which a plant that has violated s.36(3) must be removed from the regulation's application and return to the criminal sanctions.

4. A strong regulation would include improved mechanisms for the public to access compliance and monitoring records as well as revised document retention schedules.

A strong regulation would ensure transparency by requiring easy public access to records created under the regulation.

The proposed regulation requires that all prescribed records, copies of reports, and any supporting documents be kept at the wastewater system itself or at any other place within Canada for inspection purposes. Clearly, public access to historical environmental compliance records is important in ensuring the public is well-informed of their government's actions in order to hold them accountable. However, the method outlined in the regulation to achieve this goal is woefully inadequate for obtaining true public transparency.

[15] *Unites States Federal Water Pollution Control Act*, 33 U.S.C. § 1319.

First, the option to house required records for inspection at a location in Canada *other than the WWTP* neglects to give proper weight to the heightened public interest in more local and regional environmental issues and the large obstacle of cost and time that must be surmounted in order for the public to actively monitor such issues. Storing such hardcopy records at a place other than the WWTP itself is counterproductive. In doing so, a WWTP may be perceived as purposefully "hiding" important and conceivably damaging information from the public. By failing to require WWTPs to retain their required information at the WWTP itself, the public encounters too great of an obstacle in obtaining environmental monitoring data.

Second, public transparency is the greatest and most successful when the vast majority of the public can access important and relevant records in a cost-effective, efficient, and reasonably uncomplicated (i.e. user-friendly) manner. To date, the Internet and electronic forms of data have each proved excellent tools to accomplish this purpose, significantly increasing public access to information across the country and in turn, increasing public oversight of governmental agencies. A strong regulation would ensure that compliance and monitoring reports, as well as supplemental information, would be available online via a centralized, electronic database. One excellent example of a centralized reporting and publishing database in the environmental compliance and reporting context is OWNERS [One Window to National Environmental Reporting System]. A centralized database such as this would allow WWTPs to report their information directly to Environment Canada and then allow for the prompt release (i.e. publishing) of the data for the public to access electronically via the Internet.

> "It is designed to be an on-line mechanism for reporting information to Environment Canada and/or other agencies. The system is secure and easy to use, and is the result of industry and government working together to reduce the reporting burden and make it easier to collect, analyze, store and archive data."[16]

A progressive step forward, OWNERS could act as a model for regulatory officials in implementing their own centralized database under these regulations.

Recommendation 12: Eliminate the option to store records at "any other place within Canada" and require that all hardcopy reports and records be housed at the WWTP.

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[16] Government of Canada, "OWNERS Frequently Asked Questions", accessed online at: <http://www.owners.gc.ca/default.asp?lang=En&n=143774F4-1#ws889E3AA4>.

Recommendation 13: The results of environmental compliance and monitoring reports, including facility compliance with national standards and CSO discharge reporting, should be housed in a centralized database established by the WSER.

Recommendation 14: Include incentives for WWTPs to provide records in an electronic form on a centralized, online database.

Recommendation 15: The regulation should require that environmental monitoring records and reported results be made publicly available in the form of annual reports.

A strong regulation would require the retention of monitoring records for a minimum of 10 years to provide for historical trending data.

Historical trending is known to be an important tool in justifying a requested change in environmental policy or methodologies. Generally, environmental cumulative effects data requires a longer timeframe than five years to be useful in prompting regulatory change. Detailed historical records ultimately enable WWTPs and the public to monitor and provide information to encourage and justify continuous improvement. Therefore, the benefit of a longer retention time for such data is simply that more infoarmtion is available to adequately gauge and direct compliance and regulatory policy making. As a result, the minimum document retention time of five years, as outlined in the proposed regulation, is ineffective to achieve this purpose. Given the fact that this type of environmental data collection will be most useful over larger periods of time, and electronic document retention is increasingly an easy and convenient way of storing large amounts of data, there is no reason to limit the retention time to a mere five years.

Recommendation 16: Increase document retention to, at a minimum,10 years for environmental monitoring reports.

SUMMARY OF RECOMMENDATIONS

1: Maintain the applicability of s.36(3) of the *Fisheries Act* to all wastewater systems.

2: Create a strong and enforceable regulation that operators charged under s.36(3) could comply with in order to have the charges withdrawn, modeled on diversion agreements used in criminal courts across Canada.

3: The regulation should recognize that the standard as set out may not sufficiently protect receiving waters and human health where effluent is discharged into sources of drinking water.

4: The regulation should encourage and provide incentives for municipalities to provide tertiary treatment or pursue treatment technologies that do not direct effluent to surface waters that are also sources of drinking water.

5: The government should be required to undertake long-term monitoring of aquatic species to determine chronic lethality from long-term exposure to wastewater effluent.

6: Binding discharge limits and enforceable reduction targets should be set for SSOs and CSOs.

7: The filing of a CSO plan should not be used to allow a final effluent of high or medium risk to jump to the low risk transitional authorization timeframe.

8: Effluent discharged from CSOs and SSOs should be required to meet national effluent standards.

9: Develop and include a detailed, daily fine schedule for compliance violations of the WSERs.

10: Allocate sufficient administrative powers to Environment Canada or another federal agency to assess and collect fines for compliance violations in accordance with the fee schedule outlined in the WSERs.

11: Include a clear threshold for the number of days fines can be applied under the regulation, after which a plant that has violated s.36(3) must be removed from the regulation's application and return to the criminal sanctions.

12: Eliminate the option to store records at “any other place within Canada” and require that all hardcopy reports and records be housed at the WWTP.

13: The results of environmental compliance and monitoring reports, including facility compliance with national standards and CSO discharge reporting, should be housed in a centralized database established by the WSER.

14: Include incentives for WWTPs to provide records in an electronic form on a centralized, online database.

15: The regulation should require that environmental monitoring records and reported results be made publicly available in the form of annual reports.

16: Increase document retention to, at a minimum,10 years for environmental monitoring reports.