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COURT OF APPEAL FOR ONTARIO

FELDMAN, SHARPE and GILLESE JJ.A.

BETWEEN:

HER MAJESTY THE QUEEN Applicant/Appellant

- and -

THE CORPORATION OF THE CITY OF KINGSTON Respondent/Respondent

AND BETWEEN:

HER MAJESTY THE QUEEN Applicant/Appellant)

- and -

MIRKA JANUSZKIEWICZ Respondent/Respondent

AND BETWEEN:

- and -

JANET FLETCHER Applicant/Appellant

- and -

THE CORPORATION OF THE CITY OF KINGSTON Respondent/Respondent

- and -

POLLUTION PROBE Intervenor

John J. Semenoff and Jerry G. Herlihy for the appellant, Her Majesty the Queen
Robert V. Wright for the appellant, Janet Fletcher
Peter K. Doody for the respondent, City of Kingston

Harry Poch for the respondent, Mirka Januszkiewicz
Paul Muldoon and Theresa A. McClenaghan for the intervenors, Pollution Probe

HEARD: December 2-4, 2003

On appeal from the judgment of Justice David L. McWilliam of the Superior Court of Justice dated June 7, 2002, reported at [2002] O.J. No. 2324.

GILLESE J.A.:

[1] The City of Kingston operated a municipal dump site on the west shore of the Cataraqui River, adjacent to Belle Island, from the early 1950s to the early 1970s. After the dump was closed, the City transformed the site into a recreation area. The City did little to address the environmental problems created by the dump site despite public demands for action and studies that showed that the site was of serious concern.

[2] After testing samples of liquids emanating from the landfill site, Janet Fletcher, an environmentalist, laid charges against the City by means of a private citizen's information. In a separate action, the Ontario Ministry of the Environment laid charges against the City and Mirka Januszkiewicz, the City's Director of Environmental Services and Engineering.

[3] Following a twenty-five day trial, Justice of the Peace Bell convicted the City of all four counts in the private information. He acquitted the City and Ms. Januszkiewicz on the first count in the Ministry's action but convicted them of the other three counts.

[4] On appeal, McWilliam J. of the Superior Court of Justice, allowed the appeals against conviction of the City and Ms. Januszkiewicz and allowed the cross-appeal against acquittal; he ordered a new trial on all counts.

[5] The Crown and Ms. Fletcher appeal on the basis that McWilliam J. erred in his interpretation of s. 36(3) of the Fisheries Act, R.S.C. 1985, c. F-14.

[6] For the reasons that follow, I would allow the appeal, restore the convictions and restore the acquittal.

BACKGROUND

[7] The City of Kingston operated a municipal dump site on the west shore of the Cataraqui River, adjacent to Belle Island, from the early 1950s to the early 1970s. The landfill was created in a marsh in the Cataraqui River and formed a peninsula of garbage. After its closure, the landfill site was transformed into a recreational area but little was done to address the possibility of leachate generation and migration.

[8] Leachate is the term used to describe liquid that emanates from a site after having percolated through it. At a landfill site, leachate is created when rainfall percolates through the site's sandy overburden, dissolving some solids, mixing with liquids and absorbing various gases from the

underlying waste materials. Leachate eventually comes to the surface in seeps and streams. Leachate can also migrate with shallow groundwater.

[9] The charges in the instant case arise from alleged contaminants emanating from the landfill site and entering the Cataraqui River. Ms. Fletcher laid charges by means of a private citizen's information. The Ministry laid separate charges by means of its own information.

[10] On four separate dates, Ms. Fletcher had samples taken of leachate entering the Cataraqui River from the landfill site: December 5, 1996, December 8, 1996, December 14, 1996 and December 17, 1996. These samples were collected from discharges ten to fifteen feet from the bank of the Cataraqui River. The persons collecting Ms. Fletcher's samples did not record the temperature of the leachate at the time the samples were collected.

[11] The Fletcher samples were analysed for "acute lethality" to rainbow trout fingerlings. Rainbow trout is the standard test species for this type of analysis. Acute lethality testing normally involves the placing of test animals in progressively more dilute concentrations of a sample material in order to observe its effect upon them. It is meant to simulate what happens in the field. If the sample material kills a sufficient number of test organisms during an acute lethality test, one can conclude that the sample material is harmful to the environment, fish life or fish habitat.

[12] Ms. Schroeder^[1] conducted the acute lethality tests of the Fletcher samples. These tests were performed in accordance with the following Environment Canada protocol: "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, EPS 1/RM/13". Following this protocol, the samples were aerated and heated to 15°C plus or minus one degree. Aeration was accomplished by bubbling air through a sample until the sample's oxygen level fell within the accepted range.

[13] The Fletcher samples were tested only at 100% concentration. All of the trout fingerlings that were exposed to the Fletcher samples died within twenty-four hours. Many of these fingerlings died within one hour. Ms. Schroeder testified that the effluent collected in the Fletcher samples was acutely lethal to fish.

[14] As I have already noted, there is no record of the temperature of the Fletcher samples at the time they were collected. However, during the course of the acute lethality testing, the laboratory recorded the temperature and pH^[2] of the leachate solutions up to five different times. The temperatures of the samples^[3] increased from 11°C to 14°C or 15°C over the course of the testing process. Further, the pH increased from a range of 6.65 to 6.77 (when the samples were received), to a range of 7.23 to 7.27 (when the fish died).

[15] Ms. Schroeder also tested the ammonia levels of the Fletcher samples. She found that those ammonia levels were high enough to account for the mortality of the fish.

[16] After being advised of the analysis results from the testing of the Fletcher samples, the Ministry took its own samples of leachate from the landfill site on four separate dates: February 7, 1997, February 10, 1997, February 19, 1997 and May 6, 1997. Some of the Ministry's samples

were of the leachate discharge as it entered the Cataraqui River and some were of the seep water itself. In addition, upstream samples were taken in order to determine what the "background" readings in the river would have been prior to the ingress of the leachate from the site.

[17] The Ministry leachate samples from February 7, 1997 were taken both from a depressed area right at the river's edge ("sample one") and from an area of open water in the river that was a maximum of two metres from the shore ("sample two").

[18] The Ministry leachate samples from February 10, 1997 were taken at the shoreline where the seepage mixed with the river and at the union of three different rivulets that came out of the ground approximately 1.5 metres from the shoreline. The temperature of the seep water at the point that it entered the river was 4°C.

[19] The Ministry leachate samples from February 19, 1997 were taken from the same locations as those taken on February 10, 1997. On February 19, 1997, the temperature of the seep water was 5°C.

[20] The Ministry leachate samples from May 6, 1997 were taken from a seep near a creek about ninety-five paces upstream from where that creek flowed into the Cataraqui River. Its temperature was measured at 6°C.

[21] The Ministry samples were submitted to a range of tests. The samples from February 10, 1997 and February 19, 1997 were analysed for "acute lethality" to rainbow trout and *Daphnia magna*, small crustaceans or water fleas used for test purposes. The samples from May 6, 1997 were analysed for "acute lethality" to *Daphnia magna* only. No acute lethality tests were performed with respect to the Ministry samples from February 7, 1997.

[22] The Ministry's acute lethality tests involving rainbow trout were conducted in accordance with the following Environment Canada protocols: "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, EPS 1/RM/13" and "Biological Test Method: Acute Lethality Test Using Rainbow Trout, EPS 1/RM/9". The Ministry's acute lethality tests involving *Daphnia magna* were conducted in accordance with the following Environment Canada protocol: "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*, EPS 1/RM/14".

[23] Mr. Lee^[4] conducted the Ministry's acute lethality tests involving rainbow trout. In accordance with the rainbow trout protocols, prior to the commencement of each test, the sample under examination was heated to 15°C and aerated until its oxygen level fell within the accepted range. The samples were tested at a variety of concentrations.

[24] Mr. Lee testified that all rainbow trout exposed to at least a 25% concentration of the leachate samples taken on February 10, 1997 and February 19, 1997 died within twenty-four hours of the test, which was designed to run for four days. All rainbow trout exposed to a 100% concentration of the leachate sample from February 19, 1997 died within three minutes. None of the rainbow trout fingerlings died when placed in the upstream samples. Mr. Lee testified that based on the results from "acute lethality" testing involving rainbow trout of the Ministry

leachate samples from February 10, 1997 and February 19, 1997, there was no doubt in his mind that the leachate was poisonous to aquatic life.

[25] Mr. Poirier^[5] conducted the Ministry's acute lethality tests involving *Daphnia magna*. In accordance with the *Daphnia magna* protocol, prior to the commencement of each test, Mr. Poirier heated the sample in question to 20°C. He agitated each sample thoroughly just prior to testing. The samples were tested at a variety of concentrations.

[26] Mr. Poirier testified that based on the acute lethality tests that he conducted on *Daphnia magna*, he concluded that the Ministry leachate samples from February 10, 1997, February 19, 1997 and May 6, 1997 represented leachate that was deleterious to fish. In addition, Mr. Poirier testified that only two companies have ever submitted an effluent more toxic than the Ministry leachate sample from February 10, 1997.^[6] During the test of that sample, 100% of the test organisms placed in that sample died within the first fifteen minutes of the test, which was designed to run for two days. When the leachate was diluted to a 60% concentration (60% effluent and 40% clean water), 92% of the test organisms placed in it were dead within fifteen minutes. When the leachate was diluted to 5% (with 95% clean water), 83% of the test organisms placed in it were dead within forty-three hours.

[27] The Ministry leachate samples were analyzed for chemical parameters including pH and ammonia. According to the chemical analyses of the leachate, the samples from February 7, 1997 were shown to contain 93.8 mg/L of total ammonia and 8.6 mg/L of

total ammonia (samples "one" and "two" respectively), and the sample from May 6, 1997 was shown to contain 31.3 mg/L of total ammonia. By comparison, treated effluent from a sewage treatment plant would contain total ammonia of only 10 to 15 mg/L. Mr. Lee testified that although the acceptable total ammonia concentration for the protection of aquatic life varies with temperature and pH, the very highest number not to be exceeded in any circumstances, according to the guidelines of the Canadian Council of Ministers of the Environment Task Force, is 28.7 mg/L. Mr. Lee testified that the total ammonia values of the Ministry effluent samples from February 7, 1997 and May 6, 1997 were high enough to have been acutely lethal to fish.

[28] The Ministry leachate samples from February 10, 1997 and February 19, 1997 were both shown to contain 127.7 mg/L of total ammonia. Mr. Lee determined that the ammonia concentrations in those two samples were at a level that would cause acute lethality to fish.

[29] All the experts at trial agreed that ammonia was the main toxicant rendering the samples acutely lethal. Ammonia is a naturally occurring substance which, at certain concentration levels, is necessary for life. Ammonia is composed of unionized ammonia (NH₃) and ionized ammonia (NH₄⁺). Unionized ammonia is much more toxic than ionized ammonia. The proportion of a solution of total ammonia that is composed of unionized ammonia increases as the temperature and/or pH of the solution increases. Further, the pH of a solution will rise as a result of vigorous shaking and/or aeration.

[30] Some species of fish are more sensitive to unionized ammonia than others. Pink salmon is the species that is most sensitive to unionized ammonia; rainbow trout is the second most

sensitive species. The fact that some species are more sensitive to unionized ammonia than others means that the minimum concentration level of unionized ammonia that will be toxic depends upon the species of fish concerned.

[31] On the Fletcher information, the City was convicted of four counts of unlawfully depositing or permitting the deposit of a deleterious substance in the Cataraqui River, contrary to s. 36(3) of the Fisheries Act, and thereby committing an offence contrary to s. 40(2)(a) of that Act. Each count related to a separate day on which samples of the leachate had been collected.

[32] On the Crown information, the City and Ms. Januszkiewicz were convicted of three of four counts under ss. 36(3) and 40(2)(a) of the Fisheries Act. They were acquitted on the count relating to the Ministry leachate samples collected on February 7, 1997.

[33] On summary conviction appeal, the convictions and the acquittal were set aside and a new trial was ordered. The Crown and Ms. Fletcher appeal from the decision of the appeal judge.

[34] Pollution Probe was granted leave to intervene in this appeal as a friend of the court. Specifically, Pollution Probe was granted intervenor status with respect to the nature, scope and applicability of the precautionary principle as an aid to the interpretation of the Fisheries Act.

THE TRIAL DECISION

[35] The trial judge had no difficulty in finding that the City created and owned the landfill site, was responsible for the site's ongoing operation and maintenance, and had deposited or permitted the deposit of a substance in the Cataraqui River, which was water frequented by fish. As the trial judge noted, the issue that was "hotly contested" was whether the substance in question - the leachate - was deleterious.

[36] In determining whether the leachate was deleterious, the trial judge adopted the test enunciated in *R. v. MacMillan Bloedel (Alberni) Ltd.* (1979), 47 C.C.C. (2d) 118 (B.C.C.A.), leave to appeal to S.C.C. refused, [1979] 1 S.C.R. xi, holding that the prosecution need only prove that the substance introduced was deleterious or harmful to fish.

[37] The trial judge found that the main toxicant that rendered the samples acutely lethal "was generally agreed to be ammonia" of which "the unionized form was accepted as the most toxic." He found that the samples that had been chemically analysed confirmed the presence of high ammonia concentrations.

[38] At trial, the City and Ms. Januszkiewicz argued that the prosecution had failed to prove that the leachate was deleterious. Among other things, they argued that the pH of the samples had changed between the time the samples were taken and the time they were tested, with the result that the toxicity of the samples had increased when the acute lethality tests were performed. The trial judge rejected this argument on the basis that the testing methodology used by the Crown and Ms. Fletcher had "widespread scientific support", was "fair and impartial" and had been carried out objectively. He characterized the defence argument as "entirely theoretical". The court also noted that the defence had not put forward an in situ sample for analysis.

[39] The trial judge refused to convict on the first count in the Ministry information because of confusion over the date of the chemical analysis of the Ministry sample from February 7, 1997, explaining, "in this confused state, the benefit will go to the Defence."

[40] The court rejected the due diligence defence. Relying on *R. v. Sault Ste. Marie (City)*, [1978] 2 S.C.R. 1299, the trial judge stated that the defence of due diligence involves the characterization of efforts taken to prevent the act or event, including the history of the defendants' efforts for a reasonable period before the charge dates. He found that both the City and Ms. Januszkiewicz were aware that the leachate was flowing into the Cataraqui River and that they chose to ignore the problem.

[41] He concluded:

[T]he Court rejects the defendants' position that they were duly diligent in respect to preventing the discharges. The Court can find no evidence of a comprehensive plan, not even one of effective monitoring of the closed landfill site to detect discharges. Certainly, no effective resources were committed to even dealing with the problems on a haphazard basis.

[42] The court imposed a fine of \$30,000 on each of the four privately laid counts and made one half of the fine payable to Ms. Fletcher and one half payable to the Minister of Finance for the Canadian government. The City was given ninety days to pay. Also, the City was ordered to forward to Ms. Fletcher fifteen copies of the final report by Malroz Engineering Inc., an engineering company retained by the City to implement interim seep management measures and conduct a comprehensive environmental site characterization, no later than October 31, 1999 or fifteen days after its presentation to city council, whichever date was sooner.

[43] With regard to the prosecution brought by the Ministry against the City, the court ordered a fine of \$10,000 for each of counts two, three and four, totalling \$30,000, to be paid within ninety days.

[44] Ms. Januszkiewicz was given a suspended sentence in respect of her convictions on the Ministry information. The sentencing judge reasoned that a suspended sentence was appropriate because other "authors of this misfortune" were not before the court and, although Ms. Januszkiewicz was "not entirely blameless", she was "in the wrong place at the wrong time".

[45] Further, the City was ordered to:

Within three months provide the Ministry with a rationalized long-term site monitoring program indicating whether more or fewer monitoring wells will be required and whether greater or lesser frequency of the sampling will be necessary. The program description should also indicate how future uses of the site may be affected by the presence of contaminants disclosed on sampling and analysis[.]

In addition, the City was ordered to, within twelve months,

provide the Ministry with a plan for the capping of the site in accordance with current standards of practice period.... This plan shall involve the evaluation and upgrading of the current cover at the site by the placing of impervious material such as clay to an adequate depth, a site maintenance program involving continuous evaluation of the integrity of the cap, that is, there is a plan for the maintenance program, an inspection program for any seeps, and a contingency plan to deal with any seeps that are found, a surface water management plan addressing both the cap's integrity and the flow quantity and directions of water shed by the cap, and a detailed plan for controlled venting of gases generated by the landfill beneath the impervious cover.

THE SUMMARY CONVICTION APPEAL

[46] The City appealed against conviction and sentence and Ms. Januszkiewicz appealed against conviction. The Crown cross-appealed the acquittal on count one of the Ministry information and appealed the sentence for both the City and Ms. Januszkiewicz.

[47] The appeal judge held that the trial judge erred in applying the test in MacMillan Bloedel to the question of whether the leachate was deleterious. In his opinion, the appropriate test was that set out in *R. v. Inco Ltd.* (2001), 155 C.C.C. (3d) 383 (Ont. C.A.). He reasoned as follows:

I also see no useful policy reason to find a dichotomy exists between the interpretations given to s. 30(1) of the Ontario Water Resources Act in *Inco* and s. 36(3) of the Fisheries Act given in *MacMillan Bloedel*. The "two-tier" test offered by Chief Justice McMurtry in *Inco* assists in interpreting "a deleterious substance" in s. 36(3) since both the provincial and federal statutes deal, essentially, with "impairing water quality," either per se or those waters "frequented by fish." Consequently unless ammonia was established to be an inherently toxic substance, it would be necessary in my view under s. 36(3) "to consider the quantity and concentration of the discharges as well as the time frame over which the discharge took place." I do not see in the trial judge's reasons that those factors were taken into account in assessing all of the evidence.

[48] The appeal judge concluded that a new trial was necessary. Having allowed the appeal on convictions and concluded that the wrong legal standard had been applied at trial, he held that the Crown ought to succeed in its cross-appeal of the acquittal on count one of the Ministry information.

ISSUES

[49] The main issue to be determined in this appeal is the proper interpretation of s. 36(3) of the Fisheries Act.

[50] In essence, the appellant argues that the offence created by s. 36(3) is made out by proof that a substance discharged into waters frequented by fish is "deleterious" within the meaning of the Act. The appellant Fletcher relies on that argument and, additionally, asks this court to decide whether it is sufficient to show that a substance is acutely lethal to fish to be considered "deleterious" under the Act, whether or not the substance is "inherently toxic".

[51] The respondents, on the other hand, maintain that to make out the offence under s. 36(3), the prosecution must also prove that the substance impairs the receiving water thereby making it deleterious to fish.

[52] In addition, the respondent City submits that the trial judge (1) failed to properly determine whether the appellants had proven beyond a reasonable doubt that the leachate was "toxic" or "deleterious"; (2) failed to consider significant relevant evidence; or (3) erred in holding that the prosecution need not prove that the leachate was deleterious to fish that frequented the Cataraqui River. Further, the respondent Januszkiewicz submits that there was no evidence that the effluent collected in the Ministry sample from May 6, 1997 flowed from the seep where it was collected into the Cataraqui River.

[53] In the event that it is successful on appeal, the Crown asks this court to substitute a conviction with respect to count one of the Ministry information.

THE RELEVANT LEGISLATIVE PROVISIONS

[54] Subsections 34(1) and 36(3) of the Fisheries Act are the key provisions engaged by this appeal. They are set out below. As reference is frequently made to s. 30(1) of the Ontario Water Resources Act, R.S.O. 1990, c. O.40 ("OWRA"), it too is set out below.

[55] Subsection 36(3) of the Fisheries Act is contained within that part of the statute that is headed "Fish Habitat Protection and Pollution Prevention". It provides:

Subject to subsection (4) [deposits authorized by regulation], 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.

[56] Subsection 34(1) defines the term "deleterious substance". The relevant part of s. 34(1) provides:

For the purposes of sections 35 to 43, "deleterious substance" means:

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

[57] Subsection 30(1) of the OWRA provides that:

Every person that discharges or causes or permits the discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters is guilty of an offence.

ANALYSIS

[58] With respect, in my view the appeal judge erred in applying the test set out in *Inco* to the question of whether the leachate was deleterious for the purposes of s. 36(3) of the Fisheries Act. The *Inco* test was established in reference to s. 30(1) of the OWRA. As discussed more fully below, the wording of s. 36(3) is markedly different than that of s. 30(1). Moreover, the scope and purposes of the two pieces of legislation is different. Unlike the OWRA, a piece of provincial legislation that focuses on Ontario waters, the Fisheries Act is federal legislation that applies to all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada.

[59] The Supreme Court of Canada has provided clear guidance on the approach to be followed when interpreting legislation: read the words of the provision in context. That is, the words of a provision are to be interpreted by giving them their ordinary and grammatical meaning when read in harmony with the scheme, intent and object of the legislation: see, for example, *Re Rizzo & Rizzo Shoes Ltd.*, [1998] 1 S.C.R. 27 at 40; *R. v. Sharpe*, [2001] 1 S.C.R. 45 at para. 74 - 5.

[60] Subsection 36(3) of the Fisheries Act, reproduced again below for ease of reference, prohibits persons from (1) depositing or permitting the deposit of (2) a deleterious substance of any type (3) in water frequented by fish or in any place where the deleterious substance may enter such water.

Subject to subsection (4) [deposits authorized by regulation], 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 [emphasis added].

[61] In this case, subsection (4) is not relevant.

[62] In s. 34(1)(a), "deleterious substance" is defined as:

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

[63] On an ordinary and plain reading of paragraph (a), a substance is deleterious if, when added to any water, it would alter the quality of the water such that it is likely to render the water deleterious to fish, fish habitat or to the use by man of fish that frequent the water. There is no stipulation in paragraph (a) that the substance must be proven to be deleterious to the receiving water. There is no reference to the receiving water in paragraph (a). On the contrary, the language makes it clear that the substance is deleterious if, when added to any water, it degrades or alters the quality of the water to which it has been added. The "any water" referred to in paragraph (a) is not the receiving water. Rather, it is any water to which the impugned substance is added, after which it can be determined whether the quality of that water is rendered deleterious to fish, fish habitat or the use by man of fish that frequent that water.

[64] I agree with the interpretation of s. 36(3) given by Seaton J.A. in *MacMillan Bloedel*. As he noted at pp. 121-22: "What is being defined is the substance that is added to the water, rather than the water after the addition of the substance."

[65] The focus of s. 36(3) is on the substance being added to water frequented by fish. It prohibits the deposit of a deleterious substance in such water. It does not prohibit the deposit of a substance that causes the receiving water to become deleterious. It is the substance that is added to water frequented by fish that is defined, not the water after the addition of the substance. A deleterious substance does not have to render the water into which it is introduced poisonous or harmful to fish; it need only be likely to render the water deleterious to fish. The actus reus is the deposit of a deleterious substance into water frequented by fish. There is no requirement in s. 36(3) or paragraph (a) of the definition of the term "deleterious substance" in s. 34(1), of proof that the receiving waters are deleterious to fish.

[66] In *R. v. Northwest Falling Contractors Ltd.*, [1980] 2 S.C.R. 292, the Supreme Court of Canada considered the constitutional validity of s. 33(2) [now s. 36(3)] of the Fisheries Act. In that case, the appellant was charged with violating s. 33(2) as a result of diesel fuel having spilled into tidal waters. In the course of explaining why the provision was constitutionally valid, the Court opined both on the purpose of the legislation and the meaning of s. 33(2). It made the following six pertinent observations at pp. 300-01. (1) Fish, as defined in the legislation, are part of the system that constitutes the fisheries resource. The power to control and regulate that resource must include the authority to protect all those creatures that form part of that system. (2) The legislation is aimed at the protection and preservation of fisheries as a public resource. (3) The provision is concerned with the deposit of deleterious substances in water frequented by fish or in a place where the deleterious substance may enter such water. (4) The definition of a deleterious substance is related to the substance being deleterious to fish. (5) The subsection seeks to protect fisheries by preventing substances deleterious to fish from entering into waters frequented by fish. (6) The provision is restricted to a prohibition of deposits that threaten fish, fish habitat or the use of fish by man.

[67] In my view, the interpretation of s. 36(3) given in *MacMillan Bloedel* is consonant with the reasoning of the Supreme Court of Canada in *Northwest Falling Contractors*. Accordingly, I reject the respondents' contention that the Supreme Court of Canada has, by means of its decision in *Northwest Falling Contractors*, directed the courts to consider the effect of the deposit on the receiving water by means of a consideration of the toxicity of the substance and the circumstances of the discharge.

[68] Those lower courts in Ontario that have followed the reasoning in *MacMillan Bloedel*, in my opinion, have done so correctly. See, for example, *R. v. Cyanamid Canada Inc.* (1981), 11 C.E.L.R. 31 at 36-37 (Ont. Prov. Ct. (Crim. Div.)); *R. v. Ontario (Ministry of the Environment)*, [2001] O.J. No. 2581 at paras. 163-71 (Ct. J.); *R. v. Jackson* (2002), 48 C. E.L.R. (N.S.) 259 at 264 (Ont. Sup. Ct.)

[69] The appellant Fletcher asks this court to determine whether, for the purposes of a prosecution under s. 36(3) under the Fisheries Act, a substance will be considered deleterious if it is shown that the substance is acutely lethal to fish. The question, as phrased, cannot be

answered because it provides insufficient information -- it does not speak to all of the requirements of paragraph (a) of the definition of the term "deleterious substance" in s. 34(1). Paragraph (a) requires proof that the substance, if added to water, alters the quality of the water so that the water is likely to be rendered deleterious to fish. I would add, however, that if a substance, when added to water, alters the water so that the water is acutely lethal to fish, I am of the view that the substance is deleterious.

[70] The respondents argue that although the Crown does not have to prove actual harm or damage to fish or fish habitat when the substance in question is inherently toxic, when the substance is not inherently toxic the Crown must prove that the substance is deleterious at the point it enters the receiving environment. It will be recalled that the trial judge found that ammonia was the main toxicant within the leachate. Ammonia is a naturally occurring substance that can be beneficial and which dissipates quickly in water. This, they argue, necessarily leads to a consideration of the nature and circumstances of the discharge including the length of time over which the discharge occurred and the nature, quality, quantity and concentration of material discharged.

[71] In my view, the essence of the respondents' argument is that the proper test to be applied where the substance is not inherently toxic is that given by this court in *Inco*.

[72] In *Inco*, the defendant was alleged to have permitted effluent containing high levels of nickel and iron to be discharged into a river. Charges were laid against the defendant under s. 30(1) of the OWRA. Subsection 30(1) of the OWRA, reproduced again for ease of reference, provides that:

Every person that discharges or causes or permits the discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters is guilty of an offence [emphasis added].

[73] As can be seen, s. 30(1) expressly provides that a person who permits the discharge of material into water is guilty of an offence if the discharge "may impair the quality of the water", that is, the water into which the material was discharged.

[74] *McMurtry C.J.O.*, writing for the court in *Inco*, held that the test established in *R. v. Imperial Oil Ltd.* (1995), 17 C.E.L.R. (N.S.) 12 (Ont. Ct. J. (Prov. Div.)) should be applied when determining whether an offence under s. 30(1) has been made out. At p. 405, he said this:

Inherently toxic substances will always fail that test, reflecting zero-tolerance for discharging materials that, by their nature, may impair water quality. If the material in the discharge is not inherently toxic, then it will be necessary to consider the quantity and concentration of the discharge as well as the time frame over which the discharge took place. ...

Subsection 30(1) prohibits the discharge into water of materials that may impair the quality of any waters [emphasis in original].

[75] In a prosecution pursuant to s. 30(1) of the OWRA, the prosecution must establish that the substance discharged into water has the potential to impair the quality of the water into which it was discharged. In a prosecution pursuant to s. 36(3) of the Fisheries Act, what must be proven is that a substance discharged into water frequented by fish is deleterious. The elements of the two offences are different because the language of the offence?creating provisions is different. In my view, it would be incorrect to apply a test established for prosecutions under s. 30(1) of the OWRA to charges brought pursuant to s. 36(3) of the Fisheries Act.

[76] For this reason, I am of the view that the appeal judge erred not only in making the test under s. 36(3) of the Fisheries Act the same as that under s. 30(1) of the OWRA but also by holding that the trial judge should have made a finding of fact as to whether the leachate was inherently toxic.

[77] Site-specific impairment is not a necessary ingredient of the offence under s. 36(3). Although the second step of the test formulated by this court in *Inco* relates to substances that are not inherently toxic, the test does not apply to prosecutions under s. 36(3). It applies to prosecutions taken under s. 30(1) of the OWRA, a provision that does focus on impairment of the quality of the receiving water. It may be that one method for proving that a substance, when added to water, renders that water deleterious to fish is through an examination of the nature of the substance and the quantities and concentrations in which it was discharged. However, that does not make such considerations a necessary component of the offence under s. 36(3); rather, it provides a possible form of proof.

[78] Accordingly, in my view, ss. 36(3) and 34(1) cannot be taken as requiring the Crown to prove the nature of the allegedly deleterious substance. The prohibition in s. 36(3) is against the deposit of a deleterious substance "of any type". What must be proven is that the substance, whatever it might be, is a deleterious substance within the meaning of paragraph (a) of the definition of that term in s. 34(1). In this case, it meant that the prosecution had to prove that the leachate, when added to any water, was likely to render the water deleterious to fish or fish habitat or to the use by man of fish that frequent the water. It did not have to prove which component of the leachate was responsible for the degradation or alteration of the quality of the water such that the water was likely to be rendered deleterious to fish. Nor was it obliged to show that fish living in the vicinity of the seep were harmed. It was required only to prove the elements of the offence as set out above.

[79] To the extent that *R. v. Pacifica Papers Inc.* (2002), 46 C.E.L.R. (N.S.) 93 (B.C. Prov. Ct.), *R. v. BHP Diamonds Inc.*, [2002] N.W.T.J. No. 91 (N.W.T.S.C.) and *R. v. Abitibi Consolidated Inc.*, [2000] N.J. No. 153 (Newf. Prov. Ct.), cases relied upon by the respondents, stand for the proposition that when a substance is not inherently deleterious, the substance's nature and concentration must be proven to be deleterious at the point it enters the receiving environment, I am in respectful disagreement.

APPLICATION TO THE CASE AT BAR

[80] As the appeal judge applied an incorrect legal test when considering the judgment of the trial judge, it falls to this court to determine whether the trial judge erred in concluding that the

elements of the offences alleged under s. 36(3) had been made out. It will be recalled that the elements of the offence to be proven under s. 36(3) are: (1) depositing or permitting the deposit of (2) a deleterious substance (3) in water frequented by fish or where the substance may enter such water.

[81] On the record, there can be no doubt that the trial judge was entirely justified in finding that the respondents had deposited waste in the dump site; that when it rained, some part of the waste or its residue combined with rain water to become leachate; that the leachate seeped into the Cataraqui River; and, that the Cataraqui River is frequented by fish. In the language of s. 36(3), the trial judge was entitled to find that the respondents permitted the deposit of leachate into water frequented by fish.

[82] Did the trial judge err in concluding that the leachate was a deleterious substance within the meaning of the definition of that term in s. 34(1)(a)? That is, did the trial judge err in concluding that the leachate, if added to any water, would alter the quality of that water so that the water was likely rendered deleterious to fish?

[83] The Ministry's acute lethality tests were performed on the Ministry samples at a variety of concentrations. The diluted concentrations were made by adding the leachate to a proportionate amount of water. Given the trial judge's acceptance of the protocols employed and the test results on the diluted Ministry samples, I see no error in his conclusion that the leachate contained in those samples was a deleterious substance within the meaning of paragraph (a) of the definition of that term in s. 34(1).

[84] The tests of the Fletcher samples were performed only on the samples at 100 per cent concentration. In other words, the Fletcher leachate samples were not added to water. The trial judge did not directly address the question of whether the Fletcher samples, if added to water, would have altered the quality of the water thereby rendering it deleterious to fish. The evidence on that point is unclear. On the record before this court, I cannot conclude beyond a reasonable doubt that, had the Fletcher leachate samples been added to water, the water would have been rendered deleterious to fish. As a consequence, the appeal in relation to the Fletcher prosecution must fail.

[85] The intervenor Pollution Probe submits that s. 36(3) must be interpreted in light of the "precautionary principle". It cites 114957 Canada Ltée v. Hudson (Town), [2001] 2 S.C.R. 241 ("114957 Canada") in support of this submission. 114957 Canada concerned the interpretation of s. 410(1) of the Québec Cities and Towns Act, R.S.Q. c. C-19. The Supreme Court held that this provision granted a municipality the authority to adopt a by-law that restricted the use of pesticides within the municipality's territorial limits. L'Heureux-Dubé J., on behalf of the majority of the Court, noted that the Court's interpretation of s. 410(1) was consistent with the "precautionary principle", a principle of international law and policy. L'Heureux-Dubé J. explained at pp. 266-67 that:

The interpretation of By-law 270 contained in these reasons respects international law's "precautionary principle", which is defined as follows at para. 7 of the Bergen Ministerial Declaration on Sustainable Development (1990):

In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

[86] 114957 Canada indicates that the values reflected by the "precautionary principle" may help inform the contextual approach to statutory interpretation. However, the meaning of s. 36(3) of the Fisheries Act is clear and unambiguous. As a consequence, there is no need to resort to the "precautionary principle" as an interpretive guide to the legislative text in question. I note merely that the interpretation of s. 36(3) contained in these reasons is not inconsistent with the "precautionary principle" established under international law.

THE ADDITIONAL ISSUES RAISED BY THE RESPONDENTS

[87] The respondent City raises three additional issues in support of their submission that the appeal should be dismissed. The respondent Januszkiewicz raises a fourth additional issue. I will consider each issue in turn.

A) Reasonable doubt

[88] The respondent City submits that the trial judge erred by failing to determine whether the appellants had proven beyond a reasonable doubt that the leachate contained in the samples was deleterious to fish. I do not accept this submission. Under the heading "THE ACTUS REA OF THE CHARGES", the trial judge explicitly considered whether the leachate contained in the samples was deleterious to fish. He concluded that:

In summary, seven of the eight counts in the charges against the defendants are ruled to be deleterious to fish. The argument made by the defence on these seven charges concerned specifically with this element of the offence are not given credence for the above stated reasons.

[89] The respondents had argued that the results of the acute lethality tests failed to establish that the leachate contained in the samples was deleterious to fish. They argued that the animals used in the acute lethality tests died not as a result of the toxicity of the leachate contained in the samples, but instead as a result of the manner in which the tests were conducted. The trial judge considered this argument and rejected it, concluding that:

By happenstance, in looking at all of the data, the Court does not agree with the Defence's arguments on support of the pH shift as causing the deaths in the bioassays. The argument of the defence is entirely theoretical and scientific experts who wish to overturn accepted science, in this Court's opinion, have to do more than testify in Court.

[90] Under the heading "REASONABLE DOUBT ISSUE", the trial judge cited Cory J.'s statement in *R. v. Wholesale Travel Group Inc.* (1991), 84 D.L.R. (4th) 161 at 227 that "[t]he Crown must still prove the actus reus of regulatory offences beyond a reasonable doubt." He concluded that:

The Court, after analysing the data presented, considering the arguments put forth by both sides and consulting the relevant case law rejects the reasonable possibilities at issue and has no reasonable doubts as to the commission of the actus reus in seven of the eight charges as outlined above.

[91] Given the trial judge's explicit statements on this element of the offence and the issue of reasonable doubt, it is apparent that the trial judge found that the appellants had proven beyond a reasonable doubt that the leachate contained in the samples was deleterious to fish. The arguments of the respondents concerning the manner in which the acute lethality tests were conducted failed to establish a reasonable doubt. I conclude that the trial judge committed no error of law with respect to this issue.

B) Consideration of significant relevant evidence

[92] The respondent City argues that the trial judge failed to consider significant relevant evidence. Where a trial record, including the reasons for judgment, discloses a lack of appreciation of relevant evidence, an appellate court must intercede: *Harper v. The Queen*, [1982] 1 S.C.R. 2 at 14. The respondent City claims that there are a number of issues that the trial judge either failed to address or failed to address sufficiently. All of these issues relate to the respondents' argument that the animals that died during the acute lethality tests on the samples died not as a result of the toxicity of the leachate contained in the samples, but instead as a result of the manner in which the acute lethality tests were conducted.

[93] I do not accept this submission. This was a very difficult trial. As the trial judge noted in his reasons:

This was a long trial, twenty-five court days with almost no admitted facts into evidence. Consequently, many witnesses were necessary to establish the legality of a chain of evidence for the samples, the analysis, the charts and exhibits - two hundred and twenty-seven exhibits in all. There were frequent points of law debated. Case law citations numbered over fifty. Ten expert witnesses testified on opposing theories of the key elements of the charges and the Court frequently had to readjust its focus from particular arguments to the overview, that is, the forest was frequently disguised because of the trees.

[94] In spite of these difficulties, the trial judge gave careful consideration to the issue of whether the leachate samples were deleterious to fish. The respondents argued at trial that the samples would not have been found to have been acutely lethal if they had been tested in situ rather than in accordance with Environment Canada protocols on acute lethality testing. The trial found that this argument was "entirely theoretical" and contrary to accepted science. The respondents also argued at trial that the acute lethality tests were not performed in accordance with Environment Canada protocols. The trial judge responded to this claim as follows:

Defence suggested that Drs. Lee and Poirier made errors in their methodology of testing using some quotes from various protocols. However, a careful reading of the whole methodology of the protocols revealed that phrases were taken out of context and the Court was satisfied with the counter arguments and confident that the test methodology was fair and impartial.

A special interpretation of the protocol was proposed by counsellor Doody [counsel for the City] as proof of the unreliability of the Ministry of the Environment laboratory methods. Immediately after the death of the organisms in the effluent, the lab is to conduct temperature and pH measurements. The impracticality and cost of such an interpretation, that is, to have an observer oversee a sample for forty-eight hours to comply with these requests, illustrates a special twist the Defence liked to put on their arguments. The evidence is that all tests are conducted under the same methodology with observations made at timed intervals.

[95] Although the trial judge's reasons are not exhaustive, his reasons nevertheless demonstrate a full understanding of the complex issues of scientific evidence that were before him. I therefore conclude that the record does not disclose a lack of appreciation of relevant evidence.

C) Proof that the leachate was deleterious to fish that frequent the Cataraqui River

[96] The respondent City submits that the trial judge erred in holding that the appellants need not prove that the leachate was deleterious to fish that frequent the Cataraqui River. I do not accept this submission. For the reasons already given, proof that the substance in question is deleterious to the specific species of fish that frequent the water in which the substance is deposited is not an element of the offence in s. 36(3) of the Fisheries Act.

D) The Ministry leachate sample from May 6, 1997

[97] The respondent Januszkiewicz submits that the trial judge erred in convicting the respondents on count four of the Ministry information because there was no evidence that the leachate collected in the Ministry sample from May 6, 1997 flowed from the seep where it was collected into the nearby creek, nor was there evidence that the effluent could have entered the Cataraqui River even if it had reached the creek. This submission is without merit. The trial judge found that:

The Sierra Legal Defence Fund video, which is Exhibit 7, along with evidence of all the samplers characterize the leachate as coming from the ground in the form of seeps or springs running across the ground and into the shore of the river. In some cases where the flow was heavy, channels were cut down to the foreshore to look like small streams. Many of the photographs entered as exhibits also show this situation. Frank Crossley, the Ministry of the Environment's Hydrogeologist, an expert on the movement of ground water through the subsurface, commented that the leachate is formed when the water moves through the soluble materials of the underlying landfill then migrates horizontally in a radial pattern from the high ground to about one metre elevation above the river level. He calculates that the flow from data in the Hill Report as much as twenty tanker loads a day, that's 200,000 litres. Malroz, the company retained by the City of Kingston in March 1997 adopted a remedial action of driving sheet pilings along the periphery to capture the leachate flows and pumping to the sanitary sewer system.

From the massive evidence before the Court, it seems impossible to dispute this element of the offence. The leachate or toxic solution from the landfill site enters the Cataraqui River at the time of these charges.

[98] The Ministry sample from May 6, 1997 contained leachate that was emanating from the dump site. The trial judge found that leachate from the dump site was entering the Cataraqui River at the time this sample was collected. Ms. Januskiewicz offers no argument that there was any difference between the leachate collected by the Ministry on May 6, 1997 and the "tanker loads" of leachate that flowed into the Cataraqui River on that day. I conclude that the trial judge made no error in this regard.

THE ACQUITTAL ON COUNT ONE OF THE MINISTRY INFORMATION

[99] The appellants maintain that had the appeal judge applied the proper test to count one of the Ministry information, he would have set aside the acquittal and entered a conviction. I disagree.

[100] This court is to defer to findings of fact at first instance absent "a palpable and overriding error": see *Housen v. Nikolaisen* (2002), 211 D.L.R. (4th) 577 at 582. The trial judge found that the Crown's evidence concerning the Ministry samples from February 7, 1997 - specifically, the date on which the samples were tested - was "in a confused state". On the record before him, he was entitled to make that determination. Having made no palpable and overriding error, I see no reason to interfere with his disposition of count one.

DISPOSITION

[101] Accordingly, I would grant leave to appeal, allow the appeal in part, and set aside that part of the judgment of the Summary Conviction Appeal court that allowed the appeals against conviction of the City and Ms. Januskiewicz in the Ministry's action. The result is to restore the convictions and acquittal at first instance in the Ministry's action. The Crown's sentence appeal is remitted to the Summary Conviction Appeal court to be dealt with accordingly.

RELEASED: 20040512 ("KNF")

"E. E. Gillese J.A."

"I agree K. Feldman J.A."

"I agree Robert J. Sharpe J.A."

[1] Ms. Schroeder was qualified as an expert for the private prosecution in the testing of effluent for toxicity in a laboratory.

[2] pH is the measurement of acidity or alkalinity of a sample.

[3] Excepting the sample from December 17, 1996, which had a constant temperature of 14°C.

[4] Mr. Lee was qualified as a Crown expert witness in the field of aquatic toxicology and impact assessment, including the development and implementation of testing protocols for acute and chronic toxicity to trout.

[5] Mr. Poirier was qualified as a Crown expert witness in aquatic toxicology, including the development and implementation of testing protocols for acute and chronic toxicity.

[6] Mr. Poirier testified that this opinion was based on his review of the data from approximately 15,000 samples.