Chapter 6

Law and Disorder: A Review of Habitat Legislation and Protection for BC's Salmon Streams

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This tributary to Duthie Creek on Pooley Island was clearcut by Western Forest Products under the Forest Practices Code in 2000. Duthie Creek is the largest pink salmon producer on Pooley Island, central coast (Area 6).

Fisheries management and logging in BC

Until recently, all logging in British Columbia was conducted pursuant to the provincial *Forest Act*, administered by the provincial Ministry of Forests (MoF). The *Forest Act*, with the exception of some minor administrative penalties, contains neither offence nor penalty provisions related to protecting fish habitat from destructive logging practices. Statutes governing the protection of fish habitat can be found in the federal *Fisheries Act* and, to a limited extent, in the new *Forest Practices Code of British Columbia Act*. Both of these documents will be analysed later in this chapter.

There is also a political mechanism called the "agency referral process." Through agreement with the Ministry of Forests, the federal Department of Fisheries and Oceans (DFO), the BC Ministry of Water, Land and Air Protection*(WLAP) and the forest industry, an inter-agency referral system was initiated in 1965. This process was intended to provide for increased protection for aquatic habitat by including restrictive clauses on logging in and around streams in logging contracts. The process is still in effect today, albeit scaled down due to cuts to DFO and Provincial budgets. Through this referral process, DFO and WLAP have the opportunity to review 5-Year Forest Development Plans, Management and Working Plans, and silviculture prescriptions submitted by forest companies to MoF, so they can assess potential impacts of the proposed timber harvesting activities on fish and wildlife habitat. Where impacts to fish habitat are likely, DFO and WLAP can request changes to the proposed logging plan.

The effectiveness of this procedure has been limited by inconsistent application and a lack of enforcement, due largely to the sheer volume of cutting and the limited response capability of the resource agencies. DFO and WLAP (MoELP) do not have the manpower or the financial resources to do an adequate job. For the most part, information about the fisheries resources in areas of proposed timber harvest is supplied to ministry staff by the logging companies. Much of this information is lacking in sufficient detail for resource agencies to make sound, informed decisions on how the proposed cut blocks should be harvested to protect fisheries resources. Again because of budgetary and manpower constraints, resource agency officials are unable to verify the information they receive.

*** The Ministry of Environment, Lands and Parks was replaced with the Ministry of Water, Land and Air Protection in the spring of 2001 when the Liberal government was elected.**

The Coastal Fisheries/Forestry Guidelines

Chapter 3, along with other studies from the US Pacific Northwest and Alaska, show a clear connection between conventional industrial forestry practices and damage to fish habitat. This fact is recognized and accepted by the government resource agencies and by the logging companies.

To facilitate the referral process and to ensure that fish habitat was afforded protection from logging activities, the MoF, DFO, WLAP and the Council of Forest Industries (the agency representing the province's major logging companies) formulated a set of guidelines to integrate fisheries and forestry resource management in coastal British Columbia (B.C. Ministry of Forests et al. 1988, 1992, 1993). The aim of the guidelines was to "*improve the performance and effectiveness of the consultative process required for fish habitat protection and concurrent forest harvesting management*".

The Coastal Fish/Forestry Guidelines, or CFFGs (BC Ministry of Forests et al. 1988, 1992, 1993) addressed habitat requirements for fish and the steps to be taken by the forest industry to protect fisheries values. A stream reach classification system was developed which identified a range of fisheries habitat values ranging from Class I (highest value) to Class IV (lowest value). Accompanying this was a series of operating guidelines for all the major forestry operations, to be implemented in accordance with stream reach class objectives. The operating guidelines cover topics such as road construction and maintenance, falling and yarding, and the post operational phase of logging including silviculture.

One important aspect of the CFFGs was the introduction of Streamside Management Zones (SMZ) on all Class I and II streams. SMZs were designed to protect streams by preventing logging companies from operating too close to fish-bearing streams. The Guidelines provided for buffer strips — stands of trees left along banks — to protect streams and provide a future source of large organic debris (logs). Further, within the SMZ, only selective logging that did not involve the use of heavy equipment was permitted.

The CFFGs were intended as the ultimate mechanism for protecting fish habitat from poor logging practices, without recourse to enforcement of environmental legislation. The CFFGs were first implemented in 1988 (BC Ministry of Forests et al. 1988). At that time, the Ministry of Forests was to take the lead role in implementation and monitoring. A monitoring program was conceived that would assess the degree to which fish habitat objectives were being achieved, and to determine the efficiency of the guidelines in reducing and resolving conflicts and making management decisions in the field. Due to the limited response capability of its staff, the MoF transferred

these responsibilities to industry. The logging companies were, in effect, to police themselves. Government enforcement agencies were essentially left out of the picture.

The Tripp Report: A report card on compliance with the Fish/ Forestry Guidelines

In early 1991, three years after the introduction of the CFFGs, the former MoELP retained a private consulting firm, D. Tripp Biological Consultants Ltd., to evaluate logging operations on Vancouver Island and determine the degree of compliance with the Guidelines. Twenty-one randomly selected cutblocks were audited, all of which had been logged since 1988.

Tripp found that, for the most part, logging companies were not complying with the Guidelines. They found that there was at least one major or moderate impact to fish habitat in at least one stream in every cutblock examined; an alarming statistic given that over the previous five years more than 6000 cutblocks had been logged along the BC coast. Half of the impacts were to Class I and II streams. In all, 34 (64%) of the 53 streams examined had been damaged by negligent logging practices. Damage included streams filled in with gravel, collapsed and eroded stream banks and streams filled with logging debris. It was further determined that all of the observed impacts could have been avoided if the Guidelines had been followed.

The "Tripp Report" indicated that habitat destruction was caused by poor gully management, inadequate drainage control on logging roads, failure to provide a leave strip of trees along stream banks, misclassification of streams and, in over 25% of the streams surveyed, failure to classify streams at all. The report makes it quite clear that government regulatory agencies were in many ways responsible for these negligent logging practices in that they often failed to invoke pre-harvest prescriptions that were specific and enforceable, and failed to conduct adequate on-site inspections before and during logging. Similar results, with varying degrees of compliance, were reported following similar studies conducted in five other forest districts around the province (Tripp et al. 1993; Tripp and Grant 1993; Tripp 1994). For example, in the North Coast, Kalum and Sunshine Coast forest districts, Tripp found that half to two thirds of the stream reaches with fisheries concerns showed a major or moderate impact caused by failure to follow the CFF Guidelines (Tripp et al. 1993, Tripp and Grant 1993).

Although activities that result in "*the harmful alteration, disruption or destruction of fish habitat*" are prohibited under the federal *Fisheries Act*, no charges were ever laid in any of the situations brought to light in the Tripp Reports. Some preliminary on-site inspections were conducted on the sites with the worst

damage and in some cases requests were made for remedial measures to repair some of the damage, but no other punitive actions were taken.

Following the release of the Tripp Report, the MoF ordered all logging companies operating on Vancouver Island to re-visit all cutblocks logged since 1988 and prepare audit reports identifying areas of non-compliance. The MoF, former MoELP and DFO were to conduct their own independent audits of 10% of these cutblocks. The findings of a selection of these audits were detailed in an internal government document.

This document, dated August 6 1993, pointed out that virtually all major aspects of the CFFGs still had a low level of compliance. Problem areas included poor road construction and maintenance resulting in damage to fish habitat, and failure to leave sufficient mature timber in streamside management zones to protect Class I and II streams. This document made it clear that both federal and provincial resource agencies had approved inadequate logging prescriptions that damage fish habitat.

The present regulatory regime: problems and analysis

The Forest Practices Code of British Columbia Act

On June 15 1995, the BC government enacted the *Forest Practices Code of British Columbia Act* more commonly known as the *Code*. This act was promoted internationally by the BC government as the new model for forest management. The *Code* provides for penalties (fines up to $1,000,000 or 3 years imprisonment or both, for a first offence) for forest practices that result in damage to the environment (s. 45(1) of the *Code*). The *Code* also provides for additional fines ranging from $5,000 to $500,000 and/or imprisonment ranging from six months to one year (s. 143 of the Act).

There are also substantial administrative penalties (*FPCBCA*, Administrative Remedies Regulation, BC Reg. 166/95) to persons failing to comply with their operational plans and the terms and conditions of those plans. Operational plans include long term (five or more years) forest development plans, logging plans and silviculture prescriptions (which are cutblock specific), access management plans (i.e. roads and road maintenance), and range use plans. Approval of operational plans and permits as they relate to timber harvesting on Crown land in BC rests with the MoF (note: the *Code* does not apply to privately managed forest lands). The ministry official with the power to accept or reject operational plans submitted by forest companies is called the District Manager.

The *Code* incorporates and builds on many of the aspects of the CFFGs with the intention of making the guidelines legally binding. A close examination of

the *Code* reveals that there are few, if any, provisions that offer increased protection for fish habitat in areas where timber harvesting is proposed or undertaken (see below). Contrary to popular belief and the declarations of the BC government, all evidence from field examinations indicates that the new *Forest Practices Code* does not provide adequate protection for fish habitat on forest lands in BC. While the *Code* does provide for penalties, it contains the proviso that there is no contravention of the *Code* if the person or persons conducting these activities is (are) acting in accordance with an operational plan or permit issued under the *Forest Practices Code* or its regulations. In addition, the term "damage to the environment" is not defined.

Nameless Creek in Tom Bay on the central coast (Area 7). A salmon producing stream on Yeo Island was damaged extensively by Western Forest Products in 2002 when this clearcut caused a land slide.

The *Code* and regulations provide District Managers with broad discretionary powers in setting the terms and conditions under which forestry companies may operate in and around streams, whether fish bearing or not. For example, s.73(1) of the Operational Planning Regulation (BC Reg. 174/95) specifies the minimum riparian reserve zone widths and riparian management zone widths to be left along streams of various classes, while s. 73(3) allows the District Manager to vary these widths. Additionally, s. 8(1) of the Timber Harvesting Practices Regulation (BC Reg. 181/95) states that, "*a person carrying out a timber harvesting operation on applicable land must not yard or skid timber through or over any stream or fisheries-sensitive zone* ***unless*** *yarding or skidding is authorized in a logging plan.*"

All of the provisions of the *Forest Practices Code* and regulations that apply to timber harvesting adjacent to streams contain this discretionary wording which, if applied to operational plans submitted by Licensees, make it virtually impossible to hold forest companies accountable should their actions result in damage to fish habitat. It would be extremely difficult to hold a District Manager, who approves operational plans while exercising his/her discretion in a manner which could favour the forest companies, accountable because the penalty provisions of the *Code* do not apply to government (s. 1(5)).

Another problem with relying on the *Forest Practices Code* to protect fish habitat lies in the *Code's* definition of "fish stream" as that "portion" of a stream frequented by fish. For the provisions of the *Code* dealing with riparian protection (Table 1) to take effect in a clearcut next to a fish bearing stream, the Licensee need only consider whether that portion, or reach, of the stream immediately within or adjacent to the proposed cutblock is frequented by fish. It does not take downstream fish values into account.

This is a questionable view of what constitutes fish habitat. In this scenario, the *Code* permits the removal of all timber adjacent to non-fish bearing stream

reaches. It also specifically permits cross- stream falling and yarding across these sections of stream. Cross-stream yarding is even defined in the Riparian Management Area Guidebook (BC Ministry of Forests and BC Ministry of Environment, Lands and Parks 1995) as: "*...when a log or portion of a log is yarded over a stream and* ***contacts any part of the bank, channel or vegetation*** *in the RMA.*"

Cross-stream yarding is one of the most destructive activities associated with timber harvesting and leads to streambank destabilization and the introduction of logging debris into streams. Most of the non fish-bearing reaches of fish-producing streams on the BC coast are situated in the steeper headwater areas, where the requirements for riparian management areas (RMAs) are less restrictive, and where cross-stream falling and yarding would prevail as an acceptable forest practice. Fish habitat will continue to be lost as the effects of these land-use practices are transported to fish-bearing stream habitats at points located further downstream.

Following proclamation of the *Forest Practices Code* on June 15 1995, the British Columbia government immediately began relaxing *Code* requirements with regard to the percentage of timber to be left standing within RMAs (Table 6-1). This was done to fulfil the following government promise to the forest industry: any reduction in the Annual Allowable Cut (AAC) arising from strict application of the *Forest Practices Code* requirements concerning the amount of timber to be left in reserve areas would not exceed 6%. In the early stages of negotiations with environmental groups, government negotiators promised that the "riparian management zones" would not be clear-cut and that at least 50% of the trees in those zones would be left standing. As a result of the government-imposed cap on reduction in AAC losses, most of the riparian management zones across BC are being clear-cut.

The Forest Practices Board: a critique

On June 25, 1998, the Forest Practices Board, an independent forest watchdog formed under the *Code*, released the results of a special investigation into forest planning and practices near coastal streams in British Columbia (Forest Practices Board, 1998). The report concludes that forest practices near streams have improved since the *Forest Practices Code* was created and that the disturbance of streams by logging has reduced significantly since the late 1980s and early1990s. Board Chair Keith Moore said: "*This was a very rigorous and detailed investigation and I am confident that the results accurately reflect the current state of forest practices near streams on the coast of B.C. The improvements can be attributed to a number of factors including Code requirements, and an increased awareness of the need to protect streams and adjacent areas.*"

A close examination of the findings reveals a different picture. The Board's report concluded that nearly 25% of streams in the coastal study area[1] were incorrectly classified and that the incorrect classification led to harvesting of trees in a number of riparian reserve zones that should have been left standing to protect the streams. The harvesting of these trees led to inappropriate deposits of woody debris in some streams. To make matters worse, most of the streams that were mis-classified were small fish streams.

After having reached these conclusions, the Board still maintained that the investigation found high levels of compliance with *Code* planning and practices requirements. They also concluded that the recommended forestry practices, as outlined in the Riparian Management Guidebook (BC Ministry of Forests et al. 1995) a companion document to the *Code*, were generally being followed by logging companies. They determined that, when they are used, the practices recommended in the *Code* are effective in minimizing impacts on streams and riparian areas and that impacts are significantly lower than found in pre-*Code* studies (i.e. "The Tripp Report" findings).

The Board's conclusion that only 25% of streams were incorrectly classified is somewhat misleading. This number refers to all streams studied, ranging from S1-S6 (S1-S4 being fish bearing and S5 and S6 non-fish bearing).

In reality, the Board found that 56% (50 out of 89) of all the mis-classified streams were fish streams and that 39% (50 out of 132) of all fish streams themselves were mis-classified. The Board's own figures also show that 21% (6 out of 29) of all S2 streams[2], 51% (22 out of 43) of all S3 streams[3], and 53% (22 out of 42) of all S4 streams[4] were incorrectly classified. These are alarming statistics, considering that S2-S4 streams made up the majority (86%) of all the fish streams encountered during the study.

Even more worrisome is the fact that of the 22 mis-classified S3 fish streams, which by law are required to have a minimum 20 metre no-harvest reserve zone, 15 (67%) did not have the required reserve zones. The reserve zone on one correctly classified S3 stream was clearcut and on 6 (12%) of the 46 S1 and S2 fish streams, some degree of illegal timber harvesting had taken place within legally mandated, no-harvest reserves.

By the Board's own admission, 94% of all fish streams over 5 metres in width (S2 or S1 streams) lay adjacent to, rather than within, the sampled cutblocks. This would account for the high level of riparian zone compliance (86-89%) observed by the Board's investigators. The figures cited above suggest that more that 50% of all S3 and S4 streams found on cutblocks are being mis-classified. More than 60% of the mis-classified fish streams required to have

[1] The study area included Port McNeill and South Island forest districts on Vancouver Island, Chilliwack and Sunshine Coast forest districts on the southern coast and Kalum and Queen Charlotte forest districts on the north coast.

[2] Fish streams between 5 and 20 metres wide.

[3] Fish streams between 1.5 and 5 metres wide.

[4] Fish streams less than 1.5 metres wide.

legally mandated, no-harvest reserve zones are subject to either unauthorized partial harvesting within the riparian reserve or being clearcut to the banks. The Board skirted this issue in its subsequent analyses of the data and never directly addressed the question of what percentage of the streams are being clearcut to the banks.

The fact that streams were not properly identified or classified was not a compliance issue when it came to the actual practices around any given stream. The issue was whether the logging company followed the procedures outlined in their plans, whether they were appropriate or not. Fully accounting for mis-classification within the compliance section would have dramatically reduced the compliance figures.

The Board's report is surprisingly silent on the issue of enforcement, despite the fact that the above data plainly indicate clear contravention of the *Code* during the Board's investigation, especially the infractions related to clear-cutting within legally mandated reserve zones on class S1-S3 streams. The failure of the Ministry of Forests planning approval process to prevent these mis-classifications is noteworthy. At the very least, the Board should have recommended that MoF's Compliance and Enforcement Branch conduct follow-up investigations.

The Board did not consider the unidentified or mis-classified streams in its analysis of:

- whether approved prescriptions minimized stream alterations
- whether the approved prescriptions were effective in minimizing stream and riparian reserve zone alteration; and
- whether logging companies utilized the key riparian management guidebook best management practices guidelines

Twenty-two (22) S3 streams were mis-classified and, of those, 16 did not have the minimum required riparian reserve zone — yet these streams were excluded from these analyses. There was no review of whether harvesting of, or within, the legally mandated riparian reserve zones on these streams resulted in any alteration to these streams, or whether the logging companies followed the recommended best management practices even though the streams were mis-classified. What we do know is that the Board conclusively stated that where reserve zones were left adjacent to streams, the reserve zones were 95% effective in minimizing stream alterations. We can only assume this number would be lower for the streams not considered in the analysis.

In summary, the Board concludes that overall compliance with the *Code* is high and has led to an improvement in harvesting conditions over the pre-*Code* era. However, the Board's own data show that more than 50% of all fish streams on cutblocks are being mis-classified. This is resulting in a significant number of streams being either clearcut to their banks or having as much as 50-75% of the timber removed from riparian reserves that should be protected. Where streams have no riparian reserve, debris is being left in streams and streams are being felled and yarded across.

Table 6-1
Specified minimum Riparian Management Area slope distances for riparian stream classes as set out in the *Forest Practices Code of British Columbia Act.*

Source: *Forest Practices Code* Riparian Management Area Guidebook, December 1995

Management Zone Riparian Class	Average Channel Total RMA width (m)	width (m)	Reserves Zone width (m)	width(m)
S1 large rivers	≤100	0	100	100
S1 except large rivers				
S2	>20	50	20	70
S3	>5 ≤20	30	20	50
S4	1.5≤5	20	20	40
	<1.5	0	30	30
S5	>3	0	30	30
S6	≤3	0	20	30

Fish stream or community watershed

Not a fish stream or not in community watershed

The Federal Fisheries Act

With the exception of certain administrative penalties under the *Code*, regulatory protection of the fishery resources of British Columbia from damage resulting from forest harvesting lies solely within the federal *Fisheries Act*. Sections 26(1), 35(1) and 36(3) of the *Act* read as follows:

Section 26(1)

> *"One third of the width of any river or stream and not less than two thirds of the width of the main channel at low tide in every tidal stream shall always be left open, and no kind of net or other fishing apparatus, logs or any material of any kind shall be used or placed therein."*

This provision can apply to log jams caused by inadequate cleanup, or encroachment of bridges and road building material (side cast) on stream channels.

Section 35(1)

> *"No person shall carry on any work or undertaking that results in the **harmful** alteration, disruption or destruction of fish habitat."*

Note: the key word in this provision is "harmful." This section can apply to the following situations: removal of all riparian (stream side) vegetation, falling and yarding of logs across, in and through (not over) streams, driving heavy equipment in and through streams, landslides and debris torrents which are directly attributable to logging related activity, prolonged sedimentation of streams caused by poor road construction practices and/or maintenance, and culvert failures resulting from inadequate maintenance.

Section 36(3)

> *"... 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."*

This section can be used when sediment is discharged into streams from stream bank erosion, from uncontrolled road or ditch erosion, and when there is a discharge of gasoline, oil or grease from logging equipment and/or spills.

Enforcement of the Federal Fisheries Act

Under the *British North America Act*, the Canadian federal government has jurisdiction over both coastal and inland fisheries. In BC responsibility for management and protection of resident sport fish, including steelhead and coastal cutthroat trout, rests with the provincial jurisdiction of WLAP. The federal Department of Fisheries and Oceans (DFO) has retained responsibility for marine and anadromous fishes, including the five species of Pacific salmon. In BC, the *Fisheries Act* is administered both by federal Fisheries Officers, who are responsible for all waters where anadromous salmon are found, and by provincial Conservation Officers in areas where the streams contain sport fish. This division of responsibility between the two governments is a loose arrangement and is the result of a written policy agreement, not legislation.

The only provincial environmental enforcement organization in British Columbia is the 140-member Conservation Officer Service which is part of the provincial WLAP ministry. However, approximately 80% of their time is spent enforcing hunting and fishing game laws, parks protection, wildlife control, public education and administration (Doug Turner, pers. com. BC WLAP).

Only 20% of their work involves enforcing the *Waste Management Act*, the *Water Act*, the *Pesticide Control Act* and the *Fisheries Act* as it relates to fish habitat.

The DFO is responsible for reviewing all logging operations that may affect streams containing anadromous fish, but this agency also lacks the manpower to properly enforce the provisions of the *Fisheries Act*. The officers responsible for enforcement are often those that approve companies' initial logging prescriptions.

Considering the immense geographic size of the province (approx. 1,100,000 km^2) and the thousands of miles of coastal and inland waters, neither of these enforcement agencies have the manpower to enforce the *Fisheries Act* as it relates to the logging industry in BC.

Government enforcement agencies often lack scientific and legal advice, direction and support from within their agencies. There are also close relationships between government officials and the logging industry. In 1989, for example, Mr. Otto Langer, then head of the Habitat Management Unit for the DFO in the Pacific Region, wrote a memo to his superiors that was subsequently leaked to the press. The memo documented instances of government interference with enforcement of the *Fisheries Act* because of the "negotiate and compromise at all costs philosophy" of both the provincial and federal governments. Langer's memo said that a special relationship existed between governments and large corporations and that their violations of the *Fisheries Act* often went unprosecuted. He further suggested that only small companies and individual citizens were being prosecuted under the *Act* and that, "...it must be appreciated that DFO habitat enforcement has reached an all time high in inconsistency and an all time low in terms of the adverse precedents they are setting habitat destruction that has taken place is being ignored to a significant degree."

Enforcement overview

At the present time there is virtually no active enforcement policy in BC for *Fisheries Act* violations relating to improper logging practices. The Sierra Legal Defence Fund found that government officials within the DFO and WLAP openly express a negative attitude toward the concept of enforcement through prosecution under the *Fisheries Act*. Time and again, these officials have indicated that cooperative regulation of the forest industry is the answer.

The concern with this kind of policy is that it sets the stage for a shield against prosecution, that of "officially induced error." When government regulatory agencies become involved in the planning process as it is practiced for timber harvesting in BC, it sets in motion a procedure of review and approval of logging plans wherein the government (MoF, WLAP, and DFO) can dictate the steps to be followed by a licensee to ensure fish habitat is protected. Reviews of the proposed plans are often superficial and/or the fisheries resource data upon which these reviews are based are inadequate or incorrect. As a result, the prescriptions themselves are often inadequate or incorrect. The licensees are obliged to follow these plans and prescriptions as specified either under provisions of the applicable legislated statute, such as the *Forest Practices Code* or the *Fisheries Act*, or under the terms and conditions of their Cutting Permits or Licenses to Cut.

When, or if, damage to fish habitat occurs as a result of the Licensee's activities, whether they are in compliance with their permit or not, charges against the offenders are seldom considered; if they are, they are seldom pursued by the Crown. This is because the current view of both the provincial Attorney General's office and the federal Department of Justice is that if a corporation is operating under a plan, licence or permit approved by government, and their works or undertakings lead to damage to fish habitat, then the government, not the Licensee, is to blame because it permitted the act that led to the offence (P. Ewert, pers. com., Criminal Justice Branch, BC Ministry of Attorney General). This is particularly so if the corporation is violating its approved plan, permit or licence and the government enters into lengthy arbitration with the corporation while the offence is ongoing in an effort to rectify the situation through negotiation and compromise. This occurs even though virtually every permit or licence issued in the province contains wording to the effect that adherence to the terms and conditions of the approval document does not absolve the Licensee or Permittee from their obligations under other existing provincial or federal statutes, such as the *BC Waste Management Act* or the federal *Fisheries Act.*

Crown prosecutors also apply a test of reasonableness to all charges brought before them to determine whether the alleged offender was duly diligent. Due

diligence applies if a person has taken all reasonable measures to prevent an offence from occurring. This could be, and often is, interpreted to mean simply following the conditions set out in the permit. Due diligence is the only defence available under the *Fisheries Act*.

The provincial Attorney General also considers whether it is in the public interest to proceed with a charge. In several instances, the Attorney General's office has refused to proceed with charges against an offender because during the period between commission of the offence and the laying of charges, the offender may have participated in efforts to rectify the damage done. In such cases it would be determined that it is not in the public interest to proceed with charges because the offender cooperated in efforts to clean up the problem. Government agencies, such as the MoF, who conduct logging through their small business forest enterprise program, often escape prosecution because the Attorney General's office has adopted the position that it is not in the public interest to proceed with charges against a government agency since the taxpayer would have to foot the bill for any fines (P. Ewert, Criminal Justice Branch, BC Ministry of Attorney General, pers. com.).

The net effect of applying the combined tests of officially induced error, due diligence or whether it is in the public interest to proceed, is that few charges are laid against logging companies or the MoF for damage to fish habitat in BC. In other areas, however, different philosophies prevail. In Ontario, there were few environmental prosecutions prior to 1985, and regulators had concentrated on administrative remedies similar to those described above for the logging industry in B.C. Regulators found this to be ineffectual. In 1985, there was a major change in Ontario's environmental policies which led to the creation of a special branch of environmental police, an increase in prosecutions staff and the introduction of severe penalties for polluters (D. Chapman, former prosecutor, Ontario Ministry of Environment, pers. com.). By 1989, the number of prosecutions had increased 500% and fines levied for those offences increased dramatically. These prosecutions received much media coverage and many experienced environmental experts agree that this emphasis on prosecutions had a profound effect on improving the environmental compliance of many corporations.

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