



ENVIRONMENTAL APPEAL BOARD
Province of British Columbia

APPEAL NO. 89/39 WATER

In the matter of the appeal under s. 38 of the *Water Act*, R.S.B.C. 1979, chap. 429, by Dixon Trucking Ltd. against an order of the Deputy Comptroller of Water Rights, dated 30th November, 1989, to remove all the logs from the river along his property.

BETWEEN Dixon Trucking Ltd. **APPELLANT**
Fernie, B. C.
represented by G.S. Majic, Counsel
Witnesses: Mr. W. Dixon
Mr. M. Carvey, P. Eng.

AND Deputy Comptroller of Water Rights **RESPONDENT**
represented by J.E. Farrell, P.Eng.
Witnesses: Mr. R. Cairns,
Mr. D. Boyer, P. Eng.

BEFORE A PANEL OF THE ENVIRONMENTAL APPEAL BOARD
Mr. H.D.C. Hunter, Chairman
Mr. G.E. Simmons, Member
Mr. J.D. Watts, Member

DATE May 17th, 1990

PLACE Park Place Lodge, Fernie, B.C.

EXHIBITS

- EX. 1 Decision of the Environmental Appeal Board dated 18th January, 1989.
- EX. 2 Letter dated 30th November, 1989, from Mr. Farrell to Mr. Majic.
- EX. 3 SPEC Report dated 22nd September, 1989.
- EX. 4 Cost summary of the Appellant - July/Aug 1989
- EX. 5 Appeal Book of the Respondent (27 Tabs).

PRELIMINARY

The Board raised the question, of which the parties had received notice, whether the Respondent had the legal authority to issue the orders which he did. In fact, it is the original order of the Regional Manager which is in question as all other events flow from this.

The parties were instructed to file arguments on this matter following the hearings. The Board undertook to make a decision on the merits of the appeal in any event, and the hearings continued on the basis that the authority was unquestioned.

EVIDENCE

In order to put events into proper perspective, a brief review of history is needed. In 1981, the Appellant purchased land on the bank of the Elk River at Morrissey, known as Lot 1, D.L. 4588, Plan 12154, Kootenay Land District. This property is bottom land, between the river and the CP Railway. After his purchase, the Appellant cleared the land, or part of it, for agricultural purposes. He found that the land was being seriously eroded by the river.

In 1985, he began to place poplar trees which he had dropped and limbed over the bank at an angle to the current to protect the bank. He wedged the trees, which in most cases still had the roots attached, between standing trees for security. He did not seek any permission as he did not think any was necessary.

The work was seen by Mr. Boyer of the Water Management Branch in October, 1986, and was inspected by him at that time. On 20 March, 1987, Mr. Boyer wrote to the Appellant about this (EX. 5, TAB 22C). This letter did not suggest the work was wrong, but recommended cabling to secure the logs. In 1988, an order had been issued by the Regional Manager to the Appellant to remove these logs. This was appealed and eventually the Environmental Appeal Board upheld the concept of using logs in this way, but required cabling and securing work to be undertaken. (No member of the earlier panel of the Board sat on the present appeal). The earlier decision referred to a report of EPEC of November, 1988 (EX. 5 TAB 6) and required the Appellant to comply with recommendations in the report. The Deputy Comptroller of Water Rights considered that the Appellant had failed to comply with this order and, therefore, ordered the Appellant to remove all the logs as they would pose a hazard to downstream properties if they went adrift. This appeal results from this latter order.

The recommendations referred to include:

"Cut and trim tips of revetment trees/logs which extend beyond the base of the river-bank slopes to enable the revetment works to better conform to the slope to provide optimum erosion protection and lessen tendency for floating and underwash during peak river flows."

"Cable trees/logs together in small groups and also to standing trees or to buried logs along the top of the bank to better secure the revetment works and to further reduce their buoyancy. This cabling in small groups should also virtually assure that large numbers of logs cannot break free at once and will minimize any potential for downstream damage to structures or properties."

The evidence disclosed that the Appellant had cut and trimmed logs which appeared to be bobbing in the current. They did not thereby "conform to the slope". This was

due to the fact that they are tightly wedged at their base and are jammed together. The Branch apparently expected that the bank would have been sloped to conform.

The logs are cabled together in small groups, but in several areas, due to a lack of standing trees, these groups are attached to header cables. These header cables are themselves attached to standing trees at each end and are also tied back by cables to "deadmen" at intervals. These deadmen are reported to be large poplar logs buried in the ground some four to six feet deep.

The Respondent considers that this method does not carry out the recommendations of the EPEC report and, in fact, increases the danger. If a header cable breaks or comes adrift, even more logs will be afloat and tied together.

There was no argument that the required inspections have taken place and the Appellant agreed again to continue them.

In 1986, before any cabling was done, there was high water in the river, higher than normal. None of the logs were dislodged. The 1986 level was reported to be a 1 in 7-year flood. At the upper end of the property, a 1 in 20 year flood would bring the water up to bank-top level; at the lower end, bank-top level would probably be reached at a substantially lower level.

The site inspection revealed that logs and header cables are secured to standing trees. The header cables also have periodic tie-backs to deadmen. These latter, of course, cannot be inspected, but the locations could be seen from dips in the ground surface. The trees are at different distances from the edge of the bank.

Mr. Cairns alleged that the clamps on the cables were installed incorrectly. The Appellant, who has been a logger for twenty-five years, maintained that they were installed as he had always done. Mr. Boyer had made some calculations which indicated that the header cables were too small. No notice of this opinion evidence had been given to the Appellant, so the Board places little weight on it.

There is no doubt that the Appellant has expended a great deal of effort and money to secure the logs and to comply with the orders of the Board. The Water Management Branch is concerned that there has been no professional engineering input into the design or process and they are therefore left with little to criticize. They agree that the earlier decision of the Board rules that this method of bank protection is or can be acceptable.

The Board upholds the concerns of the Branch that if any logs come adrift, there is a significant risk of damage to downstream properties. At the same time, the Board accepts the right of the Appellant to seek to protect his property from erosion and appreciates that he had expended much time, effort and money to this end, with no objection from the Branch.

The site inspection revealed that the logs do not necessarily conform to the slope of the bank and in one or two places, eddies behind the logs have increased the speed of the flow by the bank and thus increased the risk of erosion.

Some of the trees used to anchor the logs, particularly for the upstream ends of the headers where the strain will be greatest, are fairly close to the edge of the bank. There is also concern that the deadmen may become rotten, and thus allow the tieback cable to cut through them under strain. It is agreed that they are not very likely to float or be pulled up out of the ground.

The Board agrees that for normal or moderately high peak flows, the logs will help to reduce erosion, and are not likely to come adrift. However, if the flood reaches up to the level of the bank top or near to it, the free ends of the logs will float and thereby suffer greatly increased down-stream pressure. If they float, they will offer no protection from erosion to the bank beneath them and this may well undermine the standing trees which serve as anchors and cause them to fall into the stream, dragging any logs anchored to them with them. If this happened to the trees which are the upstream anchors for a header cable, it would probably cause all the logs attached to that header cable to be peeled off the bank, notwithstanding the deadmen anchors. There is obviously a greater risk of damage from all the logs attached to a header cable than from three or four logs tied together.

DECISION

This is a particularly difficult decision to make. On the one hand, the Appellant has expended a great amount of time, effort and resources on seeking to protect his property from erosion. This is a very legitimate purpose. His actions will certainly help at normal highwater levels and will pose no real risk to other properties at these levels. He has been encouraged by the earlier decision of the Board in this course. He was earlier also encouraged by the Branch.

On the other hand, the Deputy Comptroller is properly concerned with all eventualities, not just normal high water flows. The Board agrees that there is a very real risk that at higher than normal flood flows, the present installation could break loose; if this were to happen there is a real risk of serious damage to downstream properties. It is impossible to forecast the extent of such damage: it could be minimal if the logs caught up or stranded close by; it could be very high if a large bundle got caught up on a bridge pier. It is also pointless to seek to estimate the chance of success of a legal action to recover the cost of the damages; it is most unlikely that the government would escape serious criticism.

The Board directs the Deputy Comptroller to rescind his order of 30 November, 1989, and, therefore, his order of February 10th, 1988. To uphold this would mean that the Appellant would have wasted all his resources to date as well as the significant expenses involved in compliance, and his property would be totally unprotected. However, the Board is not satisfied with the present installations.

The Board further directs the Deputy Comptroller to issue a new order requiring the Appellant to obtain the services of a person or company, acceptable to the Deputy Comptroller, competent to advise on the steps needed to upgrade the installations so as to be safe from reasonable risk of breaking adrift during high flood level.

The Appellant must perform all work which such person may advise prior to high water in 1991. Following high water in 1991, such person may advise further work or maintenance and the Appellant shall carry out such further work or maintenance prior to 15th November, 1991.

The Appellant shall file or cause his adviser to file with the Regional Water Manager "as built drawings" prior to 30 November 1991. Such "as built drawings" need not be to normal engineering standards nor be prepared by a professional engineer, but shall be sufficient to show the location and nature of the installations, tie backs and other security devices so that a purchaser of the property would be able to locate and identify the various features of the installations.

The Appellant shall also cause a covenant to be filed in the Land Title Office under Section 215 of the *Land Title Act* that the owner for the time being must inspect the installations at least once a year before high water and report the results to the Regional Water Manager.

The order shall provide that if the Appellant or subsequent owner has not complied with these requirements by 30th November, 1991, or such later time as the Deputy Comptroller in his absolute discretion may allow, the logs in the river or against the bank, in whole or in part, shall be removed and disposed of in such a way as to ensure they do not enter the river under bank full flows. Such removal to be completed by March 30th, 1992.

In order to assist the parties in this matter, the Board reserves to itself the jurisdiction to approve the wording of the covenant to be filed in the Land Title Office.

The Board also expresses the hope that the Appellant's counsel will explain to him his liability, both at common law and under the Water Act if his installation causes any damage to others, and the powers of the Deputy Comptroller to enforce his orders and have work done by others at the Appellant's expense.

H.D.C. Hunter, Panel Chairman
Environmental Appeal Board

May 31st, 1990