[SUPREME COURT OF NEW SOUTH WALES (EQUITY DIVISION)]

VAN SON v FORESTRY COMMISSION OF NEW SOUTH WALES

Cohen J

18-22 July 1994; 3 February 1995

Water Rights — Riparian rights of landowners — Pollution of water — Logging — Soil erosion — Interference with domestic water supply — Statutory vesting of ownership and giving of water rights — No independent common law right of action — Water Act 1912 (NSW), s 7 — Water Administration Act 1986 (NSW), ss 12 and 13.

Nuisance — Pollution of water — Logging — Soil erosion — Interference with domestic water supply — No implied statutory immunity — Damages — Forestry Act 1916 (NSW), ss 9 and 11 — Clean Waters Act 1970 (NSW), ss 16, 35 — Environmental Offences and Penalties Act 1989 (NSW), ss 8B, 14, 15 — Pollution Control Act 1970 (NSW), ss 17A-17H.

Section 7 of the *Water Act* 1912 (NSW) gives to occupiers of land which forms the bank of a river or lake the right, without the need for a licence, to take and use water therefrom for domestic purposes, watering of stock, irrigating gardens not exceeding 2 hectares which are cultivated in connection with the use of a dwelling house for domestic purposes, and for irrigating land not exceeding 2 hectares used for domestic purposes. "River" includes a stream of water, whether perennial or intermittent, flowing in a natural channel.

Section 12 of the *Water Administration Act* 1986 (NSW) vests in the Ministerial Corporation created by that Act the right to the use and flow, and to control, of the water in rivers and lakes, except to the extent that is either otherwise provided for by that Act or directed by the exercise of a function of the Corporation. By s 13 the right conferred by s 12 may not be exercised in contravention of a right specified in Sch 2. Schedule 2 specifies a right exercisable under s 7 of the *Water Act* 1912.

Section 9 of the *Forestry Act* 1916 (NSW) provides that the Forestry Commission of New South Wales shall have the administration of that Act, may exercise the powers and shall discharge the duties conferred and imposed on it by that Act. Section 11 sets out the powers and duties of the Commission. These include: (a) the control and management of State forests, in such manner as best serves the public interest; (b) the power to take any timber or products on lands which include State forests, and (e) the power to construct roads or incidental works necessary for the taking or removing of timber or products on those lands.

Section 16 of the *Clean Waters Act* 1970 (NSW) provides that a person shall not pollute any waters and that any person who does so is guilty of an offence against the *Environmental Offences and Penalties Act* 1989 (NSW). Section 35 provides that nothing in the Act affects any right that a person may have under any rule of law to restrict or prevent, or to obtain damages in respect of, the pollution of any waters.

Section 8B of the *Environmental Offences and Penalties Act* 1989 (NSW) specifies penalties for breaches of the *Clean Waters Act* 1970. Section 14 provides for orders for compensation for loss or damage to property suffered by

persons by reason of the commission of offences against the Act, and s 15 provides for the recovery of loss or damage from convicted persons.

Sections 17A-17H of the *Pollution Control Act* 1970 (NSW) provide for the granting of licences for conduct which would otherwise be an offence under the *Clean Air Act* 1961 (NSW), the *Clean Waters Act* 1970 or the *Noise Control Act* 1970 (NSW).

The plaintiff owned property adjoining the Mistake State Forest near Bowraville on the north coast of New South Wales. She lived on the property with her children and kept a few horses and a cow. Part of the boundary of the plaintiff's land was bordered by Jasper's Creek and she pumped water from it into tanks for her domestic use. She and her children also used the creek for recreation. After logging operations in the adjacent forest, especially the making and using of snig tracks to haul fallen timber along, which had preceded rainfall, the plaintiff noticed that the creek water was polluted by soil sediment. The judge accepted that the pollution was caused by soil erosion from the logging operations. In proceedings seeking an injunction against the Forestry Commission but which, as finally heard, became a claim for damages:

Held: (1) The plaintiff could not succeed in a claim based upon alleged breach of common law riparian rights arising out of a restriction of the flow from an upstream owner.

Hanson v Grassy Gully Gold Mining Co (1900) 21 NSWR 271; *Dougherty v Ah Lee* (1902) 19 WN (NSW) 8; *Grant Pastoral Co Pty Ltd v Thorpes Ltd* (1954) 54 SR (NSW) 129, and *Thorpes Ltd v Grant Pastoral Co Pty Ltd* (1955) 92 CLR 317, referred to.

(2) The plaintiff had established that as against herself the logging operations of the defendant, carried on through its agent logging contractors, constituted private nuisance.

Don Brass Foundry Pty Ltd v Stead (1948) 48 SR (NSW) 482; *Harris v Carnegie's Pty Ltd* [1917] VLR 95, and *Munro v Southern Dairies Ltd* [1955] VLR 332, referred to.

(3) Because the snig tracks had been constructed in an unreasonable way the defendant could not claim any implied statutory immunity for the nuisance arising from the statutory schemes of forest management and water pollution control applicable to the subject works.

Metropolitan Water, Sewerage and Drainage Board v OK Elliott Ltd (1934) 52 CLR 134; *Allen v Gulf Oil Refining Ltd* [1981] AC 1001, and *Tate & Lyle Industries Ltd v Greater London Council* [1983] 2 AC 509, referred to.

(4) The plaintiff was entitled to a modest amount of general damages, assessed at $3,000, for past, but not future, loss of enjoyment of the use of her land, but nothing for alleged aggravated damages.

Darley Main Colliery Co v Mitchell (1886) 11 App Cas 127; *Willoughby Municipal Council v Halstead* (1916) 22 CLR 352, 3 LGR 165, and *Oldham v Lawson (No 1)* [1976] VR 654, referred to.

SUMMONS FOR INJUNCTION AND DAMAGES

This was a proceeding commenced by summons in the Equity Division of the Supreme Court of New South Wales claiming an injunction and damages for breach of rights of a riparian land owner and for private nuisance arising from pollution from soil erosion caused by logging operations. The facts are set out in the judgment.

T F Robertson, M W Anderson, for the plaintiff.

G C Lindsay, for the defendant.

Judgment reserved

3 February 1995

COHEN J. These proceedings commenced by summons seeking injunctions against the Forestry Commission of New South Wales. As finally heard, it became a claim for damages.

The plaintiff is the owner of property adjoining the Mistake State Forest near Bowraville on the north coast of New South Wales. She lives on that property with her children and she keeps a few horses and a cow. There are many trees on the property, some of which have been planted by the plaintiff.

Mistake State Forest is contained within the Urunga Management Area controlled by the Commission. The forest is divided into compartments, presumably for the purpose of ease of identification and management. The Commission is responsible for managing the forest and it has supervised the logging of it, like others, for many years. It was its intention in 1993 to conduct logging operations in compartments 341 and 342. The first of these contains part of the catchment area for Jasper's Creek. Part of the boundary of the plaintiff's land is bordered by that creek which has a road crossing over it near to the boundary. Immediately downstream of that crossing the creek forms a pond which, at least until December 1993, was the plaintiff's only source of water. From it she pumped water to a tank which was situated further up the hill from the house, by means of a fixed pump-line. The water was used for domestic purposes, for the garden and for the stock. That part of the creek was also used for swimming and other recreational purposes, although upstream of the crossing there was a somewhat larger pond also available. In 1993 there were two water tanks on the plaintiff's land, each with a capacity of 5,000 gallons, or about 22,700 litres.

The harvesting of trees in State forests is carried out by contractors licensed by the Commission and acting under its control and supervision. This is done under a harvesting plan prepared for the particular logging operation. It is the responsibility of the Commission, through its officers, to identify the trees to be logged, using various criteria relating, for example, to the suitability of trees for particular purposes, the quantity to be harvested per hectare and the steepness of the slope for access. I shall deal with the harvesting plan for compartments 341 and 342 later in these reasons. In order to get the felled logs to the road it is necessary to construct snig tracks, that is to say tracks cut by a bulldozer down the slope. The logs, when suitably trimmed, are then hauled up the track by bulldozer and taken to a log dump. In some cases where it is convenient, or where it is not appropriate to construct a snig track, the logs may be winched up the slope. In order to make the snig tracks, it is necessary to cut into the slope and in doing so, remove the topsoil. When logging is completed banks are installed along the snig track. These banks run at right angles to the track and are intended to divert the flow of water down the track and to reduce erosion.

Mistake State Forest, like many other coastal forest areas, is steeply sloped. Evidence shows that about 42 per cent of it has a slope exceeding 25 degrees and more than half of that exceeds 30 degrees. It normally has a very high annual rainfall, concentrated in the summer months but continuing to a much lesser degree during winter and spring. In 1992 and 1993 rainfall was well below average, and this has continued up to the present. The plaintiff keeps daily rainfall records and these have been useful in indicating the days

when rain occurred and the amount which fell at the time of the logging. There was little rain in June 1993 when work under the logging operation relating to compartments 341 and 342 commenced, but it then rained on 1 July. From 9 July to 14 July 50 millimetres fell, as recorded at the plaintiff's house.

The plaintiff said that following that rain the pond from which the water is pumped became extremely turbid with a high level of yellow sediment. She said that she was unable to pump the water up to her tank because of this heavy sedimentation but was eventually able to do so after the water cleared somewhat. The same problem arose after further rain periods in August. These proceedings had already been anticipated, because of the logging operations, and they were in fact commenced on 15 July 1993 when leave to serve the summons on short notice was given. The summons sought an injunction to prevent logging taking place on slopes exceeding 25 degrees and an order that remedial work be carried out in order to prevent further erosion and damage to the plaintiff's water supply. It also sought damages. On 20 July the defendant, on an interim basis, gave an undertaking to the Court that it would not permit the carrying out of roading, logging or burning activities on slopes above 25 degrees in compartments 341 and 342. There were certain exceptions provided for in respect of activities which were still proceeding. This undertaking was to continue until 12 August 1993 but on 28 July the harvesting ceased. By letter dated 8 September 1993 the legal officer of the Forestry Commission wrote to the plaintiff's solicitor and said that without any undertaking being given or without any intention to be bound, the Commission's present intention was not to log these two compartments again until the next cutting cycle in approximately 20 years. There is accordingly no need to consider any question of a continuing injunction in relation to logging or harvesting.

An application was made for the proceedings to be expedited and I was informed that the reason for this was that the plaintiff was seeking orders that the defendant carry out work in order to prevent future damage arising out of erosion of areas which had been cut for snig tracks and which it was claimed would continue to erode and cause sedimentation of the plaintiff's water supply. This was the second order sought in the summons. However, evidence given on behalf of the plaintiff when the proceedings were heard showed that there are no specific steps for rehabilitation being proposed because it is not known what would be effective in preventing further erosion or assisting in regeneration on the exposed areas. Notwithstanding this, the plaintiff seeks an order that the defendant take whatever steps are necessary to prevent further erosion. The claim for damages is based upon an interference by the defendant with the plaintiff's riparian rights to use the water of Jasper's Creek in an unpolluted condition or alternatively arising out of nuisance because of the unreasonable use by the defendant of its land which caused pollution of the waters flowing along the creek, part of which is claimed to be owned by the plaintiff. These issues raise some difficult questions of law but before looking at those the first task of the Court is to consider the factual question of whether the sedimentation in Jasper's Creek, where it forms the boundary of the plaintiff's land, was caused by the logging operations, and in particular by the cutting of the snig tracks. It is also necessary to consider whether the defendant took all appropriate and reasonable steps in the planning and carrying out of the logging operations.

There was litigation in 1989 in the Land and Environment Court between another resident and the Forestry Commission concerning logging in other compartments in the Mistake Forest [*Bailey v Forestry Commission (NSW)* (1989) 67 LGRA 200]. There were concerns then as to the likely effect of logging on steep slopes. Following that litigation it was necessary to have an environmental impact statement prepared before further logging could take place on slopes greater than 25 degrees. That was prepared in 1991 and part of the material used for it was a soil analysis conducted by Mr Veness. That covered the whole of the Mistake Forest. There had been used, for the purpose of preventing erosion, the Standard Erosion Mitigation Conditions, but these were subsequently regarded as inadequate for considering the effects of logging on erosion. They were replaced in February 1993 by what are now called the Standard Erosion Mitigation Guidelines for Logging.

There had been correspondence and consultation between the Forestry Commission and the Department of Conservation and Land Management concerning the preparation and use of the Standard Erosion Mitigation Guidelines for Logging, and on 16 March 1993 a memorandum of understanding was executed on behalf of those two government bodies by the Director-General of the Department of Conservation and Land Management and the Commissioner for Forests. That recited the complexity associated with the management of the environment and the need to review and revise the control of timber harvesting operations in New South Wales forests. It was agreed that the previous conditions had constituted a guide rather than a standard. It was also agreed that the Standard Erosion Mitigation Guidelines for Logging would be adapted to produce enforceable conditions within the context of approved harvest plans for which the Commissioner for Forests would be accountable and that an earlier recommendation should be conditionally adopted, to the effect that during the preparation of harvesting plans, the Commission is to determine the range of soil properties and erosion hazard and in so determining it should liaise with and have regard to the advice of the Department of Conservation and Land Management. This advice should be then used to prepare an erosion hazard and sedimentation strategy for each harvesting plan. There was also provision for the continuing revision of the Standard Erosion Mitigation Guidelines for Logging, based upon approved scientific knowledge and understanding. Subject to the matters set out in the memorandum it was agreed that the Standard Erosion Mitigation Guidelines for Logging provide adequate direction for erosion, mitigation and sediment control associated with timber harvesting operations to be undertaken by the Commission.

A harvesting plan for the proposed logging of 341 and 342 was prepared by the Commission in March 1993. There followed discussions with a number of local residents whose properties were on or adjoining creeks below the forest, and these included the plaintiff. Following these discussions and other representations the harvesting plan was completed and approved in its final version on 28 May 1993. It was forwarded to the Department of Conservation and Land Management on 16 June for comment, although there was no legal obligation for this to be done. Presumably this occurred as a result of the memorandum to which I have earlier referred. Harvesting commenced on 21 June and continued until 28 July. A number of comments were made by the Department of Conservation and Land Management by

way of an internal memorandum on 29 June. It would therefore appear that the harvesting commenced before any views were obtained from the Department of Conservation and Land Management. The internal documents of that Department suggest that there had been no consultation between members of the two organisations and the comments, although critical in parts, dealt mainly with the structure of the plan itself. The objections to the original plan voiced by the plaintiff and others referred to the principal problems of erosion but their suggestions were not accepted by the Commission which stated that it acted under the approved guidelines. Mr Rayson, the District Forester for the Urunga District, said that the plan was drawn up taking into consideration a number of matters, including on-site inspections, erodibility, topography, timber types and a number of other features. He said that he took into account information on the nature of the soils obtained from the environmental impact statement, to which I have referred, a preliminary report of Dr J W McGarity of 5 May, personal observations and a telephone conversation with an officer of the Department of Conservation and Land Management who has expertise in soils.

For the purpose of considering the likelihood of erosion, Mr Rayson used soil analysis results contained in an appendix to the 1991 environmental impact statement. He averaged a number of figures given in respect of particle size analyses in order to obtain a figure used in assessing what is referred to as the K factor, which relates to soil erodibility. The samples from which the soil analysis results had been obtained were from various areas of the Mistake Forest, none of which were in compartments 341 and 342. They were within what is referred to as the Hanging Rock Soil Landscape Unit. Most of those two compartments are said to be in that soil landscape unit. The K factor obtained by Mr Rayson was used to test the likelihood of erosion.

The case for the plaintiff is that notwithstanding the planning which took place, the actual carrying out of the work involving the cutting of snig tracks resulted in erosion and the sedimentation within a short time after a reasonable amount of rain fell. In particular it is claimed that one of the longer snig tracks, referred to as number 2 track, which was in fact an extension of an older track used in previous logging operations, caused sediment to go into a gully which had been formed many years earlier and from there, by way of a definable water course, into Jasper's Creek. In support of this claim, evidence of an extensive nature was given by experts, and for the defendant, other experts with high levels of qualification gave evidence disagreeing with much of what had been said by the witnesses for the plaintiff. All of these persons are distinguished and experienced in their particular field. As frequently happens, they differed not only on scientific matters but also on observations and opinions based on those observations. I could not say that I would disbelieve any of those witnesses. Because, on a number of aspects, they were obviously at issue, there was not a great deal of cross-examination and this makes it all the more difficult to decide who is to be accepted on a number of technical matters. As I will indicate, this eventually requires the consideration of what is more probable notwithstanding views to the contrary. I was assisted in understanding the evidence by a view of the area, including the three snig tracks and much of the surrounding countryside.

Dr J W McGarity has lectured on and carried out research into soil and

soil conservation for about 40 years. He also has considerable experience in land development and in the planning of and assessment of the need for erosion control measures both in Australia and overseas. He has had extensive study of and advised on erosion control in forest areas. Dr McGarity prepared a report in 1988 which was used in the earlier litigation to which I have referred and which dealt with other parts of Mistake Forest. He had warned then, as he did later in a preliminary report in May 1983, that the soil in that forest is generally of an erodible nature, particularly once the topsoil is removed. He considered that cutting into the soil for the making of roads or snig tracks on steep slopes, in particular those over 25 degrees, would result in soil erosion, the creation of rills or erosion gullies, and subsequent damage. He prepared a report in July 1993, resulting from inspections which he had made of four of the compartments of Mistake Forest in the previous April and May, that is, before the logging had commenced. Those compartments included 341 and 342. He was of the view that the harvesting plan had used the Standard Erosion Mitigation Guidelines for Logging as a means of justifying activities on the steeper slopes. However he disagreed with the plan on a number of bases, one of which was that it stated that the soils were of average erodibility. In Dr McGarity's view this did not take into account what he regarded as a high proportion of dispersible subsoils which increased the erodibility factor. He considered that the potential for erosion in these two compartments was extreme and he stated that the harvesting plan had not taken full account of either the erodibility of the soils, the pre-existing erosion, or the steepness of the upper slopes which made the catchment vulnerable. He considered at that stage that logging should not be carried out on slopes which were greater than 25 degrees.

Dr McGarity's views as expressed in his report were reinforced by later inspections after the logging had ceased. He considered that the three snig tracks which had been cut were in parts on slopes in excess of 25 degrees and that the effect of construction had been to allow the soil to wash down the hill by way of rills or gullies to Jasper's Creek. He thought that they had been built in such a way as to permit soil to erode and that banks which were later erected also had the potential of directing water so as to cause further erosion. He used information supplied by Mr Veness as the result of soil sampling in the two compartments to support his view that subsoil near the snig tracks was of such a nature as to make those particular slopes subject to serious erosion, leading to soil being carried to the creek. In an affidavit of December 1993 he concluded that the increased abrasive effect of suspended sediment would lead to the deepening and widening of the rills, gutters and gullies and that the works carried out would provide major sources of sediment within the catchment area. He said that he believed that any major rainfall event before a vegetation cover is established would transport large quantities of suspended sediment into the Jasper's Creek system.

In response to the evidence of Mr Rayson, Dr McGarity claimed that using averages for the purpose of considering the erodibility of soil would give an inaccurate result, particularly where steeper areas of greater erodibility were to be used for the creation of snig tracks. In his opinion, as set out in par 18 of his affidavit of 11 December 1993, a correct use of the available material would have shown that there was an extreme erosion hazard for slopes over 28 degrees and a high erosion hazard for slopes over

21 degrees. If one used higher erosivity values the extreme hazard would apply to slopes of 25 degrees. In effect, he was of the view that the appropriate way to consider the possibility of erosion was to test the particular areas where tracks were to be built rather than to take an average over the large area contained within the compartments. The use of an average ignored the highly erosive areas, some of which were shown to exist near the snig tracks.

Dr M C Thoms is a lecturer in fluvial geomorphology. He has studied the impact of sediments in river systems and the effect of land use on those systems, principally in respect of small headwater streams. For the last two to three years his research studies have focused on small mountain catchments and in particular on the impact of the changes in land usage, including forestry operations. He was sent a sample of the water taken from Jasper's Creek on 14 July 1993, at the point from which the plaintiff pumps her water and he analysed it. He also carried out an inspection of the area in August 1993 after the logging had ceased. He was of the view that there had been erosion from the snig tracks and from the banks erected along them. He took a number of samples of soil from those tracks and from the gullies and found that the soil from them was consistent with the sediment in the samples taken from Jasper's Creek on 14 July. The soil from the two sets of samples showed a strong similarity in colour and content. On the other hand he found that samples taken from South Creek, the catchment for which does not include compartments 341 and 342, had a different sedimentation consistent with a higher percentage of organic material and not consistent with soil from the area of the snig tracks. Having inspected the area, he was of the view that a gully leading down the hill from near snig track number 2 continued its course until it fed into Jasper's Creek, upon the plaintiff's land, and this confirmed his opinion that the water in the creek contained sediment which had come from the snig tracks.

For the defendant, Dr P M Cornish gave extensive evidence in his affidavits. His doctorate was obtained in soil science and he then completed a post-graduate course in hydrology. He has been a forest hydrologist with the Forestry Commission since 1973. He was of the opinion that the sediment in the creek at the pool where the pump is situated had more likely come from the road crossing nearby rather than from the area of the snig tracks. He did not agree with Dr McGarity as to the significance of the gully relied upon as carrying soil to the creek, nor did he accept that rilling had occurred as a result of the recent work. He pointed to the fact that there had been regeneration on snig tracks which had been cut for the logging carried out some 10 years earlier and accordingly he held the view that this would also occur in respect of the more recently cut tracks. He was also of the opinion that the sediment in the creek may have come from dust from the road which is cut into the slope. He considered that the dust may have settled on the forest floor over a dry period and then had been carried down by the first rains which occurred in July 1993.

Dr Cornish disagreed with many of the views of Dr McGarity and Dr Thoms, and in respect of the latter, did not consider that the samples taken from the creek on 14 July necessarily indicated that the sediment had come from the snig tracks or the area nearby. He said that the rilling or gullies were not caused by the recent logging and he was of the belief that no significant amount of subsoil had been carried down the gullies to Jasper's

Creek. He said that some gullies had been caused by logging in 1984 but this soil carried down was no longer affecting the quality of the water in the creek. He thought that the evidence of Dr McGarity painted an exaggerated picture of the possible sediment production in compartments 341 and 342. He said that the areas logged comprised only a small percentage of the catchment and accordingly the amount of increased run-off would be small and generally confined. He accepted that it is probable that some sediment may be washed into drainage lines and then into Jasper's Creek but this would occur only until adequate re-vegetation had taken place. He did not consider that the creek would be affected to the extent which was claimed on behalf of the plaintiff.

Mr Veness was formerly employed by the New South Wales Soil Conservation Service and he now conducts his own business of Environmental and Natural Resource Consultant. In October 1989 he conducted a soil landscape survey of Mistake State Forest and, as I have indicated earlier, this was used as part of the environmental impact statement. That report covered the entire forest and two of the sites examined were located within the 330 hectares covered by compartments 341 and 342. On a visit after the logging, in July 1993, a further three sites within those compartments were examined and the soil was tested. There was considerable disagreement between Mr Veness and Dr McGarity as to a number of technical scientific aspects of soil sampling and testing. As much of this dealt in general terms with the earlier report of Mr Veness and was not in many ways related to the issues before me, it is not necessary for me to resolve any of the disputes, even if I had the scientific expertise to be able to do so. The significant part of the testing carried out by Mr Veness was that he was able to produce data which was used by Dr McGarity, who set it out in a chart, to show the level of erodibility of certain of the subsoils in test sites in those two compartments. It was that interpretation which led Dr McGarity to the view that on several of the areas sampled the subsoil had moderate to high levels of dispersibility and erodibility.

One of the views of Dr McGarity was that the snig tracks had been side-cut from the road for some distances through steep slopes exceeding 30 degrees and he said that despite the side-cut construction, the slope gradients of the tracks themselves ranged from 19 degrees to 28 degrees with an average of about 23 degrees. The steep sections were immediately below the road and on one of those tracks he considered that the upper 30 metres had a slope in the order of 28 degrees. This evidence was disputed by Mr R W Smith, a forester employed by the Commission who, with Mr Wood, carried out an inspection of the tracks and took measurements with survey instruments. He said that where one of the tracks left the road the steepest slope recorded was 38 degrees and that 10 metres along the track it was 28 degrees. Otherwise there was no other slope exceeding 30 degrees where the snig track construction had occurred. Furthermore he said that the tracks themselves varied between 5 and 25 degrees and that the highest slope gradient was 25 degrees. Mr Smith had other comments to make on various aspects of Dr McGarity's evidence. Some of the steeper slope immediately below the road on two of the snig tracks has been filled so as to reduce the steepness of the slope and there has been planting of grass on that fill in order to stabilise the edge of the road.

There was put into evidence a memorandum to the Acting Deputy

Commissioner of Soil Conservation at the Department of Conservation and Land Management from the State Manager, Protected Land. This related to an inspection of the forest on 3 November 1993 following Dr McGarity's report of 23 July 1993. There was no formal evidence given as to the matters in that document but there was no objection to it being tendered as part of an exhibit. A number of Dr McGarity's views were the subject of disagreement in the memorandum but others were accepted and adopted. The first of these comments dealt with the slopes in the snig tracks, where it was pointed out that those which exceeded 30 degrees mainly represented the area near the road rather than the natural ground slope, although it was accepted that the disturbance had the potential for high erosion hazard and should be managed accordingly. The next observation was that the snig tracks had been constructed by digging too deeply with the bulldozer blade, resulting in too much soil being disturbed. It was considered that the combined effect of reducing the ability to drain and the unlikelihood of re-vegetation on the exposed areas gave a high potential for erosion in the cross-bank area. There was also some adverse comment as to the design of the cross-banks. It was agreed that the excessive cutting into the subsoil for the snig tracks would restrict the rate and amount of the natural re-vegetation, leaving a greater potential for soil loss.

The memorandum did not agree with Dr McGarity's views as to the effect of the cross-banks, nor did it agree with his view that the gully near the second snig track is an active one. It agreed however that although the slope exceeding 30 degrees was only immediately below the road, that is, through the existing road fill or batter, this would have been acceptable if the Forestry Commission had applied appropriate batter stabilisation measures at that point. It will be noted that this has now been done in two instances.

The memorandum indicated that the writer had inspected the channel of Jasper's Creek and could not establish what was referred to as a credible relationship between the erosion mitigation works and the geomorphology of the creek. There was apparently no water flowing in the creek at the time of the inspection but the report suggested that the sources of sediment may have included bed and bank erosion from the vehicle crossings and from animals. The view was taken that Mr Rayson had sought advice as to calculating the erosion hazard and those calculations were correct using the best methods available at the time. Details were given as to the erosion factor but the view was that only rare segments of the snig tracks exceeded 25 degrees, and accordingly the factor used was appropriate. It was agreed that the loose soil on the tracks would wash away easily but that once the initial fall of sediment was removed there would tend to be an armouring effect from stones which would give some protection from further erosion. It was suggested however that there had been a sufficiently poor application of erosion control works so as to create a high potential for erosion and sedimentation from the works. It was thought that the relatively long distance from those works from the natural drainage system would minimise the amount of sediment getting into main channels and thence into creeks, but it would not be completely precluded from happening. The overall view was that the intensity of logging had been low and that the harvesting plan had not been site specific. It was said to have contained many generalisations and indicated that the Commission either had inadequate skills to interpret geomorphic relationships or were not prepared to change their perception of

physical planning requirements. Further, it was said that many of the soil erosion control and mitigation works were poorly designed and constructed, suggesting poor on-site supervision. Notwithstanding the above, it was not apparent to the writer that the environment of Jasper's Creek would be adversely affected.

The result of all of the evidence is that there is a difference of opinion as to whether the sediment which caused the high level of turbidity in Jasper's Creek in July and later in August 1993 was caused by the carrying out of work on the snig tracks and the resultant logging activity. I have come to the conclusion on probability that this was the cause of the problems which were experienced by the plaintiff during those two months or more. She has given evidence that there had not been any similar effect on the water supply before this work was carried out, other than after logging in the 1980s, and she was not cross-examined as to this. If there had not been any previous disturbance of this nature then clearly something must have happened to have caused the high level of yellow sediment to flow into the creek. Dr Thoms was of the view that his testing adequately showed that the probabilities were that the sediment had come from the snig tracks and this was to be contrasted with the sample taken from South Creek where the water had come from a catchment where no logging was being carried out and no snig tracks had been cut. Dr Cornish had put forward a theory that over the fairly long period of dry weather before the rain in July 1993 there would have been an accumulation of dust and dirt from the road and the rain after that long period brought that dust down into the creek. This theory however does not stand up to the records kept by the plaintiff during 1992 when there was a longer period of dry weather followed by substantial rain and there was no apparent sign of sediment such as was seen in July 1993. The plaintiff said that she was able to pump water in 1992 without the difficulties which she struck in the following year. The theory would also seem to be inconsistent with the tests carried out by Dr Thoms.

Furthermore, both Dr McGarity and Dr Thoms were able to point to the continuation of a gully commencing near one of the snig tracks and finishing in the approaches to Jasper's Creek. That lends support to the fact that sediment had washed from the track shortly after it had been cut and in the first rain of any substance that had fallen thereafter. This is also to be considered in the light of the finding that in a number of the samples of subsoil there was a high degree of erodibility which, combined with the steepness of some of the slopes, was considered to be a potential cause of soil loss and sedimentation.

I am also of the opinion, taking into account all of the evidence, that although considerable work had been done by officers of the Forestry Commission in the preparation of the harvesting plan, there were aspects of the soil and of the slopes which were not sufficiently taken into account in considering whether, at the site of the three snig tracks, there was a reasonable expectation of erosion occurring. In particular, it seems to be a valid comment that the use of an average degree of erodibility was not appropriate for the purpose of constructing snig tracks on specific sites. In effect, if an average is used no provision is made for areas which are higher than average, as would be much of the area, depending of course on the range from which the average is taken. It would have been more appropriate to have tests carried out at the places where the snig tracks were to be cut

and also to take particular care that these did not involve cutting them into slopes which exceeded the 25 degrees set out in the Standard Erosion Mitigation Guidelines for Logging.

The snig tracks do not appear to have been constructed with sufficient concern for the effect that they might have on erosion. With what I have found to be a lack of consideration for the likelihood of erosion on the particular areas of those tracks, the result was that the snig tracks were created in a way which could not be regarded as a reasonable use of the land. Accepting that the carrying out of work for logging purposes is not in itself an unreasonable use, that becomes unreasonable when known risks related to erosion and the washing of soil down to lower land are not adequately provided for and guarded against.

The evidence satisfies me that the condition of Jasper's Creek following the rains in July and August was such as to make the water unsuitable for pumping, at least for periods of time, and that the plaintiff was required to wait until there had been some degree of clarity obtained before she was able to put more water into the tank. She said that she used to wait until this situation occurred but that because of the low rainfall since the middle of 1993 and the low level of water in the pond, she has not been able to pump water into the tank except on limited occasions. The effect was therefore that because there was less rain the amount of sediment was not increased but that very condition also prevented pumping because of the level of the water in the creek.

The rainfall has been less than average for over two years, as has been the position in many parts of Australia, and accordingly the usual heavy rains during summer have not occurred to the extent that they normally would. In July 1993 the plaintiff recorded a total of 87 millimetres, most of which fell during a period of eight days in the middle of the month, and in August there were 44.5 millimetres, of which over 28 millimetres fell in the last four days. The rain was only light in the following two months but in November there was a total of 65.5 millimetres recorded, spread throughout the month. In December there were comparatively heavy rains, with about 166 millimetres falling over a period of six days. January was down to a fairly low figure but in February 1994 there were 127 millimetres and in March 200 millimetres fell, spread over most of the month but with one fall of 48 millimetres.

Despite these heavier falls, even though less than the usual, there is no evidence as to the sedimentation of the creek from November 1993 onwards. The plaintiff was asked about siltation up to 12 November 1993. There was no mention of any siltation after that date, even though her diary was in Court and was used by her to give relevant dates and events. The plaintiff keeps records of the dates upon which pumping has taken place and the number of hours on each occasion. These show that on each of 10 and 11 December 1993, after six days of reasonably heavy rain, the pump was operating for six hours and it was also in use for a further 2.5 hours on 13 December. The entries for 29 and 30 December suggest that pumping took place for only an hour on each day because the water level prevented any more being carried out. There was insufficient water in the creek on 17 and 29 January 1994 and this was a month in which there had been very little rain.

The plaintiff at present lives in a house on the property from which it was

not possible to collect roof water. She is in the process of building another and more substantial house and in December, when heavy rain started falling, she was able to connect the recently erected roof to the lower of her two tanks. As a result of this, the tank is now filled to its capacity of 22,700 litres. She is not able at present to pump from the lower tank to the upper tank but she said in evidence that this would not be difficult and in fact it would require less energy to pump from one tank to the other than to pump from the creek to the upper tank. It would thus appear that if the rain is sufficient to cause the creek to run, and thus provide water for pumping, then that amount of rain will also be sufficient to provide water to the lower tank. Accordingly, as the result of these steps taken by the plaintiff, the risk of her having a shortage of water has been substantially alleviated and the need for pumping has obviously been reduced considerably.

There was evidence of the cost of sinking a bore behind the house or from nearby Bulls Creek. It was not clear whether it is said to be necessary in view of the availability of roof water.

The first claim of the plaintiff is that the defendant interfered with her riparian rights by affecting the quantity and quality of the water flowing in Jasper's Creek past her land. The well-recognised description of common law riparian rights was given by Lord Macnaghten in *John Young & Co v Bankier Distillery Co* [1893] AC 691 at 698 when he said that every riparian owner has the right

> "to have the water of the stream, on the banks of which his property lies, flow down as it has been accustomed to flow down to his property, subject to the ordinary use of the flowing water by upper proprietors, and to such further use, if any, on their part in connection with their property as may be reasonable under the circumstances. Every riparian proprietor is thus entitled to the water of his stream, in its natural flow, without sensible diminution or increase and without sensible alteration in its character or quality".

In *H Jones & Co Pty Ltd v Municipality of Kingborough* (1950) 82 CLR 282 at 299, Latham CJ referred to this quotation and stated that a riparian proprietor is entitled to the undiminished flow of the stream and to the use of the waters of the stream for ordinary domestic purposes, for cleaning and washing, and supplying drinking water to cattle. See also the judgment of Fullagar J, in that case, at 342 and 344.

The rights which the common law gave to a landholder did not depend on that person owning the bed of the river. All that was necessary was that the land should border on the river. There is some evidence in these proceedings as to the title of the plaintiff and it is probable that the Crown grant was made on a date which preceded a notification in 1918 that the beds of rivers thereafter should be reserved from the land granted. For the purpose of these proceedings the defendant concedes that the ad medium filum rule applies so that the boundary of the plaintiff's land is the centre of the Jasper's Creek for the distance where the creek adjoins that land.

The rights of riparian proprietors have been affected by legislation. The *Water Rights Act* 1896 (NSW) provided in s 1 as follows:

> "1(I) The right to the use and flow and to the control of the water in all rivers and lakes which flow through or past or are situate within the land of two or more occupiers, and of the water contained in or conserved by any works to which this Act extends, shall, subject only to

the restrictions hereinafter mentioned, vest in the Crown. And in the exercise of that right, the Crown, by its officers and servants, may enter any land and take such measures as may be thought fit or as may be prescribed for the conservation and supply of such water as aforesaid and its more equal distribution and beneficial use and its protection from pollution, and for preventing the unauthorised obstruction of rivers. For the purpose of this subsection 'occupier' includes the Crown.

(II) The said right shall be subject to the following restrictions:

(a) ...

(b) It shall be subject to the rights of the occupiers of land on the banks of rivers or lakes as hereinafter defined."

The rights of occupiers of land referred to above were set out in s 2, as follows:

"2. The occupier of land on the bank of a river or lake shall have the right to use the water then being in the river or lake for domestic purposes and for watering cattle or other stock, or for gardens not exceeding five acres in extent used in connection with a dwelling-house and it shall not be necessary for the occupier to apply for or obtain a licence for any work used solely in respect of that right."

In *Hanson v Grassy Gully Gold Mining Co* (1900) 21 NSWR 271 it was held that s 1 of the *Water Rights Act* had divested a riparian owner of the common law right to bring proceedings against an upstream owner who it was claimed had obstructed the waters of a creek so that they no longer flowed past the plaintiff's land. This was a decision of a Full Court of two judges. It was acknowledged that the claim was based on a common law right to the flow of water in the stream. Stephen J (at 275) said that the Act had apparently been passed to prevent riparian owners above and below from bringing actions against one another. He said that the Act aimed to take common law rights from riparian owners and vest them in the Crown. He continued by saying:

"although there are no words saying the riparian owner's rights are 'divested' the section says these rights 'vest' in the Crown. I do not think the language of the Act could be clearer, and plainly the rights of the riparian owner were divested and vested in the Crown."

Cohen J agreed and said (at 276) that the only conclusion that could be arrived at is that the statute took from a member of the public the common law rights which he previously held as far as the water is concerned, and transferred those rights to the Crown subject to certain restrictions. The judgment was followed, as it had to be, by Owen J in *Dougherty v Ah Lee* (1902) 19 WN (NSW) 8, in circumstances where it was claimed that an upstream owner had penned back the waters of a creek causing flooding to the owner downstream.

The two sections referred to above were reproduced in ss 4 and 5 of the *Water Rights Act* 1902 (NSW) and again reproduced in the same form in ss 6 and 7 of the *Water Act* 1912 (NSW). In 1930 the *Water Act* was amended and s 6 was replaced by s 4A. Subsection (1) of that section was, with minor variations, in the same form as the original s 1 of the *Water Rights Act* 1896. One variation was that "Commission" was substituted for the Crown, and this meant the Water Conservation and Irrigation Commission. Section 4A(2) contained a number of further restrictions to the right given under subs (1). This prevented any restriction to the exercise of rights given to certain

statutory water authorities and the Fire Brigade. Section 7 was substituted by a new section which continued to give the occupier of land on the bank of the river the right to take and use water for domestic purposes, watering stock and irrigating gardens of a limited size. The section was expanded in terms which are not relevant to the issues in these proceedings.

In 1986 s 4A of the *Water Act* was repealed and s 7 was recast and extended. Section 7(1) retained the right of the occupier to take water for the purposes set out in the previous sections and gave further rights to that occupier to construct or use a dam in a river or lake as long as it had a stated maximum storage or would not detrimentally affect the interest of any person. At the same time as s 4A was repealed, there was passed the *Water Administration Act* 1986 (NSW). Section 12(1) of that Act is in the following terms:

"12(1) the right to the use and flow, and to the control, of:

(a) the water in rivers and lakes;

(b) the water conserved by any works;

(c) water occurring naturally on the surface of the ground; and

(d) sub-surface water,

is vested in the Ministerial Corporation except to the extent that is otherwise provided by this Act or to the extent that the right is divested by the exercise of a function of the Ministerial Corporation."

The section gives detailed rights to the Ministerial Corporation for the supplying and distribution of water. By s 13(1) the right conferred by s 12 may not be exercised in contravention of a right specified in Schedule 2. That schedule sets out a number of rights exercisable under various statutes and par 6 specifies a right exercisable under s 7 of the *Water Act* 1912.

I have not referred to all of the many amendments made to these sections over the years. Basically, the form of s 1 and s 2 of the *Water Rights Act* 1896 remained unchanged until the *Water Administration Act* 1986.

Hanson's case was considered by the Full Court of the Supreme Court of New South Wales in *Grant Pastoral Co Pty Ltd v Thorpes Ltd* (1954) 54 SR (NSW) 129. There, a landholder had put earthworks along the banks of a creek running through his property, the result of which was to channel floodwaters on to the land of the plaintiff, causing considerable damage. The plaintiff successfully claimed damages both for nuisance and negligence. It was submitted on appeal that the plaintiff must have had to rely on its riparian rights and that these no longer existed. It was held however that the claim was under the common law rights to damages brought about by the wrongful conduct of a neighbouring occupier and was not affected by the *Water Act* 1912. Owen J, who dissented, was of the view that the claim did depend on riparian rights and that these had been lost as a result of the *Water Rights Act* and the later Acts. He agreed with what had been said in *Hanson's* case. Herron J (at 143) considered the effect of the Water Act 1912 and said that it was designed partly to prevent disputes between neighbouring occupiers or landowners as to the beneficial use of flowing water and partly to give effect to schemes for irrigation, drainage and the like by placing all of those matters under the jurisdiction of a body representing the Crown and divesting them from the ambit of private controversy. He said that *Hanson's* case was to this effect, and continued:

"That case decides no more than this that as the common law rights of

> the riparian owners to the use and flow of water was vested in the Crown by the *Water Rights Act* 60 Vict, No 20, no action lay against an owner for penning back the flowing water in a natural channel thus preventing it from flowing away from the plaintiff's land."

That had nothing to do with the case then before the Court.

Kinsella J, in his judgment (at 145) said that in his view *Hanson's* case was rightly decided and remained authority for the principle that a riparian owner cannot maintain an action based on a claim of right as a riparian owner to the flow of a stream without interference to it by any other person. He said that the decision went no further.

The case went on appeal to the High Court (*Thorpes Ltd v Grant Pastoral Co Pty Ltd* (1955) 92 CLR 317). The decision of the Supreme Court was affirmed and the High Court agreed that the claim went beyond a breach of ripanan rights. The damage to the plaintiff's land had been caused by a wrongful diversion of water from a channel and was not concerned with the right to a flow of water down a watercourse. The principal judgment was given by Fullagar J who stated that the action was an ordinary claim for nuisance because of the throwing on to the plaintiff's land of water, silt and debris with resulting damage. Having come to this conclusion, Fullagar J then looked at *Hanson's* case and (at 330) said that it was not strictly necessary for the purposes of the case then before him to consider the correctness of the decision. He said that he felt bound to say that he regarded the correctness of *Hanson's* case as open to grave question. On the following page, he said that the question of its correctness was not fully argued and it was perhaps better not to express a concluded opinion upon it in a case where it was not strictly necessary to do so. Webb J agreed with Fullagar J and Dixon CJ and Kitto J, whilst agreeing with the reasons of Fullagar J for dismissing the appeal, both indicated that there was no need to consider the correctness of the decision in *Hanson's* case.

In these proceedings it was submitted for the plaintiff by way of extensive and detailed submissions that *Hanson's* case is no longer appropriate and that the comments by Fullagar J in *Thorpes'* case should now be followed. It was submitted that if common law rights are to be taken away then this must be done in clear terms and that on the current attitude to the construction of statutes it should be held that s 12 of the *Water Administration Act* does not affect the riparian rights given to a landowner. In his judgment in *Thorpes'* case in the Full Court Owen J dealt with the question of the correctness of the decision in *Hanson's* case. He pointed out (54 SR (NSW) at 133) that it decided a matter of great importance in the State and had stood and no doubt had been acted upon for over 50 years. During that time there had been various amendments to Acts dealing with water rights so that the legislature had on many occasions turned its attention to the provisions upon which that decision was based. He said that it was difficult to think that such a decision would not have been a matter of importance in 1902, when the *Water Rights Act* was replaced, and accordingly that there was a strong presumption that Parliament had accepted and adopted the decision.

These remarks may be amplified further when one faces the position that *Hanson's* case has now stood not for merely 50 years but for 94 years. In my opinion it is not a matter for a judge at first instance to consider the correctness of a finding by a Full Bench of this Court on a matter of considerable significance to all persons whose property is bounded by or

contains a river and where that decision has stood for such a long period of time.

It was further submitted however that the wording of s 12 of the *Water Administration Act* has significant differences to the wording of s 1 of the *Water Rights Act* 1896 and its successors, so that *Hanson's* case can be distinguished. Allowing for a change in the setting out of the section, the principal difference is that the words "which flow through, or past, or are situate within the land of two or more occupiers" have been omitted so that the relevant part refers to the control of water in all rivers and lakes. It was argued that the earlier law concentrated on riparian proprietors as its subject whereas the present Act is consistent with the statutory object of regulating water resources within the objects of the Act set out in s 4.

In my opinion the wording of s 12 of the *Water Administration Act* in fact widens the meaning of river in that the vesting in the Ministerial Corporation is of the waters in all rivers, whether or not they are within the land of two or more occupiers. This means that the waters of a river solely within one person's land are so vested. In my opinion this does not affect the strength of the vesting of the waters in the Ministerial Corporation and their consequent divesting from the ownership of persons who would under the common law have had riparian rights. The arguments in *Hanson's* case did not depend on that part of the section which referred to a river flowing through or past or within the land of two or more occupiers. Instead, the argument was that as all waters were now vested in what was then the Crown then it must follow that those waters, and the rights thereto, had been divested from those who previously had riparian rights.

If it had been the intention of Parliament in 1986 to alter the law which had stood since 1900, namely that common law riparian rights had been divested in favour of the Crown, then it is clear that the statute would have said so in specific terms. There is nothing to suggest from the Act that there was an intention to alter the law which had stood during the whole of this century. If however it is suggested that there might be some ambiguity or obscurity then, under s 34 of the *Interpretation Act*, 1987 (NSW) consideration may be given to material which is not contained in the Act, and that, by s 34(2), can include the speech made to a House of Parliament by a minister on the second reading of the Bill.

When the *Water Administration Bill* was before the Legislative Assembly, Mrs Crosio, the Minister for Local Government and Minister for Water Resources, in introducing the Bill for its second reading, said:

> "The definition of river has been extended to allow the corporation to identify, by regulation, streams of water which may not be sufficiently well defined to be recognised at common law, but the flows of which would affect the quantity of water available to downstream water users. The limitation that a stream of water, to qualify as a river, must pass between two or more properties has been removed."

There was no suggestion that the amendment was other than for the purpose of widening the possible meaning of river, nor was there any suggestion that the law as set out in *Hanson's* case was being repealed by the introduction of this and associated Acts. Accordingly I am of the view that *Hanson's* case cannot be distinguished on this basis.

The result is that the riparian rights of owners of land having a river flowing through or adjoining that land, at least in respect of a right to receive

a flow of water from an upstream landholder, are no longer available. The present case however does not rely on its facts on the flow of water in Jasper's Creek being restricted by activities of the Forestry Commission in its capacity as the riparian owner or occupier of land upstream from the plaintiff. Indeed the evidence goes only to the fact that erosion caused by the construction of the snig tracks has permitted soil to be washed down the slope through gullies into the stream at some point which is not clearly identified as being within the land of the Forestry Commission or that of the plaintiff. Further, although there was some evidence to suggest that a continual infiltration of sediment into the creek may have an effect on the flow in due course, there is nothing to show that the lack of water which has been experienced in the last year has been other than because of the low rainfall experienced during that period.

In the circumstances I am of the opinion that the plaintiff cannot succeed in a claim in reliance upon a breach of her common law riparian rights arising out of a restriction of the flow from an upstream owner. The question next to be considered, however, is whether there is a remnant of those riparian rights still available because of the exceptions contained in each of the various Acts to the vesting of water in the Crown, Commission or Ministerial Corporation, as the case may be. This depends on whether on the proper construction of the Acts there has been a limited divesting of rights with a saving as to the balance of those rights, or whether there has been a total divesting with certain statutory powers given to landholders in respect of the taking of water for domestic purposes.

The original sections in the *Water Rights Acts* and the *Water Act* stated that the right to the use and flow of the water should, subject only to the restrictions thereafter mentioned, vest in the Crown. Those restrictions were limited to s 7, namely the right of the occupier of land on the bank to use the water for domestic purposes. It would rather seem that this was a limited vesting, that is to say that it did not include the existing right of a riparian owner to take water for those purposes. This would seem to be consistent with what was said in the judgments of Herron J and Kinsella J in *Grant v Thorpes* namely that *Hanson's* case was principally concerned with the restriction of rights against an upstream owner relating to the flow of water. When the *Water Act* was amended in 1930, and subsequently, the "restrictions hereinafter mentioned" were substantially extended so as to exclude from the vesting the rights exercisable under *Water Acts* relating to the Sydney Metropolitan area, the Hunter district and Broken Hill and also rights given to fire brigade officers under the *Fire Brigade Acts*. There were also rights given or saved which were exercisable by local councils. These were all included as exceptions in s 4A although s 7 continued to give a right to an occupier of land to take and use water for domestic purposes.

The redrafting of s 4A into s 12 of the *Water Administration Act* resulted in a somewhat different way of setting out the exceptions to s 12(1). The exceptions were those which appeared in Sched 2 as the result of s 13. If looked at independently of the earlier legislation it might be thought that the right to take water for domestic use is now given by statute rather than being saved as one of the continuing common law rights. On the other hand, the exception contained in Sch 2 takes one back to s 7 of the *Water Act* in its amended form. Despite that different wording there is no effective change

from s 2 of the *Water Rights Act*, and the sections which followed it in later legislation.

I am of the opinion that the effect of these various Acts was to vest in the appropriate Crown body, and thus to divest from the riparian owner, those common law rights, with the exception of such of the rights as may be specified in the Act. The common law always gave to the riparian owner a right to take water from the river and use it for drinking, washing, the feeding of stock and for general domestic purposes. It was that right which was excepted from the vesting provisions. Although the wording in the *Water Administration Act* is somewhat different, there has been no effective change in that s 12 contains the vesting provision and s 13 and Sch 2 make exceptions to that vesting, and thus limit it, so as to allow a retention of the rights under s 7 of the *Water Act*.

This may not be a relevant question when dealing with the claim of nuisance. A riparian right is one which is incidental to the ownership of the land. When the land is transferred then so will the rights which attach to it. If I am incorrect in my view that s 7 permits a landowner to retain the common law rights which are set out in that section then those same rights are obtained by virtue of a grant by the statute. In the same way, the rights will attach to the land and be incidental to it. Private nuisance occurs when there is unreasonable interference with the use and enjoyment of land. That interference may result from physical damage to the land or it may consist of an interference with the comfort or amenities enjoyed on that land, such as by offensive smells or excessive noise. There may of course be circumstances where both physical damage and loss of enjoyment of amenities occur as a result of the same source of nuisance. In the present case the plaintiff's complaints are that for lengthy periods of time, she was unable to pump water for the purpose of renewing her tank's supplies, that the sediment had a potential for affecting her hot water system (although there is no evidence of that having occurred on the occasions in question), that there is sediment building up in the tank and that she and her family were unable to use the pond for recreational purposes whilst the water had a high level of turbidity. It was said that these problems occurred over a period of some months. I am satisfied that, apart from the question of the potential damage to the hot water system, the plaintiff did suffer these difficulties. They resulted in discomfort in the plaintiff's use of her land.

In my opinion, the retention of a common law right to take and use water for domestic purposes included the right to use that water "without sensible alteration in its character or quality". Even if the right is said to arise only by statutory grant then I am of the view that an unreasonable interference which causes pollution to an appreciable degree so as to restrict the use of the water for that purpose constitutes an interference with the use of the land.

In order to establish nuisance it must be shown that there has been substantial interference. In *Don Brass Foundry Pty Ltd v Stead* (1948) 48 SR (NSW) 482, Jordan CJ (at 486) referred with approval to a passage which has frequently been relied upon in dealing with the question of substantial interference. That was contained in *Walter v Selfe* (1851) 4 De G & Sm 315 at 322; 64 ER 849 at 852, where Knight-Bruce VC said:

> "Ought this inconvenience to be considered in fact as more than fanciful, more than one of mere delicacy or fastidiousness, as an

> inconvenience materially interfering with the ordinary comfort physically of human existence, not merely according to elegant or dainty modes and habits of living, but according to plain and sober and simple notions among the English people?"

Adapting that to Australian conditions I am of the opinion that what was experienced by the plaintiff was indeed an interference with the ordinary comfort of human existence according to the simple notions amongst Australian people, particularly those who, as the plaintiff was, are dependent upon the waters of a river or creek for their everyday living. The interference, although it must not be trivial, need not be of long duration: see *Harris v Carnegie's Pty Ltd* [1917] VLR 95; *Matania v National Provincial Bank Ltd* [1936] 2 All ER 633. In *Munro v Southern Dairies Ltd* [1955] VLR 332 at 335, Sholl J affirmed what had been said by Greene MR in *Andreae v Selfridge & Co Ltd* [1937] 3 All ER 255 at 261, that the loss of even one night's sleep was sufficient to constitute a substantial interference, and was not to be regarded as merely trivial, even though of a short duration. There must, however, be damage in order to establish the tort, and it does not necessarily follow that the damages will be substantial. See R P Balkin and J L R Davis, *Law of Torts* (1991), p 465.

On these principles I am satisfied that there was interference with the plaintiff's rights sufficient to justify a claim of nuisance, subject to fu ther defences which have been raised by the defendant. First, it was said tha. the Court cannot make orders derogating from the statutory scheme of forest management. The defendant was acting in accordance with its statutory rights and duties and it therefore cannot be said that there was any unreasonable act on its part for the purpose of establishing nuisance. Those statutes and regulations provide the defendant with a statutory immunity against claims as made by the plaintiff. Secondly, and in part associated with the first submission, the defendant relies upon s 733 of the *Local Government Act* 1993 (NSW) (the successor to s 582A of the *Local Government Act* 1919 (NSW)) as providing a complete defence. This section relates to flooding and it is said that there is no liability of a public body if it carries out works, which would include the building of snig tracks, which divert water on to the plaintiff's land and cause flooding. In addition to these matters the defendant also submits that there is no basis for any injunctive relief, as sought by the plaintiff, and that the damages are so trivial as not to attract an order by the Court.

The *Forestry Act* 1916 (NSW) has several sections dealing with the objects and powers of the Commission. By s 8A the objects include the provision of adequate supplies of timber from what are described as Crown-timber lands, which include State forests, and the preservation and improvement, in accordance with good forestry practice, of the soil resources and water catchment capabilities of Crown-timber lands. By subs (2) the Commission is, in the attainment of its objects and the exercise and performance of its powers, authorities, duties and functions, to take all practicable steps that it considers necessary or desirable to ensure the preservation and enhancement of the quality of the environment. By s 9 the Commission has the administration of the Act and may exercise the powers and is to discharge the duties conferred on it by the Act. In doing so, the Commission is subject to the control and direction of the Minister.

Powers and duties of the Commission are set out in s 11. This is somewhat

lengthy and I shall merely refer to some of those powers, which include the control and management of State forests with a requirement that it shall control and manage them in such manner as best serves the public interest. It also has the power to take any timber or products on land which include State forests, and it may construct roads or incidental works necessary for the taking or removing of timber or products on those lands. Section 18 provides that the Governor may dedicate as a State forest any Crown land, with certain restrictions which are not relevant in these proceedings. Regulations have been made which are consistent with the powers of the Commission given by the Act.

The *Pollution Control Act* 1970 (NSW) provides for licences to be granted in relation to a number of Acts, including the *Clean Waters Act* 1970 (NSW). That Act states in s 16 that a person shall not pollute any waters nor cause any waters to be polluted, whether intentionally or not, and any person who contravenes the provisions of the section is guilty of an offence against the *Environmental Offences and Penalties Act* 1989 (NSW). It is not an offence for a person to pollute any waters if he holds a licence and does not pollute the waters in contravention of any of the conditions of the licence.

The result of the combination of the *Clean Waters Act* and the *Environmental Offences and Penalties Act* is that the pollution of waters, as defined, may result in the committing of an offence which, when proved, can result in the imposition of a substantial fine. In addition to that penalty s 14 of the latter Act provides for orders for compensation for damage to the environment and under s 15, upon conviction, a person may be found liable to pay damages to any person who has suffered them.

The Forestry Commission obtained a licence under the *Pollution Control Act* in respect of possible breaches under the *Clean Waters Act*. That licence contained a number of conditions which included a requirement that the Commission carry out logging operations in accordance with appropriate practices. A further condition was that it should carry out the operations in accordance with the Standard Erosion Mitigation Conditions. The licence was dated 7 May 1993 when the Standard Erosion Mitigation Guidelines for Logging had been in existence and had been published since March 1993. There were a number of other conditions as to specific activities in the course of the logging operations. For the defendant it was submitted that the Court cannot make orders which derogate from the statutory scheme of forest management established by the above Acts, together with the various Acts relating to water with which I have already dealt. It was said that because of this statutory scheme there is no provision for the bringing of proceedings such as these and that they provide a complete defence to any claim that the Commission has used the land in such a way as to create a nuisance. This submission also assumes that the Commission carried out the logging operations in accordance with authorised procedures. From this it is argued that it could not be said that there has been any unreasonable use of the land.

It is probably correct that if the Commission carried out its activities in conformity with its statutory powers, and did so in a manner which was not otherwise unlawful, then it could not be said that it was liable for the consequence of anything done in the course of those activities. In *Metropolitan Water, Sewerage and Drainage Board v OK Elliott Ltd* (1934) 52 CLR 134, Starke J said at 143:

> "It has long been settled that if public authorities or persons do acts which they are authorised by statute to do, and do them in a proper manner, then, though the acts so done work special injury to a particular individual, the individual injured cannot maintain an action at law."

He continued:

> "But it is equally well settled that if the injury or loss is caused by an act which, notwithstanding the statute containing or incorporating a compensation clause, is not made lawful, the remedy by action is not taken away and is open to the person injured. Statutory powers must be exercised 'with reasonable regard to the rights of other people', and if an act is done in excess of the statutory power, or carelessly or negligently, then the person injured can put in force the ordinary legal remedy by action in the Courts of law."

A number of authorities were given to support this statement. The issue in that case was whether the claim was properly one for compensation under the Act and all of the members of the Court held that it was not. Other judgments made it clear that an action for damages could be made in any claim arising from a tort, not limited to that of negligence.

Section 35 of the *Clean Waters Act* provides that nothing in the Act or the Regulations affects any right that a person may have under any rule of law to restrict or prevent, or to obtain damages in respect of, the pollution of any waters. Although this Act had been included in those upon which the defendant relied as part of the statutory scheme, it was said in later submissions that s 35 would not be of any assistance to the plaintiff because she had no water rights which would support any claim for nuisance. In any case, it was further said that the claim of statutory immunity depends on the *Forestry Act* and not on the *Clean Waters Act*. This avoids having to deal with the question of whether the *Clean Waters Act*, which provides principally for the commission of offences, could in any case be said to exclude a common law right to claim damages.

The *Forestry Act* gives certain powers to the Commission including the carrying out of the operation of harvesting trees within the State forests. As I said earlier, this would no doubt mean that the proper carrying out of those operations with some resulting damage would not create a liability in the Commission. For example, the use of chain saws so as to cause loud and continuous noise, if part of the ordinary activities of logging, would not give rise to a claim for nuisance as the result of the noise, because of the statutory power to do that work. That is not to say, however, that the Act gives to the Commission the right to carry out the prescribed work in a manner which is unreasonable and which causes damage to a neighbour. To take a more obvious example, the authority of the Act to organise and carry out the logging of trees would not be authority for allowing a tree to be felled in a negligent manner so that it caused damage to the property of a neighbour. In the same way, that statutory authority does not permit the Commission to carry out its duties in a way which is unreasonable so as to permit nuisance. The position was summed up in the speech of Lord Wilberforce in *Allen v Gulf Oil Refining Ltd* [1981] AC 1001 where (at 1011) he said:

> "It is now well settled that where Parliament by express direction or by necessary implication has authorised the construction and use of an undertaking or works, that carries with it an authority to do what is

> authorised with immunity from any action based on nuisance. The right of action is taken away ... To this there is made the qualification, or condition, that the statutory powers are exercised without 'negligence' — that word here being used in a special sense so as to require the undertaker, as a condition of obtaining immunity from action, to carry out the work and conduct the operation with all reasonable regard and care for the interests of other persons."

The reference to negligence is, as the context of the quotations shows, a broad description of a failure to have reasonable regard for the interests of other persons. It was accepted as referring to an action for nuisance as well as for the tort of negligence by Lord Templeman in *Tate & Lyle Industries Ltd v Greater London Council* [1983] 2 AC 509 at 538. Three other members of the House of Lords agreed with that judgment.

In view of my finding that the construction of snig tracks, particularly that referred to as no 2 track, was done in an unreasonable way, for the reasons I have already given, I am of the opinion that the defendant cannot claim a statutory immunity from action arising out of the nuisance thus created.

Section 733 of the *Local Government Act* 1993 provides that a council does not incur any liability in respect of anything done or omitted to be done in good faith by it in so far as it related to the likelihood of land being flooded or the nature or extent of any such flooding. That applies, amongst other matters, to the carrying out of flood mitigation works or to any other thing done or omitted to be done in the exercise of a council's function. The section applies to and in respect of the Crown or a statutory body representing the Crown or a public or local authority constituted under any Act. Accordingly it would apply to the defendant. It has been held that the building of irrigation channels or the bringing, by artificial means, of water onto land, was included in the carrying out of activities leading to the likelihood of land being flooded, as set out in s 582A of the *Local Government Act* 1919, a section in similar form; *Bennett v Water Administration Ministerial Corporation* (unreported, Rolfe J, 6 June 1991). From this the defendant submits that the work on the snig tracks and the cross-banks would amount to works which would bring about a flow of water and possibly cause flooding, with the result that the defendant, as a Crown body, would not be liable.

It seems to require a substantial jump in order to suggest that the work brought about a likelihood of flooding. The only complaint made is as to the quality of the water with an indication that there is a possibility that over a long period of time there could be a building up of silt so as to restrict the flow in Jasper's Creek. "Flood" is defined as a great flowing or overflowing of water, especially over land not usually submerged or any great outpouring or stream (*Macquarie Dictionary*), and flooding would have a similar meaning. There is no suggestion in the evidence before me that the works carried out by the defendant in this case have been or are likely to cause in any overflowing of the water beyond what would be caused by the natural accumulation of waters in the catchment to Jasper's Creek. Accordingly, I cannot see that s 733 has any relevance to the matters which are the subject of these proceedings.

These reasons therefore draw me to the conclusion that the plaintiff has suffered damage as a result of nuisance committed by the defendant through its agents. The question then arises as to the damages which flow. As I have

indicated, the plaintiff was unable to pump water from her usual source for long periods of time and the water which she obtained was apparently in a far more cloudy condition than was usual. This continued over a period of some months from mid-July. No doubt, during that time she and her family (although they are not relevant for the purpose of damages) were unable to have the benefits of enjoying the creek as they usually did. To some extent this would have come about because of the low water level. From the time of the heavier rains in December 1993 there is nothing to show that the inconvenience continued in the same manner as it had before. Furthermore, the plaintiff was able to mitigate much of the damage which she would otherwise have suffered by completing the installation of the guttering and piping from the roof of her newly-built house. In this way she was able to fill the lower tank and, with only moderate expense, will be able to install a motor which will enable her to pump up from that tank to the higher tank. The result has been that she is now able to store much of her water needs independently of the requirement to pump from the creek. From about the middle of July 1993 the creek has frequently been flowing at such a low level that pumping was impossible, whether or not the water was polluted. The result is that when the rain is sufficiently heavy to cause a good flow of water from the creek, it is also likely to be in a sufficient quantity to fill much, if not most, of the available storage space in the tanks from the roof.

Because of the lack of evidence of the condition of the creek after the December rains, and the whole of 1994 until the conclusion of the hearing, I cannot tell the extent to which the general use of the creek has been restricted. Again, part of this may be because of the lack of the flow of water during dry spells. The evidence does not leave me with any clear indication that the rainfall over this period has resulted in further material being washed from the area of the snig tracks into the creek. The result is that the supply of water for the plaintiff's domestic use has become far less reliant on pumping from the creek and her general enjoyment of the creek does not seem to have been adversely affected during most of this year. There was some evidence given as to the likely cost of obtaining a water supply through sinking a well, but in view of the evidence as to the quantities of water obtainable from the roof, this does not seem to be a likely expenditure. It may be that the result of pumping water containing sediment will be that the tank into which it was pumped may require cleaning in the future. This is not an unusual occurrence in country areas but in any case I have no evidence that would indicate to me what the cost of that exercise might be.

The plaintiff sought damages relating not only to the past loss and inconvenience but to the future. I raised with counsel the question of whether in an action in which it is being said that there may be continuing damage following further falls of rain, it is possible to give damages for future inconvenience. *Darley Main Colliery Co v Mitchell* (1886) 11 App Cas 127 held that where there had been nuisance caused by actions of the defendant resulting in subsidence, but where fresh damage was caused by continuing subsidence, a new cause of action would arise on each of the occasions when that subsidence occurred. Counsel for the defendant submitted that if the plaintiff has an entitlement to damages then the Court should make an order for those damages which would allow for any entitlement which the plaintiff might have for continuing injury. This was the view also taken on behalf of the plaintiff. As I have indicated, the evidence

does not satisfy me that there is likely to be any substantial injury in the future. Certainly, Dr McGarity concluded that there will be continuing erosion and that this will cause further material to be washed into the creek. On the other hand, it was suggested in the report from the Department of Conservation and Land Management that although there may be early erosion, the effect of stone shielding may eliminate much of that in the future. On the limited evidence this may well have occurred. I can only conclude that there is a possibility that there will be further erosion which will cause material to be washed into the creek, but the extent of that occurring in the future is not really known.

The plaintiff further urged that there should be aggravated damages, in view of the attitude of the defendant in failing to note the warnings issued by Dr McGarity in his report in May 1993 and in failing to take adequate precautions to ensure that damage would not be suffered by the plaintiff. The question of whether there can be aggravated damages in a claim for nuisance by a public authority was referred to by the High Court in *Willoughby Municipal Council v Halstead* (1916) 22 CLR 352; 3 LGR 165 where the Court, consisting of only four judges, was evenly divided on that question. Griffiths CJ, with whom Barton CJ agreed, said (at 358) that the cases relied upon did not touch the case of nuisance caused by the bona fide but mistaken exercise of powers by a public authority and he was of the view that in those circumstances aggravated (damages should not be awarded. Isaacs and Rich JJ seem to have come to the opposite conclusion although it is not completely clear from the report. In *Oldham v Lawson (No 1)* [1976] VR 654 Harris J doubted whether aggravated damages could be awarded in a claim for nuisance, although *Willoughby Council v Halstead* does not seem to have been referred to.

In my opinion it is nor necessary for me to decide this question because I do not consider that there are circumstances which would justify awarding aggravated damages. In my opinion the officers of the defendant took steps to ensure that the work was done in a proper manner but did not do so in an adequate way. This is not to say that they acted in any high-handed way or that the damages should be increased because of injury to the plaintiff's reputation or feelings by reason of the defendant's conduct. I can well understand the concern of the plaintiff at the effect on the creek, as shown in the photographs which are in evidence. I can equally understand her concern at the problems which she faced for some period of time in obtaining fresh water of a good quality for her use, both in the home and on the farm. Nevertheless, it does not seem to me that the defendant should do more than pay the general damages which flow from the act of nuisance.

I referred earlier to the original claim by the plaintiff that there should be an order requiring the defendant to carry out remedial work so as to allow regeneration on the exposed parts of the land. It was clear from Dr McGarity's evidence, however, that he is unable to indicate at this stage what appropriate steps should be taken. This is obviously not a simple matter to resolve and he and Dr Cornish have combined to use their expertise in considering revegetation of another forestry area which has been damaged. As Dr McGarity indicated, this required careful study and he is in no position to say what appropriate steps are available in order to stabilise the soil in the damaged areas above the plaintiff's property. It was suggested in a submission on behalf of the plaintiff that I should make a general order

requiring the defendant to carry out remedial work. I do not consider that this would be appropriate when an acknowledged expert on behalf of the plaintiff is at present unable to say what work would be effective in that regard. A general order by the Court would put the defendant in an impossible situation because it presumably would have no better idea of what work would be capable of bringing about regeneration than would Dr McGarity, with his years of experience. In the circumstances I do not consider that I should grant a mandatory injunction.

It is clear from what I have said that the plaintiff has suffered some damage in her enjoyment of the use of the land. Except for the unquantified expense of cleaning silt from the bottom of the tank, that damage has all been in that loss of enjoyment. It is therefore somewhat akin to the assessment of damages as the result of a nuisance caused by noise or smells. That is to say there has been a loss of enjoyment of the use of land without any physical damage. That means that damages are at large. Because of the absence of evidence of any continued pollution of the water in the creek and because of the considerably reduced reliance on that water for normal domestic purposes, it seems to me that the damages can only be of a modest nature and I would assess them at the sum of $3,000.

In view of these findings I reserve any question of costs for further submissions, if the parties wish to address on them.

I order judgment for the plaintiff in the sum of $3,000.

I reserve costs.

Order accordingly

Solicitor for the plaintiff: *D J Leach.*

Solicitor for the defendant: *D J Giles.*

TFMN