



COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

SENATE

RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE

Reference: Plantation forests industry

WEDNESDAY, 6 AUGUST 2003

LAUNCESTON

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SENATE

RURAL AND REGIONAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE

Wednesday, 6 August 2003

Members: Senator Ridgeway (*Chair*), Senators Buckland, Heffernan, McGauran, O'Brien and Stephens

Participating members: Senators Abetz, Boswell, Brown, Carr, Chapman, Colbeck, Coonan, Crossin, Eggleston, Chris Evans, Faulkner, Ferguson, Ferris, Harradine, Harris, Hutchins, Knowles, Lees, Lightfoot, Mason, Sandy Macdonald, Murphy, Payne, Santoro, Tchen, Tierney, Watson

Senators in attendance: Senators Brown, Buckland, Colbeck, O'Brien, Murphy, Ridgeway

Terms of reference for the inquiry:

To inquire into and report on:

The findings of the Private Forests Consultative Committee's review of the 'Plantations for Australia: The 2020 Vision' which is due to report to the Primary Industries Ministerial Council in November 2002:

- (a) whether there are impediments to the achievement of the aims of 'Plantations for Australia: The 2020 Vision' strategy;
- (b) whether there are elements of the strategy which should be altered in light of any impediments identified;
- (c) whether there are further opportunities to maximise the benefits from plantations in respect of their potential to contribute environmental benefits, including whether there are opportunities to:
 - (i) better integrate plantations into achieving salinity and water quality objectives and targets,
 - (ii) optimise the environmental benefits of plantations in low rainfall areas, and
 - (iii) address the provision of public good services (environmental benefits) at the cost of private plantation growers;
- (d) whether there is the need for government action to encourage longer rotation plantations, particularly in order to supply sawlogs; and
- (e) whether other action is desirable to maintain and expand a viable and sustainable plantation forest sector, including the expansion of processing industries to enhance the contribution to regional economic development.

Question put and passed.

WITNESSES

RATCLIFFE, Mr Stephen, Manager, Hydraulic Modelling and Systems, Launceston City Council 481

Committee met at 8.38 a.m.

CHAIR—I declare open this public hearing of the Senate Rural and Regional Affairs and Transport References Committee to continue its inquiry into plantation forestry and the 2020 Vision strategy. Today's hearing is public and open to all, and a *Hansard* transcript of the proceedings is being made. The *Hansard* will be available in hard copy next week from the committee secretariat next week or via the Parliament House Internet home page. It should be noted that the committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the order of the Senate of 23 August 1990 concerning the broadcasting of committee proceedings.

Before the committee takes evidence, let me place on the record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee and evidence given before it. Any act by any person which may operate to the disadvantage of a witness on account of evidence given by him or her before the Senate or any committee of the Senate is treated as a breach of privilege.

While the committee prefers to hear all evidence in public, if requested the committee may agree to take evidence in camera and record that evidence. Should the committee take evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of the evidence to the Senate. The Senate also has the power to order production and/or publication of such evidence. Any decision regarding publication of in camera evidence or confidential submissions would not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

Before we commence today, I want to draw attention to the program for today's hearing. The committee will be taking its principal evidence from Mr Bill Manning, a former auditor with the Tasmanian Forest Practices Board. Mr Manning's submission to the committee addresses matters arising from his personal and professional experience with the Forest Practices Board and its statutory role as the body responsible for implementation of the Tasmanian Forest Practices Act 1985, various forestry plans and forestry activities by those engaged in forest work and involved in, amongst other activities, the clearing and preparation of sites in Tasmania for the development of forestry plantations—a matter of direct relevance to the committee's terms of reference.

So that the committee would be in a position to address matters that have been raised by Mr Manning with the FPB and to address other issues which have arisen during this inquiry relevant to the FPB's work, the committee also invited the CEO and the chair of the FPB to give evidence to the committee today. The committee was advised by the Deputy Premier of Tasmania and the Minister for Economic Development, Energy and Resources, Mr Paul Lennon, that neither of the FPB officers invited are available to assist the committee today. However, Mr Lennon also advised the committee that the FPB is willing to respond to matters that the committee may wish to raise regarding the FPB's role and work. The committee may do this after considering the *Hansard* from today's hearing. Whilst the committee is disappointed that FPB officers could not be available today, I should point out that the committees of the Commonwealth parliament are not in a position to oblige officers of state agencies, such as FPB, to provide evidence to them.

The final matter I should publicly address arises from unfounded comments regarding the committee's inquiry and reporting timetable. I want to say from the outset that the committee rejects apparent unfounded assertions that the committee or its members have been under any pressure to either curtail or abandon this inquiry. The committee has sought and obtained an extension of time to report on this reference and may seek a further extension of time if necessary in order that matters relevant to its terms of reference are properly recorded and properly considered. No committee member—either members of major parties or Independents—is aware of any move to delay, curtail or end the inquiry other than by way of the committee's report to the Senate.

[8.42 a.m.]

RATCLIFFE, Mr Stephen, Manager, Hydraulic Modelling and Systems, Launceston City Council

CHAIR—Welcome. Would you like to make an opening statement in relation to the submission you have provided before I invite members of the committee to submit questions to you?

Mr Ratcliffe—I appear to represent some information from the Launceston City Council to the inquiry based on a modelling report we had done by the CRC for Catchment Hydrology. I did not have a lot of time to prepare the submission. The mayor asked me at fairly short notice to submit it, and I submitted it by email. The most substantial part of the submission was our report, which hopefully you have had a chance to read—at least, I hope, the executive summary. With regard to my covering notes, there are a couple of things in there which are my views rather than the council's. On the second page I mention removal of hidden subsidies. That is my view and not the council's. Also—right at the end of the submission, in the paragraph beginning 'If the Industry ...'—I talk about royalties, which is basically my view and is not authorised by the council, so you can strike it out, if you wish.

When I arrived this morning, I distributed an agenda item that the Launceston City Council has viewed and passed. It is dated Monday, 5 May. In that agenda item we brought together the results of the CRC study. There are some predictions which are of concern that have been made by CSIRO with respect to the impacts of global warming on flows from catchments. They also talk about the environmental flows which are being brought in by the state government. The recommendations of that agenda item were essentially that we should write to the Minister for Forests and ask him to keep the logging rate within the catchment to one per cent or less until it has been shown that to log at a greater rate would be sustainable. Our report showed fairly clearly that, once we get up to around two per cent, there are definite impacts on the water flows from the catchment of approximately 20 per cent.

The second recommendation of that agenda item was that we should write to the minister for DPIWE and ask him to take account of global warming and the CRC study on forest yields in the setting of environmental flows. I think in the letter they also mentioned to him that there is a water management plan scheduled for the North Esk catchment which is due to be published in December 2005, but I think that date might extend. The problem is that at the current time forest impacts on water yield—which can be extremely significant; up to 50 per cent of the flow in a catchment—do not appear to be taken into account in the planning process, neither has any account been taken of global warming, as far as I know.

With respect to global warming, which is slightly off the subject, CSIRO conducted a study of the Benalla catchment in north-east Victoria. They predicted by 2030 a reduction in mean annual flows in that catchment of 12 per cent. My concern there is that if these are compounded by reductions in flow due to intensive plantation implementation, I think we will be in trouble.

CHAIR—You are probably aware that the committee, after the conclusion of this inquiry, will undertake a water inquiry into rural water use. There are a number of issues that have come up during the plantation and forest inquiry in relation to catchment management, water flow and so on. One thing I would be seeking a view from you on is whether or not, in relation to the absorption or the use of water before it reaches any of the streams or rivers, or gullies for that matter, you think there ought to be any levy imposed on those who are operating plantation forests, particularly in relation to the use of free-fall water. How might you go about doing that, given that, from a local government perspective, it has been raised, certainly in Western Australia more particularly, as a current issue and is, no doubt, with the current circumstances relating to water, one that will become more topical over time? So I think any suggestions that you may have from a local government perspective would be useful for the committee.

Mr Ratcliffe—From a personal point of view, I think it is essential that it is taken into account. I am not sure of the council's view on that, but I suspect they would be supportive of it because they like to see responsible water management. That whole issue falls within the jurisdiction of the state rather than the councils. The state sets water allocations and manages all the water resources, including allocations to councils such as ours.

Our bulk water supply authority, Esk Water, pays, I think, \$28 a megalitre for water taken from the catchment. I think for irrigation purposes the fee is much less and, of course, there is no current charge for the amount of water taken out of the water cycle by forestry, so it is obviously not taken into account in the economics of the crop production.

CHAIR—In relation to plantation forests and their operations and to downstream agricultural activities other than plantations, are you aware of any examples where there have been complaints or at least anecdotal evidence establishing that there has been a decline in water supply for other agricultural type production?

Mr Ratcliffe—Yes, I have heard some anecdotal information that where the eucalypts that we plant here for our forestry were established in South Africa, where they obviously did not exist in the same form before, a lot of perennial streams just disappeared. That is just anecdotal. One of the things you have to realise about this forestry rotation and plantation establishment, with respect to the impacts on the hydrology, is that you do not really get the major impact until the second rotation. So, if you are converting an old-growth forest to plantation forestry and you do that at the maximum rate for a town water catchment—as set by the Forest Practices Code at five per cent per annum—that will mean that for the first 20 years you will not see the major impact. It will only be during the second rotation that it really strikes, so it will be 30 years hence. So the fact that we have not seen any major diminution in water flows at the moment does not mean that it is not there or coming. I think it is, and it is a major problem which is of the same sort of magnitude, I think, as land clearing in Queensland.

Senator O'BRIEN—So, there is no measurable change in water flow in the current process of forest conversion from native forest—and, I suppose, farmland—to plantation forestry? Is that how I should interpret your last remark?

Mr Ratcliffe—No, I believe there are catchments that have been totally logged, where the impact has been as high as 50 per cent. I was just talking about the five per cent rotation there, as is dictated by the Forest Practices Code. The equivalent of clear-felling a whole catchment

would be emulated by a forest fire which struck a whole catchment. That has happened in several places, notably in Victoria, and there are marked and recorded declines in the water flow. There was a major fire in 1939, I believe, which had a significant impact on the water flows in those catchments. I was just talking about the North Esk catchment, where we are anticipating reductions in the future. The current rate of logging in the North Esk catchment is about two per cent, so that is a 50-year rotation, but we do not know what the future plans are—whether it is going to go up to five per cent or down to 1 one cent, as requested by the council.

Senator O'BRIEN—Are you saying that the council believes it can live with the one per cent rotation?

Mr Ratcliffe—It gives us breathing time, because that will defer the major impact for 50 years or so.

Senator O'BRIEN—The council agenda document that you supplied talks about the issue of global warming and the impact with a minus 10 per cent, plus five per cent change in spring and winter rainfall.

Mr Ratcliffe—Yes.

Senator O'BRIEN—One scenario that I have had put to me about global warming is that it almost moves the tropics further south, that temperatures will be higher and there will be greater evaporation, but it will also impact on the rainfall pattern and transfer some tropical moisture flows into southern Australia more frequently. What are the ramifications for that with the modelling you have talked about?

Mr Ratcliffe—The CSIRO projection is a five per cent increase in winter rainfall, which is the effect you are talking about, and a 10 per cent reduction in spring rainfalls. The spring rainfalls are the precursor to our summer flows and, if we do not get them, that will exacerbate any drought conditions because the water will not be there to flow down. Our catchment is not an average catchment. It has a large area of rainforest at the top of the catchment—there is a lot of mossy terrain up there—and that 27 per cent of the catchment supplies 66½ per cent of the summer flows. If our catchment was actually lower and the top of that catchment could be forested with plantation forestry and logged, this 20 per cent impact that we are predicting would be a lot greater because the plantation forest would be using up the water that soaks out of that sponge, if you like.

Senator O'BRIEN—Have you mapped the areas of the catchment you are talking about and can you supply that mapping to the committee?

Mr Ratcliffe—Yes, the maps showing the reserve areas and the highlands should be available either via the council or the state government. We actually map all the logging coupes as well now so that we can keep track of what is being logged and where.

Senator O'BRIEN—So to understand your views and, to the extent that you have qualified it, the council's views, how much has the global warming model been built into this scenario you are putting forward to the committee?

Mr Ratcliffe—The 20 per cent reductions are not accounted for at all. As I say, it has not been modelled for Tasmania. We have asked the DPIWE to do some assessment in their water management planning process with respect to that. I did get a quote from the CSIRO to a study which would estimate global warming impacts in our catchment; I think they costed it at approximately \$85,000.

Senator O'BRIEN—Has the council made a decision about pursuing a study?

Mr Ratcliffe—We have asked the state government to do it.

Senator O'BRIEN—Let the *Hansard* record that you are smiling, Mr Ratcliffe.

Mr Ratcliffe—The council need not have funded our original study. We saw this as a state government responsibility, but they were doing it so we funded it. We did it because we thought our water supply was so critical to the city and the north of Tasmania.

Senator O'BRIEN—I will leave it there for the moment. I may have some other questions to ask if we have time later on.

Senator MURPHY—With regard to the proposal to write to the minister for forestry and the minister for DPIWE, did that happen?

Mr Ratcliffe—Yes, I believe the mayor has written to them.

Senator MURPHY—Did you get a response?

Mr Ratcliffe—I have seen a response from Minister Lennon or, rather, one of his assistants which said that it would be brought to the attention of the minister. I am not aware of any reply other than that and I have not seen a reply from DPIWE. They are probably considering it or it might have slipped into our system and I have not seen it. Because the mayor wrote the letter, a reply would not necessarily come to me.

Senator MURPHY—I ask the council, through you, to take on notice providing information with respect to copies of the letters sent and the responses received. You made a point about the existing level of harvesting being at two per cent over a 50-year rotation. What is the basis for you stating that it is a 50-year rotation?

Mr Ratcliffe—On two per cent per annum logging rate, it will take 50 years to log the whole catchment. Our estimate of two per cent is just from an observation of what has happened in the last few years. Sometimes it is slightly under two per cent and sometimes it is slightly over, but it seems to be working out at about that. We do not know what the long-term plans for the next 50 years of the forest industry are because they give us a plan every three years saying, 'This is where we intend to log.'

Senator MURPHY—Looking at, as I assume you have done, the process of logging within the catchment that you refer to, have you done an assessment of specific parts of the catchment? For instance, have you done an assessment of the North Esk catchment area?

Mr Ratcliffe—The figures we plot are for the North Esk catchment. We do not look at areas outside our water supply because that is what we have been tracking, if that is what you meant.

Senator MURPHY—You say that, on the basis of a two per cent level, it would take 50 years to log the whole catchment.

Mr Ratcliffe—Yes.

Senator MURPHY—What happens to the catchment that is essentially being planted with plantation species, which will have a much shorter rotation?

Mr Ratcliffe—I guess the plan is that they will log that in 20 to 30 years time, so it will be locked in.

Senator MURPHY—What if it is 10 years?

Mr Ratcliffe—They can increase the logging rate up to five per cent, according to the Forest Practices Code.

Senator MURPHY—I understand that. But has the council looked at the possibility of impact if the rotation is reduced to 10 or 11 years?

Mr Ratcliffe—Not really, no, because that would not be allowed under the Forest Practices Code. They can log at a maximum of only five per cent, which is a 20-year rotation. We were concerned about bushfires as well. We looked at what would happen to our water supply if we got a bushfire that wiped out our catchment. We found there would be 50 per cent reductions in summer flows, which would be equivalent to clear-felling the catchment.

Senator MURPHY—Have you done any assessment of water depletion from a general land use point of view over the past 25 to 50 years?

Mr Ratcliffe—They looked at the stream flow records. There has been a decline in rainfall, anyway, over the last—

Senator MURPHY—And water flows?

Mr Ratcliffe—It is difficult to pick it up. There is variability in the climate. I will tell you how they actually did the study. You get a lot of noise in the data from a catchment. There are a lot of outliers, which can be confusing. What the CRC for Catchment Hydrology did using the Macaque model, which is a spatially based terrain process model, was take a climatically average year—they chose 1964—and look at yields with no activity in the catchment or the current levels. They calibrated the model based on current flows. Taking that 1964 rainfall, they repeated that indefinitely and tested two per cent, five per cent and one per cent rotations plus a five per cent rotation and conversion of the upper grasslands of the catchment into plantation forestry.

Senator MURPHY—On the question I asked you before about the rotation—that is, the period of time—you are saying at a level of two per cent it will take 50 years to harvest the entire catchment?

Mr Ratcliffe—Yes.

Senator MURPHY—I would pose to you that there is a significant amount of private property within the catchment that is being planted out with plantations that have a rotation life of from 10 to 11 years, over which the council really has no control.

Mr Ratcliffe—We have no control over any of it.

Senator MURPHY—My question would probably have been better put to you like this. Taking account of that and taking account of the public forest—that is, what remains of it—being harvested in a similar vein because of the economic pressure that would be brought to bear, it would seem to me that you have no assessment of the potential impact on the water flows and the water quality.

Mr Ratcliffe—We did not assess water quality, but the scientific study of the various rotation impacts is quite clear. If you are going to question the validity of the document you will have to go to the CRC for Catchment Hydrology, because they are one of the foremost hydrological organisations in this country.

Senator MURPHY—Thank you.

Senator BROWN—Are your assessments done on the first rotation or the second rotation?

Mr Ratcliffe—Both. In the back of the agenda items there is a table which shows the impacts on the first rotation and the second rotation. The impacts in the first rotation are relatively small, because you have still got a store of the older forests there, which is gradually being nibbled away. Once you have got through the first rotation, everything is plantation that is going to be and the impacts really start to bite.

Senator BROWN—You say in your submission:

If the Forest Industry were charged at the same rate as are our—

Launceston's—

Water Authority for extracting water from the river i.e. \$28 per ML they would have to pay \$1.2M per annum in water license charges.

Mr Ratcliffe—Yes. As I said at the beginning of the inquiry, that was just a note I put in. It is not something that the council is suggesting, but I believe that to be true.

Senator BROWN—I did the figures and came up with exactly the same as yours.

Mr Ratcliffe—Good.

Senator BROWN—That is minimum, because you are looking at a two per cent rate; but as you say it could go to five per cent and, as Senator Murphy has pointed out, it could be higher when you take into account other factors. You have mentioned the cost of storage—a dam, presumably, would be about \$10 million.

Mr Ratcliffe—Yes, I imagine it would be at least that. We actually did a study on one in 1990, and I just sort of rounded up the figures to give a \$10 million estimate. It may be more. With the difficulty in constructing dams these days, the costs could be considerably more.

Senator BROWN—Has the council got some sort of assessment of the stage at which a dam might be required—in other words, when the intake from the run of the river, if you like, would not give a secure water supply to Launceston?

Mr Ratcliffe—We have never needed a dam until today. The water supply was established back in the 1850s and one has not been required. Our peak demand occurred a few years ago when we used about 13 million megalitres. We are using less than 10 million now, due to good water management practices in the city. The decision to build a dam would not be the council's anymore, because of the formation of Esk Water, who are a regional water authority jointly owned by the council; but they are at arms length from the council, so we would not be telling them to build it. We would hope that the state government would pay for it if we had to build one.

Senator BROWN—But clearly the point being made here is that the safety margin Esk Water has in supplying the city with water is reduced because of logging.

Mr Ratcliffe—Absolutely.

Senator BROWN—Therefore, the potential of a dam having to be built to supply water, at a very minimal cost of \$10 million, is brought forward by the very fact that this logging is occurring and taking water out of the catchment.

Mr Ratcliffe—I would believe that to be the case.

Senator BROWN—Do you understand why the forestry industry—and we know that Gunns is the principal woodchipper—is getting \$1.2 million relief from paying for water, whereas every citizen in Launceston is paying for it through their rates?

Mr Ratcliffe—I suppose it is just the historical way in which we have allocated charges for water rights. They are normally applied to water that is in the rivers and streams and, if it never gets there in the first place, I guess you have managed to beat the system.

Senator BROWN—Has the council got the right or the power to impose a levy on the industry?

Mr Ratcliffe—No, I do not believe so. All the water charges are laid by the state government. Hopefully they will take that into account when they are doing their water management plan for the North Esk. It would be a good time for them to change the way they look at it.

Senator BROWN—I think we have established an answer to the question I was going to ask about whether the provision of the water and that subsidy is a major cost on local councils which is not being shared. What do you think? Is there a case here to put to the ACCC about a discriminatory use whereby one user of a resource—that is, the people of Launceston—is paying for it but the logging industry is not?

Mr Ratcliffe—I guess that case could be made. I will not answer the question directly because I do not know the council's exact view on it, but one thing the council has asked the state government for in the past is to give the royalty that is extracted for water supply back to us for catchment management purposes. It tends to just disappear into general revenue. We would not mind paying that royalty so much if we could see it was spent in the area. If it was used to fund the dam for instance then that might be an appropriate thing.

Senator BROWN—In your view, in Tasmania-wide terms, is the effect of extensive conversion of catchments like the North Esk, especially to single-age rotational forestry, leading to a significant across the board fall in the availability of water in the lower catchments?

Mr Ratcliffe—I believe it is. You have to look at this on a catchment-by-catchment basis. As I said, Launceston is buffered by those high land areas. I believe some of the other councils have got catchments which are at a much lower level and may be impacted to a much greater degree. It depends on the size of catchment as well. If the catchment is very large and the take is small, then the impact on a town water supply might not be noticeable. If it is the other way around it may destroy their water supply.

Senator BROWN—Coming back to what I was asking about earlier, when do you think some sort of dam or other storage might become necessary because of the declining availability of water in the catchment?

Mr Ratcliffe—I suppose it depends on whether the minister responds to our request to limit logging to one per cent. If that is ignored and it goes up to five per cent, plus the predicted impacts of global warming, we would need it within 30 years. We would probably get a little bit of warning because we would start to see the decline; we would have a few bad years and we would have to put restrictions on to the water supply. Following on from that I imagine that Esk Water would start lobbying the state government to give it some funding to build the dam, but I cannot speak for Esk Water either.

Senator BROWN—You said that you have got a bead on quantity but not quality. What about the quality of the water supply, including the impact of such things as erosion in the catchment, which comes from logging, and the application of atrazine or other chemical contaminants used in the logging process going into the water supply to Launceston?

Mr Ratcliffe—All Launceston's water is treated via the two treatment plants at Distillery Creek and Chimney Saddle. I am not aware of any major problems they have had treating it. A treatment plant is capable of dealing with quite dirty water at times; it can take some variability. One thing that did come out of one of the studies that was done, actually by Forestry, was that the water supply seems to be warming up. Once the temperature of the water warms up it holds less oxygen, the quality tends to decline and bugs can live in it more easily. That may or may not be a secondary impact of forestry, I could not say.

Senator BROWN—Is that treatment system able to deal with atrazine?

Mr Ratcliffe—I would not know.

Senator BROWN—Would you mind finding out by asking the authority and checking as to whether tests have been done for chemicals used and what the results are?

Mr Ratcliffe—I believe that Esk Water do test for atrazine or at least some of the other chemicals. I have not seen the results for some years. They used to do quarterly testing, so we could perhaps ask them if they have found anything. I could not say whether the process would actually take it out; we would have to ask somebody else.

Senator BROWN—Would you mind providing the committee with that information?

Mr Ratcliffe—Yes, I will try and find out for you.

Senator BROWN—I would be very much obliged, thank you.

Senator BUCKLAND—I only have a couple of questions. On the inquiry for the CSIRO that you were talking about, firstly, over what time frame would that be conducted?

Mr Ratcliffe—The study took us about four years. It took a long time to get the data together.

Senator BUCKLAND—That is the study you have done to date?

Mr Ratcliffe—Yes. It was quite difficult to get some of the data together and process it, but I must say that Forestry were quite helpful in that; they freely provided the data on forestry that was available.

Senator BUCKLAND—What about the one you are asking the CSIRO to do and the state government to fund?

Mr Ratcliffe—That is a different study. That is associated with global warming impacts rather than forestry impacts.

Senator BUCKLAND—Would that look at the rising water temperature?

Mr Ratcliffe—I am not entirely sure about their process, actually, but I think it takes into account climatic changes and so it will not be looking at water quality as such; again, it is a water quantity assessment.

Senator BUCKLAND—What is being done about water quality?

Mr Ratcliffe—We do not have a major problem with it at the moment. The water is treated at the treatment plants and we have no problem with the water that is delivered to us via our bulk supplier.

Senator BUCKLAND—But in the future, depending on the scenario you finish up with in relation to timber logging, water quality could well become a major environmental issue.

Mr Ratcliffe—It may become an environmental issue. It would not be as bad in terms of water supply because the treatment plants have a tremendous capacity to correct for either natural or man-made deterioration in water supply.

Senator BUCKLAND—Looking at the chart you provided in the document we got this morning, which is the minutes of the council meeting, we move from a 100-year rotation at one per cent, which you are seeking to have implemented.

Mr Ratcliffe—Yes.

Senator BUCKLAND—Fifty years is two per cent, and then it appears that 20 years is five per cent. Is that an established fact for the more regular rotation?

Mr Ratcliffe—It is what the model predicted for that particular catchment. The fact that there was not a tremendous change between two per cent and five per cent just indicates how important the buffer of the upland areas is. If that upland area had not been present you would see a much bigger difference between those figures.

Senator BUCKLAND—Is the water quality issue that you have raised directly attributed to the logging industry or is there more involved in it?

Mr Ratcliffe—The temperature increase may be an early result of global warming, but I do not think the change in temperature over the last century was great enough to cause a three-degree change in water temperature. There must be something else happening there that we are not aware of.

Senator BUCKLAND—Has the logging industry itself been cooperative in participating in your investigations and inquiries to date?

Mr Ratcliffe—Yes, with respect to supplying data on the forests they were very helpful. We could not have built the model without them, actually. If they had withheld that data, we would not have been able to do the modelling we did.

Senator BUCKLAND—A final question from someone who lives where we do not really have trees at all—

Senator O'BRIEN—Yes, you do!

Senator BUCKLAND—We do, but they do not get very big. How much does one per cent represent in landmass?

Mr Ratcliffe—It is basically a one-hundredth of the area.

Senator BUCKLAND—And what is the area?

Mr Ratcliffe—I might have to refer to one of the tables. It is 22,504 hectares.

Senator BUCKLAND—Thank you.

Senator COLBECK—Mr Ratcliffe, what percentage of the catchment is in reserved areas at the moment?

Mr Ratcliffe—I think it is at about 27 per cent. A lot of the detail of that is in the report, if you have a copy of it.

Senator COLBECK—What about traditional agriculture, if you like?

Mr Ratcliffe—The CRC report did a summation of all the different land uses in the catchment above the water intake, so all the figures will be there.

Senator COLBECK—Did you do a calculation of the value of the water take-off from traditional agriculture?

Mr Ratcliffe—Above our intakes I do not think there is a lot of irrigation type agriculture there. In fact, a lot of the farms seem to be fairly run down and are used for grazing only.

Senator COLBECK—Surely they would have a water take-off themselves?

Mr Ratcliffe—Probably for domestic purposes, and the stock would obviously drink the water—yes.

Senator COLBECK—So, you have not done a calculation on that at all?

Mr Ratcliffe—No.

Senator COLBECK—How many councils are shareholders in Esk Water?

Mr Ratcliffe—There is George Town, us and West Tamar, and to a lesser degree Meander Valley Council.

Senator COLBECK—Would you receive water quality reports from them on a fairly regular basis?

Mr Ratcliffe—No, only if we asked them for them. We do our own water quality checks on the water supplied to us. We check for bacteriological levels in the water on a weekly basis.

Senator COLBECK—But surely they would be doing regular checks and publishing regular reports. I know that when I was a council member of Cradle Coast Water Authority we were presented on a regular basis with water quality reports that included issues that have been discussed before today.

Mr Ratcliffe—Yes, I am sure they are available if we wanted to look at them. I know that a few years ago they were doing quarterly tests on the raw water—checking many constituents of it, both chemical and physical.

Senator COLBECK—Does council have representatives that sit as a representative group on Esk Water?

Mr Ratcliffe—Yes, I believe they do.

Senator COLBECK—But there is no reporting back to council on things like the water quality input issues that might occur through activities upstream of the intakes?

Mr Ratcliffe—If it became an important issue, the council would certainly require that and be provided with it. As I mentioned earlier, we do not have a great concern about water quality at the moment.

Senator COLBECK—Essentially that lack of concern is because you are removed from it by Esk Water. Obviously it is an issue—

Mr Ratcliffe—Yes.

Senator COLBECK—and something that you would be concerned about. You do tests of the water supplied to you.

Mr Ratcliffe—Yes.

Senator COLBECK—Surely it would be in your interest to have an understanding of the water quality inputs to Esk Water as well, as a major shareholder?

Mr Ratcliffe—We do check it from time to time. As I say, if it were a concern—as water yield is—or if we thought they were not managing it responsibly we would be looking at it. But we have no problem with the way Esk Water manages and treats the water.

Senator COLBECK—You mention in your report the impact of a three-year plan. You would obviously see a benefit to a planning process that gave you information on a longer rotation or, say, a 10- or 20-year budget so that you could—

Mr Ratcliffe—Yes. Certainly, if they could set a maximum level—they would not need to set a minimum level—of forestry activity, that would be beneficial in estimating impacts.

Senator COLBECK—Are you saying you want a maximum level of harvest per year in the catchment or a longer term plan?

Mr Ratcliffe—Ultimately we would like a long-term plan stating their entire rotation and what the long-term production would be. It may be difficult for them to do that, because they do not know their own markets, but I believe we can set long-term maximum harvesting rates based on environmental principles.

Senator MURPHY—I have a question about the council's research. Have you looked at the proportion of land that is privately owned versus land that is publicly owned?

Mr Ratcliffe—It is recorded in the report, yes.

Senator O'BRIEN—I want to ask about the modelling of water use by plantations, which relates to a question from Senator Colbeck. What sort of effect does intensive agriculture, such as cropping of various types, have on water in the catchment? Do we have any material on that?

Mr Ratcliffe—There would be a lot of material available via DPIWE, and I think that is the sort of thing they take into account when they are doing their water management planning process.

Senator O'BRIEN—If we are going to charge one detractor or subtractor from the catchment, we would have to charge them all, wouldn't we?

Mr Ratcliffe—Most of the others are already being charged.

Senator O'BRIEN—For use of water that does not flow into the catchment?

Mr Ratcliffe—No, not in that case.

Senator O'BRIEN—That is what you are talking about, isn't it?

Mr Ratcliffe—It is, and—

Senator O'BRIEN—It is not extraction from the river.

Mr Ratcliffe—No, but because it is such a major proportion of the catchment I believe it should be taken into account.

Senator O'BRIEN—So we should be looking at the volume of the catchment used for particular ends?

Mr Ratcliffe—Yes. If it is a non-extractive use which has a major impact.

Senator O'BRIEN—If it is a non-extractive use?

Mr Ratcliffe—Because the water falls on the properties and is used first, rather than extracted from the river and then used.

Senator O'BRIEN—So there should be some discrimination between those who use water in a non-extractive way and those who do not?

Mr Ratcliffe—When they are setting up their water management plans, they work out how much water is going to be available and they basically divvy it out. They provide some for the environment, and what is left can be allocated to irrigators. If that estimate is carried out and the

amount of water used by forestry is not taken into account, they are going to get their figures wrong.

Senator O'BRIEN—Tell me about the variation in daily flow. You have the mean daily flow in a table in the council's paper. What is the variation—what does it fluctuate between?

Mr Ratcliffe—I think I quoted the figure for the least flow ever in the North Esk. It got terribly low once, in 1968. I cannot find it at the moment, but I can provide you with figures on variability if you want.

Senator O'BRIEN—I would have thought peak rainfall for the catchment would be winter and spring.

Mr Ratcliffe—Yes.

Senator O'BRIEN—You are going to have a massive variation—

Mr Ratcliffe—Yes, you will have a massive variation. That is why our studies tended to concentrate on the summer flows. There is no shortage of water if you can capture the winter flows.

Senator O'BRIEN—So do you think Senator Brown will support the construction of a dam to capture those winter flows? You do not have to answer that one.

Senator BROWN—I would never support the construction of a dam that was not required if there was good management.

CHAIR—Thank you for your assistance to the committee. I understand that a number of requests to provide further information have been made. The committee secretariat will be in touch with you about that. A copy of the *Hansard* of your evidence will also be made available shortly. Thank you again for taking the time and appearing and providing evidence.

Proceedings suspended from 9.31 a.m. to 10.08 a.m.

CHAIR—The committee has decided to take its evidence from Mr Manning in camera. The committee has decided to do so so as to allow Mr Manning to provide his evidence in a way relevant to the committee's terms of reference and to allow the committee to make a later decision on the full publication of matters raised by Mr Manning. The committee is also mindful that issues that have been raised in Mr Manning's case as a result of the voluminous amount of documentation provided may be the subject of other proceedings in other jurisdictions, including that of the Tasmanian Ombudsman. To summarise, the committee has decided to take evidence from Mr Manning in camera, at which time we will provide an opportunity for Mr Manning to speak and provide further evidence. Thus, I ask all members of the public and the media to vacate the room.

Senator BROWN—Before you do, I want to put it on the record that I totally object to the decision that the committee has made. There is nothing in the documentation that has been put to this committee by Mr Manning or anybody else which should not be on the public record. I have

never in my experience seen a situation where a witness before a committee who did not request it was given the option of only presenting that evidence in camera. This is a committee of the national Senate. It is here doing the work of the public. This is a matter of obvious great public interest. What is happening outside this committee is incidental to the evidence brought before it. I have heard no valid case for any of this material not being brought forward publicly. I want it on the record that I object to the committee making this decision, putting the public out and raising the spectre of questions about the evidence for which there has been no good reason brought forward. I object totally.

CHAIR—The comments by Senator Brown are noted for the record. As I said, I have been instructed by the committee that the next session be held in camera. I ask members of the public to now vacate the room, at which time we will proceed to take evidence from Mr Manning.

Members of the audience interjecting—

CHAIR—All members of the public will need to vacate, including members of the media.

Committee adjourned at 10.20 a.m.