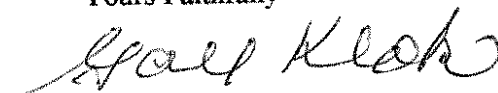


*Mrs Gay Klok*  
2 Red Chapel Ave  
Sandy Bay 7005  
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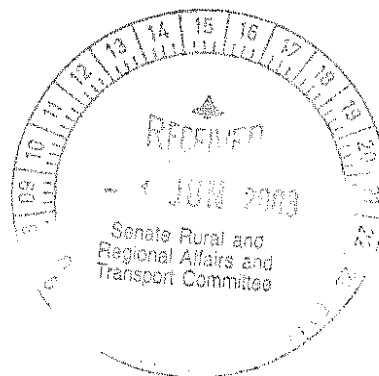
*May 27, 2003*

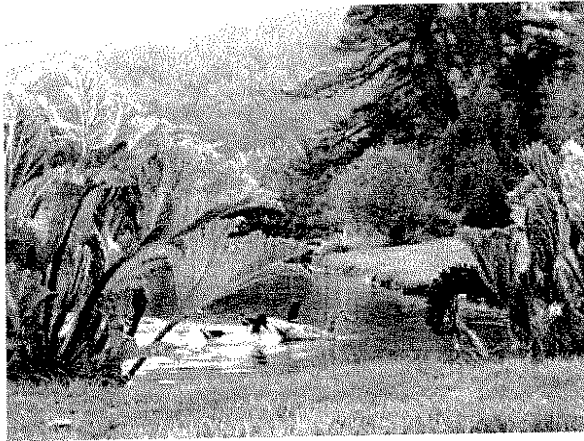
Please find enclosed my submission to the **Plantation Enquiry Committee**

Yours Faithfully



**[Mrs Gay Klok]**





My name is Gay Klok. I wish to appeal to all Senate Enquiry participants and ask them to put themselves in our position. It is an emotional appeal, I cannot help but feel emotional. The property we own in Middleton consists of approximately 140 acres, made up of sixty acres of natural wet sclerophyll bush, forty acres of apple orchard and the rest pasture and 8-10 acres of ornamental gardens. Fifteen years ago, Kees and I began the pursuit of our final dream, we were not young I was fifty and Kees sixty. Over fifteen years we created a world renowned garden, written up in many books, magazines and in my own writings, "Tasmanian Garden Journal" on the Internet,

[http://www.suite101.com/welcome.cmf/tasmanian\\_gardening](http://www.suite101.com/welcome.cmf/tasmanian_gardening)

Over the past years we have had hundreds of visitors, not only Australians from interstate but from many countries including the United States, England, Scotland, Germany, Canada, New Zealand and Japan. The garden has been featured on ABC Television and radio. Australian gardening groups that have walked our garden paths include many local and interstate gardening groups and from the botanical gardens of Sydney and Adelaide. We rarely charge the non profit making organizations, although opening your gardens to the public occasions quite a lot of expense. We feel that it is our public duty to share our gardens and environs with visitors to Tasmania and, in our small way, further tourism in our beautiful island. Visitors remark that the gardens, the water gardens and the birds and bush animals are unique and give them a wonderful feeling of peace and harmony. Now peace and harmony are about to be thrown away by, and I can only write two words, 'man's greed' in the chase for bigger and bigger profits. I have no doubt that if there is not a change in policy and methods of managing these coupes, our garden which is watered by our big dam [only 90 metres from the border of the Cowan's coupe] will suffer enormously. The rare plants that we have grown and nurtured from seed, some unique in Australia, have grown so quickly they are now large healthy perennials, trees and shrubs, despite our policy not to use poisons in our gardens.

The water garden which is home to native brown ducks and wood ducks, is filled with reticulated water from the big dam. These gardens cost us a lot of money to create but the formation of a beautiful water garden was part of our dream. I also have great fear for the family of platypus that live in the big dam. And my eyes fill with tears when I contemplate the agonizing death of the potoroos, the bandicoots, bettongs, quolls, sugar gliders, Tasmanian devils, ringtail and brushtail

possums, pademelons and wallabies that we share our gardens with. This is not to mention the myriads of native birds that are constantly giving us much joy, including the family of wedgetail eagles whose Summer diet consists of the newly born peachicks belonging to our peafowl. We own more than thirty peacocks and peahens, which is more than enough for our pleasure so we do not mind sharing the new born ones with the majestic eagles, that is the way of nature. Please do not think that 'our' bush creatures will not be affected. In a period of two weeks in June 2001, we found dead wallabies, peacocks and possums throughout our garden, a count of 15/20 in all, one dead potoroo was found on our door step. As we had not seen this occurrence before or after, we now assume there must have been a trial run of laying 1080 laced carrots on the Cowan's land, during this period.

I appeal to you again to just take a moment to imagine how sad Kees and I feel. We have not that many years left to enjoy earthly pleasures. We are not alone in our pleas for this fear is in the heart of other folk living in the district.

Is it right that pecuniary interests take precedence over the happiness, the hopes and the dreams of ordinary citizens?

If this is so, I will die knowing there is not much hope for this world.



ADDENDUM:



Our bush adjacent to the Cowen's coupe and how the Cowens coupe looked now after the clear felling

Nearly a year has passed since I wrote this letter to the Kingborough Council members and Members of the Tasmanian Houses of Parliament. It was discovered, by our organic neighbour, Mr Stuart Young, that the required Private Timber Reserve Permit had not been obtained from the Kingborough Council for a section of the Cowen's coupe, the area adjoining our property and several others in the Middleton area. After much discussion, the councillors of the Kingborough Council proposed and voted unanimously for certain conditions to be observed on the coupe prior to the council granting the permit to the managers of the coupe, Gunns Ltd. The mayor of Kingborough Council excused himself from voting as his family supplies machinery to Gunns Ltd for the road works on the coupes and therefore he had pecuniary interests. The conditions were sensible practices that would go a certain distance in protecting neighbours and the district from the harmful self regulating practices that Gunns normally observe in the management of these forestry coupes in Tasmania. Gunns appealed to the Tribunal Board stating that the conditions which the local council had imposed were 'impractical' and subsequently work on the Cowen's coupe was suspended waiting for the results of the appeal.

In the meantime, my husband and I contacted the Forest Practices Board again, pointing out the damages that were appearing in our water ways from the illegal clear felling, burn-off and road works that had already illicitly taken place on the coupe adjacent to our property. For the first time, to our knowledge, a department officer inspected the area despite us informing, for more than two years, various government departments what was happening so close to our boundary. We finally received a letter from Mr Wilkinson, Chief Forest Practices Officer, FPB, stating that the illegally made roads were causing our large dam to be polluted and our rivulets and springs were showing silting and run off. It was also observed that the Forest Practices Code's requirement for buffer zones of natural bush near water catchment areas had not been adhered to during the illegal clear felling

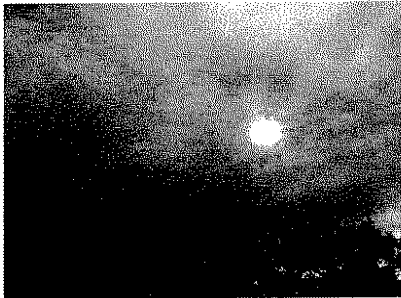
*[See letter report and newspaper cutting - 1a, 1b, 1c]*

For over three years we had contacted the various government boards and the Kingborough Council, both verbally and by letters and had no replies. We felt that nobody would listen to us. It was like banging our heads against a brick wall. The worry and work have been most detrimental for my husband and myself, we were both strong and healthy people before our campaign, we are now on hypertension medication and my husband had to have a pacemaker implanted last year.

In 2002 we received two letters from the South-Eastern manager of Gunns Ltd, Mr Cuisick, to inform us that aerial spraying on Cowen's coupe was to commence in five days time and was to be followed by the laying of 1080 poisoned carrots.

*[See letters 2a, 2b, 2c]*

We had once before been contacted by Mr Cuisack, by telephone, re the burn-off that was to take place and we arranged to have a meeting, on Saturday morning, prior to the event. Mr Cuisick did not keep that appointment.



Burn off fire behind our bush

After receiving the notification of the poisons to be used on the Cowen coupe, we contacted Mr Cuisack and this time he kept the appointment. We pointed out to him that Middleton had no town water supply and domestic water used in our homes, came from tanks filled with the run off rain water from our roofs. We also spoke of our garden, visited by many garden enthusiasts from all over the world and planted with unique plants, which was watered by reticulated water from our top dams, less than one hundred metres from the proposed area to be aerial sprayed with the most deadly poisons. We mentioned our 4000/5000 blackwood plantations, now fifteen years old [and 100 ms from the boundary], that had grown into tall, healthy trees without the use of poisons, and informed him that our steers drank from the dams. I asked him why Gunns proposed to plant *Eucalyptus nitens*, a non-endemic species to Tasmania and suggested by many hydrologists to be the most water hungry species of the *Eucalyptus* family. The reply was at least honest, " Gunns can farm *Eucalyptus nitens* when they are 15 years old. *Eucalyptus obliqua* [stringy bark] and *Eucalyptus globulus* [Tasmania's native flower emblem], natives of our bush, take up to 30 years to grow to farming size.

I asked Mr Cuisick if we may visit the site and the request was refused. However, he did, reluctantly agree to a thirty-ft buffer zone where no aerial spraying would take place and the poisons would be applied by hand. He also agreed to arrange a sampling of our dam water. We later found out that the buffer zones were part of the Forest Practices Code of management and the bush had been already illicitly cleared

*[see attached cutting3a, 3b]*



*Man ferns growing naturally in our water catchment area*

The dam testing was carried out but even after many requests, over the next months, we were unable to get the results until, during the Tribunal hearing, I was able to ask a Gunns witness to supply it. The result from the testing for many pollutants was that our water was pure and clean of any dangerous elements.

We again contacted Mr Wilkinson informing him that it was the intention of the managers of the coupe, to plant *Eucalyptus nitens* and our fears that all the rivulets, supplying water to many properties were in danger from drying up in the Summer months from this ignorant choice of planting. Attached is a letter received back from Mr Wilkinson.



The big dam prior to clear felling



After clear felling

*[see attached letter 4a and newspaper cuttings 4b, 4c]*

The Tribunal Board, despite the harsh treatment we received from Gunns Ltd's lawyer [as parties to the appeal] acknowledged that the original plans for the management of the coupe would be hazardous to the health of the community and detrimental to the bush and farming activities of the neighbours. We have already experienced a dangerous incident. Since the clear felling above our own bush buffer zone, the garden has become prone to damage from a northwesterly wind. We have been unable to open the gardens under the Australian Open Garden Scheme, a pleasant duty in which we participated since the scheme was first introduced in Tasmania. The AOGS print a book early in the year giving opening dates for the gardens that open their gates to the general public. The threat of the aerial spraying that could be taking place on the predetermined dates caused us to withdraw from the scheme. However, the smaller garden groups from Garden Societies and Organizations have continued to visit us and the gardens. Last December, a small group of fifty+ gardeners from a Hobart garden society came to visit the garden. A strong wind was blowing from the NW. An elderly lady had just driven her car to the parking area, got out of the car and started to walk to the garden gate, when an enormous limb from a conifer came crashing down, breaking the fence and the gate. On inspection of the limb we could not find any rot so it was puzzling and certainly the first time anything like this had happened. A few seconds later and that lady would have lost her life and the subsequent damages would have certainly crippled us financially. We do have insurance, covering garden visits but not for such a horrendous accident that nearly took place. It would be hard to prove that the extra wind damage in our garden is a result of the clear felling but we know that the wind whistling through our garden and the damages to our ornamental trees and in the bush, has never been experienced by us in our sixteen years at "Kibbenjelok"

Also in December last year, we were visited by an editor and a photographer from the most popular garden magazine in Australia "Your Garden". They had been taking photographs of significant Tasmanian Gardens in Tasmania. As we strolled along the garden paths, I asked the editor if they had enjoyed the drive down the Channel Highway to "Kibbenjelok". He answered "It is so beautiful. The photographer remarked to me that it was wonderful to see not only see the calm waters of the Channel but from the windows on the other side of the car, the natural wooded hills of pristine bush. We have been horrified to observe all the clear felling and mono culture plantings all through Tasmania!" I had not spoken of our concerns but then told him of our 'troubles' and that a map had been seen of the future proposed coupes that would leave those pristine hills cleared of bush.

I am writing this appeal to inform honorable members of the committee of the pain and suffering that 'ordinary' Tasmanians are experiencing through the uncaring and ignorant practices permitted in the

forestry farms, managed or owned by Gunns Ltd. I am not against selective forestry implemented in a way that does not ruin the natural habitat and kill our native animals.

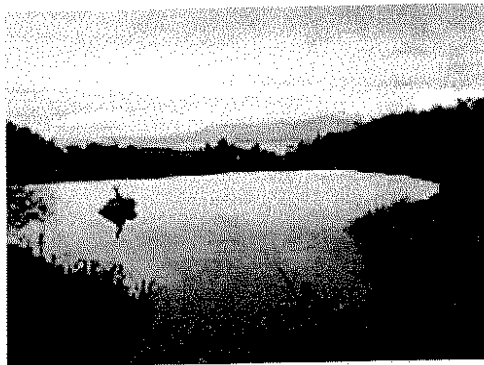
In my elderly years I have only three strong loves in my life:

My family: All of our eight, soon to be ten grandchildren are rewarded after the great achievements in their young lives, by a weekend spent "at the farm". Their mothers have expressed fear of them spending time down here when the aerial spraying of poisons is an ever likely threat. I have assured them that we will live as folk have to in Third World countries and only use bottled water.

The garden: My husband and I set out to realise a dream and keep active in our wrinkly years. The dream may be shattered but at least we are still being kept active!

Tasmania: I, through my writings on Internet, have always promoted Tasmania as the most beautiful island in the world and the safe, green image has been observed by the many visitors, from many countries of the World, to my 'Tasmanian Garden Journal' articles and photographs. My average daily visitor count is 500 and the day I printed my article on the proposed forestry coupe to take place on our boundary, I broke my daily record with over 10,000 visitors recorded. I have received dozens and dozens of emails with the constant question "Why on Earth such awful practices?" Quote: [over and over] "Your news is shattering our dreams to visit Tasmania one day and find natural beauty and sanity in this troubled world"

*[See a few examples of emails in Internet, 5]*



Our ornamental pond, night time  
Some photographs in larger format enclosed in separate folder

This is not a scientific treatise, it is just a summary of how two people enjoying their 'golden years' can have their life upset with fear and worry. It is also an attempt to indicate that we have been ignored, made irrelevant by both big business and governments. We have learnt that in the C21st there is only one goal that matters in life - the chase for bigger and bigger profits and that the almighty dollar is to be worshipped above all. The fight may have emptied our pockets of small change but at least we are able to look the future generations in the eye and say "We tried. We gave it our all"

# FOREST PRACTICES BOARD



Inquiries : G Wilkinson  
Phone : 03 62337451  
Fax : 03 62337954  
Our ref : C200  
Your ref :

17 September 2002

C. Klok  
2 Red Chapel Ave  
SANDY BAY 7005

Dear Mr/Mrs Klok

Further to my advice of 21<sup>st</sup> August, I have investigated the matters regarding the operation of Gunns Ltd on the Cowens block and I can now provide you with a progress report.

I have found that a number of matters associated with the operations to date require corrective actions. These matters relate primarily to the drainage of roads and to machinery operations close to drainage depressions and streams. The company has agreed to immediately carry out some corrective works involving additional road drainage and rehabilitation of some areas. The Board will monitor these works and will determine whether further action will be taken.

In relation to the proposed use of chemicals, I have been advised that all plantation establishment operations have been deferred, probably for several months. In the interim I understand that Gunns will be reviewing the options for weed and animal control and that any proposed treatments will be subject to further consultation with adjoining landowners. I will be maintaining an interest in the progress of these negotiations.

I will keep you advised on further progress with respect to these matters.

**Graham Wilkinson**  
**CHIEF FOREST PRACTICES OFFICER**

30 Patrick Street, Hobart, Tasmania, Australia 7000  
Phone: (03) 6233 7966 Fax: (03) 6233 7954  
email: info@fpb.tas.gov.au

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29 January 2003

**Re Appeal against The Development/Use Permit from Kingborough Council of 29 October 2002 for Gunns' Plantations Ltd for the site at Risby Street Middleton**

1. My name is Peter Douglas McIntosh. I am a geologist by training and have a B.Sc. (Hons) degree in Geology from the University of Reading (U.K.) and a Ph.D. in Geology from Victoria University of Wellington (New Zealand). I live in Hobart and am presently employed at the Forest Practices Board, 30 Patrick Street, Hobart as the Senior Scientist (Soil and Water).
2. I have been employed in soil research, and advisory and consultancy work in New Zealand and Tasmania since 1979 and have published 55 scientific papers, over 100 contract reports and over 200 advisory reports on soil and water issues.
3. I have been asked by Ian Blanden of Gunns Ltd to prepare comments on Condition 26 of the Development/Use permit which requires "An erosion and sedimentation control plan in accordance with the Hobart Regional Soil and Water Management Code of Practice and to the satisfaction of Council's Development Control Unit" is to be submitted to council.
4. I have made attempts to locate the Soil and Water Management Code of Practice document referred to above. It is not available in Hobart of Kingsborough Council offices, and council officers at both Hobart and Kingsborough referred me to a document called the "Guidelines for soil and water management, June 1999" published by the local councils in the Hobart-Kingborough area. I believe the document referred to in condition 26 is the Guidelines booklet.
5. To investigate how Condition 26 could be implemented I have read the "Guidelines for soil and water management, June 1999". These guidelines list the practical measure that must be taken to achieve good environmental outcomes and state: "The majority of building, development, subdivision, and civil infrastructure activity proposals need to be accompanied by a Soil and Water Management Plan (SWMP) prior to any site disturbance." In addition "soil and water management Plans are needed to communicate to all involved (Builders, Contractors, Sub-contractors, Property owners, Regulators, etc) how stormwater pollution is to be controlled on a particular site". Table 1 indicates that a SWMP is not required for small extensions, small driveways or garages. However, a SWMP is required prior to a building permit being issued for single houses, small commercial, long driveways, small subdivisions, minor civil works, large houses, medium/high density housing, civil works, and commercial and industrial developments. No other examples are given.
6. The above quotes show that SWMPs are designed to ensure that builders plan for water discharge from building developments. They are not designed to govern rural land uses such as agriculture (e.g. ploughing, paddock drainage, farm dams construction, wheat harvest), horticulture (e.g. irrigation design, salinity control) or forestry (e.g. tree harvest, culvert spacing on roads, streamside reserve design, safe spray use).

7. The Forest Practices Code (2000) contains many prescriptions governing land use and soil and water protection. The Code is legally enforceable under the Forest Practices Act 1985. The provisions of the Code governing soil and water are too numerous to list here but some examples are:

- Table 1 specifies minimum road standards depending on log volumes being extracted.
- Table 2 specifies maximum culvert spacings on roads
- Page 16 specifies types of sediment traps to be used
- Table 5 specifies harvesting machinery to be used on land having differing slopes and soil erodibility rating, so that the risks of erosion are minimised
- Page 39 specifies methods of snig track restoration
- Table 8 specifies minimum streamside reserve widths
- Table 10 specifies types of cultivation allowed on land of differing slopes and differing soil erodibility rating

These examples show that the Forest Practices Code is specifically designed to minimise risks to soil and water in the range of conditions under which commercial forestry is undertaken in Tasmania. The Code has been written by scientists who are specialists in their field, in conjunction with foresters. It is a highly effective tool for achieving good outcomes, as evidenced by the Forest Practices Board audits of forestry coupes (FPB Annual Report 2002). The effectiveness of the Forest Practices Code is also indirectly supported by DPIWE reports showing that rivers flowing through forested parts of catchments are in better condition than rivers flowing through agricultural parts of catchments (Bobbi et al. 1999a, b).

8. I conclude that to minimise the risk of adverse environmental effects during forestry operations the Forest Practices Code rather than the Guidelines is the most suitable document for foresters to follow. It follows that Condition 26 is inappropriate and should be deleted

#### 9. REFERENCES

- Bobbi, C.; Nelson, M.; Krasnicki, T. and Graham, B. 1999. State of the Rivers Report for rivers in the Great Forester catchment. Report Series WRA 99/05-09. Department of Primary Industries, Water and Environment, Hobart.
- Bobbi, C.; Graham, B.; Krasnicki, T. and Nelson, M. 1999. State of the Rivers Report for the Brid River catchment. Report Series WRA 99/09, 99/16-18. Department of Primary Industries, Water and Environment, Hobart.
- Forest Practices Board 2000. Forest Practices Code. Forest Practices Board, Hobart.
- Forest Practices Board 2002. Annual Report 2001-2002. Forest Practices Board, Hobart.

#### APPENDIX 1.

Photocopies of selected pages from "Guidelines for soil and water management, June 1999".

#### APPENDIX 2.

Copy of the Forest Practices Code 2000.

## INVESTIGATIONS ON THE COWEN PROPERTY (COUPE KG123A) IN RELATION TO THE COMPLAINT OF G. AND C. KLOK

P.D. McIntosh, Forest Practices Board, Hobart

### BACKGROUND

The Cowen Farm is centred on Daly's Hill, between Garden Island Bay and the D'Entrecasteaux Channel, on Sheet 5021 (Lymington, edition 1, 1984) 517000 5213000). The land covers UPIs 0889, 0890, 2333, 2334, 2335, 2336, 2337, 2338, 2339 and 2365. The coupe consists of about 36 ha of land previously under pasture and 256 ha previously under forest, giving a total coupe area of 306 ha. The FPP lists the rock type as Permian sandstone and the soils as having low erodibility. The forest types included both wet and dry forest types (*Eucalyptus viminalis*, *E. globulus* and *E. obliqua*). A description of the wet forest types was not given in the FPP. Altitudes range from 200 to 400 m above sea level.

A.K. O'Malley audited the forest practices on the property on 9 September 2002 and found several poor practices and Code breaches which required attention. There were two concerns in the upper catchment of McKay Rivulet above the Klok property. One was a blocked culvert which had been the subject of an earlier section 41(1) notice. The other was cultivation through a drainage depression. This is referred to in A.K. O'Malley's audit report as the drainage line in the "far south-west section" which appears to be a mistake for "far south-east section". A.K. O'Malley noted that cultivation through this drainage line had not resulted in erosion.

The Klok property (UPIs 2362 and 2363) has a common border with the south eastern side of the Cowen property. Complaints and concerns communicated by C. Klok include the following:

1. McKay Rivulet has carried a considerable amount of roadmaking material into the Klok reservoir. "Our natural cattle barrier has been destroyed" (14.08.02).
2. Overhead spraying is inappropriate, particularly near or in streamside reserves.
3. Aerial spraying may contaminate water supplies (14.08.02).
4. Chemicals used should only be those designed for streamside application. (14.08.02).
5. The danger of the poison 1080 getting into water supplies needs to be considered (14.08.02).
6. Planting with *Eucalyptus nitens* could "have a drastic effect on the amount of water available to all areas relying on this catchment area" (19.09.02).

In order that these complaints and concerns could be scientifically assessed, the Cowen property was visited on Friday 4 October.

### OBSERVATIONS

The Hobart 1:250 000 geological map (Department of Mines 1975) gives the rock type as Triassic sandstone, with Jurassic dolerite on Daly's Hill. The dolerite has not weathered to clay as is usual in dolerite talus deposits under wet forest. Instead it has physically broken down to a pale brown compact and massive soft rock, with a characteristic "mealy" feel and a predominantly silty texture. The soils on this parent material occur under dry and moist forest and have been described as Driscoll soils in the Forest Soil Fact Sheets on the FPB website ([www.fpb.tas.gov.au](http://www.fpb.tas.gov.au)). They have **moderate** erodibility where they are well drained. Poorly drained soils have not been described but where these occur in drainage depressions erodibility is probably **moderate to high**. Other soils noted on the coupe are formed in Triassic sandstone. These soils have an A2 horizon which was noted in road cuttings. These soils will have **moderate to high** erodibility in well-drained situations (Forest Soils of Tasmania, soils 14.1 and 14.2) and probably **moderate to high** or **high** erodibility in imperfectly to poorly drained situations (e.g. drainage depressions).

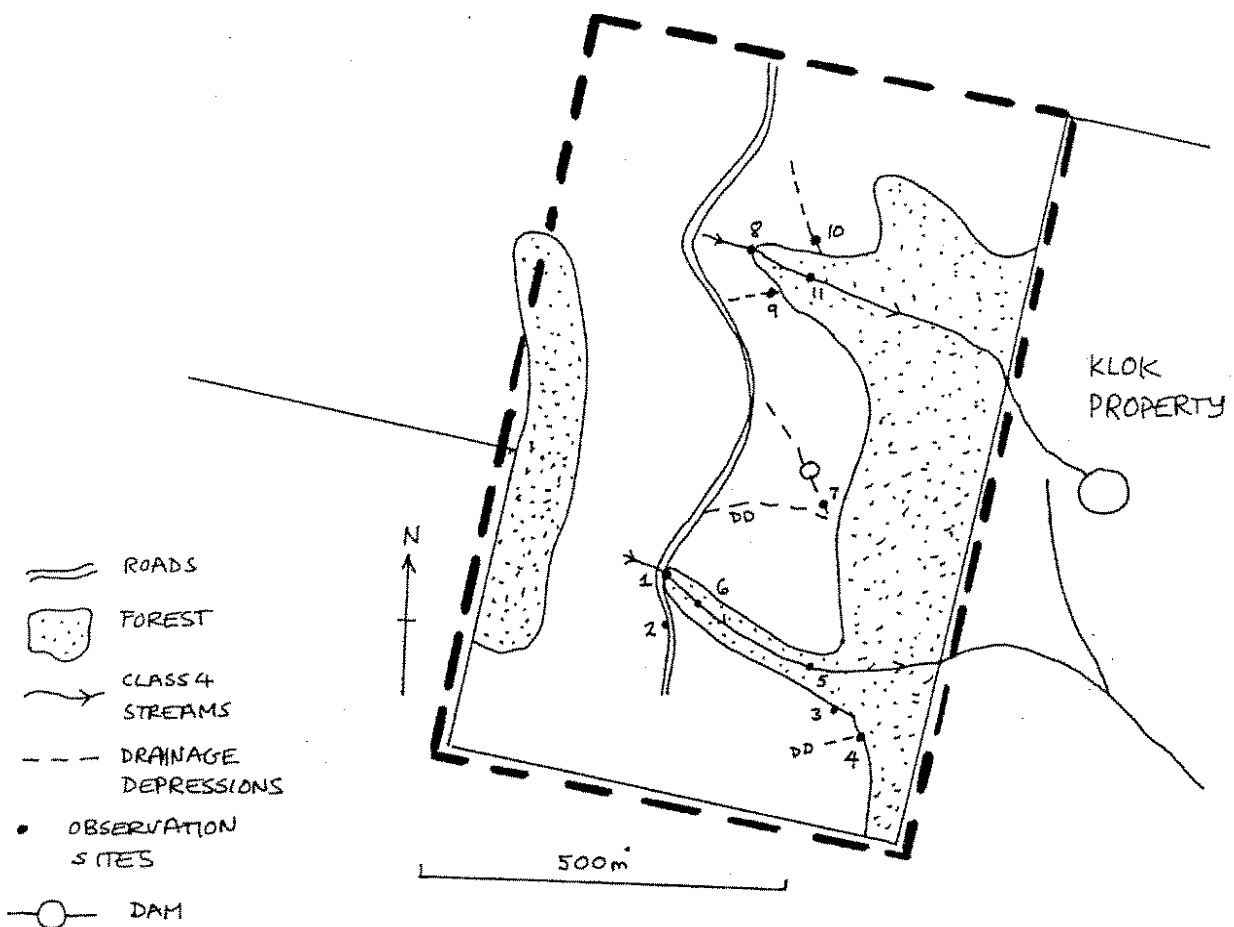


Figure 1. Features on the Klok property. The bold dashed line shows the area within which it is recommended that no aerial spraying occurs.

Detailed observations were confined to the sites in the upper McKay Rivulet catchment above the Klok property (Figure 1). The soils in the upper part of this catchment are formed in deeply weathered dolerite as described above. Driscoll soils with moderate erodibility predominate on well-drained sites. On lower slopes (towards the east) soils are formed in a mixture of dolerite and sand.

**Site 1.** This is the site of a poorly constructed culvert which was the subject of a section 41(1) notice. The road crossing here was previously noted to be a source of erosion. There is an old dam below the stream. It is partly filled with silt and acts as an effective sediment trap. All sand and gravel coming off the road will have been trapped by the dam. Some silt will also have been trapped but it is also likely that some will have moved downstream in suspension.

**Site 2.** Road cutting with soils formed in dolerite. Subsoils here have a "mealy" texture.

**Site 3.** The soils here are formed in a sand-dolerite mixture. There has been minor movement of sand on the surface, as a result of cultivation, but no sand has entered the streamside reserve or the forested strip to the east.

**Site 4.** Here there has been cultivation through a 30-m long drainage depression. As a result sand has been carried as a plume for 15 m into the forest strip on the east of the property. At the 15 m point the water has infiltrated into the soil and the vegetation has retained the sediment. The forest strip here is wider than shown on the FPP map and provides an effective buffer for sediment and chemicals.

**Site 5.** The class 4 stream here has a fully forested streamside reserve at least 20 m wide. Riparian slopes exceed  $22^\circ$  on both sides of the stream. The stream channel is in an incised channel with vertical banks 1 m high. It has clearly been downcutting and eroding at some time in the past. The downcutting was not recent as the vertical stream banks have mossy cover (Figure 2). The stream water was running slightly cloudy because of suspended silt. There was no evidence of sedimentation of silt or sand or gravels on rocks or flat areas.



**Figure 3.** Stream bank of class 4 stream, site 5. Note bank is about 1 m high and has been eroded in the past, but not recently, because of its mossy cover. The erosion is not a result of present forest operations.

**Site 6.** Windthrow of large tree on north bank of stream. No soil has reached the stream. Two dolerite boulders have rolled next to the stream.

**Site 7.** Scouring of cultivated drainage depression (Figure 3) (not identified in A.K. O'Malley's report). Water in dam (upstream of scouring) is cloudy. Cloudy water flows into forested area to east.

**Site 8.** A machine crossing of the Class 4 stream here is contributing cloudy water to the stream. The Class 4 stream above this point has a burnt riparian zone.



**Figure 3.** Cultivation through a drainage depression at site 7 has resulted in erosion of soil which has been carried into the adjacent streamside reserve. The eroded channels will require rehabilitation. As a first step straw bales should be placed across the channels to slow water flow and trap sediment.

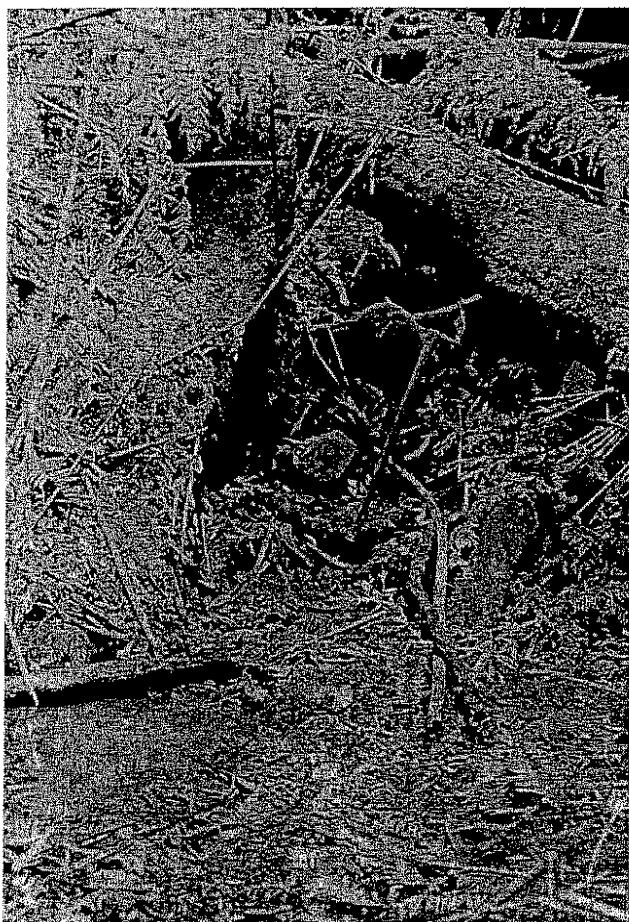
**Sites 9 and 10.** There are two short drainage depressions here each about 10 m long. They have both been cultivated through. Silty water flows along the drainage depressions but soaks into the soil in the streamside reserve, which is >20 m wide.

**Site 11.** The Class 4 stream channel is flowing with cloudy water (Figure 4). The channel itself is bouldery. The boulders are moss covered. There is no evidence of movement of sand or gravel. The riparian slopes are very steep and reach 50° in places. There is evidence of small landslides that have occurred in the past, but no sign of active movement.

Returning on the coastal road south of Garden Island Creek, it was noted that several farm dams contained cloudy water, indicating that streams in the district run cloudy after heavy rain.

#### **DISCUSSION AND CONCLUSIONS**

1. The rock type in the FPP has been incorrectly assessed as Permian sandstone. The rock types are actually Triassic sandstone and Jurassic dolerite.
2. The soils are incorrectly assessed as having low erodibility. Low erodibility would be unusual for soils formed in sandstone. In fact the soils have moderate, moderate to high, and possibly high erodibility. Moderate to high erodibility soils will occur in imperfectly and poorly drained situations (e.g. drainage depressions). In places high erodibility soils will occur, but not in the area shown in Figure 1.



**Figure 4.** Class 4 stream channel at site 11. The stream is cloudy. The stream bed is rocky but the rocks are covered in moss and have not recently moved. There is no accumulation of sand or gravel in the stream, showing that forestry operations have not caused sedimentation of these size classes of material on the Klok property further downstream.

3. The protection measures given to Class 4 streams are generally excellent. The Class 4 streams have streamside reserves exceeding Code requirements. These reserves have been effective in preventing minor sediment plumes from entering watercourses.
4. There is no evidence of sand or gravels moving into streams. It is most unlikely that sand or gravel deposits noted in the Klok property are derived from forest operations on the Cowen property. There may have been natural erosion of stream channels after periods of heavy rainfall, as the steep riparian zones, evidence of landslides, vertical channel sides and bouldery stream channels indicate that periodically these streams are powerful enough to move large amounts of sediment. However, no signs of recent riparian instability or sediment movement were noted in the upper reaches of the streams visited.
5. In the district minor streams commonly run cloudy.
6. The treatment of drainage depressions is less than satisfactory; several have been cultivated, including four not identified in A.K. O'Malley's audit. The drainage depressions at sites 7, 9 and 10 will require straw bales to be placed across them to reduce scouring and silt entry into streams.
7. Because of the number of drainage depressions draining into the upper McKay Rivulet catchment, within the Cowen property, and the cultivation through them, it is recommended that no aerial spraying occur within this catchment, i.e. the area delineated by the bold dotted line in Figure 1. The boundaries of drainage depressions will need to be marked before ground spraying commences. Boundary marking must take into account that drainage depressions are areas, not lines. Ground spraying or broadcasting of fertiliser on the soil surface should not occur within 5 m of the boundary of any drainage depression. The same prescription for spreading of 1080 bait

will ensure protection of flowing water from contamination with chemicals or poisons. Fertiliser application into a slot next to planted trees can occur up to the boundary of the drainage depression.

8. The coupe has a variety of soils, slopes and landforms and therefore a variety of operational safeguards should have been written into the plan. The coupe is too large for the generalised description on the FPP cover sheet to be relevant in the variety of situations encountered. In addition the FPP rock types and soil erodibility assessments are incorrect. This combination of incorrect information and large size of the coupe (and probably lack of supervision of contractors) has resulted in poor cultivation outcomes in some situations. On the other hand, the wide streamside reserves on the Class 4 streams exceed Code requirements and are effective at limiting erosion, as are the trees retained on the common boundary with the Klok property.
9. The 306 ha operational area of the coupe far exceeds the 100 ha limit for harvest (Code page 26). Better management outcomes would have been achieved if the coupe had been split into two or three coupes. It is suggested that the Code may require changing so that where coupes exceed 100 ha they will be notified to the FPB specialists at the planning stage.
10. For the upper catchment of McKay Rivulet the effect of planting with fast-growing plantation trees has been *very approximately* calculated as follows. :

Mean annual rainfall = 950 mm (DPIWE 1997: Predicted Annual rainfall using ESOCCLIM)  
 Evapotranspiration by original regenerating forest cover and pasture = 350 mm  
 Runoff = rainfall - evapotranspiration = 600 mm  
 Increased evapotranspiration as a result of plantation establishment = 200 mm  
 Proportion of catchment affected = 66% (original forest cover retained on remainder)  
 Therefore actual increased evapotranspiration for *whole upper catchment* under plantation = 132 mm

Estimated percentage decreased runoff for upper catchment (Cowen property) =  
 $132 \times 100 / 600 = 22\%$ .

This figure must be treated as an estimate only because the mean annual rainfall is not accurately known, the condition and the evapotranspiration of the original forest cover was not recorded, soil water storage is not known, and exact areas under different land uses now and in the past have not been measured. As the planted area is less than 20% of the whole McKay Rivulet catchment, the overall effect of the plantation on flows in McKay Rivulet is likely to be undetectable, because of seasonal and annual differences in flows, and variable offtake of water by land users including the Kloks.

\* \* \*

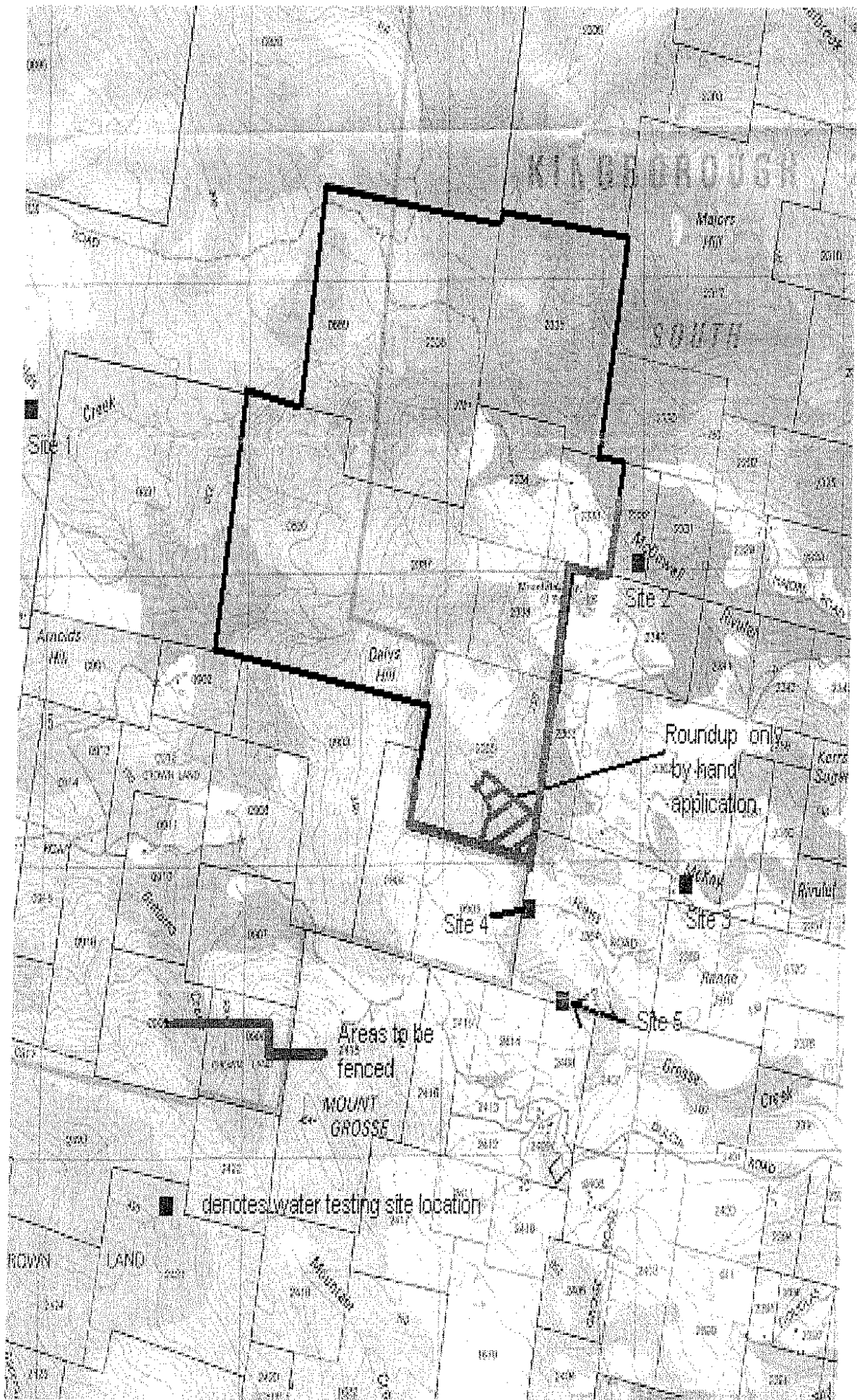
~~O'Shaughnessy - 3% red?  
 at sea~~

at 13 yrs  
 0.8 ML/ha  
 reduction in  
 yield from  
 plantation

Note:  
 Coupe size is 306 H.A  
 Recommended max. size - 100 H.A

17  
 0.8  
 ---  
 13.6  
 5





# Gunns, Forestry cop big fines

THE Forest Practices Board has fined Forestry Tasmania and Gunns a total of \$25,000 for breaching two forest practice plans.

Forestry Tasmania was fined \$10,000 for allowing contractors to use non-compliant stream crossings in a coupe in the Weld Forest in North-East Tasmania.

Chief Forest Practices Officer Graham Wilkinson said the operation was not of an acceptable standard.

Mr Wilkinson said Forestry Tasmania had been directed to do remedial works to prevent environmental harm.

A forest practices officer responsible for the supervision of the forestry operation has been formally disciplined.

Gunns was fined \$15,000 for breaches relating to adequate road drainage and for operating too close to a small stream on private land at Middleton, south of Hobart.

Mr Wilkinson said Gunns had been very co-operative in doing remedial works once the problems were detected.

He said Forestry Tasmania and Gunns had identified a number of errors in their management systems and had made significant improvements to avoid more mistakes in the future.

2<sup>n</sup>



**TRIABUNNA**

555 Freestone Point Road Triabunna 7190  
PO Box 41 Triabunna Tasmania 7190  
Telephone: (03) 6257 4222  
Facsimile: (03) 6257 4200

24 July 2002

*Received 31/07/02 4<sup>00</sup> p.m*

C Klok  
2 Red Chapel Avenue  
SANDY BAY TAS 7005

Dear Sir/Madam

**RE: PRE PLANTING WEED CONTROL ON COWEN'S PROPERTY**

Gunns Plantations will be carrying out pre plant weed control operations on Chris & Terry Cowen's property, Garden Island Creek (UPI numbers 2334, 2337, 2338, 2336, 2365) on or after 1 August 2002.

It is our intention to use the following chemicals: -

- Roundup, Brushoff and Preplant Eucmix

These will be aeriaily applied by: -

- Osborne Aviation

An accredited contractor under the supervision of our staff will do the application of the chemical.

Operations will be conducted in accordance with the Code of Practice for Industry Use of Agricultural Chemicals in Tasmania

Should you have any further questions relating to this matter please do not hesitate to contact the writer on 6257 4222 or mobile number 0419 374 816.

Yours faithfully,  
**GUNNS PLANTATIONS LTD**

*Harvey Cusick*

**HARVEY CUSICK  
PLANTATION MANAGER SOUTH EAST**

**GUNNS FOREST PRODUCTS PTY LTD** ABN 94 004 208 904  
A wholly owned subsidiary of Gunns Limited ABN 29 009 478 148

Registered Head Office: 58 Cimitiere St Launceston Tasmania 7250 PO Box 572 Launceston Tasmania 7250  
Telephone: (03) 6335 5201 Int: +61 3 6335 5201 Facsimile: (03) 6334 7909 Int: +61 3 6334 7909



TRIABUNNA

555 Freestone Point Road Triabunna 7190  
PO Box 41 Triabunna Tasmania 7190  
Telephone: (03) 6257 4222  
Facsimile: (03) 6257 4200

26 July, 2002

C Klok  
2 Red Chapel Avenue  
SANDY BAY TAS 7005

*Received 5/10/02  
Reg. Mail.*

Dear Sir or Madam

**Vertebrate Management Program**

As part of the process for developing either a *Eucalyptus nitens* (Shining Gum) or *Eucalyptus globulus* (Blue Gum) plantation in your area, Gunns Limited Triabunna will need to control the browsing of seedlings by vertebrate pests. Consequently, we wish to advise you that 1080 (Sodium monofluoroacetate) poison, mixed with blue dyed baits, (carrots) will be laid on the following property:

- Location:** Cowen's, Garden Island Creek
- MAP 1:25,000:** Lymington
- UPI No(s):** 2365, 2338, 2334, 2336, 2337

The process is approved by, and carried out under guidelines established by the Parks & Wildlife Service and the Department of Primary Industry, Water and Environment. The DPIWE officer in charge of this operation is Glen Graves, phone 0418 121 651.

Please find attached some important advice about 1080 from the Department of Primary Industries, Water and Environment as well as a DPIWE publication on 1080 for your information.

If you wish to discuss this operation with us please contact the undersigned on 0419 374 816.

Over the next six to twelve months, there may be a need to follow up the 1080 program with a shooting and trapping program also under Parks & Wildlife Service control.

If you are the owner of the property but someone else is the occupier, or is also living on the property, could you please inform the occupier of this operation and contact the company to allow us to alter our records accordingly.

If you have recently sold the property could you please notify us as a matter of urgency.

Yours sincerely  
GUNNS PLANTATIONS

Harvey Cusick  
PLANTATION MANAGER – SOUTH EAST

GUNNS FOREST PRODUCTS PTY LTD ABN 94 004 208 904  
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Telephone: (03) 6335 5201 Int: +61 3 6335 5201 · Facsimile: (03) 6334 7909 Int: +61 3 6334 7909

## NOTICE OF INTENTION TO LAY 1080 POISON

I wish to advise you that 1080 poison will be laid on the property known as **Cowen** situated at **Garden Island Creek, Lymington**

on or the week commencing **5<sup>th</sup> August 2002** for the control of rabbits/wallaby/brush possum.

If in the event of your property being leased or rented would you please forward this notification to the manager or tenant?

### PLEASE NOTE THE FOLLOWING

- There is a chance that dogs and cats which feed on poisoned carcasses will also be poisoned, as they are highly susceptible to 1080 poison.
- In some instances rabbits poisoned with 1080 may travel 500 m before dying. Rufous wallaby and Brush possum generally return to their cover before dying. In open range country the larger Bennetts wallaby have been known to move 2km prior to death.
- Carcasses will remain toxic as long as they are attractive to dogs. In winter, this may be several months.
- It is advisable to muzzle any dogs near a poisoned area to prevent them scavenging poisoned carcasses.

Signed Ala Kelly .....

Date: 26.7.02 .....

### IN CASE OF DOG POISONING

If you suspect that a dog has fed on a poisoned carcass:-

1. Induce vomiting with a soapy water drench. Do not induce vomiting if symptoms have developed.
2. Take the dog to a veterinarian. Sedation and injection with Glycerol monoacetate have been successful in the treatment of dogs. Treatment is most successful if administered in the early stages of poisoning.

The initial symptoms of 1080 poisoning in dogs are continual barking followed by over-activity. These symptoms usually develop 4-5 hours after eating a poisoned carcass.

### HUMAN POISONING

In the unlikely event of poisoning, contact a doctor immediately, or call the Poisons Information Centre on 131 126. If swallowed, and if more than 15 minutes from a hospital, induce vomiting.

### FURTHER INFORMATION

For further information regarding the issuing of 'permits to take protected wildlife' please phone:

#### **Parks and Wildlife Service Tasmania**

Lake St Clair	6289 1115	Queenstown	6471 2511
Mt Field	6288 1149	Dover	6298 1577
Tarrana Office	6250 3497	Smithton	6452 4998
Barrington	6491 1301	East Tamar	6336 5397
Mersey	6428 6277	Trevallyn	6336 2678
Mole Creek	6363 5133	Frecinet	6257 0107
St Helens	6376 1550	Seven Mile Beach	6248 4053

Information regarding 1080 poison and its use please phone:

#### **Dept Primary Industries, Water & Environment**

Hobart	03 6233 6884
Launceston	03 6336 5337
Devonport	03 6421 7651

*The Australian*  
*August 2002*

## Tasmania's forestry policies are producing strange bedfellows, writes Carol Altmann

**C**ELEBRATED Tasmanian gardener Gay Klok is not one to make a fuss, much less challenge the might of the forestry industry.

But when a letter arrived last week from Australia's biggest hardwood company, Gunns, notifying her that poisonous baits were to be laid and toxic herbicides sprayed on the land adjacent to her Eden, the state's forestry debate turned personal.

Klok, 65, and her husband Kees, 75, live in the exclusive Hobart suburb of Sandy Bay, but have spent their retirement developing about 70ha of bushland at Middleton, in Tasmania's deep south, into what is regarded as one of the nation's best cool-climate gardens.

Gardening enthusiasts from across the world travel to Tasmania simply to visit Kibbenjelok — a magnificent display of flowers and trees, including 5000 blackwoods hand-planted by the Kloks, and a haven for native wildlife right down to platypuses in the expansive pond.

"About a year ago, something started to happen that had never happened before. We came home from a visit overseas to find dead [domesticated] peacocks, dead possums and dead wallabies, and we feared they might have been poisoned," Gay Klok says.

A 400ha property adjacent to the Kloks' was sold early last year to North West Forests (now Gunns) to be used for a woodchip plantation, but Gunns reassured the Kloks that no poisons had been laid and, if they were planned, the family would be notified.

In the past week, the Kloks and other residents in the tiny communities of Middleton, Gordon and Garden Island received a notice that the highly toxic 1080 poison — distributed in blue-dyed carrots — would be laid this week to kill what Gunns has termed "vertebrate pests": the native pademelons, other wallabies and brushtail possums that feast on plantation seedlings.

In addition, the weedkillers Roundup, Brushoff and Preplant Eucmix would be aerial sprayed across the plantation area using helicopters — excluding a 4ha buffer zone to be sprayed by hand.

The conservative people of Gordon suddenly found themselves going where only the greens had gone before and this week staged a blockade at the plantation site and piled into the Middleton Community Hall to plan their next move.

①

"I think the last time I was ever involved in a protest was a march against the Vietnam War," Gay Klok says.

The Kloks, and those like them, fear the pesticides and poisons will not only kill native wildlife but also pollute water supplies and drift on to neighbouring farms, including their Kibbenjelok. The Klok pond already has become silted by run-off from the Gunns property after it was recently cleared and burned in preparation for planting.

In a media statement this week, Gunns chief executive John Gay says the community can take confidence in the fact the plantation is being developed under national guidelines and spraying and baiting is in accordance with "world's best practice".

"We have met neighbouring property owners ... explained the operation and are working through any concerns they might have," says the Gunns chief, who is overseas. "Plantation forestry is a valuable part of the Tasmanian forest industry and this represents the most efficient and safest form of pest and weed management."

Forestry Tasmania is researching alternatives to 1080.

The Gordon protest has brought into sharp focus a growing disquiet among Tasmanians about the state's forestry practices. Campaigning for the July 20 state election was dominated by forestry protest groups such as Doctors for For-

**The conservative people of Gordon suddenly found themselves going where only the greens had gone before**

ests. Scientists for Forests, Lawyers for Forests and Timber Workers for Forests, all contributing to a surge in votes for the Australian Greens, who leapt from one to four seats in the 25-seat parliament.

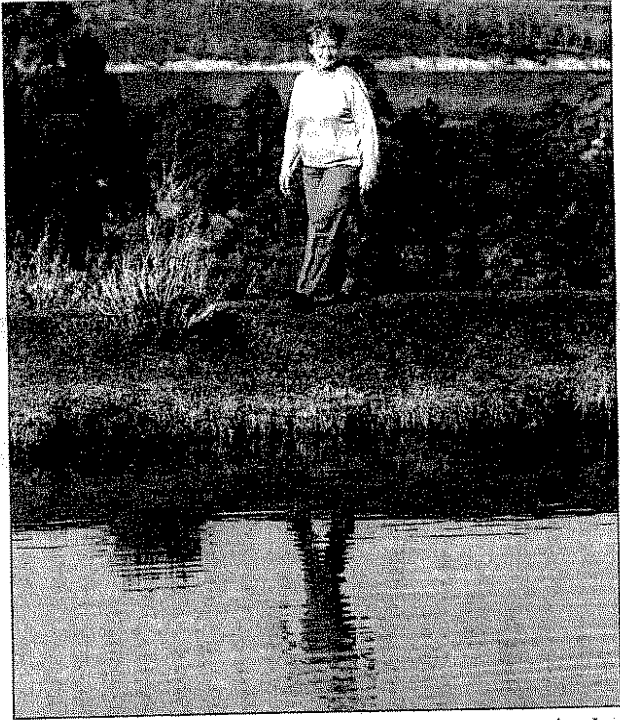
Although forestry will sit squarely on the Greens' agenda when parliament opens next month, debate has started on the key document that dictates how the industry is managed in the state.

The Tasmanian Regional Forestry Agreement, signed between the state and commonwealth in 1997 as the first RFA in Australia, is up for its first five-yearly progress review. The RFA, in essence, attempts to strike a balance between what areas can be logged, what areas are protected and what logging practices are acceptable.

Despite the review documents' running to a hefty 432 pages, the state's Resource Planning and Development Commission has received 110 public submissions and is holding public hearings across the state towards completing its report later this month.

The use of 1080 poison (permitted only in Tasmania to kill native animals, excluding dingoes) and herbicides rank high among the concerns, together with the most consistent forestry issue of the election and since — the protection of old-growth forests from logging, particularly for woodchips used to create things such as paper, toilet paper and tissues.

The Tasmanian Wilderness Society considers the continued logging of old-growth forests — untouched tall-timber areas of high conservation value — to be one of the greatest failings of the RFA.



**Eden on the edge:** An endangered giant of the Tarkine wilderness, main picture; Gay Klok at Kibbenjelok, left

"We have Australia's largest temperate rainforest area in the Tarkine and this is the sort of area that people are fighting for. No logging should be permitted in such areas, it should simply be off-limits," society spokesman Geoff Law says.

The Wilderness Society identifies six areas that it argues must be immediately protected, including the Tarkine, in the state's northwest, areas around the Ben Lomond National Park, in the northeast and the internationally acclaimed Styx Valley of the Giants in the Midlands.

At one time, such arguments might have been the domain of conservationists alone, but the Labor state Government's community feedback strategy, a forum called Tasmania Together, has identified the end of old-growth logging in these

same areas by January 1, 2003, as a top priority for the state.

Premier Jim Bacon has indicated the deadline will not be met and this month lodged a request with Tasmania Together for a formal extension.

According to Forestry Tasmania, a commercial arm of the state Government, 15,000ha of native forest (including old-growth) was logged in 2000-01, up from 11,200ha the previous year. At the same time, 2.6 million tonnes of woodchip was produced from native forest in 2000-01, up from 2.2 million tonnes the previous year, with most exported.

Statistics on Tasmania's total woodchip production are confidential. Gunns, as the monopoly producer, has gained an exemption on the release of what it



~~SECRET~~

claims is "commercially sensitive" data by the Australian Bureau of Statistics. The most recent ABS figure, for 2000-01, shows 4.6 million tonnes of woodchip (from native forest and plantations) left the island.

The secrecy extends to Forestry Tasmania which, although a publicly owned enterprise, was granted an exemption from the state's Freedom of Information Act after it was corporatised in 1993. Political donations from the timber industry to the main parties also remain confidential because of state laws.

As a result, it is difficult to paint a full picture of the relationship between Forestry Tasmania and its main customer, Gunns.

Forestry Tasmania has not responded to a series of questions from *The Australian*. According to Forestry Tasmania's most recent annual report for 2000-01, times have been tough in the forestry industry and are poised to worsen as the Asian market softens. Despite an increase in native forest logging in 2000-01, the dividend returned to the state government fell from \$8.6 million in 1999-2000 to \$5.7 million. In 1994-95, the dividend was \$10 million.

These figures, the Greens argue, underscore why Tasmania must move away from woodchip-intensive logging into value-added and specialist wood production. The Wilderness Society mounts a similar argument, saying it does not want an end to all logging but wants it to be confined to existing plantations and with greater environmental controls.

"This is not just the view of conservationists anymore. It's a feeling deep in the community because people are seeing more and more log trucks, they are seeing the forests being burned and the poisoning by Gunns, and they feel validated and empowered to speak up," Law says.

Gay Klok is among those to have found a voice: "I am not expecting any dramatic change in policy but if we can just get a moratorium and put a clamp on it, that would be a good start."

# Poison threat to garden sanctuary

**Carol Altmann**

ONE of Australia's most celebrated gardens is at risk because of a baiting and herbicide spraying program that has galvanised a small Tasmanian community against a timber giant.

Plans by Gunns Ltd to lay toxic baits and aerial spray chemicals on a new forestry plantation near Middleton, in Tasmania's south, has provoked community outrage from neighbouring farmers and property owners.

Among properties threatened is the 3.5ha Kibbenjelok ornamental garden, on a 70ha property, owned by Gay and Kees Klok, that abuts the Gunns holding.

The Kloks have spent 15 years building Kibbenjelok into a haven for native wildlife, including the platypus, and a showcase of native flora that has attracted national and global attention.

...and global attention.  
"There is no doubt that it is certainly one of the best Australian gardens of its type," gardening expert Peter Cundall said.

"It is an outstanding example of a classic country garden. With Gay's skills and her knowledge of plants, I have no doubt she would be

**'I have no doubt she would be horrified about what is proposed next door'**

**Peter Cundall**  
Gardening expert

horrified about what is proposed next door."

Mrs Klok said North West Forests, which bought the 400ha holding early last year, had assured landowners no aerial spraying was planned.

But North West Forests has since been sold to Gunns, who notified landowners this week that baiting and spraying would begin almost immediately.

Alpaca farmers, olive growers and oyster farmers were among more than 150 people who met last night to plan protests against the poisoning program. An injunction against Gunns is expected to be lodged by the group on Monday.

After initially refusing to comment on the poisoning program, Gunns chief executive John Gay issued a written media statement assuring landowners it was safe.

"The community can take confidence in the fact that the plantation establishment activities are conducted under a nationally accredited environmental management system," he said.

Among animals targeted by the program are the Bennett's wallaby, the red-bellied pademelon and the brushtail possum.

# FOREST PRACTICES BOARD



Inquiries : G Wilkinson  
Phone : 03 62337451  
Fax : 03 62337954  
Our ref : C200  
Your ref :

10 October 2002

C. Klok  
Red Chapel Ave  
SANDY BAY TAS 7005

Dear Mr/Mrs Klok

I write in relation to your enquiry of 19<sup>th</sup> September 2002 regarding the potential impact of a plantation on water run-off within the catchment of the McKay Rivulet.

For the upper catchment of McKay Rivulet the effect of planting with fast-growing plantation trees has been *very approximately* calculated as follows:

- Mean annual rainfall = 950 mm (DPIWE 1997: Predicted Annual rainfall using ESCOLIM)
- Evapotranspiration by original regenerating forest cover and pasture = 350 mm
- Runoff = rainfall - evapotranspiration = 600 mm
- Increased evapotranspiration as a result of plantation establishment = 200 mm
- Portion of catchment affected = 66% (original forest cover retained on remainder)
- Therefore actual increased evapotranspiration *for whole upper catchment* under plantation = 132 mm

Estimated percentage decreased runoff for upper catchment (Cowen property) =  $132 \times 100 / 600 = 22\%$

This figure must be treated as an estimate only because the mean annual rainfall is not accurately known, the condition and the evapotranspiration of the original forest cover was not recorded, soil water storage is not known, and exact areas under different land uses now and in the past have not been measured. As the planted area is less than 20% of the whole McKay Rivulet catchment, the overall effect of the plantation on the flows in McKay Rivulet is likely to be undetectable, because of seasonal and annual differences in flows, the variable offtake of water by land users including Kloks.

I hope that you find this information of interest. I will keep you advised of our continuing investigations into the operations of Gunns Ltd on the Cowen property.

**Graham Wilkinson**  
**CHIEF FOREST PRACTICES OFFICER**

*28% are planted*

30 Patrick Street, Hobart, Tasmania, Australia 7000  
Phone: (03) 6233 7966 Fax: (03) 6233 7954  
email: info@fcb.tas.gov.au

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# Forests: the ai

Tree plantations are thirsty water consumers, but it seems the growers are never the ones who pay.

**Story** Julie Macken

*Weekend Australian  
Financial Review  
Nov.  
Oct. 9-10 2002*

**A**s this once-in-a-century drought tightens its grip on Australia, farmers face escalating feed bills and irrigators are seeing the water allocations slashed by up to 90 per cent. Those who can afford to are paying up to \$500 a megalitre for water, with this basic commodity fast becoming a new currency.

There is, however, one sector of agriculture that can afford to ignore the escalating crisis: forestry.

Plantation owners across Australia are using water worth \$6.75 billion a year. Australian tree plantations consume 13.5 million megalitres of water a year – and if the Federal Government realises its vision of trebling the size of plantations by 2020, that figure will blow out to 45 million megalitres a year. All this, and the industry does not pay a cent for the water.

The reasons for this situation are historical and cultural. Until very recently, state and federal governments have considered the water that falls upon the Earth to be free and abundant. While

# gument goes to water

irrigation and commercial water use have attracted fees since the 1940s, non-irrigated agriculture has not. The thinking was simple: forestry does not dam rivers or require irrigation, it just uses the water that falls as rain to grow its product.

That product now covers more than 1.5 million hectares of Australia. Because most of it is grown for commercial use, and

**No state government has any plans to introduce fees or any other restriction on the water use of plantations.**

herefore requires fast growth times, it is generally grown in high rainfall areas - that is, areas with annual rainfall of more than 1,000 millimetres. It is increasingly being grown on land that has been clearfelled of old-

growth or native forest and areas traditionally used for pasture.

"Land use change of this kind and on this scale is like introducing a permanent drought," says Mike Young, director of economic and social research at the CSIRO and a member of the Wentworth Group of scientists.

"At the moment we don't have any systems in place to account for these changes. In the interest of managing risk, it is incumbent on government to tell downstream water users what impact forestry will have on future water availability, because it will be a big one."

An example of that impact can be seen when the water use of pasture is compared with the water use of plantations. According to modelling done by the CSIRO land and water division, a hectare of pasture planted in an area with annual rainfall of 1,200 millimetres will use seven megalitres per hectare a year. The same area planted with forest will use nine megalitres per hectare a year.

The higher the rainfall, the larger the difference, and as the

forest grows it pulls water from run-off and ground water for at least the first 50 years of its life. Because the trees are harvested within 30 to 40 years, there is no let-up on their water consumption

Old-growth forest - forests older than 100 years - have much less demand for water because their growth has slowed.

While some states such as Tasmania have large private owners of plantations, the bulk of Australia's plantation forests are owned by state governments. Perhaps not surprisingly, no state government has any plans to introduce fees or any other restriction on the water use of plantations. As a spokesman for the NSW Minister for Land and Water Conservation, John Aquilina, said: "We have no plans to introduce charges because they [plantations] don't use dams or irrigation."

But as water restrictions begin to bite across rural and urban Australia, it is unlikely other stakeholders will maintain such a benign position.

Col Thomson, chair of the NSW Irrigators Council, believes these

8

kinds of major changes to land use have to be factored into the water equation. "Land use planning decisions like forestry can change the volume of water available for both irrigation and the environment," he says. "These considerations must be taken into account prior to any major changes to our land use. That's why irrigators are seeking secure water access rights in terms of a share in the available water resource."

Nor is it only irrigators who are starting to scrutinise the water consumption of forestry.

Hydro Tasmania is Australia's largest generator of electricity from renewable energy sources, contributing more than 60 per cent of Australia's renewable energy. With a workforce of about 680, it owns 27 hydro, one thermal and two diesel power stations and a wind farm. It has electricity generating assets of about \$3 billion with a total generating capacity of 2,262 megawatts. With more than 50 large dams, Hydro Tasmania is the biggest dam owner in Australia.

It is also extremely concerned about its water supply. Tasmania has more than 220,000 hectares under plantation.

In the five years to 2001, 62,831 hectares of native forest were cleared for plantation use.

Two weeks ago a concerned member of the public - who had seen their own water supply reduced by 80 per cent in the summer time - approached Peter Rae, chairman of Hydro Tasmania, to ask him how Hydro was dealing with the upsurge in plantations, given the amount of water consumed by fast-growing *eucalypt nitens* - the preferred tree for plantation use in Tasmania.

Rae could not give an immediate answer, because Hydro has been focusing on issues of silting and debris damage created by run-off, not the effect of changes to land use. At an emergency meeting the next day, it was decided that a scoping study would be conducted over the next four weeks to try to estimate the impact of forestry on the water catchment areas of Hydro.

Continued page 28

# Forests: the argument goes to water

From page 25

Andrew Scanlon, Hydro's principal consultant on renewable energy and environment, is overseeing the study. He believes the results will give Hydro some idea of the size of the emerging problem.

Launceston Council already has the results of the first study it has done on the impact of forestry on the town's water supply.

Conducted by the CSIRO's land and water division and the CRC for Catchment Hydrology, the results, according to Steve Radcliffe, manager of the project, sound a warning.

"We modelled a number of different scenarios for logging and rotation cycles," says Radcliffe. "We found that if the current logging practices are maintained, there will be a 20 per cent reduction in Launceston's water

**'If the Federal Government does achieve its vision of trebling the amount of land under plantation by 2020, Australia will have very real problems with water.'**

supply within 50 years. That's why all these plantations need to very closely monitored."

As Prime Minister John Howard discusses the idea of scrapping the complex array of state-based water licensing systems in favour of a national code, none of his federal ministers has even considered the implications of forestry's water



~~LEVEL YOUR NAME DEPUTY CLERK~~  
 Minister John Anderson and  
 Forestry and Conservation  
 Minister Ian Macdonald to  
 Agriculture Minister Warren Truss  
 has said water remains a state  
 responsibility, and no, they have  
 not considered pricing  
 mechanisms for the water  
 consumed by forestry.

Shadow environment minister  
 Kelvin Thomson is not convinced  
 the science exists to accurately  
 price water consumed by  
 plantations. "I don't think there is  
 enough information available to  
 quantify plantations' water use,"  
 he says. "When that information  
 becomes available, it is important  
 that a national water policy reflect  
 the real value of water and we  
 clarify who is using what."

However, Murray Peel of the  
 CRC for Catchment Hydrology and  
 University of Melbourne says the  
 modelling for forestry hydrology is  
 freely available and it is possible to  
 model accurately for almost every  
 catchment area of Australia. "We  
 used the Macaque model to  
 investigate the Launceston study  
 and it gave us a high degree of  
 accuracy," he says.

But his predictions for the future  
 of forestry in Australia are  
 probably not what state or federal  
 ministers want to hear.

"The current pattern of  
 converting pasture to tree farms  
 or plantations is going to create  
 huge problems down the track,"  
 Peel says. "And if the Federal  
 Government does achieve its vision  
 of trebling the amount of land  
 under plantation by 2020,  
 Australia will have very real  
 problems with water." ■

Hydro fears water loss to plantations

# Tree farms' huge thirst

*Exhibit 7*

*Mercury Nov. 15, 2000*

By MARTINE HALEY  
Chief Political Reporter

TASMANIA'S growing number of tree farms could dramatically reduce the state's riverflows and Hydro Tasmania's dam storage levels.

A recent study has shown plantation practices in the Launceston area could reduce water supply by 20 per cent in the next 50 years.

Hydro Tasmania has this month initiated an urgent inquiry into the likely impact of eucalypt plantation growth on dam levels.

With tree farms expected to treble in the next 20 years, the level of rainwater flowing to river systems is likely to be dramatically reduced.

Instead of rain flowing to water catchment areas, it is being soaked up by thirsty eucalypt farms.

Growing trees absorb significantly more water than established or old-growth trees.

But the state's largest plantation owner, Gunns Limited, yesterday said the impact of plantations on town water supplies would be negligible.

Gunns plantation manager Ian Blanden said plantations used similar quantities of water to the natural forests that previously



**GRAVE:** Rob Vertessy says the effect on Tasmanian water supply is very serious.

covered the farming landscape.

He said Tasmania had to be looked at differently from other areas of Australia because of our geography, climate and environmental issues.

"We plan the establishment of plantations in accordance with the Forest Practices Code and that determines the level of planting in any one catchment," Mr Blanden said.

But according to the Co-operative Research Centre for Catchment Hydrology, a Canberra-based scientific think-tank, large-scale plantations will put additional pressure on water resource systems which are already under stress.

Research centre director Rob Vertessy yesterday said the effects of plantations on Tasmania's and other states' water supplies were "grave".

Professor Vertessy said while

states had legislation to regulate water diversion from rivers for irrigation, no laws existed to manage the impact of plantations on water supply.

In a report on the subject, Professor Vertessy has called for careful planning to minimise the impact of plantations on water supply, including phasing plantings over years to spread the age of trees in any one plantation.

"Given the future need to allocate additional river flows to the environment and the need to provide water security to water users, it seems prudent to implement some kind of system whereby new allocations of water to plantations are off-set against trades of water away from other land uses," Professor Vertessy said.

Launceston City Council commissioned the CRC for Catchment Hydrology to investigate the impact on summer water flows of plantation growth in the North Esk and St Patrick river catchments.

Using a variety of scenarios, it found the impact could range between a 15 per cent and 33 per cent cut in water flow. Based on logging practices the reduction in water supply in the area would be 20 per cent.

**Subject:** world's eye upon you

**Date:** Tue, 3 Apr 2001 12:35:21 -0400

**From:** "Barbara Martin" <martin@gscyclone.com>

**To:** <mercuryedletter@dbl.newsits.com.au>

**CC:** <bevilacquas@dbl.newsltd.com.au>, <gklok@trump.net.au>

To the Editor:

The Klok's country garden is a national treasure of international concern. We abroad know it by virtue of its beauty and horticultural interest. It is the lens through which we view Tasmania, a pleasure garden yet simultaneously nurturing and sustaining the plants and animals of the bush.

That property has become a representation of Tasmania to the world. To allow endangerment of such a unique property, to risk its degradation and destruction, should be a criminal act. If nothing less, it is shortsighted in the extreme.

Please preserve this delicate and irreplaceable gem on the crown that is Tasmania; please protect and cherish, value and honor your wealth of wonderful natural riches so that future generations may know them, too.

Act now, for this property and for the nation, before it is too late. The world is watching you.

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## My attempt

Author: **CarolWallace**

Date: **April 3, 2001**

I have just learned about the threatened clear cutting and wholesale poisoning of the property adjoining Kibbenjelok, the country home of Gay and Kees Klok.

I am saddened to think that anyone would even consider actions which will harm this bit of paradise. I have been an avid garden visitor and reader of garden magazines for many years, and so am well acquainted with many beautiful gardens both public and private - but when I saw the gardens that Gay and Kees have created I was awed. And I was amazed that this heaven was growing in a place that I had vaguely thought of as a mythical island. After several years reading Gay's Tasmanian Garden Journal I have come to know much more than I would have thought possible - about gardening, about Tasmania itself and its wonderful flora and fauna. These gardens have not only been featured on the web but in garden magazines and other publications. They are a natural resource - even if they are privately owned.

And now it appears that this paradise is threatened by an absentee owner who leased that property to the Forestry Department - and will allow them to clear the surrounding area - in part through the use of dangerous poisons. I find myself nearly speechless with shock and dismay. Not just because the Klok's garden, which they have worked so hard on, and which they so generously share with the public many times a year, is threatened, but because of the impact this action will have on the environment as a whole.

You have endangered species living in this area. Where will they go when you deprive them of shelter and poison their food and water sources? Destroy their habitat and they become even more in danger of extinction. Poison the water supply and you may endanger human life as well.

I simply cannot believe that anyone who seriously has studied the consequences of clearing this land will have on the entire balance of nature would go forward with this plan. I beg of you to reconsider, looking at the long term impact on the environment rather than the short term profit provided by such an act.

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## Re: Re: Re: Re: Re: Re: Compound 1080

Author: MaggieM

Date: April 4, 2001

Gay, we are planning the trip. Weather does not matter, you and Kees and the gardens do. This is the message I sent (I hope) to Simon and the newspaper this evening:

We our add our voices to a growing international community that deplores the destructive actions that are proposed for a small, but highly significant, ecosystem in this fragile world we all call home. Tasmania, and the exotic, amazing, endangered and significant plants and animals that call it home, and the stewards of the world famous gardens of Kibbenjelok in the Middleton District, must not be destroyed! And they all will be if the clear cutting and chemical poisoning that is proposed happens. Why should we continue to plan our visit (set for February 2002) to a place that does not value its heritage? Why should we travel half way around the world to experience Tasmania's fabled diversity, and to meet people that care so passionately about their home and its flora and fauna if we will take away only memories of gross destruction? We implore you to stop and think. And to take immediate action to stop this unconscionable activity.

It may not be as eloquent as some others, but we are both sick at heart about this thing.

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**Re: Re: Re: Re: Re: Compound 1080**Author: **JacqueC**Date: **April 4, 2001**

Gay I am just horrified and dumbfounded that in this day and age with so much publicity given that any organisation, let alone a Forestry Dept could be so irresponsible. I am writing of course and hope that the international and interstate publicity will help. Keep us up to date with what happens. Without people like yourselves to care for ours and our grandchildrens heritage where would we be. What message does this give to school children in Tasmania when on the one hand they study the 'environment' at school and on the other find that government authorities obviously do not care.

Good luck

**Subject:** an heartfelt appreciation

**From:** Derek Verrall <dverrall@postoffice.utas.edu.au>

**Date:** Fri, 09 Aug 2002 09:33:29 +1000

**To:** gklok@trump.net.au

Dear Gay, I was at the meeting in Middleton last night and I thought you spoke so passionately about your garden and its wider environmental implications. I also had a strong sense of how you must have been feeling about fighting this madness without much help. I am a frequent reader of your diary and my garden is in Woodbridge, so we have the same concerns about the horror of Gunn's practices. Anyway, my husband is active in the Channel citizens and they are becoming more aware of what is happening and are prepared to do what they can to get these archaic and insensitive laws changed. Anyway, this is just to say that you are an inspiration for us and we are going to join your (and our) fight as best we can. Bye for now. Jan Howard

## Clear cutting

Author: Howie  
Date: April 3, 2001

I have sent the following e-mail to both the photographer and the Mercury editor.

The gardens at Kibbenjelok at Middleton in the Channel district are known and admired worldwide through the Internet publications of Gay Klok. That they and nearby native species are now threatened by the proposal to clear cut adjacent lands have appalled those of us who have come to admire Tasmania through her garden articles and photographs. The plan to use Round-Up and the highly toxic Compound 1080 after the clear cut will be devastating to native plants and animals in the vicinity and downstream of the exposed creek. I entreat all responsible people to call a halt to this unwarranted assault on a piece of Tasmania that is so widely loved.

My heart goes out to you Gay. May all our efforts put a stop to this proposed rape of the land.

5/21/2003 5:04



**Subject:** 1080 nightmare!

**From:** "EMILY FREDRICHSEN" <EMILYFREDRICHSEN@hotmail.com>

**Date:** Wed, 7 Aug 2002 09:13:00 -0500

**To:** <gklok@trump.net.au>

Dear Gay,

I wanted to let you know how sorry I am that you have been going through this nightmare. It makes me so angry that your rights as an individual property owner can be trampled on by "big business" this way. Keep fighting because you can make a difference, if not for your own personal situation, then perhaps for the future of Tasmania's wildlife.

I didn't want you to think I was oblivious. This is just a moody blue time of the year for me and I get rather distracted. Anniversary of my daughter's death was 8/2/02. Today is the fourth anniversary of the funeral. Isn't it awful how we remember things like that for the rest of our lives.

Anyway, my heart and my prayers are with you in your fight.

Love, Faith Stockton of Alabama

aka 'Still Voice'

# Conference lays out the clear facts

Land-clearing is the single biggest conservation issue in Australia. KANE YOUNG reports

**A**USTRALIA is still clearing more native vegetation than any other developed nation in the world — and Tasmania has the highest rate of land-clearing in the country.

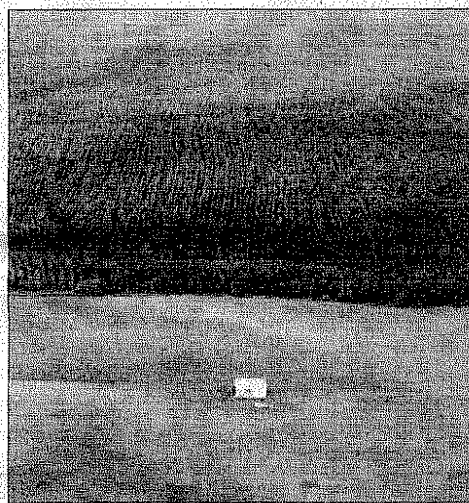
These are the cold, hard facts that Craig Woodfield, organiser of last week's A Thousand Cuts land-clearing conference, wants Tasmanians to be aware of and concerned about.

The three-day conference at Hadleys Hotel in Hobart brought experts in the field together with concerned stakeholders to examine the impact of land-clearing on the state's flora, fauna and water.

Mr Woodfield, the Tasmanian Conservation Trust's land-clearing campaign co-ordinator, said ecologists and conservationists recognised a few years ago that land-clearing was "the single biggest conservation issue in Australia" — and now it was time for the public and the State Government to catch on.

Research by University of Tasmania Professor Jamie Kirkpatrick — who spoke at the conference on Thursday — shows that since European settlement of Tasmania, 80 per cent of grassy woodlands, 47 per cent of coastal heathlands and 60 per cent of grasslands have been cleared.

"The biggest single cause of land-clearing in Tasmania is conversion of native forests to plantations, that's the main



**CLEARING:** Tasmania has the highest rate of land-clearing in the country.

development, degradation of woodlands through firewood collection, and inappropriate grazing.

"They are unregulated and undocumented and we don't even know what scale they're occurring on — we just know that they're bad."

Mr Woodfield said a land-clearing conference had been on the Conservation Trust's backburner for more than a year, while the issues simmered away.

"We wanted to cast our net as widely as possible," he said.

"We wanted to get as many different groups and individuals together as possible to identify some ways forward — essentially developing a road map for dealing with land-clearing in Tasmania."

Mr Woodfield said or-

"The State Government five years ago, as part of the RFA, agreed to implement land-clearing controls and they didn't," Mr Woodfield said.

"A few years after that they agreed to implement land-clearing controls as part of the National Heritage Trust 1 Partnership Agreement.

"So there has been a distinct lack of action on the part of the Government so far, and it's about time they got their act together on this really important issue.

"Tasmania is the last state to fall — Queensland and NSW were the other two bad ones and it looks like they've been sorted.

"So Tasmania — with its so-called clean and green image — is now

tations, that's the main game," Mr Woodfield said.

"But there are so many other things happening in Tasmania, most of which aren't properly documented, like draining of marshlands, inundation by dams, clearing of heathlands, the loss of native grasslands through de-

ganisers had worked to secure the "absolute pre-eminent experts in their field" to speak at the conference, making it hard to ignore the outcomes.

The list of 20 guest speakers included Australia's most eminent ecologist Professor Hugh Possingham, World Wildlife Fund Australia president Rob Purves, invertebrate zoologist Peter McQuillan and freshwater ecologist Peter Davies.

"We've tried to identify the most expert speaker in each field, and that really helps our arguments," Mr Woodfield said.

"It's not just unqualified people saying 'we don't like this and we don't like that', this is expert people saying 'these are the facts, this is what is happening'."

The conference was organised, in part, in response to what the Conservation Trust says is State Government inaction on issues relating to the Regional Forestry Agreement (RFA).

the worst land-clearing state in Australia."

Mr Woodfield said conference organisers had attempted to get the State Government involved, but to no avail.

"It has been very difficult to get engagement on this issue," he said.

"We approached the Forest Practices Board, for example, to give a presentation and they declined.

"It has been a very poor response really from the State Government, which is really disappointing because we went out of our way to involve them and invite them to be part of this.

"But they don't seem to be that interested.

"I guess we now put [findings from the conference] to the Government and say 'you can't dispute this information, you can't dispute these facts, it is your responsibility to do these things'.

"Then it's up to them. They shouldn't ignore the experts."





