

1 HIS HONOUR: Yes, Mr Waller, are we continuing with
2 Dr Meredith?

3 MR WALLER: Yes, we are, Your Honour.

4 HIS HONOUR: Yes, Dr Meredith, would you come back in the
5 witness box, please.

6 MS MORTIMER: Your Honour, perhaps we could turn the chair
7 around a little so it doesn't look as though the
8 witness has his back to Your Honour.

9 HIS HONOUR: He doesn't have his back to me. I see, the
10 chair, yes. I had thought of rotating the whole
11 witness box, but we haven't done that as yet.

12 <CHARLES WILLIAM MEREDITH, recalled:

13 MR WALLER: Dr Meredith, yesterday during cross-examination I
14 asked you about your statement in your July report
15 where you describe the population of the long footed
16 potoroo as being 150 in number?---You did.
17 And you agreed, didn't you, that that's an incorrect
18 statement?---I did.

19 Yes. Prior to preparing your final report in February, what
20 investigations or enquiries did you make about the
21 population of the long footed potoroo?---Essentially
22 with the publication of the revised action plan, which
23 gave a considerable revision to a whole range of
24 aspects, I ceased to reference the first action plan
25 and concentrated on the second one which contained
26 those population estimates we discussed yesterday.

27 Yes. But you didn't see fit to include those population
28 estimates in your final report, did you?---No, as I
29 noted yesterday, the population is not critical to the
30 arguments I am making there. The species is still
31 endangered both Federally and State, that status is

1 unlikely to change, it's just less endangered, but it's
2 still within the endangered category. But my
3 arguments are about distribution and ecology.

4 When you say that wasn't relevant to the arguments you were
5 making there, are you referring to your 1 July report
6 or your February report?---To the February report.

7 Now, in relation to distribution, your evidence yesterday was
8 that distribution has not changed in any appreciable
9 extent apart from the Cape Conran record, do you recall
10 that?---That's right.

11 When was the Cape Conran record?---I don't - I can tell you
12 it's recent, I think it's set out in here - 2009.

13 Yes. And what did it consist of?---It consisted of a single
14 animal, I am not sure of the details. I did know, but
15 I don't recall whether it was a road kill or trapped or
16 what, I don't know.

17 Yes. Have you got the 2009 action statement handy?---I do.
18 It's the second volume of the agreed book at page 544. I
19 think it begins - - -

20 HIS HONOUR: Dr Meredith, you said a moment ago that it's
21 still in the endangered category. What's the source
22 of that category?---The source of that category is
23 threefold. It's listed as endangered under the Flora
24 and Fauna Guarantee Act, it's - obviously that's
25 legislative. It's listed as endangered under the
26 Environment Protection and Biodiversity Conservation
27 Act, again legislative. And then it's listed in a
28 policy sense on the DSE advisory list of rare and
29 threatened species.

30 Yes.

31 MR WALLER: When was it first listed as endangered in the

1 legislation?---The flora and fauna guarantee listing
2 would go back some time, I don't recall the date.
3 Would it go back to the time that the Act was enacted?---It
4 was one of the earlier species listed.
5 And you agree that since that time the numbers and
6 distribution of the species has expanded?---Since the
7 very early listing there would be some expansion of the
8 distribution, and certainly expansion of the known
9 numbers, yes.
10 And the Act came into force in 1988, does that refresh your
11 memory?---I am not - I have never been good with
12 history, but it would be late '80s, at the latest early
13 '90s that the long footed potoroo was listed.
14 You agree that - - -
15 HIS HONOUR: Your CV, or your report indicates you have had
16 involvement with the advisory committee, is that
17 right?---That's right. I actually had carriage of
18 that species during the listing process.
19 I see.
20 MR WALLER: During the listing process?---Yes.
21 That was the initial listing process that put it on the
22 list?---That's right.
23 And that was in or around 1988?---It would have been after
24 that, but yes in that period.
25 HIS HONOUR: And what does "have carriage of the listing
26 process" mean?---There is a scientific advisory
27 committee which under the Act is very carefully
28 structured to have a range of skills and experience on
29 it, and that means that most individual members have an
30 area of expertise as well as a general expertise in
31 ecology or genetics, and that means people with the

1 expertise in the moss or the fungi had very little work
2 to do and the people with the expertise in the birds,
3 mammals and reptiles, which were the expertise areas
4 that fell to me, were extremely busy between monthly
5 meetings. The process was if a nomination was made,
6 the staff of the committee would assess it to see if it
7 met basic criteria that it was a valid nomination.
8 The committee would then meet, discuss it, and appoint
9 one of its members, the one with relevant expertise in
10 that area, to assess it further and to produce
11 essentially a discussion paper which was then
12 considered at a full committee of the meeting as a
13 draft. That discussion, informal discussion paper was
14 revised and a final committee meeting then decided
15 whether it would be listed or not listed. So my role
16 was the - when I say internal carriage - was to be the
17 member of that committee that assessed the data that
18 had been submitted, looked for other data, and put
19 together a recommendation for the committee.

20 And all of that was - - -

21 HIS HONOUR: And does the decision whether to list or not
22 list by the committee also include a decision as to
23 whether it's given the appellation
24 "endangered"?---That's right.

25 Yes?---Can be listed as threatened or endangered.

26 Yes?---And it was chosen as endangered.

27 Yes.

28 MR WALLER: And all of the work you have just described was
29 done about 20 years ago by you?---That's right.

30 And you weren't in charge of that committee, you were simply
31 a member of that committee?---That's right.

1 And when did you cease to be a member of that committee?---I
2 think around about 1987.
3 You ceased to be a member around 1987?---Look, I am not good
4 with dates, I can check that.
5 Yes?---I was on the committee for five years, and the
6 committee was appointed immediately that the Act was
7 proclaimed.
8 Now, the species of long footed potoroo was only formally
9 described, that is to say for the first time, in
10 history, in 1980, do you agree?---That's right.
11 Yes. So your involvement was in the first seven years of
12 its known existence?---Correct.
13 And in the last 23 years I suggest to you knowledge of the
14 species has grown?---Yes.
15 The numbers of the species known to exist has grown?---Yes.
16 The distribution of the species has grown?---Somewhat, but
17 not in a major manner.
18 Yes. Now, if I could ask you to direct your attention to
19 page 4?---This is still the action statement?
20 Yes.
21 HIS HONOUR: What page is that in the court book?
22 MR WALLER: I'm sorry, Your Honour, it's actually page 544
23 that I want; it's page 3 of the document. 544 of the
24 agreed book.
25 HIS HONOUR: Yes, thank you.
26 MR WALLER: And I want to direct your attention to the
27 left-hand column on that page under the heading
28 "Threats". It states that: "The long footed potoroo
29 may appear to present something of a conservation
30 paradox in the sense that, unlike most threatened
31 species, which have shown conspicuous historic decline

1 in distribution or abundance, the known distribution
2 and population size of the long footed potoroo has
3 gradually increased since its discovery." That's a
4 true statement, isn't it?---Yes.

5 I want to take your attention further down the page "The
6 survey programs" - this is the next paragraph - "The
7 survey programs in recent years have resulted in the
8 gradual expansion of the long footed potoroo's known
9 distribution, however, it remains difficult to
10 determine the species' abundance and population
11 dynamics." Did you agree with that?---Yes, that's my
12 point, it's been a gradual expansion, not a major
13 change. And the pattern of distribution in the last
14 20 years, the broad pattern has not changed - - -

15 Yes, but that gradual expansion, both in population and in
16 distribution is a good thing for the species, isn't
17 it?---Well, it's a good thing for the knowledge of the
18 species, they were presumably always at those sites.

19 Yes, but when the species was categorised as endangered in
20 1987 or thereabouts, it was thought to be a much rarer
21 species, wasn't it?---Yes.

22 Now, in your cross-examination yesterday, at page 428 and
23 then over the page 429, and I can show you a copy of
24 this if you would be assisted by it?---Okay, I don't
25 have the book, the numbers, and working on my own copy
26 here.

27 Yes, this is the transcript of the evidence, and if there's a
28 copy that - I have got an extract that can be provided
29 to His Honour if necessary and to Dr Meredith. At the
30 bottom of page 428 at line 26 I asked you: "In your
31 report" - and I am now talking about your February

1 report - "when you say it's likely that there are
2 overall negative impacts on the species from logging as
3 compared to areas of unlogged habitat, do you rely on
4 the Chick report or on some other data to support your
5 statement in that sentence?" And you said "Well, a
6 range of data. The Chick report clearly doesn't
7 provide a great deal one way or the other." And then
8 you went on to say "The work by Ken Green on fungal
9 availability, which is referred to in DSE 2009, clearly
10 suggests that fungal availability and fungal quality,
11 if you like, food quality, is reduced post logging."
12 Now, if you could go to the action statement 2009 at
13 545, which is page 4 of that statement, that paragraph
14 beginning at about point 7 on the column: "The impacts
15 of habitat disturbance on hypogeous fungi also remain
16 unclear." It goes on to say some scientific
17 statements which I probably can't even pronounce, and
18 it talks about overseas research. It says "In
19 Australia the impact of timber harvesting is the
20 subject of current research (Andrew Claridge pers.
21 comm.), but results are not yet available." And it
22 goes then to talk about the effects of fire on hypogeous
23 fungi. There's no reference there, is there, to the
24 Ken Green report you refer to?---There is none.
25 And the statement in DSE 2009 is equivocal, isn't it, about
26 the effect, if any, that timber harvesting would have
27 on fungal availability?---Yes, I think that's one of
28 the distinctive things about the DSE document, is it's
29 far more equivocal every time it comes to a potential
30 forestry impact than it is in relation to non forestry
31 related impacts.

1 So you would say, what, that the action statements are skewed
2 in favour of timber harvesting?---That's certainly how
3 it reads to me.

4 Right. You didn't refer expressly in your report to Ken
5 Green's work, did you?---No.

6 When you gave your expert report, you were provided with the
7 expert code of conduct, weren't you?---Yes.

8 You are familiar with that document?---Yes.

9 And you are aware that that document requires you to state,
10 specify or provide any literature or other materials
11 utilised in support of each opinion you give, doesn't
12 it?---Yes, and that's why I used the DSE 2009, the
13 action statement, as a cover-all document for many of
14 those statements.

15 Yes. But the DSE 2009 statement, as we have just seen, and
16 which you criticise, is equivocal about the effect of
17 harvesting on fungi, isn't it?---And I think the
18 overall message of all these papers is that they are
19 fairly equivocal.

20 Yes?---There are some of them, including the words in Ken
21 Green, that "it would appear likely", they use words
22 like "likely", that there will be an impact due to
23 drying out and less fungi in broad terms. So perhaps
24 I should have been more clear as to that, but my
25 intention in using DSE 2009 was to provide a conduit to
26 those broader references, not to assume that every word
27 in DSE 2009 was the way those references would be
28 interpreted in every case.

29 So is it the position that in referring to DSE 2009 - or go
30 back to the - the origin of my question was your
31 statement on page 12, halfway down the page, under the

1 heading "Habitat disturbance and impacts on food
2 sources", where you had said "It's likely that there
3 are overall negative impacts on the species from
4 logging as compared to areas of unlogged habitat."
5 And by way of example you refer to hypogean fungi and
6 you refer to Ken Green, and I want to suggest to you -
7 and I think you have accepted, clearly, that Ken
8 Green's paper is not referred to in this document - - -

9 HIS HONOUR: I don't think he has accepted that.

10 MR WALLER: Well, the Ken Green paper is not referred to
11 expressly in your document, is it?---It's not referred
12 to expressly. My intention was that the papers in the
13 excellent summary provided by the updated action
14 statement would serve that purpose and simplify the
15 text. But that's clearly not perhaps being the best
16 approach, I accept that.

17 Yes?---I would also say that paragraph is the third paragraph
18 - the fourth paragraph of four, and it is summarising
19 what is in the previous paragraphs, including the
20 second one, which says, second sentence: "Logging is
21 thought to reduce the availability of mycorrhizal
22 colonies", blah blah blah, "(Saxon et al. 1994)."

23 Yes?---So I am not in that final paragraph of that section
24 presenting new information. That is a paragraph that
25 wraps that section up.

26 Now, earlier you said you thought that the action statement
27 was skewed in favour of the timber industry, that's how
28 you read it - I'm sorry, timber harvesting - is that
29 still your position?---Let me put it this way, whenever
30 you read a series of impacts in the action statement
31 that relate to things like research to feral predator

1 control and so on, there's a very clear set of actions
2 that follow on almost in every case which are at a
3 higher level than is in the previous action statement.
4 When you read the - and the uncertainties in the data
5 which are there in those areas are not emphasised.
6 When you read the sections in relation to timber
7 harvesting, the uncertainties are highly emphasised and
8 the prescriptions and recommendations in this upgraded
9 action statement are, in my view, less onerous, and
10 clearly less onerous, than what was in the previous
11 action statement. Now, I don't know if that reflects
12 some sort of pressure or otherwise to write it that
13 way, I have no idea how it was written, but that's
14 certainly the sense I get from it.

15 All right. So when you described it just recently as an
16 excellent summary?---A summary of the data, very good.
17 A summary of the data and research, it's very good.
18 Right?---I don't agree with every conclusion.

19 Yes. And when you said you cited DSE 2009 as a conduit for
20 all the references referred to in DSE 2009, that was
21 done at least in the instance of Ken Green's report
22 without drawing the court's attention to the different
23 view expressed by Mr Green and that expressed by the
24 action statement itself?---Well, no, see the action
25 statement says things like "there may be" - let's go
26 through, but it's not that it doesn't say these things,
27 it's the actions that come out at the end of it. It
28 talks in that paragraph you took me to before at the
29 bottom of the first column on page 4: "Impacts of
30 human disturbance on hypogeous fungi also remain
31 unclear." Yes, they are unclear, I would agree with

1 that. They talk about some overseas research
2 suggesting that they may reduce fungi production. It
3 talks about further research being done, and then it
4 says: "It is generally thought that high intensity
5 fires reduce ectomycorrhizal fungi but low intensity
6 fires have a lesser impact", and so on. So they list
7 a range of areas of potential and suspected and even
8 known impact, but then it goes nowhere.

9 Because it's really captured by the first sentence which says
10 "The impacts of habitat disturbance remain unclear."
11 That's the net result of what follows, isn't
12 it?---There is a lack of clarity in much of the data, I
13 agree with that. But there are also some parts of it
14 that suggest there may, not proves there is, but
15 suggest there may be negative impacts.

16 But the data referred to expressly in the DSE 2009 statement
17 would not, I put to you, support a conclusion that
18 there is likely to be an overall negative impact on the
19 species from logging compared to areas of unlogged
20 habitat?---Well, as we went through yesterday, I mean,
21 there are a range of data that show that there are
22 clear and significant short-term changes which shows
23 that there are loss of individuals, that there are
24 significant changes in home ranges and regularly seen
25 changes in home ranges, so that in ecology is always
26 taken as a surrogate of quality of feeding habitats; so
27 presumably the quality of feeding habitat has declined.
28 Now, we are not trying here to prove that the long
29 footed potoroo will go extinct as soon as an area is
30 logged, we are just interested: is there a negative
31 impact? And I think there's certainly a range of

1 evidence that suggests, yes, there is an impact, and on
2 any view that impact is negative. The species can
3 survive once-only logging; we know virtually nothing
4 about whether it can survive multiple logging.

5 Well - - - ?---There's abundant evidence for impact, the
6 question is really how serious is that impact and what
7 does the comparisons between logged and unlogged areas
8 tell us. And at the moment the statistics and the
9 experimental design on that work, which is a difficult
10 area, really mean that they tell us nothing. They
11 tend to be interpreted as meaning, therefore, there is
12 no impact. But I am not sure that that is by any
13 means a precautionary interpretation.

14 It's your evidence, isn't it, that the long footed potoroo
15 species is present in the vicinity of the proposed
16 coupes to be logged?---In the vicinity there's
17 confirmed records, and that the photographic records
18 supplied by Environment East Gippsland are clearly long
19 footed potoroo, at least some of them, and if they are
20 - and I am not able to confirm where they were taken,
21 but assuming that there is agreement that they were
22 taken there, then they are clearly present or nearby.

23 Yes. You are familiar with the overall distribution of the
24 species in East Gippsland?---Yes.

25 And you would agree that timber harvesting has been occurring
26 in all those areas, or in many of the areas surrounding
27 those distribution areas, over at least the past 15
28 years?---In some of the areas, yes, it's a patchwork.

29 It's a patchwork, but there's been a degree, and some
30 substantial degree of harvesting in the general area in
31 which the distribution of potoroos has been found to

1 exist?---In the general area, yes.

2 And those areas - and I think we have established and you
3 have agreed that the overall number and the
4 distribution has grown during that time period despite
5 the logging?---Well, no, it's - I didn't say despite
6 the logging. The reason the numbers and the numbers
7 of sites have grown is because of continuing surveys.
8 It's a survey-dependent outcome, and it's not telling
9 us anything about whether logging is a positive, a
10 negative or irrelevant. The reason there are more
11 records now than 20 years ago is there's been more
12 survey with roughly every decade a new and improved
13 survey technique coming in.

14 And you agree, don't you, that potoroos have been found in a
15 variety of age forests, including areas that have been
16 logged?---Yes, they have.

17 Yes. When you did your July report in relation to the
18 critical habitat of the long footed potoroo, did you
19 have regard to the reserve areas or conservation areas
20 surrounding the Bonang and Goongerah area that you were
21 looking at?---In our - there are two answers to that,
22 or two parts to the answer to that. I was aware of
23 those reserve areas and their general location.
24 However, in our GIS system that we use for producing
25 maps, we get that data by agreement from the
26 government, we get that in tranches when and if it's
27 available, so we didn't have the map boundaries of the
28 new reserves, that data was not available on the public
29 data set. So our maps don't show them, but I was
30 certainly aware of them.

31 Now, you are aware that the minister announced increases to

1 the conservation area in August 2009?---In that sort of
2 timing, yes.

3 And that was after you prepared your critical habitat report,
4 wasn't it?---It would have been, yes.

5 So when you were preparing your February report, did you turn
6 your mind specifically to the expanded conservation
7 areas that have now been included post that
8 announcement?---Yes.

9 Where do you refer to those expanded areas in your February
10 report?---I will just check that's the Feb. I think
11 it's in the action statement section. Yes, on page
12 19, the second-last paragraph beginning "These
13 prescriptions are a significant reduction", I go on to
14 talk about not being able to find a published map of
15 the core protected areas for East Gippsland. The next
16 sentence: "While the core protected area is a good
17 concept, it would seem that it largely represents the
18 status quo with only small additions, eg, 'icon'
19 areas", which was the terminology that was being
20 bandied around for those new reserves. So I
21 acknowledge that they are there.

22 When you say "the term that was being bandied about", do you
23 regard that term as inappropriate in some way?---No,
24 no, just normally when you get a new reserve there is
25 an official name, like Goongerah extension A3, or Snowy
26 River National Park eastern extension B, and there
27 probably were such names on the DSE system, but they
28 were referred to in the information that we had which
29 came from the press and from conservation journals and
30 so on as the icon reserves.

31 And you are aware that in August the minister announced that

1 the government would be protecting a further 400
2 hectares of Brown Mountain area, including the mountain
3 summit as part of the establishment of old growth and
4 icon reserves. That's what we are talking about,
5 isn't it?---That's it.

6 Now, I am suggesting to you that the further 400 hectares of
7 Brown Mountain area including the mountain summit as
8 part of old growth and icon reserves would have greatly
9 enhanced the prospects for the long footed potoroo's
10 continued existence?---It would enhance it, and I have
11 no doubt about that. It's localised, so where you are
12 talking about, as I was in that paragraph, about the
13 whole core protected area, then it's - a mere addition
14 is positive but it's not a major percentage of the
15 whole core protected area. In relation to Brown
16 Mountain, it's clearly a positive, no doubt about that.
17 It gets over some of the connectivity issues for this
18 species and others, but it is placed - they are largely
19 placed higher in the landscape. As you noted
20 yesterday, the fungi and therefore the potoroos tend to
21 be lower in the landscape in the wetter areas, and so
22 there are significant areas of habitat and probably
23 significant parts of the prime habitat for the species
24 in this area that don't fall into those reserves.
25 Having said that, there is habitat in those reserves,
26 no doubt about that. The reserves are a positive.
27 But are they a complete answer? Probably not.

28 Where do you say - just in your evidence just now you have
29 stated that there are positives and it improves
30 connectivity and it certainly enhances the prospects
31 for the long footed potoroo. Where do I see any of

1 that statement of positive result in your report?---I
2 don't go into those details, but I do say here, for
3 instance: "Although the core protected area is a good
4 concept", that would seem a positive statement, I do
5 then set out some concerns about it.

6 So you say that the core protected area is a good concept,
7 but then after that it's all pretty negative, isn't
8 it?---Well, it is my view that the outcomes in terms of
9 actions for the long footed potoroo in East Gippsland
10 in the revised action statement are weaker than the
11 actions in the first action statement. So that's why
12 I am putting that argument.

13 You provided the court and acknowledged the validity of two
14 reports: your July report on the one hand and your
15 February report on the other, haven't you?---Yes.

16 And there's a fundamental change on the ground, as it were,
17 with the addition of those additional 400 hectares,
18 isn't there?---And I am acknowledging that. I am not
19 saying - in relation to the species overall
20 distribution in East Gippsland it's a positive, but
21 it's not the complete solution.

22 You understand, Dr Meredith, that your duty as an expert is
23 to assist the court impartially on matters relevant to
24 your expertise?---Yes.

25 And not to be an advocate for any party?---Yes.

26 And do you know that in your statement on page 19 you
27 have expressed an opinion which is in much more
28 negative terms than the opinion you have just proffered
29 today?---I don't think so. It's an opinion about a
30 broader question, and I don't think I would change my
31 view at all between what I have said today and the

1 document. The document doesn't address the specifics
2 of the details of the 400 hectares of the icon reserves
3 in the area positively or negatively as a local effect.
4 Could I ask you to look at the map, the book of maps which I
5 think is Exhibit 12. Thank you very much.
6 Dr Meredith, have you looked at these before?---I have.
7 So if you could have a look at the map on page 7. That
8 represents the position pre November 2009, and you will
9 see that the four coupes in question appear towards the
10 top-centre of the map?---Yes.
11 That was the position that obtained when you did your first
12 report, wasn't it?---Yes.
13 If you turn the page, page 8, you will see the position post
14 November 2009, do you see that?---I do.
15 And that was the position that obtained when you did your
16 February report?---Yes.
17 And you acknowledge, don't you, that there is a significant
18 addition of new parks and reserves in the immediate
19 vicinity of the coupes in question?---Yes, there is.
20 And if you go now to map 11, you will see that it sets out
21 the logging history and includes the new reserves post
22 November 2009. And I suggest to you that the new area
23 that was added in August 2009 includes a significant
24 degree of unlogged, pristine forest as well in the
25 vicinity of the coupes?---That's correct; that's
26 correct.
27 And I suggest to you that that addition would enhance the
28 prospects of the potoroo's survival?---It would.
29 So for instance if a potoroo were found to be in existence in
30 the vicinity of coupe 15, for instance, pre November
31 2009 the position would be significantly worse than the

1 position post November 2009 given the addition of that
2 unlogged area to the immediate west of coupe
3 15?---Sorry, I am just looking at the maps. Could you
4 repeat that question?
5 You will see that if you look at map 7?---Yes.
6 You will see that pre November 2009 coupe 15 was not adjacent
7 to any area of reserve or conservation area?---Yes.
8 And post November 2009 a significant area is added to the
9 immediate west, northwest and southwest of coupe
10 15?---Yes.
11 And that area that's added, a significant portion of that
12 area that's added is unlogged?---That's right.
13 And some area, the balance of the area to the immediate west,
14 or to the west of coupe 15 is indicated as having been
15 logged between 1990 and 1999?---Yes.
16 Now, you didn't refer expressly to the benefits that would
17 accrue to the long footed potoroo from the addition of
18 these conservation areas in the immediate vicinity of
19 these coupes, did you, in your February report?---Well,
20 I did, but as I say I was working at the scale of the
21 core protected area which includes these reserves. I
22 was not discussing the details of exactly what's
23 happening in relation to this particular section, but
24 my report specifically acknowledges that the core
25 protected areas, of which these form part, are the
26 major focus in East Gippsland for land management in
27 relation to the species, and that they are a good idea,
28 subject to some concerns which I set out. And I
29 specifically mention the icon areas as additions.
30 And when you come to assess the operation of the
31 precautionary principle, you are not focusing simply on

1 the coupes, are you, you are looking at the area as a
2 whole, the East Gippsland area as a whole in relation
3 to the survival of the long footed potoroo, aren't
4 you?---Well, I think I am doing both, but certainly you
5 need - the precautionary principle in any view is best
6 viewed within the whole context of the cumulative
7 impacts of what you are working with, particularly
8 where you get into things like risk-based assessment
9 and so on. So yes, that was top of mind, but I also
10 in my final section brought it down to some specific
11 comments in relation to the coupe. So some of them
12 are general, some of them specific, and I think that's
13 normal in a precautionary analysis, and appropriate.

14 Now, to move to a slightly different topic, you claim no
15 expertise or experience, do you, in identifying long
16 footed potoroos from video footage or photographs, do
17 you?---I have plenty of experience of identifying
18 mammals, and I am very confident that the best of those
19 pictures are a long footed potoroo. However, I know
20 that every time there's a new survey technique
21 introduced there are traps for young players, and so I
22 was very clear on that, that I had not specifically
23 trained or had practice in doing that, so no, I am not
24 experienced in doing that. I am confident, as I say,
25 particularly as I have further looked at them and had
26 further discussions and viewed other photographs, that
27 the best of the photos are long footed potoroos, but I
28 can't and I don't claim to be experienced in doing
29 that.

30 HIS HONOUR: Perhaps, Mr Waller, he should identify the
31 best of the photos. There's a reference to a

1 particular photo in his written report, but he has just
2 given evidence twice, perhaps three times, that he is
3 confident about the best of the photos. So I think
4 someone's got to clarify which is the best of the
5 photos, do they not, because the photos come from
6 different locations, do they not?

7 MR WALLER: Yes, they do. Your Honour, I will do that if
8 necessary in a moment, but I wanted just to clarify one
9 matter, because Dr Meredith, under the code of conduct
10 you know that you are obliged to state whether a
11 particular question, issue or matter falls outside your
12 field of expertise, are you not?---Yes.

13 And is that what you intended to do when it came to
14 identifying the long footed potoroo from the video and
15 the image?---No, I wish to explain that I felt that in
16 relation to what I am calling the best image, which I
17 can identify later, that I am confident that that's a
18 long footed potoroo. However, I am being quite honest
19 in relation to that court requirement in saying that
20 it's not an area I have experience in.

21 Experience or expertise?---I have expertise in relation to
22 identifying mammals. I am confident using that
23 expertise that I have identified my first long footed
24 potoroo from a photo. But I am aware that every time
25 a new technique is introduced it's dangerous to glibly
26 say "We all know how to do it." So I flag there that
27 there was a degree of inexperience, and that was simply
28 all I was aiming to do to specifically meet the
29 requirements for expert evidence.

30 And you said "In order to confirm the presence of a long
31 footed potoroo at these coupes, videos and images

1 should be assessed by researchers who have been
2 regularly working with such imaging
3 techniques'?---That's right.
4 Does that remain your position?---That does.
5 You were provided with a series of images and videos, were
6 you?---Yes.
7 And do you recall how many sightings they related to?---The
8 videos that I had and stills taken from those videos,
9 so they were the same set of digital data, related to
10 two sightings.
11 Yes. And which of the two do you say is the better one to
12 enable identification?---I identify that on page 13 of
13 my February, 2 February report. It's the third-last
14 paragraph: "The image in video labelled DJS4 ASL3
15 EMP1".
16 Yes. And all of that relates to the photo recovered by -
17 and the video recovered by Mr Lincoln?---Yes, I was not
18 provided with a detailed history of how the photos were
19 taken. I have shown those photos to other
20 mammalogists including Dr Ken Green subsequent to doing
21 this report, and they were all confident it's a long
22 footed potoroo.
23 Right.
24 HIS HONOUR: Where's Dr Ken Green?---He is with the
25 National Parks and Wildlife Service of New South Wales.
26 I see. And he is the same man as is referred to - - -?---He
27 is the Green of the fungi paper.
28 Well, in the action statement I think he is referred to at
29 page 6 in terms of three papers?---That's right. He -
30 - -
31 Green and Mitchell, Green and others, Green and others, '97,

1 '98, '99?---That's right, he is a genuine - generally
2 experienced in researching the species in Victoria and
3 New South Wales.

4 All right.

5 MR WALLER: Now, you say at page 13 - I'm sorry, I am just
6 trying to find the reference. Yes, on page 14 of your
7 report, the paragraph beginning "On the balance of
8 probabilities, given the presence of several long
9 footed potoroo records in the vicinity of these coupes
10 and the high likelihood from the automatic camera
11 surveys, that there is at least one record of the
12 species from within one coupe. I believe it is highly
13 probable that the LFP occurs within at least one of the
14 coupe areas." Which one?---I don't know, I think it
15 could occur in any of them.

16 Any of the four?---Any of the four. And I think there could
17 be more than one, but that's a minimalist position they
18 have put there.

19 Now, on page 14 of your report, your February report, you
20 state that the species has been recorded - this is
21 about one-third of the way down, after the bullet
22 points - you say "the medium and long-term impacts of
23 logging on the species are not clear", and you refer to
24 Chick and the DSE 2009 report. So pausing there, you
25 would agree that the position medium and long-term is
26 equivocal post logging for the potoroo?---Yes.

27 There's no evidence of it being necessarily negative, is
28 there?---There's some suggestive evidence that there
29 may be negative impacts, but it's certainly not robust.

30 Yes. The species has been recorded, you say, in areas that
31 have been logged at various times in the past but not

1 in others post logging. Your statement "but not in
2 others post logging", what source do you rely on for
3 that statement?---That's the Chick report.

4 And when you say, in the next paragraph, "There is good
5 evidence for the short-term impacts of logging on the
6 species", are you relying solely on Chick's report
7 there?---Well, that's the most up to date summary, if
8 you like, it's the most recent work. He reviews other
9 relevant literature, so - - -

10 Yes. And I think we went to this in some respects
11 yesterday, but I want to suggest to you that the Chick
12 report on one level found that the short-term effects
13 of logging were actually favourable because it led to
14 an increase in the number of potoroos detected?---I
15 don't think he at any stage describes it as favourable.
16 He notes an increase in numbers and then goes through
17 to firstly say this seems counter-intuitive, and then
18 provide a number of hypotheses, including that foraging
19 may be more wide-ranging due to less food being
20 available, animals from adjacent areas coming in due to
21 the changed nature of the area, a number of
22 possibilities. So there's a difference between
23 trapability/detectability and actual numbers on the
24 site.

25 But what he said in the summary at (v), page (v) of the
26 report, under the heading "Immediate impacts of timber
27 harvesting. Harvesting appeared to affect the
28 trapability of the species as both the capture success
29 and the number of known individuals increased after
30 harvest. The reason for these changes are unclear.
31 An apparent population increase appears

1 counter-intuitive as there was less suitable habitat
2 and less apparent foraging success observed." So it's
3 not just trapability, it's also the known - the number
4 of known individuals appear to increase as well?---Yes,
5 but what he doesn't know is where those individuals are
6 distributed, and so has the number of individuals that
7 are using the site as their regular home range
8 increased? That would be a positive effect of logging,
9 there's no indication that that was the case. He
10 talks about other animals coming in from surrounding
11 areas, and they will come up in the known to be alive
12 data. If you record an animal more than once it's
13 going to be known to be alive in that second recording.
14 But there are questions of scale - there are so many
15 difficulties with this sort of research and with this
16 particular piece of research which again acknowledges,
17 but to take that as a meaningful population figure, you
18 have to be extremely cautious, and Mr Chick is.

19 On page 55 when he deals in more detail with the implications
20 for the future, under the heading "Short-term effects
21 of timber harvesting", paragraph 5.1, he says "the
22 short-term impacts of the disturbance by timber
23 harvesting on the Watchmaker population of long footed
24 potoroos was difficult to discern"?---M'mm.

25 So again it's a situation of perhaps a lack of clarity as to
26 what the impacts were because there were pointers
27 certainly upward, and you would say downward as
28 well?---I have no argument with the issue that the
29 documentation of the impacts of logging on this species
30 is very uncertain. There are some indications both
31 theoretical and actual of negative impacts, there are

1 some things that would appear to be positive impacts,
2 and there's everything in between. And the same goes
3 for when you do the post logging or time series studies
4 on different ages since logging. The experiments are
5 not giving us any certainty as to how the species
6 operates.

7 You say on page 14 in the middle of that paragraph that - -
8 -?---Sorry, my report?

9 Your report, sorry?---Yes.

10 You start by saying "There is good evidence for short-term
11 impacts of logging on the species", and you cite Chick,
12 do you see that?---Yes, I do.

13 Are you there intending to say that there is good evidence
14 for adverse impacts short-term, or positive impacts - -
15 -?---Yes, there were individuals lost, no longer known
16 to be alive, and there were significant changes, drops
17 in density.

18 Where do you refer in your February report to the positives
19 that came out of the Chick report short-term?---I
20 don't, I don't think I specifically do other than to
21 regularly note that the research is not clear, that
22 results are variable, that the species has been
23 recorded in areas that have been logged. So certainly
24 it's not ignored, but I don't specifically go into
25 chapter and verse about the short-term increase in
26 numbers.

27 Yes. In the next paragraph you say "If it is assumed that
28 the prescriptions in instruction 21 are adhered to",
29 and you know what I am referring to?---Yes.

30 We are talking there about the stream side buffer and the
31 retained tree habitats and the larger trees?---M'mm.

1 Do you accept that, those are the prescriptions we are
2 talking about?---That's right, yes.

3 So if it's assumed that the prescriptions are adhered to, you
4 say "There will be a reduction in potential impacts on
5 the long footed potoroo largely due to the creation of
6 the hundred metre stream side buffer as the species
7 generally prefers wetter areas on the lower slopes of a
8 site. The buffer will not, however, contain all the
9 habitat within the coupes for the long footed potoroo,
10 so there will still be an impact on those species from
11 the logging." Did you compare in your analysis the
12 prescriptions that operated in the Chick report area,
13 Watchmaker on the one hand, and the prescriptions that
14 would operate in the coupes in question in Brown
15 Mountain?---I didn't go into great detail on that, but
16 the prescriptions in the Watchmaker coupes, as I
17 recall, were fairly standard prescriptions. I think
18 there may have been a little bit more stream side veg
19 left just because of operational reasons, but they are
20 basically 20 metres, and normal East Gippsland for the
21 time harvesting prescriptions - that's my recollection.

22 Well, I will take you page 64 of the Chick report. It's got
23 an appendix which sets out the prescriptions that
24 apply?---Is that appendix 1?

25 Yes, on page 64?---I can't see the page numbers on this one.
26 Harvesting and burning prescriptions, and the modified
27 prescriptions are Class 1 streams 40 metre buffer,
28 class 2 streams 40 metre buffer, class 3 streams 20
29 metre?---20 metre, that's right, yes.

30 And then there are some other matters there, patches of
31 unharvested forest, you can read them. I want to

1 suggest to you that you would agree, wouldn't you, that
2 the prescriptions that would apply in Brown Mountain in
3 the four coupes in question offer a significantly
4 greater degree of protection than applied in the
5 Watchmaker study?---Well, sometimes - if we go through
6 them. But the hundred metre buffer on a Class 1
7 stream is an improvement, no doubt.

8 It's a significant improvement, isn't it?---Yes, it's a 60
9 per cent improvement.

10 Yes?---The class 2 streams, I don't believe it's specifically
11 dealt with on the current coupes on the instruction 21.
12 However, it's probably fair to say that there may not
13 be any class 2 streams there. Class 3 streams, this -
14 I am not sure what 21 says about class 3 streams, I
15 don't think it says anything specific. This is
16 certainly far better than what we saw on the - what
17 should have been a filter area on the view. Exclusion
18 filter on both sides of class 3 streams - that's
19 similar if there is a filter area. No mechanical
20 disturbance, the same. Falling saw logs only
21 permitted by hand, it's the same, it's not permitted.
22 Patches of unharvested forest, .3 to .5 hectare and
23 approximately 2 hectare in total area to be retained.
24 I would think that's stronger than instruction 21.
25 Instruction 21 is talking about retaining individual
26 trees above 250 centimetres DBH. However, it does
27 have something about where there's a clump of them.
28 It talks about clusters of retained habitat trees, doesn't
29 it?---Yes. Well, as we wandered around them, the
30 view, the lack of clusters of habitat trees suggests
31 there will be very few if any patches retained, and

1 that's normal in that type of forest.

2 And you only viewed coupe 15, didn't you, on the view?---On

3 the view the other day, yes.

4 Have you been to all the other three?---I have been to one

5 other.

6 Which is that?---Which is - I will refer to the map. I have

7 been to 15 and 19.

8 Yes. And - - - ?---26 I have just viewed from the edge.

9 26 and 27 you haven't been to?---Haven't been to see - - -

10 You are not able to offer any opinion about the clumping,

11 clustering or number of trees that will be retained in

12 those coupes, are you?---Well, I can because I looked

13 at aerial photos and also the very extensive

14 photographic information that was provided to me, and

15 they look fairly similar. But I have to say that

16 clumping of these large trees is unusual. There's no

17 problem with the prescription, but like so many

18 "prescriptions" in this system, whether it actually

19 happens on the ground is relatively unlikely. So

20 there may be the odd patch, but I would still say that

21 this reads that Watchmaker, the patches which were

22 specified in size and specified in total amount, is a

23 better type of prescription than the instruction 21.

24 "Harvest areas to be" - this is a big difference -

25 "harvest areas to be subject to low intensity fuel

26 reduction burn rather than intensive/burn." Now, that's

27 the major difference between the coupes we are

28 considering here and the Watchmaker coupe. That was

29 very well described by Gary Squires to us, and we saw

30 in the logged coupe the intensity of the burn that is

31 undertaken in these high wet forests. Watchmaker is a

1 very different type of forest, it's much drier, it's
2 low land, and the silviculture is somewhat different.
3 I want to suggest to you that the most important difference
4 of all the differences or all the factors you have gone
5 through is the hundred metre stream side buffer which
6 provides the best possible habitat for long footed
7 potoroos?---I would say that and the - the two big
8 differences are the width of the buffer, yes, I would
9 agree with that, that's a positive, no doubt. The
10 more buffer - it's self-evident. If you preserve one
11 hectare, then two hectares is going to be better, and
12 four hectares is going to be better than that. Eight
13 hectares are going to be better than that. So no
14 one's going to argue that that's not a positive. The
15 high intensity versus the low intensity burn is a
16 significant difference between Watchmaker and here, and
17 that's in my view likely to be a negative.

18 You mentioned earlier that you were provided with a range of
19 photographs. Were they photographs of every one of
20 the four coupes?---Yes, they were.

21 And where do you refer to those in your report?---It will
22 just take me a moment. Okay, on the top of page 14 I
23 mention I did not - had not been able to visit the
24 coupes, and I don't mention those photographs there.
25 The reason for that is I took the view that I would not
26 comment in detail in this report on the habitat in that
27 stage.

28 Could you repeat that statement? You took the view that you
29 wouldn't comment in detail on the habitat in this
30 report?---In terms of what I'd seen. So I just set
31 out that I hadn't visited the coupes as yet.

1 Right. And you don't refer anywhere to the photos, do
2 you?---No.

3 And the photos are not referred to in your letter of
4 instruction, are they?---No.

5 No. So where did you obtain these photos?---When I realised
6 I would not have time to visit the coupe, I requested
7 photos from our lawyers and they were provided.

8 You requested photos from "our lawyers". Do you regard them
9 as your lawyers, do you?---Well, the people - give me
10 the form of words. Those I was engaged by, so via our
11 lawyers I requested from EEG photos they had of the
12 site, and I gave a fairly specific request and I was
13 given a very large number of high quality photos.

14 Right. When was that?---I have got them all on email, but
15 they arrived before Christmas.

16 So some time between your being briefed on 21 December and
17 Christmas you received a large bundle of
18 photos?---M'mm.

19 You don't refer to them in your report, and under the code of
20 conduct you are aware that you are required to advise
21 the court of any material you have relied on in support
22 of your opinion?---And that's why I don't refer to
23 them, because I didn't rely on them. If I had gone on
24 to rely on them I would have referred to them.

25 So you didn't rely on them or refer to them because you
26 regarded them as irrelevant?---No, I was confident that
27 I would see the site prior to the hearing. I
28 preferred to ensure that any comments I had were based
29 on my seeing the site at that stage.

30 Yes. Did you regard - - - ?---On a particular sort of view
31 as to - the photos were extremely good, I must say, and

1 very valuable, but I felt it was probably better not to
2 draw any great conclusions from them otherwise I would
3 be subject to cross-examination on them in this manner
4 and it probably would be better to have seen the site.
5 But you have just relied on the photos, didn't you, in
6 answering a question I put to you about coupes 26 and
7 27?---Well, I did, but now I have been up into the area
8 and I am very confident the photos were an excellent
9 representation of the site.
10 When have you been up to 26 and 27?---Well, as I said, I went
11 to the site it must be three or four weeks ago now, so
12 I have been there more than just the view.
13 Dr Meredith, your evidence to the court was that you visited
14 coupes 15 and 19 and not coupes 26 and 27; is that your
15 evidence?---I have not visited 27, and I have been past
16 26.
17 Right. So in respect of 27, how are you able to say that
18 the photographs are an accurate representation when you
19 haven't been there?---Well, because I have now seen the
20 photographs of the other sites. If you can't infer
21 things from very good photographs there's very little
22 you can do in terms of science. So I am confident
23 that the photographs - that I have been able to
24 groundtruth it the two other coupes. And at the edge
25 of the third coupe will be a good representation of 27.
26 However, I don't make any particular claim in relation
27 to the structure or any other aspects of 27 on the
28 basis of those photos.
29 In your report at section 2.7 you deal with - before we get
30 to that, on page 14, just before the heading
31 "Management plan", you mention the prescriptions, and

1 you refer to the stream side buffer and you refer to
2 the hollow-bearing trees. Do you see that?---Yes.
3 You say "The hollow-bearing trees will have little relevance
4 to the habitat needs of the potoroo"?---Yes.
5 Do you see that?---Yes.
6 You don't make any reference to the very large diameter trees
7 to be retained, do you?---Well, that's my inference
8 there, what I am saying in summary is that there's
9 instruction 21, part of that is the hundred metre
10 buffer, that is the thing that will be most positive
11 for the long footed potoroo. There are other
12 prescriptions, but those prescriptions relate to
13 hollow-bearing trees, fairly obviously that is
14 particularly the retention of the large trees, though I
15 haven't specifically said that, and that that will have
16 little relevance to the habitat needs of the potoroo,
17 as it's aimed at retaining hollow-bearing trees.
18 You are aware, aren't you, that the prescriptions require an
19 increase from a 3 metre area around the base of those
20 trees to a 20 metre area in terms of protection?---Yes.
21 And that's going to afford protection and habitat to the
22 potoroos, isn't it?---Well, that will be a minor
23 positive if and only if it doesn't actually burn.
24 Well, you are assuming the prescriptions won't be adhered
25 to?---I am assuming that there's a high likelihood that
26 in the course of this coupe, as in nearly every coupe,
27 there will be through just mere practical matters areas
28 that are not able to be protected in the manner set out
29 in the coupe plan, and as we saw at the logged coupe,
30 they were not able to protect the roadside scenic
31 reserve from the burn, from the regeneration burn.

1 It's certainly been my experience that once you have a
2 hot regeneration burn happening, 20 metres is great,
3 and in some cases will work, but there is no guarantee
4 that it will work in all cases.

5 You referred earlier to the filter stream or filter line in
6 coupe 20. Do you know the difference between a filter
7 line and a depression?---Well, a filter line is a
8 management response to a hydrological feature. A
9 depression is a hydrological or topographical feature.

10 Yes. Paragraph 2.7 of your report deals with the management
11 plan in respect of the long footed potoroo; do you see
12 that?---Yes.

13 Why did you see the need to refer the court to the management
14 plan?---Because my instructions, instruction 22, said,
15 please look at the East Gippsland Management Plan, and
16 then 23, 24 and 25A to K set out the series of
17 questions to be asked about that plan.

18 Right. Is it your understanding that those management plan
19 guidelines apply today?---No.

20 Why not?---Because they have been updated by the action
21 statement.

22 Yes. So those management plan guidelines are superseded,
23 aren't they?---That's right.

24 They are of no relevance at all, are they?---Yes.

25 Why didn't you tell the court that?---I think I do, maybe not
26 in that section but in the following section I talk
27 about - top of page 19, below the box: "In relation to
28 the state forest, these actions are significantly
29 different from previous action statements and the
30 guidelines in the East Gippsland Forest Management
31 Plan. There will now be a network" blah blah blah,

1 and it goes on. So perhaps it's not as clear as it
2 should have been, but my clear intent there was to say
3 all this stuff that follows is what is done now.
4 Wouldn't it have been clearer to simply say in answer to that
5 question "You have asked me about the forest management
6 plan guidelines, these are not relevant", full
7 stop?---It was not for me to interpolate the thinking
8 behind asking of the questions, so I just answered
9 them. I do I guess in hindsight see some value in it
10 because, as I comment, there are some changes which I
11 think weaken the guidelines compared to the previous
12 situation for the long footed potoroo. And that's
13 probably an observation of value to the court.
14 Do you remember being asked about certain conservation
15 requirements that might apply to private land rather
16 than public land?---When you say "being asked", in my
17 instructions?
18 Yes?---In relation to the fire?
19 Yes?---Yes.
20 Where do you deal with that, do you remember?---Now, I think
21 that's in the hollow-bearing trees one.
22 I think you are right, yes?---Yes, that's right. So this is
23 on pages 10 and 11 of the 1 February statement.
24 Yes. So on page 10 of that report you were asked to
25 consider the alteration of the rules about land
26 clearing where the government recently announced
27 interim measures to simplify residents' entitlements to
28 clear native vegetation around their homes?---M'mm.
29 And you were asked: "Is the introduction of this rule likely
30 to affect the habitat for any of the species covered in
31 your report? If yes does it affect your opinion about

1 the importance of the habitat covered by your report?"
2 And you said "All the species covered in my report
3 occur largely on public land. I don't believe that
4 any will be impacted by the introduction of these
5 measures." Why didn't you adopt the same approach
6 when you were dealing with the forest management plan;
7 in other words say "You asked me to look at those, they
8 don't apply"?---Well, I think I did by implication, but
9 - - -
10 You accept that the guidelines set out in the management plan
11 are not the same as the guidelines or objectives set
12 out in the action statement for 2009?---So we are back
13 on long foot?
14 Yes, sorry?---Yes, yes, I do.
15 And in particular you are aware of the action statement's
16 appendix 1?---Yes.
17 In terms of action 4, which applies where there's been a
18 verified detection of a long footed potoroo?---Action
19 4, yes.
20 Now, have you got that handy?---Yes.
21 In 2009?---I have got it in my document, but I am just making
22 sure I have got it.
23 I think you will find it - - - ?---With the right numbering.
24 Action 4, "Protect long footed potoroo habitat at
25 detection sites"; yes.
26 Yes, "On public land outside the core protected area"?---Yes.
27 And that refers to measures set out in appendix 1?---M'mm.
28 If you have a look at appendix 1, that refers to creating an
29 SMZ of 150 hectares?---Yes.
30 With a retained habitat area of 50 hectares?---Yes.
31 And you understand, don't you, the different roles played by

1 DSE on the one hand and VicForests on the other in
2 relation to the implementation of these actions?---It's
3 not - look, they are organisational structures and on
4 the area they have great expertise. They have a
5 general knowledge of it.

6 So you are not in a position comment on their respective
7 roles?---I would prefer not to.

8 Yes. In your report you deal with the precautionary
9 principle on page 20 of your February report?---Yes.

10 Now, you would agree, Dr Meredith, that the application of
11 the precautionary principle and the concomitant need to
12 take precautionary measures is triggered by the
13 satisfaction of two sort of triggers or conditions
14 precedent, and I will tell you what they are. First
15 there's got to be a threat of serious or irreversible
16 environmental damage; and second there has to be a
17 degree of scientific uncertainty about that damage.

18 Do you accept that?---Yes.

19 So dealing with the first of those conditions precedent,
20 there has to be a threat of serious or irreversible
21 damage, not any harm per se, do you agree?---Agree.

22 On page 20 of your report, if you could look at that, having
23 set out what you understand the precautionary principle
24 to be, you then say "Essentially the precautionary
25 principle means that if an action or policy has
26 suspected risk of causing harm to the environment, then
27 in the absence of scientific consensus that harm would
28 not ensue, the burden of proof falls on those who would
29 advocate taking the action"?---Yes.

30 Now that statement, which is your paraphrase of the
31 principle, I suggest to you misstates the principle

1 because it refers only to harm; you haven't referred to
2 serious or irreversible harm, have you?---No, well I
3 haven't - no, there's a reason why that says that,
4 because I am talking about the burden of proof in that
5 one. So the burden of proof then becomes, well, is
6 there serious or irreversible harm? And I am saying if
7 you - which is already mentioned above, under the
8 precautionary principle it is the potential proponent
9 of the harm, if you like, agent of the harm that needs
10 to therefore show that it won't be serious or
11 irreversible. That was my intent there.

12 I want to suggest to you that's a misunderstanding of the
13 principle, because I want to suggest to you that the
14 shifting of the burden of proof to which you refer only
15 occurs if the two conditions precedent are satisfied,
16 do you agree?---No, I don't agree with that.

17 Well, I want to suggest to you that absent the two conditions
18 precedent, the precautionary principle is simply not
19 engaged at all, do you disagree with that?---There is a
20 process through which you have to analyse to get to
21 whether the precautionary principle was engaged, I
22 would agree with that. And part of that is looking at
23 the two factors: the threats of serious or
24 irreversible environmental damage and the lack of
25 certainty. Now, it's not just my interpretations, and
26 there are other interpretations, it's not - like many
27 of these phrases it's not set down in black letter law
28 somewhere in a way that we can all go back to, but you
29 need to go through the process, somebody needs to drive
30 the logic of that process to come to that assessment,
31 and the big change with the precautionary principle in

1 environmental legislation in my experience has been it
2 does turn around the onus of proof from "Well, we don't
3 know there will be an impact so there isn't one", to
4 "We don't know there will be an impact so we'd better
5 ensure there isn't one." Which is turning it around.
6 So it's - at the end of the day the argument will be
7 about whether it's serious or irreversible, but to get
8 to that the analysis needs to be driven by the group,
9 agent, undertaking the action rather than, if you like,
10 a side proposing the status quo.

11 Right. But I suggest to you the precautionary principle is
12 not intended to be applied or to be used to avoid all
13 risks?---No.

14 Is it?---No.

15 It only applies in respect of serious or irreversible harm,
16 doesn't it?---That's right, and that loops back
17 straight up to there, so you do your evaluation if you
18 conclude there's not serious or irreversible harm, I
19 agree it doesn't apply.

20 Right. So if that's the case, it's simply wrong for you to
21 paraphrase it by referring simply to harm of any kind,
22 or harm, causing harm, rather than qualifying it with
23 serious or irreversible harm?---Well, I certainly
24 didn't intend to mean it in that sense, and I think my
25 reading, as I have just set out, could be reasonably
26 made, but if you were an editor for a scientific
27 journal I would take your comments on board and make it
28 clearer.

29 Now, the second aspect of the first condition to be satisfied
30 is that the threat of serious or irreversible
31 environmental damage or harm has to be substantiated by

1 scientific evidence, doesn't it?---Well, no, it's the
2 lack of full scientific certainty it talks about. So
3 obviously you don't make it up, but there has to be a
4 reasonable argument, not necessarily totally
5 evidence-based because we are dealing with uncertainty
6 here. There has to be an argument based on all those
7 things that go into assessing risk, using as much
8 evidence as possible, but not using the lack of
9 evidence to say "Well, it's not a serious risk."
10 I suggest to you that the threat, which is the first
11 condition, and I suggest to you that these are separate
12 conditions - do you accept that these are separate
13 conditions or do you say that they are
14 intertwined?---No, can you just run me through what you
15 are seeing as they are separate?
16 The conditions that I want to identify as needing to be
17 satisfied are first the threat of serious or
18 irreversible damage?---Yes.
19 And second a degree of scientific uncertainty regarding the
20 threat?---Yes.
21 Now - - - ?---And they don't have to be in that order. I
22 don't know if that's important to your argument, but
23 they both need to be satisfied.
24 Right. You don't accept they both need to be
25 satisfied?---No, they do.
26 They do. And in dealing with the first, what I suggest to
27 you is that the threat of environmental damage of a
28 serious or irreversible kind can't be based on
29 unsupported speculation or subjective belief, it has to
30 be based on scientific evidence?---Scientific evidence
31 and expert opinion.

1 But not, you would agree, unsupported speculation or
2 subjective belief?---No.

3 No. Now, you have conducted no specific analysis in respect
4 of the long footed potoroo, have you?---I have not
5 conducted experiments on the animal, but I have
6 analysed the published information and I have done a
7 fairly typical sort of work that is done in impact
8 assessment. So I wouldn't agree with that.

9 Right. But in order to determine the threat level to the
10 long footed potoroo in the East Gippsland area in which
11 the four coupes fall, I am suggesting to you you
12 haven't conducted rigorous scientific procedures?---I
13 don't see that it would fall for me to do that, but no
14 I haven't.

15 All right. Now - - -?---I would be quite happy to if
16 someone would fund the project.

17 Now, neither the action statement in 2009 nor the Chick
18 report in 2006 assert that timber harvesting in areas
19 inhabited by long footed potoroos represents a threat
20 of serious or irreversible damage to the species, do
21 they?---They list them - well Chick doesn't, but the
22 action statement lists a series of - let me get the
23 document to make sure I get the heading right. There
24 are so many documents - here it is. "Threats", a
25 major heading "Threats", under that are predation,
26 habitat disturbance. "Habitat disturbance starts with
27 timber harvesting, climate change, small populations."
28 So they clearly regard it as a threat. A threat to me
29 - a threat is a serious event, it's not a minor
30 irritant.

31 But are you drawing that from the heading or are you drawing

1 it from the actual substance of what's said in the
2 action statement?

3 HIS HONOUR: It says at line 44, doesn't it, that its
4 conservation status is threatened in Victoria under the
5 Act, then it says things like "the known
6 sub-populations appear to be disjunct, and this
7 increases the vulnerability of the species to several
8 threatening processes, principally predation by
9 introduced foxes but including habitat disturbance as a
10 result of timber harvesting and fire." That's what it
11 says.

12 MR WALLER: Yes.

13 HIS HONOUR: Under the heading "Threats".

14 MR WALLER: And then when it deals with habitat disturbance,
15 Dr Meredith, it says "Timber harvest" - - -

16 HIS HONOUR: It finishes "The major threats probably or
17 potentially operating on the long footed potoroo are
18 predation and habitat destruction or degradation from
19 timber harvesting and fire."

20 MR WALLER: Yes.

21 HIS HONOUR: It's pretty hard to say there isn't a threat,
22 isn't it?

23 MR WALLER: Dr Meredith, there's no suggestion that there
24 might not be a threat.

25 HIS HONOUR: Wasn't that the reason for the whole
26 prescription? What's the point of the prescription if
27 there's no threat?

28 MR WALLER: The threat has to be - is Your Honour asking me?

29 HIS HONOUR: Yes, I mean I just find this an extraordinary
30 suggestion that there's no threat.

31

1 MR WALLER: I am not suggesting there's no threat. The
2 question is - I think, Dr Meredith, you would agree
3 that there's no irreversible threat by the logging of
4 these coupes to the animal?

5 MS MORTIMER: I object to that question on the ground that
6 it's confusing "irreversible damage" and "irreversible
7 threat", they are two distinct concepts.

8 HIS HONOUR: Well, just rephrase it, Mr Waller. You can
9 ask the same question but just try - - -

10 MR WALLER: I want to suggest to you that there is no
11 irreversible damage to the environment that would be
12 caused by - and obviously with regard to the long
13 footed potoroo's continued existence - by the logging
14 of these four coupes?

15 HIS HONOUR: That's not the question, is it? The question
16 is whether it's threatened.

17 MR WALLER: I have just been criticised by my learned friend
18 for using the expression "threat" as opposed to
19 "damage".

20 HIS HONOUR: No, you are criticised because you said - - -

21 MS MORTIMER: "Irreversible threat" I think was the language,
22 Your Honour, that I objected to.

23 HIS HONOUR: Just use the words which appear at page 20 of
24 Dr Meredith's report: a threat, a serious or
25 irreversible environmental damage, in some form or
26 another.

27 MR WALLER: Yes. Is there a threat of irreversible damage
28 to the environment in your view that would be caused by
29 the logging of these four coupes, and in respect of the
30 damage to the environment we are not talking about the
31 environment generally but the existence of the long

1 footed potoroo in East Gippsland?---Excuse me. There
2 is a localised threat which I would regard as serious.
3 It is not clear whether it's irreversible or not given
4 the patchy outcomes in logged areas. It may be
5 reversible, it may not. Taking a long view, and given
6 that the forest zoning is specifically to allow
7 security to the timber industry, one can assume that
8 this is not the only time it will be harvested, so
9 there will be continuing harvesting and thinning at a
10 rotation age of - relatively short compared to the
11 normal forest cycles. And so I would certainly say
12 that a continued regime of harvesting within long
13 footed potoroo habitat, any long footed potoroo
14 habitat, including these coupes, has the potential for
15 a long-term and serious, and potentially irreversible,
16 outcome. And particularly when you then add to that
17 that this is not an isolated occurrence - if this was
18 four coupes and that was it. But part of your risk
19 assessment needs to be what is the context within which
20 it operates, and they are in major areas covering much
21 of these long footed potoroos' habitat where timber
22 harvesting is a long - has a long future, will continue
23 for many years.

24 On page 4 of the action statement, which I think is 545, you
25 will see, at the top of the page, left-hand column:
26 "However, the localised habitat disturbance that
27 accompanies intensive timber harvesting has the
28 potential to harm resident animals at least until dense
29 cover is re-established." Do you see that?---No, can
30 you just take me to - - -

31 Sorry, it's page 4 of the 2009 statement?---Yes, okay.

1 And it's the top of the left-hand column?---Page 4, 2009 -
2 and what were the words?
3 Begin the second line "However"?---Yes, I have got it, sorry.
4 "However, the localised habitat disturbance that accompanies
5 intensive timber harvesting has the potential to harm
6 resident animals at least until dense cover is
7 re-established." Do you see that?---Yes.
8 So first of all that statement is directed to resident
9 animals, so we would be looking at animals within these
10 coupes in respect of that statement, wouldn't we?---The
11 harm will be for the animals within these coupes.
12 Yes. And the statement of the DSE action statement is that
13 any harm would be potential until dense cover is
14 re-established; do you agree?---Well, it wouldn't be
15 potential. If there was harm it would be actual.
16 Yes?---They are saying that there's a potential that it may
17 be able to be recolonised when dense cover - - -
18 Yes. And that statement doesn't address itself at all to
19 long footed potoroos living outside the residence or
20 the coupes in question, does it?---No, but when you
21 talk about the areas of small populations later at the
22 bottom of that page and going on to page 5, these
23 things are all interlinked, the maintenance of - this
24 is not an animal that bounds around the forest like a
25 big grey kangaroo as we all understand it. It's
26 localised, and the maintenance of genetic continuity
27 between population is dependent on the sedentary
28 populations remaining in their areas and being linked
29 physically to other populations.
30 Yes?---So if you break up areas, if you have areas where
31 these animals are not present, you are starting to make

1 it harder for those genetic links to occur across the
2 population, and so there are impacts outside - direct
3 impacts just within the coupe, but there are impacts
4 that will radiate out from the coupe. And then if you
5 have smaller areas that are unlogged remaining, and
6 then you get a major stochastic effect like a fire, you
7 get new predator influx coming in, all sorts of things,
8 these cumulative effects can become quite significant.

9 And in addressing your analysis on the precautionary
10 principle, and in determining whether or not the
11 principle is engaged by reference to that first
12 condition, are you turning your mind to the damage that
13 would occur in the coupes or the damage that would
14 occur across the whole of East Gippsland, or
15 both?---Aspects of both. There clearly would be - if
16 you were just looking at the coupes, there would be
17 potential for serious harm within the coupes. The
18 loss of up to 50 per cent of the resident species based
19 on the Chick work, now that's just one study, it could
20 be worse, it could be better. So there will be
21 short-term impacts, but it is important to look at
22 whether this is a serious harm in terms of not taking
23 everything coupe by coupe. If you did that you would
24 not be able to write an action statement saying there
25 is a threat from timber harvesting because if you did
26 it coupe by coupe, well each coupe is minor. You
27 would have to say in relation to predation, well, one
28 fox only eats so much per night so there's not a
29 problem, so you do need to also look at that broader
30 context of how does this add to the overall picture of
31 pressures on the species.

1 I think we saw yesterday that there are on the latest
2 evidence reflected in the DSE 2009 statement, up to
3 10,000 long footed potoroos in Australia with
4 two-thirds of that number being found in East
5 Gippsland, do you agree?---That's the figures they
6 give, yes.

7 Yes. You don't quibble with those figures, do you?---I
8 suspect they are a little bit high, but I am not going
9 to quibble with the order of magnitude.

10 Right. And how many long footed potoroos do you think would
11 be directly affected by the logging of these four
12 coupes?---Well, the interesting thing is that the
13 population estimates have been revised upwards not on
14 the basis of a change in distribution, fundamentally
15 the distribution remains the same, it's been on the
16 basis of a much better detection technology, automatic
17 cameras, which to me means that it's done on the basis
18 - and it's not set out - the trouble with a lot of this
19 government research is it's not accessible to those of
20 us outside government, but it's not set out how they
21 calculated this. But the obvious inference is that
22 this reflects an increased density within the same
23 basic geographical areas, in which case in areas where
24 we once would say perhaps there's half a dozen animals
25 in this area, maybe the revised densities would mean
26 there are 60 animals in this area. So if the impacts
27 of logging a coupe were previously thought to be a
28 couple of animals, it might actually be tens of
29 animals. So I am not sure that the revised upwards
30 population figure actually reduces the impact, because
31 impact is still occurring over the same areas, the

1 things are not living in high rises, they are still
2 distributed around the same patch of dirt in East
3 Gippsland, so there's just got to be more of them.
4 Still not large numbers, 10,000 is still not a lot of
5 animals. 6,000 in East Gippsland is still not a lot
6 of animals, but it means they must be at high densities
7 because it's not because they have been shown to occur
8 from the top of Kosciuszko to the coastal plains.

9 And I suggest to you that if the four coupes were logged with
10 the prescriptions in place, and in particular the
11 hundred metre buffer, then it's highly likely that most
12 of those long footed potoroos would be able to survive
13 in those areas, even with the harvesting in the
14 coupes?---Sorry, most of those?

15 Most of the long footed potoroos that exist in those coupes
16 would be able to survive post harvesting by reason
17 predominantly of the hundred metre buffer being their
18 principal preferred habitat?---Some will survive, I
19 have no doubt about that. Whether it's most - look, I
20 don't think the information is there to say, but you
21 will have a - in my view there will be a high
22 likelihood of a lower number there after logging, and
23 lower quality habitat. But they won't all suddenly
24 disappear off the face of the earth.

25 No. And the additional conservation reserves adjacent to
26 the coupes which have been added in 2009, they would
27 provide a further measure of protection if those four
28 coupes were harvested, wouldn't it?---Self-evidently,
29 yes.

30 Yes. And the second of the conditions is that there has to
31 be a degree of scientific uncertainty about the nature

1 and scope of the threat, you would say that's
2 present?---Yes.

3 But I think you agreed earlier that the principle, even if
4 engaged, is not intended to eliminate all risks, it's
5 simply to eliminate those that are serious or
6 irreversible?---Yes.

7 Yes. And the type and level of precautionary measures, I
8 suggest to you that will be appropriate, will depend on
9 the combined effect of the degree of seriousness and
10 irreversibility of the threat and the degree of
11 uncertainty?---They would be, yes, important factors.

12 Yes. Do you agree that in applying the precautionary
13 principle measures should be adopted that are
14 proportionate to the potential threat?---Yes.

15 So you would agree you have to strike a balance between the
16 stringency of the precautionary measures which may be -
17 which - let me rephrase it. You have got to strike a
18 balance between the stringency of the precautionary
19 measures which might have associated costs, such as
20 financial costs, livelihood issues, opportunity costs
21 on the one hand, and the seriousness and
22 irreversibility of the potential threat on the other
23 hand; you have got to strike that balance?---Yes.

24 If you have a look where you have stated the principle in
25 your report at page 20, your first bullet point says:
26 "Careful evaluation to avoid wherever practicable
27 serious or irreversible damage to the environment", do
28 you see that?---M'mm.

29 What do you say is the significance of the words "wherever
30 practicable" or "practical"?---Okay, they are not my
31 words, that's from the inter-governmental agreement on

1 the environment, and I think that's typically being
2 interpreted to mean where, if you like, where it's
3 politically or economically feasible.

4 So you would agree that considerations of practicability need
5 to be taken into account in applying the
6 principle?---Yes.

7 Yes. And I suggest to you that the costs consequences of
8 increasing levels of precaution have to be
9 evaluated?---Well, it talks about risk-weighted. The
10 cost is only part of assessing risk. But you would
11 assess that.

12 So you would agree that where the precautionary principle
13 requires an assessment of the risk-weighted
14 consequences of various options, that involves as part
15 of the analysis taking into account the costs
16 consequences of raising levels of precaution?---You
17 would certainly analyse that.

18 Yes. I suggest to you that that risk-weighted assessment,
19 or the assessment of risk-weighted consequences which
20 you refer to is a very integral aspect of the
21 application of the precautionary principle, isn't
22 it?---Yes.

23 So you would agree that first you have got to identify the
24 available options to address the threat?---Yes.

25 And second you have got to assess the likely consequences of
26 those options, of implementing those options on the one
27 hand, or doing nothing on the other?---Yes, that would
28 be the range you would choose, yes.

29 And there are probably various options in between?---Yes.

30 So you would agree that it's effectively a cost benefit-type
31 analysis that has to be undertaken?---Well, no, risk

1 assessment - I think that people fall into the trap of
2 thinking risk assessment is cost benefit. Cost
3 benefit always comes out with the economic side being
4 favoured because we don't have ways of properly valuing
5 the benefits that are non monetary. So risk
6 assessment is actually quite different, it's about the
7 range of potential impact levels and the risk. So the
8 potential that they are going to occur, the likelihood
9 that they are going to occur and the seriousness of the
10 outcome, and cost would then be just one of those
11 factors to be brought into that. So it's actually
12 quite different from cost benefit. I would not think
13 cost benefit is a good tool for the precautionary
14 principle.

15 Right. I suggest to you that in selecting the appropriate
16 precautionary measures both sides of the ledger have to
17 be examined, that is to say - - - ?---There will be
18 more than two sides.

19 Right. But you would have to examine, wouldn't you, the
20 costs associated with the project, and that would
21 involve for instance the possible threat to the
22 on-going viability of the long footed potoroo?---Yes.

23 And you would also have to take into the balance the benefits
24 of the project, and by that I mean including benefits
25 for employment, for the economy and for the financial
26 viability of the timber industry?

27 MS MORTIMER: I object to the question on the basis the
28 witness has made it clear he does not agree that a cost
29 benefit analysis is appropriate in precautionary
30 principle. My learned friend has phrased that
31 question again in a way that starts with that

1 assumption.

2 HIS HONOUR: No, Mr Waller, you can put it.

3 MR WALLER: I can put it?

4 HIS HONOUR: Yes, you can put it. You may have already

5 put it, but you can put it again.

6 MR WALLER: Yes. So I suggest to you that in examining the

7 various elements in this weighing up exercise, you look

8 also at the benefits of the project that would include

9 benefits to employment, to the economy and to the

10 financial viability of the timber industry?---Again,

11 risk analysis, it's a - it has a lot of traps in it,

12 and one of the traps, it's an excellent example of, if

13 you did risk matrix, which is the typical way of doing

14 these sort of risk analyses, if you had one column for

15 the long footed potoroo, and then you have suggested I

16 think four attributes for economic analysis, so you

17 have got four columns for economic analysis, you have

18 already biased your risk assessment. It's going to be

19 four times more likely - very crude figures - that it

20 comes out that the long footed potoroo drops out. So

21 you need to make sure your risk analysis is comparing

22 apples with apples, make sure that your weightings are

23 either very explicit - and it says we want to give

24 economics four times the value of the environment, and

25 there are arguments for that, or we don't want to

26 weight economics any more than the environment, or we

27 are going to look at all these other factors in the

28 environment to equal the weight in the analysis of -

29 the economic analysis. And at the end of the day it's

30 about likelihood of occurrence and the degree of

31 impact. It's not about cost. So cost is an input to

1 looking at those factors, so let's say you are looking
2 at a risk assessment where the likelihood of the loss
3 of more than two jobs was rated at 1 per cent, the
4 likelihood of loss of more than 10 jobs was rated at
5 .01 per cent and so on, then what are the outcomes from
6 that, you could put that in dollar terms. But you
7 would have to - our experience, we do a lot of risk
8 assessment in our consulting work in relation to major
9 developments, and whenever endangered species come up
10 using the standard risk assessment technique the risks
11 are difficult to measure against your standard economic
12 risks. But when you do that they always come up very
13 strongly. So the economists tend to under-estimate
14 them because they can't put numbers on them, but in
15 fact at the end of the day the loss of a million
16 dollars to the timber industry sounds like a lot of
17 money, but in terms of the total percentage it's tiny.
18 The loss of, say, 40 long footed potoroos and potential
19 habitat may well weight much higher than that. So you
20 need to - it's not a simple thing, and it is definitely
21 not cost benefit. If you do that you are not meeting
22 the precautionary principle. It is a proper
23 matrix-based risk analysis.

24 All of what you have just said is captured in that phrase
25 that the precautionary principle requires an assessment
26 of the risk-weighted consequences of the various
27 options, isn't it?---Yes, but it's - that's what I am
28 emphasising, it's not cost benefit.

29 Well, that's not what I asked, it's captured in that phrase
30 "risk-weighted consequences" where you identify
31 particular risks and perhaps give them a particular

1 weighting as part of that analysis?---That's right.

2 And you have given some examples where the weighting may be

3 skewed in favour of the economic considerations on the

4 one hand, and it would be equally possible to skew that

5 in favour of environmental concerns on the

6 other?---Yes. You would need to be explicit in any

7 weighting. You can do it unweighted, I mean that's

8 the preferable way to at least start off and then say

9 "Okay, for whatever reason this is the unweighted

10 outcome. It's not going to work" - it's just a tool.

11 Now, I suggest to you that in your analysis of the

12 precautionary principle, and your application of it to

13 the facts presented to you, you didn't undertake a

14 risk-weighted - an assessment of the risk-weighted

15 consequences of various options, did you?---No.

16 No. So you haven't undertaken a necessary step dictated by

17 the application of the precautionary principle in your

18 report, have you?---I am just setting out where it

19 relates to my area of expertise, the arguments that

20 would be taken through that process. I think from

21 that a priori there is a case that there is uncertainty

22 and potential for serious irreversible harm, and going

23 back to my comment above that then this burden of proof

24 given that falls on those taking the action. So

25 that's all I am attempting, I would not have the

26 expertise to take the argument further.

27 Right. But you would accept as a general proposition that

28 not logging the coupes will have economic

29 consequences?---It might improve VicForests bottom

30 line, but there will be - - -

31 Is that a serious answer?---Well, a loss-making business

1 might - it might be a positive to them, I don't know.
2 But it certainly won't be a positive to the contractors
3 on the ground.
4 Right. It won't - so it will have, you agree, negative
5 employment consequences?---Look, I don't know. It
6 may, they may be able to just shift to another coupe.
7 It's so far outside my area of knowledge I couldn't put
8 a view.
9 Evidence has been given in the case of a briefing note.
10 Just one moment. So you are simply not in a position
11 to know what the particular economic consequences, both
12 in terms of profit to VicForests, employment, other
13 flow-on effects to the economy would be?---No.
14 No. You would agree, though, that the precautionary
15 principle when triggered doesn't necessarily prohibit
16 carrying out the project or development until full
17 scientific certainty is attained?---Well, it's normally
18 framed - it's not normally, it is framed in terms of
19 lack of full scientific certainty should not be used in
20 the excuse not to take preventative action. So I
21 don't fully agree with what you are saying. I think
22 that's one of the strengths of precautionary principle,
23 it turns that around. It doesn't say you can go ahead
24 if you don't know, it says you shouldn't assume you can
25 go ahead if you don't know. You have to provide a
26 high level of justification.
27 Well, I suggest to you that if the precautionary principle
28 were interpreted in that way, that is to say you can't
29 do any development until full scientific certainty was
30 attained - - -?---No, that's not what I said. I said
31 if there is not full scientific certainty, in the past

1 pre precautionary principle the typical decision-making
2 process would be "Well, we don't know, so probably
3 there isn't a problem, we will go ahead."
4 Precautionary principles say "No, you need to give
5 weight to the view that we don't know so we'd better be
6 extra careful." It doesn't prohibit all actions in
7 every case though.

8 The solution really - the mid-point, if you like, between
9 those two extremes is the assessment of the
10 risk-weighted consequences of the various options and
11 then choosing an option that affords the appropriate
12 degree of precaution for the set of risks associated
13 with that option?---Yes.

14 So in order to apply the precautionary principle here, there
15 would first need to be consideration of the two
16 conditions precedent that we have identified?---M'mm.

17 Do you agree with that? And that even if they were
18 satisfied, then there's got to be a risk-weighted
19 assessment or an assessment of the risk-weighted
20 options?---Yes.

21 And you haven't undertaken that task, you have said?---No.

22 You have only really considered the environmental
23 consequences, you haven't considered any of the other
24 consequences?---Yes, but I think there's enough there
25 to trigger the need to take the precautionary principle
26 into regard for that full analysis. But I don't have
27 access to the data, nor have the knowledge to undertake
28 employment analyses and so on. I can do it with
29 things out of books, but it would be even more
30 meaningless than when an economist does it.

31 Yes. Now, if I could just move to a slightly different

1 topic. Your critical habitat study that was presented
2 in July 2009, that dealt with six species, didn't
3 it?---Yes.

4 Among those species was the spot-tailed quoll?---Yes.

5 Now, your conclusion in respect of the spot-tailed quoll was
6 that the Bonang Goongerah area, the subject of your
7 study, in East Gippsland was not able to be defined as
8 critical habitat for the spot-tailed quoll?---Yes.

9 Okay. You also dealt with the powerful owl?---Yes.

10 And your conclusion in respect of the powerful owl was that
11 there was no case that could be made for the critical
12 habitat to be declared in respect of the powerful
13 owl?---Yes.

14 You have given a report also in relation to hollow-bearing
15 trees, and that's a report dated 1 February
16 2010?---Yes.

17 HIS HONOUR: I think we will take a short break.

18 (Short adjournment).

19 HIS HONOUR: Yes, Mr Waller.

20 MR WALLER: Dr Meredith, I think in an earlier answer you
21 referred to the possibility, I think, or you made a
22 statement that 50 per cent of the potoroo population
23 could be lost on a site from logging; do you remember
24 making that statement?---I do.

25 What's the basis for that statement?---In the Chick work from
26 memory I think there were eight individuals recorded
27 prior to logging, and that four of those were not
28 recorded after logging. There were others came in and
29 so on, but I think there were eight not known to be -
30 I'm sorry, four not known to be alive out of about
31 eight, something of that order.

1 And this was notwithstanding an overall increase post
2 logging?---Well, as I say, and as I said earlier,
3 there's no evidence that that's an overall increase in
4 numbers resident on the sites. It's a decrease in
5 detectability. The numbers resident on the site
6 appear to have declined, and roughly 50 per cent of the
7 residents had - did no longer occur, presumably
8 deceased.

9 But you agree that with a 60 per cent greater buffer, namely
10 a hundred metres rather than the 40 metres that applied
11 in the Chick report, that the chances of survival would
12 be greatly enhanced with any potoroos that were present
13 in the coupes to be logged?---I don't know if I could
14 say greatly enhanced. That it would be enhanced
15 depends on exactly which parts of the habitat they were
16 using and so on. Given the coupes are fairly flat,
17 it's likely the good habitat goes relatively well up -
18 the coupes as compared to the more steeper, dissected
19 areas, but clearly it's a larger area of retained
20 habitat and will have that positive support.

21 And it's the area of prime habitat because it's located in
22 the wetter areas where the fungi is to be found?---Yes,
23 it should be good habitat, yes.

24 Now, just to review an answer you gave so that I am clear,
25 with the photographs that you asked the solicitors for
26 and which you were provided prior to Christmas, why is
27 it that you didn't see the need to refer to those in
28 your February report concerning the potoroo?---I don't
29 think there was a - there's no particular reason, I
30 just didn't - I hadn't - the question was asked had I
31 seen the site, and I said no. Again, I don't think

1 there's any great thought process to be put before the
2 court there, I am afraid.

3 You didn't think it improper to refer to it in your report
4 because you hadn't seen the site or anything of that
5 kind?---Sorry, improper to - - -

6 You didn't think it was going to be in some way inappropriate
7 to refer to photos in the absence of seeing the
8 site?---No, no, if I'd been wishing to make extensive
9 comments about the site at that stage I would have used
10 the photos. Scientific work is very often done using
11 indirect remote sensing techniques, whether it's photos
12 or aerial photos or whatever. So I don't think any -
13 I wouldn't have had a methodological problem with that,
14 it just didn't come up as something I felt the report
15 needed.

16 And I think in an earlier answer, and I don't have the text
17 of it, but you said that you were concerned not to
18 refer to the photos because you would be cross-examined
19 on them, or words to that effect, do you remember
20 that?---Yes, I do.

21 What did you mean by that statement?---I just thought, well,
22 I hadn't been to the site, it's best that I leave those
23 issues about being to the site as straightforward. If
24 I start trying to provide a justification or a
25 discussion of what else I could have done and so on it
26 will just be a point of discussion for no great
27 information gain.

28 And, what, to that end you decided that you wouldn't refer to
29 the photos in the long footed potoroo report because it
30 could lead to that sort of discussion?---Well, no, I
31 just - I just thought I will be just straightforward, I

1 will not make any bones about it, I haven't been to the
2 site, that's where that argument came from. I didn't
3 consciously go through and think "What should I
4 tactically do in relation to this." It was just what
5 the thought process was at the time.

6 So if you haven't been to the site it's not sufficient to
7 simply refer to photos, is that the point?---No, that's
8 not what I am saying. But I didn't need to - in the
9 report as it turned out I didn't need to refer to the
10 photos. I thought if I brought them in just for the
11 sake of saying - - -

12 HIS HONOUR: I think he has now said that perhaps eight,
13 nine times, Mr Waller.

14 MR WALLER: Well, I am asking you this because in the
15 hollow-bearing tree report you refer to the
16 photos?---Yes, I do in that report.

17 Why did you refer to them in that report?---Because they are
18 relevant to the photos of the old trees, they are not
19 relevant to the discussions on the long footed potoroo.

20 All right. In that report did you state that you hadn't
21 been to the coupes?---I think so. I may not have
22 because it was not in the - I don't think it was in the
23 instructions. But - no, it wasn't in the instructions
24 so I didn't specifically state it.

25 You didn't think it relevant to state to the court whether or
26 not you'd actually been to the coupes in providing a
27 report about hollow-bearing trees within the
28 coupes?---Obviously it's relevant, I didn't - I'd
29 stated it in the other report. I must say I didn't
30 particularly give it any - it wasn't a conscious
31 omission.

1 In your report on the hollow-bearing trees of the 1 February,
2 you were asked to assume that certain prescriptions are
3 adhered to, and by that you understand the
4 prescriptions of those that we have been talking about
5 set out in your instruction number 4?---M'mm.
6 And if the prescriptions are adhered to, then a great number
7 of hollow-bearing trees will be retained in the coupes
8 after logging, do you agree?---Yes.
9 And consistent with your obligations under the code, you
10 reveal that you are not an expert in workplace safety
11 in relation to forestry operations?---That's right.
12 So you can't offer any expert opinion in relation to that,
13 can you?---I can offer observations of what I have seen
14 in terms of the fact that safety considerations often
15 lead to under-retention of trees. But in terms of
16 whether those safety regulations have been
17 appropriately applied and how they are applied and so
18 on, I don't have expertise.
19 And you haven't engaged in any scientific analysis by
20 reference to journal articles or other sources about
21 the empirical evidence surrounding workplace safety
22 issues in forestry operations?---I did do some
23 investigation in that area, and there seems to be a
24 real paucity of scientific information in relation to
25 that. However, a number of my own observations, and a
26 number of people I have talked to both in the past and
27 in the course of preparing this report, confirmed my
28 observations that it is a significant factor, and a
29 number of comments that Mr Squire made on the view
30 supported that. But it's not - I don't think forestry
31 OH & S people get promoted on their publications

1 record.

2 Now, in relation to the question I asked you earlier about
3 the 50 per cent loss of population referred to in you
4 say the Chick report?---M'mm.

5 You would agree that the Chick report doesn't attribute the
6 lost potoroos to timber harvesting, does it?---It
7 doesn't attribute them to anything.

8 So it could be totally unrelated to timber harvesting,
9 couldn't it?---It could be, but dear old Mr Ockham and
10 his razor would suggest that if you have a massive
11 physical event on the site it's the first place you
12 would be looking for an explanation. But no, it's not
13 proven.

14 I have no further questions.

15 <RE-EXAMINED BY MS MORTIMER:

16 Dr Meredith, you have been asked a number of questions about
17 the Chick report, and can I ask you to have that to
18 hand, please. The first thing I want to ask you about
19 that is, you gave some evidence to His Honour that the
20 number of individual potoroos that were studied by the
21 authors of the study in terms of the radio tracking I
22 think were 8 and 4, I think that was your
23 evidence?---M'mm.

24 In your opinion are numbers at that level, 8 individual
25 potoroos and 4 who turn up again, or whether it's 7 and
26 4, but that level of numbers - - - ?---Of that order.

27 Does that have any statistical significance?---This is one of
28 the great problems with the long footed potoroo as a
29 research animal, it's very hard to get any numbers that
30 can be statistically analysed. So small numbers like
31 that, it's very much a descriptive outcome, this isn't

1 something you can do hard stats on.

2 Now, you were also asked in relation to your opinion about
3 the negative impact of timber harvesting and what the
4 Chick report showed, you were asked some questions
5 about the Chick report and I want to take you back to
6 some particular parts and ask you whether you agree or
7 disagree with them. Can you turn to page 51 of the
8 Chick report, please?---51, yes.

9 Your Honour, that's Exhibit F.

10 HIS HONOUR: I have it in front of me.

11 MS MORTIMER: If Your Honour pleases.

12 At page 51, second bottom paragraph: "The
13 locations of positive hair tube results, successful pre
14 and post harvest traps and observed foraging
15 activities, indicate that the harvested area was
16 relatively less attractive to the species than the
17 unharvested surrounds." I just ask you to read the
18 rest of that paragraph to yourself, please,
19 Dr Meredith?---Yes, I have read that.

20 Is it your opinion that that's a fair summary of the material
21 that was produced in this report?---Yes, that's a -
22 certainly in terms of post logging use of the site,
23 that's a pretty good summary.

24 And page 52, the second-last paragraph there, the one that
25 starts "The clearing effect of harvesting and the
26 construction of tracks and roads in forested
27 environments", can you just read that paragraph to
28 yourself, please?---Yes.

29 And is it your opinion that is also a fair summary of the
30 material and research that this paper discusses?---Yes,
31 and in particular they are focusing on the issue of

1 proved access for predators.

2 And then page 53, up the top of that page, there's a sentence
3 that starts "However, a key element in the impact of
4 silviculture practices on long footed potoroos", can
5 you read that down to the end, please?---Yes.

6 And is it your opinion that's a fair summary of the research
7 and data that this report deals with?---That's right,
8 that's the issue I previously raised in response to
9 questions about decline in fungal food.

10 Again staying on the Chick report, you were asked about what
11 in your opinion could be drawn from the increased
12 detection and trapping that that study reports. Now,
13 in relation to that issue, if long footed potoroos
14 after timber harvesting are more easy for humans to
15 detect and trap, what in your opinion is the likelihood
16 of them being more easy for predators to detect?---That
17 has been suggested as one of the reasons behind the
18 detectability change in that the habitat's opened up,
19 and they are having to forage further to get the same
20 amount of food, having to go further away from cover.
21 So clearly all those things, if a human can detect them
22 more easily, then a predator may well be able to detect
23 them more easily.

24 And in your opinion is that a negative or a positive response
25 for the long footed potoroo?---That's clearly a
26 negative.

27 Now, still on the Chick report, you were asked some questions
28 about the Watchmaker harvesting prescriptions, and you
29 were asked to compare some of those with the
30 prescriptions that will apply in these coupes, and you
31 were asked some questions about the buffers and the

1 streams. And as I recorded one of your answers to
2 that, you looked at those prescriptions for Watchmaker,
3 and you said something to this effect, that they were
4 better than what we saw should have been a filter area
5 on the view. Now, can Dr Meredith please be shown the
6 photographs from the view which are Exhibit 7. I have
7 a spare copy if that would assist.

8 HIS HONOUR: Yes.

9 MS MORTIMER: And can I ask you to go to photograph 39,
10 please, Dr Meredith?---Yes.

11 Now, your evidence that those prescriptions are better than
12 what we saw should have been a filter area on the view,
13 can you tell His Honour whether looking at photograph
14 39 that is the area you had in mind or not?---Yes,
15 that's the one, looking up that shallow depression you
16 can see the tree ferns there indicating the centre of
17 the depression and it's looking back up the hill.

18 And by that evidence, "better than what we saw should have
19 been a filter area", can you explain what you meant,
20 please?---If I go - I am just going on their verbal
21 description in the Chick report.

22 Appendix 1 page 64?---I have got that. 20 metre exclusion
23 filter. Well, there's no exclusion filter on that one,
24 so 20 metres is clearly an improvement. And then what
25 follows from that is no mechanical disturbance
26 permitted within, so falling except by hand, and the
27 tree must be able to fall out of the filter zone and
28 hence not permitted to fall within the filter zone.

29 Now, - - -

30 All right, thank you?---Other than the heads which are
31 probably there, you can see examples of all those

1 things that would not normally be permitted in that
2 picture.

3 And just one final question about the Chick report, you were
4 asked to look at pages 55-56 of the Chick report and
5 asked some questions about those. And I just want to
6 direct your attention back to 5.2, the second dot
7 point, that's the one that starts "The probability of
8 occurrence"?---Yes.

9 Just re-read that for a moment?---Yes.

10 Can you explain to His Honour what is the importance to the
11 potoroo of dense ground cover, both - I withdraw that.
12 If you can just answer that question, explain to His
13 Honour what the importance to the potoroo is of dense
14 understorey?---The potoroo of course is a totally
15 ground dwelling mammal, the habitat that appears to be
16 preferred from all the descriptions and from my
17 experience has that combination that we were able to
18 see on the view of open areas and dense areas in close
19 proximity. And the dense areas clearly are important
20 in terms of providing shelter and safety from
21 predators. So it's been - it's a common place and I
22 have seen many examples of this, that you will see
23 predator scats in abundance in open areas and
24 immediately adjacent in dense areas where you might
25 have to push through to do some mechanical work, you
26 will see very few. It's simply not worth their while
27 going into highly dense vegetation, and so it provides
28 a very effective protection.

29 In areas that have been subject to timber harvesting and are
30 to be thinned, Dr Meredith, do you have an
31 understanding of what occurs in a thinning process in

1 relation to the understorey?---Well - - -

2 MR WALLER: How does this arise out of cross-examination? I
3 didn't mention thinning.

4 HIS HONOUR: I think you took him to the Chick report and
5 you cross-examined him as to what Mr Chick says about
6 the consequences both short-term and long-term in
7 relation to the potoroo of timber harvesting.

8 MR WALLER: That's so, but I don't think the Chick report
9 refers to thinning, and this is a question directed to
10 a different process than was undertaken at Watchmaker
11 and which would be undertaken in the coupes.

12 HIS HONOUR: Well, I am not sure that's clear. What's
13 intended is that these coupes will be given over to
14 long-term timber harvesting, isn't it? That's as what
15 I understood Mr Squires to say on the view, that within
16 30 years' time they will be thinned and in 60 years'
17 time perhaps they will be harvested again. That's the
18 consequence of logging, isn't it? That they become a
19 plantation forest in that sense.

20 MR WALLER: Well, we have been directing ourselves to the
21 prescriptions that will apply in the harvesting that
22 will take place now. Chick doesn't refer to the
23 harvesting that would occur after the initial harvest,
24 as it were.

25 HIS HONOUR: Yes.

26 MR WALLER: And thinning, if it arises at all, would arise at
27 a later time.

28 HIS HONOUR: Well, he talks about a mosaic of forest,
29 doesn't he? Different histories.

30 MR WALLER: The mosaic is certainly referred to in the action
31 statement; it may also be referred to in Chick. But

1 the mosaic again doesn't necessarily mean that thinning
2 has occurred. It may just mean that different coupes
3 are being harvested in the same way but at different
4 times. It just seems to me to be embarking on a new
5 area that didn't arise under cross-examination.

6 MS MORTIMER: Your Honour, I am happy to answer that.

7 HIS HONOUR: Yes.

8 MS MORTIMER: Your Honour, in my submission the whole thrust
9 of the cross-examination of this witness in relation to
10 the Chick report was to lay an evidentiary foundation
11 for the submission at the end of this case that there
12 are no long-term negative impacts of timber harvesting
13 on the potoroo. That was clearly the purpose of this
14 cross-examination.

15 HIS HONOUR: Yes.

16 MS MORTIMER: Now, what I have directed Dr Meredith's
17 attention to is the second dot point there about the
18 understorey, and in my submission it clearly arises out
19 of cross-examination for me to ask him about another
20 long-term effect of timber harvesting in relation to
21 the understorey, and that is a matter that in this
22 report is expressly referred to.

23 HIS HONOUR: Yes, I will allow the question.

24 MR WALLER: Then I would simply ask Your Honour that it not
25 be asked in a leading fashion to introduce the concept
26 of thinning in the question.

27 HIS HONOUR: Yes.

28 MS MORTIMER: Well, Your Honour, that is why I asked, the
29 first question was whether he understood, and I will
30 attempt to phrase it like that, if Your Honour pleases.

31 Dr Meredith, do you understand what the concept

1 of thinning involves?---Yes.

2 Can you tell His Honour what it is, please?---Thinning is a
3 practice undertaken in regenerating forest where the
4 trees are regenerating very densely to at a certain
5 age, generally around about 30 years, selectively
6 remove the trees that are perhaps not performing as
7 well, usually for pulp wood, and then that allows the
8 remaining trees to maximise their biomass and growth.

9 What is your understanding of the effect on thinning on the
10 understorey that has regrown, if it has, in those 20 to
11 30 years?---The effects will be variable, but where
12 roads have regrown and snig tracks and log dumps and so
13 on, those will largely be reutilised and so they will
14 be recleared and remain so while thinning is going on,
15 and then will have to regenerate again. In areas
16 where thinning occurs, it's generally done by
17 harvesting machine, and they will go into areas to some
18 extent where they have to track in or drive in, they
19 will push down the vegetation at least temporarily.
20 In areas where they can gain access to the trees by
21 just using their arm there won't be much impact on the
22 vegetation. So there will be not a complete
23 destruction of the understorey vegetation, but an
24 opening up of significant areas of it, including in
25 particular in relation to predators the network of
26 access and snig tracks again.

27 And assuming for the purposes of this question that long
28 footed potoroos may be present in a coupe that is
29 thinned, what in your opinion, if any, is the effect on
30 the habitat for those potoroos of that thinning
31 process?---Well, it will be - I don't think there's any

1 information on thinning that I am aware of in relation
2 to the species, but it will clearly create a patchwork
3 of habitat, that might almost be a positive for the
4 species, if fungi regrow in the more open areas, that
5 it will allow reaccess of predators to an area where
6 they would have been at fairly much a disadvantage in
7 terms of access.

8 Thank you. Now, you were asked some questions about the
9 populations of the potoroo, and your evidence in your
10 first report, critical habitat report and your long
11 footed potoroo report about numbers, distribution and
12 rarity, and you also gave some evidence to His Honour
13 about your participation on the threatened species
14 advisory committee. Now, in relation to that, to
15 start with, please, can I ask you to go to the first
16 action statement for the long footed potoroo at page
17 536 of the agreed book of documents. Do you have
18 that?---Not here.

19 I'm sorry?---It's coming. Thank you.

20 If you look at page 546, about halfway down did the
21 right-hand column, you will see a sentence that starts:
22 "In its final recommendations the Scientific Advisory
23 Committee (1991) determined that the long footed
24 potoroo is: Significantly prone to future threats
25 which are likely to result in extinction, and very rare
26 in terms of abundance and distribution." Now,
27 Dr Meredith, are you able to recall whether you
28 remained a member of the Scientific Advisory Committee
29 when it made its final recommendations that are there
30 referred to?---I was. It may be that the '91 date,
31 the time between publication of the committee - it has

1 to go through the minister's office and so on, and that
2 can be up to a year and so on, but I was definitely at
3 the time the committee took - made its recommendation
4 to the minister I was a member of that committee for
5 the final recommendation.

6 Was that a recommendation that you supported as an individual
7 member of the committee?---I did.

8 And you will see - now can I ask you please to go to the
9 second action statement at the agreed book of documents
10 page 544?---Yes.

11 You will see a heading there "Conservation status"?---Yes.

12 And there are three kinds of status that are listed there.

13 Now, the first question in relation to those,
14 Dr Meredith, is as you give evidence today are you
15 aware of any applications either under the EPBC Act or
16 the Flora and Fauna Guarantee Act to reduce or delist
17 the long footed potoroo, or change its status?---Not
18 that I am aware of.

19 The third document that is - - -?---Can I just add to that
20 comment?

21 Of course?---The Department of Sustainability and
22 Environment's advisory list of threatened fauna 2007
23 was completely reviewed at that time as well, so if
24 they had wished to change the status that would have
25 happened in 2007 in relation to that document.

26 All right. In fact I will show you a copy of that document,
27 please, Dr Meredith. Is that the document about which
28 you have just been speaking?---It is.

29 Is that a document with which you are familiar?---Yes.

30 I tender that, if Your Honour pleases, and hand a copy up for
31 Your Honour.

1
2 #EXHIBIT 28 - Advisory list of threatened vertebrate fauna in
3 Victoria 00/00/2007.

4 MS MORTIMER: Now, Dr Meredith, can I ask you to go to page 4
5 of that document, where you will see a heading
6 "Conservation status in Victoria"?---Yes.

7 And you will see there a list of classifications, if I might
8 call them that, and then over the page you will see a
9 list of classifications in relation to Australia
10 "(EPBC)". Do you know whether there is an
11 international instrument from which these
12 classifications are derived?---Yes, these are from the
13 IUCN, the International Union for the Conservation of
14 Nature based in Switzerland, a UN organisation which
15 has set up these conservation status categories, and
16 the criteria for assessing species against them. They
17 are used internationally.

18 And can I ask you to look, please, at page 3 of the document.

19 I apologise to Your Honour and my learned friends. I
20 withdraw the question, if Your Honour pleases. Now,
21 Dr Meredith, I will move on to something else. You
22 were asked some questions - if I can ask you to go
23 back to the action statement, the second action
24 statement at page 545. And you were asked some
25 questions about that last paragraph on the left-hand
26 column of the action statement, the one that starts
27 "The impacts of habitat disturbance"?---Yes.

28 See that?---Yes.

29 And the action statement there refers, about halfway down in
30 brackets, it says "(Andrew Claridge, personal
31 communication)". Do you know who Andrew Claridge

1 is?---Yes, he is a well respected researcher based in
2 New South Wales. I think he is with the National
3 Parks and Wildlife Service, he has moved around at
4 times. He may be with one of the universities now.
5 He has been working on mycophagous, that is fungi
6 eating mammals in Australia, for some time, he would
7 generally be regarded as the, or one of the experts on
8 that, and he has done a lot of work on the long footed
9 potoroo, particularly in New South Wales in relation to
10 diet.

11 Thank you. Now, you were also asked some questions about
12 the population estimates that appear on the second
13 column on page 545, down the bottom?---Yes.

14 I just ask you to refresh your memory about that part, where
15 it says "A population estimate based on the lowest of
16 these densities and so forth." Could you just read
17 that to yourself, please?---M'mm. Yes.

18 Are you aware of anywhere in the action statement or
19 elsewhere, where there's any data or research that
20 explains how those estimates have been arrived
21 at?---No.

22 Who would know, Dr Meredith, how those estimates were arrived
23 at?---Well, I mean I think it's likely that they were
24 simply multiplying the area of habitat as mapped by
25 their densities, but that doesn't say that anywhere.
26 And there are a number of key researchers at NRE, or
27 DSE, I should say, who would know that. I am just
28 looking at who the authors are on this. It doesn't
29 say. But Lindy Lumsden, essentially Ryan Chick, Steve
30 Henry, those are the sort of people that would be -
31 you would expect to be making those calculations.

1 And in fact am I right, as you understand it - I withdraw
2 that. What's been called in this cross-examination
3 the Chick report, Dr Meredith, has as its second author
4 S Henry. Do you know who that is?---Yes, Steve Henry,
5 he works with DSE based in the Orbost office, I
6 believe, and has a PhD in Zoology and has been studying
7 mammals, including the long footed potoroo in East
8 Gippsland for many years.

9 And do you know Ryan Chick?---I know of him, I have never met
10 him.

11 Do you know for whom he works?---DSE.

12 Thank you. Do you know who P Kambouris?---No, I don't, no.

13 Do you know who P Tennant is?---I believe he is a technical
14 assistant with DSE, but I don't know.

15 Now, you were asked some questions about the opinion in your
16 report on the long footed potoroo at page 13. If I
17 can ask you to go to page 13 of your report?---I am
18 just going to have to do a little bit of housework
19 here.

20 Your Honour, I will conclude my re-examination shortly.

21 WITNESS: Yes, sorry, which page?

22 MS MORTIMER: Page 13?---13, yes.

23 Now, you see below the question you will see there's your
24 opinion that the image and video labelled DJS4 ASL3
25 EMPI provided clear shots of a potoroo, and then you go
26 on to say "the other images provided are less clear but
27 are definitely a potoroo and appear to be of similar
28 morphology"?---Yes.

29 Can Dr Meredith be shown - and, Your Honour, I have arranged
30 for my instructor to put this on the screen, it's
31 probably the easiest way.

1 HIS HONOUR: Yes.

2 MS MORTIMER: Exhibit ASL2, which is the footage to
3 Mr Lincoln's affidavit. Just show that again, please,
4 to Dr Meredith. Have you seen that footage
5 before?---I have.

6 Is that one of the two footages you are referring to in that
7 paragraph?---Yes.

8 Now, can Dr Meredith be shown Exhibit SM2. We will play
9 that again, Dr Meredith. Have you seen that footage
10 before?---I have, yes.

11 Is that the other footage you are referring to in that
12 paragraph?---Yes, the less clear - - -

13 That was my next question. Which of those two footages when
14 you said in answer to my learned friend was the best
15 was the one that you are referring to?---The first one
16 shown.

17 Thank you. Now, if you were asked some questions about the
18 precautionary principle, and I just have a couple of
19 matters I want to ask you about that. The first is
20 you were asked a lot of questions about what it means
21 and you gave some evidence about shifting of the burden
22 of proof and in your opinion how that operated. When
23 dealing with a species that is present in an area, I
24 want you to assume that first, and then I want you to
25 assume that you are also dealing with a species which
26 is listed as endangered, if a person is proposing to
27 interfere with that specie's habitat, can you explain
28 the circumstances which in your opinion the
29 precautionary principle does not need to be
30 applied?---Well, in my view when - at that level of
31 endangerment, so you know it's present and you are

1 dealing with an endangered species, I would argue you
2 routinely would apply the precautionary principle, and
3 you would need to undertake better full analysis.

4 Now, you were asked quite a lot of questions about how that
5 principle operated and how in your opinion it worked in
6 relation to this analysis by reference to risk-weighted
7 consequences and a risk analysis. Dr Meredith, are
8 you aware of any material published or unpublished by
9 VicForests which undertakes a risk-weighted analysis of
10 the consequences of timber harvesting on the long
11 footed potoroo?---I am not aware of any.

12 One more question. Dr Meredith, can you look at the photo
13 board, please, and can you look at the photo that is
14 labelled "Long footed potoroo". Are you able to tell
15 His Honour whether that is a photograph of a long
16 footed potoroo?---From this angle it looks - it's not
17 the perfect angle because you can't really fully see
18 the base of the tail, but it does appear to have the
19 more robust stature and the - that's probably better -
20 the thick - you can see that thick, solid, muscular
21 tail, that's generally a pretty good indicator. But
22 that's not as good an image as the first image we saw
23 before, which is even clearer.

24 If Your Honour pleases, I have no further questions.

25 HIS HONOUR: Ms Mortimer, when Exhibit 11 was produced, it
26 was produced subject to identification, and I had
27 thought that you referred to Dr Meredith as having had
28 some role in its retrieval, is that right, or did I get
29 that wrong?

30 MS MORTIMER: No, Your Honour is perfectly correct, and I
31 should ask Dr Meredith about that.

1 HIS HONOUR: I think you should if he is the one who has
2 retrieved the documents.

3 MS MORTIMER: No, he hasn't retrieved the documents, Your
4 Honour, that was done by Mr Lachlan Spencer from
5 VicForests.

6 HIS HONOUR: I see, yes.

7 MS MORTIMER: But my learned friend was supposed to tell us
8 whether that was an agreed set of maps, that was the
9 basis on which it was marked for identification.

10 HIS HONOUR: I see.

11 MS MORTIMER: But I can ask Dr Meredith a couple of questions
12 about that. I should, Your Honour.

13 Dr Meredith, on the Monday just past, which was 8
14 March 2010, did you attend VicForests' offices with my
15 learned junior, Mr Niall?---I did.

16 And what was the purpose of that visit?---To view some maps
17 on their computer system and request that a number of
18 those maps, with the information on them, to assist in
19 the analysis would be printed out.

20 And can Dr Meredith be shown Exhibit (MFI)11, please. Your
21 Honour, we don't have too many spare copies of that,
22 and we may have to ask for that one to be uplifted from
23 Your Honour. Do you know the identity of the person
24 from VicForests who actually produced these maps on
25 that day when you were there, Dr Meredith?---Lachlan -
26 I can't remember the surname - - -

27 Lachlan Spencer?---Spencer, Lachlan Spencer.

28 And are those the maps that you observed being produced on
29 that occasion?---That's right, yes.

30 I am informed by my learned friends they are agreed, Your
31 Honour, so I would ask they be tendered absolutely.

1 HIS HONOUR: Yes, thank you.

2

3 #EXHIBIT 11 - (Tendered absolutely).

4

5 MS MORTIMER: I have no further questions, may Dr Meredith be
6 excused, if Your Honour pleases?

7 HIS HONOUR: Yes, thank you, Dr Meredith, you are excused,
8 and we will adjourn until a quarter past two.

9 <(THE WITNESS WITHDREW)

10 (Witness excused.)

11 LUNCHEON ADJOURNMENT

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

1 UPON RESUMING AT 2.15 PM:

2 HIS HONOUR: Yes, Ms Mortimer.

3 MS MORTIMER: If Your Honour pleases, I call Rohan Bilney.

4 HIS HONOUR: Yes.

5 <ROHAN JOHN BILNEY, affirmed and examined:

6 MS MORTIMER: Have a seat, Mr Bilney. Perhaps just try and
7 turn your chair a little, or turn yourself a bit
8 around, that's it.

9 HIS HONOUR: I think we are going to have to move that so
10 that people can sit more - - -

11 MS MORTIMER: Perhaps we will attend to that after court,
12 Your Honour.

13 HIS HONOUR: Yes.

14 MS MORTIMER: Mr Bilney, your full name is Rohan John
15 Bilney?---Yes.

16 Is that right? And what's your address?---My residential
17 address is 100 Jensens Lane, Wy Yung.

18 100 Jensens Lane?---Wy Yung, a suburb of Bairnsdale.

19 Thank you. And what's your occupation?---Occupation I guess
20 is consultant at this stage.

21 Now, I will show you firstly a letter of instruction to you -
22 addressed to you dated 26 October 2009, I ask you to
23 identify that, please. Is that the letter of
24 instruction you received from Bleyer Lawyers in
25 relation to your report on sooty owls and powerful
26 owls?---Yes, it is.

27 I tender that, if Your Honour pleases.

28

29 #EXHIBIT 29 - Letter of instructions to Dr Bilney.

30

31 MS MORTIMER: I show you a report authored by you on sooty

1 owls and powerful owls dated December 2009. Is that
2 the report you produced in answer to the letter of
3 instruction?---Yes, it is.

4 Insofar as that report contains matters of fact, do you
5 believe them to be true?---Yes, I do.

6 Insofar as it contains opinions, are they your
7 opinions?---Yes, they are.

8 And are they honestly held?---Yes.

9 I tender that, if Your Honour pleases.

10

11 #EXHIBIT 30 - Report of Dr Bilney 00/12/2009.

12

13 MS MORTIMER: Dr Bilney, I will show you an email from my
14 instructor to you dated 10 February 2010. Is that the
15 email that you received from my instructor asking you
16 whether you wanted to respond to the report of
17 Professor Ferguson?---Yes, it is.

18 And I show you this document. Is this the response you
19 prepared in answer to that letter?---Yes, it is.

20 Insofar as that response contains matters of fact, do you
21 believe them to be true?---Yes, I do.

22 Insofar as it contains matters of opinion are those opinions
23 your opinions?---Yes.

24 And are they honestly held?---Yes.

25 I tender those, if Your Honour pleases.

26 HIS HONOUR: Yes.

27

28 #EXHIBIT 31 - Response by Dr Bilney to Professor Ferguson,
29 including letter of request from the plaintiff's
30 solicitor.

30

31 MS MORTIMER: Now, can Dr Bilney be shown Exhibit (MFI)17,

1 please. We have a spare copy for the witness if that
2 would assist, if Your Honour pleases. Dr Bilney, can
3 you identify those documents for me, please?---Yes,
4 these are my - my arboreal mammal survey data.
5 And did you prepare those for someone?---Yes, I recorded them
6 for Andrew Smith, Dr Andrew Smith.
7 I tender those absolutely, if Your Honour pleases.
8
9 #EXHIBIT 17 - (Admitted absolutely).
10
11 MS MORTIMER: Now, Dr Bilney, you have also prepared an
12 affidavit in this proceeding. Your Honour, I have the
13 original in court to file, it's dated 1 March 2010, I
14 hand that up. And I also hand up two copies. Now,
15 Dr Bilney, that affidavit has attached to it a short
16 report on the square tailed kite. I ask you to look
17 at that report. Is that your report?---Yes, it is.
18 Insofar as that report contains matters of fact, do you
19 believe them to be true?---Yes.
20 Insofar as it contains matters of opinion, are those opinions
21 your opinions?---Yes, they are.
22 And are they honestly held?---Yes.
23 I tender the affidavit and the exhibit, if Your Honour
24 pleases.
25 HIS HONOUR: Yes.
26
27 #EXHIBIT 32 - Affidavit and report of Dr Bilney with respect
28 to the square tailed kite.
29 MS MORTIMER: Now, I am now going to show Dr Bilney, if Your
30 Honour pleases, a document which is Exhibit JR17 to the
31 first affidavit of Ms Redwood, and I can provide two

1 copies to Your Honour of that. Dr Bilney, is that a
2 report you prepared for Environment East
3 Gippsland?---Yes, it is.

4 And insofar as that report contains matters of fact, do you
5 believe them to be true?---Yes.

6 Insofar as it contains opinions, are the opinions your
7 opinions?---Yes.

8 And are they honestly held?---Yes.

9 I tender that, if Your Honour pleases.

10

11 #EXHIBIT 33 - Report by Dr Bilney relating to arboreal
12 mammals.

13 MS MORTIMER: Now, Dr Bilney, I just want to ask you a couple
14 of questions about your background and experience. In
15 your report you talk about some work on your PhD. Can
16 you tell His Honour, please, whether that PhD has been
17 completed and awarded? What's the situation with
18 it?---It has been completed and it has been accepted.
19 At this stage I have not graduated. I have received
20 official confirmation that it has been accepted in my
21 official academic transcript, but I think graduation is
22 in about six weeks.

23 Now, Dr Bilney, how long have you lived in East
24 Gippsland?---I was born in Bairnsdale, so officially I
25 have been in the district about 25 years.

26 Would you mind telling His Honour how old you are,
27 please?---I am 27.

28 Thank you. And have you lived anywhere else apart from East
29 Gippsland?---That two years or just over I spent in
30 Brisbane, and I also attended Monash University when I
31 was doing undergrad for three years, but I was still

1 based at home and came home throughout the holidays.
2 And how did you come to go to Brisbane for two years?---It
3 was to do with my father's work.
4 What was your father's work?---His position was Chief Ranger
5 For National Parks in Queensland.
6 And, Dr Bilney, how long have you been going out into the
7 forest looking for birds, if I might put it in that
8 general way?---Pretty much my whole life, as long as I
9 can remember I have been in the bush or on the farm
10 looking at birds, interested in wildlife, it's been my
11 main drive and passion my whole life.
12 Do you recall the first identification you made of - I
13 withdraw that and start with another question. Do you
14 have an interest in particular kind of birds?---Birds
15 of prey are my main interest, that is both nocturnal
16 and diurnal birds of prey.
17 Do you recall when you made your first identification of a
18 bird of prey?---Personally myself no, but according to
19 my parents when I was three I did identify a white
20 bellied sea eagle, but I have no recollection of that.
21 And when did you start going out on official or unofficial
22 kinds of surveys for raptors?---I suppose almost 20
23 years I have been associated with other researchers
24 doing work on raptors and being involved here and
25 there. On a few occasions but primarily over the last
26 10 years or so it has been my main focus on raptor
27 research.
28 Now, Dr Bilney, almost 20 years would put you at 7 years
29 old?---Yes.
30 Can you tell His Honour what you were doing when you were
31 7?---The first trip I remember was I think back in '91,

1 we were looking for red goshawks in northeastern New
2 South Wales with Dr Stephen Debus and a few other
3 interested people, and it was just mainly looking at
4 raptors doing our surveys just getting familiar with
5 the species. I think I was probably 8 at that stage.
6 Thank you. Now, I want to ask you a couple of questions
7 about your membership of various organisations. Are
8 you a member of Environment East Gippsland?---I am not
9 too sure, but my family definitely is. I think it is
10 just family membership at the moment.

11 In past years have you had an individual membership of
12 Environment East Gippsland?---Yes, I have.

13 And can you tell His Honour what other kinds of environmental
14 or conservationist or ecological groups you belong
15 to?---I will try to remember them. Most of them are
16 based around Bairnsdale. It also involves the
17 Gippsland Environment Group, the East Gippsland Rain
18 Forest Conservation Management Network. Friends of
19 the Gippsland Lakes. I am also strongly involved with
20 Bairnsdale and district field naturalists, I am on
21 their permit to do surveys. I am also involved - I
22 am a member of Earth Australia and the Australian
23 Raptor Association. I think that's it.

24 If Your Honour pleases, I have no further questions of
25 Dr Bilney.

26 HIS HONOUR: Yes. Yes, Mr Redd.

27 <CROSS-EXAMINED BY MR REDD:>

28 Dr Bilney, if you could turn, please, to page 9 of your
29 December 2009 report?---Yes. Can I just get that out
30 of the way.

31 By all means, please, yes?---Okay.

1 So do you have page 9 before you of your December 2009
2 report?---Yes.

3 You will see there that you mention in the third paragraph
4 from the top that 500 SOMAs, that's sooty owl
5 management areas, and 500 POMAs, powerful owl
6 management areas, have been established across their
7 distribution in an attempt to maintain sufficient
8 habitat primarily by either excluding timber harvesting
9 from particular areas, typically 500 hectare in size,
10 and then after the brackets, or modifying timber
11 harvesting within 1,000 hectare area. Now, would you
12 agree that there are now 131, at least 131 SOMAs and
13 120 POMAs in East Gippsland?---I suspect so. I have
14 read that, yes.

15 Okay. I might give you a reference. If the witness could
16 be handed, please, volume 1 of the agreed book. If
17 you turn to page 502, Dr Bilney, of that volume, that
18 should be the front page of a document entitled "The
19 East Gippsland Forest Management Plan", the page
20 number's on the bottom right-hand corner?---Okay. I
21 will just check it up and get the right reference.

22 Yes, sorry, at page 502 it's actually part of appendix J to
23 the East Gippsland Forest Management Plan; do you
24 recognise that? Is that a document you are familiar
25 with, Dr Bilney, the East Gippsland Forest Management
26 Plan?---I have seen it in the past. I can't say I am
27 - I have read it and memorised it very well, but - I
28 have seen it before.

29 Okay. Well, that page, page 502, is part of appendix J to
30 the East Gippsland Forest Management Plan, and you will
31 see there there is a table, J3 "Targets for

1 conservation of large forest owls", and you will see at
2 the bottom of that table it states target for powerful
3 owls 100, target for sooty owls is 100, do you see
4 that?---Yes.

5 And the figures I put to you earlier are that 120 POMAs, or
6 at least 120 POMAs have been established in East
7 Gippsland and at least 131 SOMAs have been established
8 in East Gippsland. And I think you said to me that's
9 probably right, or something to that effect, is that
10 right?---Yes, close to - from my memory from another
11 document published in 2002, I thought it was only 100
12 powerful owl, but I could be wrong.

13 Okay?---But if it states that then I would expect that would
14 be the case. It is the target. The target and the
15 total, the figures are a bit different, but - - -

16 That's right?---Yes.

17 Dr Bilney, if I could take you now to page 23 of that same
18 report, so you can put that volume away for the
19 moment?---Of my report?

20 Yes?---I'm sorry.

21 You can put that volume of the agreed book away, and I am
22 going now back to your December 2009 report. If you
23 turn to page 23 of that report?---Yes.

24 You will see in response to question 13 you state: "I found
25 conclusive evidence that both owl species occupy the
26 area around Brown Mountain at least for foraging, and
27 that a sooty owl roosting site is within close
28 proximity to coupe 15 (if not within)." And then you
29 go on to say "whether nesting sites fall within any of
30 the four proposed logging coupes is unknown." Now,
31 would you agree that you are unable to say whether the

1 sooty owl roosting site you refer to there is actually
2 within coupe 15 or in fact if it's just in an area
3 nearby coupe 15?---I can't state with any confidence
4 that there is a roost there at all, no.

5 HIS HONOUR: How did you identify it?---Usually dusk
6 surveys, you can hear a call just as the owl comes out
7 of a roost. Then you try and triangulate, if you can
8 have another listener out in the field with you, that
9 can give you a rough indication as to where a roost may
10 be. And on one occasion I had an owl call that we
11 concluded lay within probably about 500 metres to the
12 south of proposed coupe 0015, and the fact I have had
13 owls within the coupe on several occasions in playback
14 - and the fact that the owls are there means that
15 there's a high chance there are several roosts around,
16 in and around that area.

17 MR REDD: If the witness could be shown, please, volume 2 of
18 the book of agreed documents. Now, Dr Bilney, if you
19 could turn, please, to page 589 of that volume. And,
20 Dr Bilney, do you recognise that document that
21 commences at 589?---Yes, I do.

22 If you could turn now to page 5902, which is page 4 of that
23 action statement for the powerful owl?---Could you
24 please repeat the page number?

25 592?---Yes.

26 You will see in the right-hand column on that page there's a
27 subheading "Social and economic issues"?---Yes.

28 And the second paragraph contains the following first
29 sentence, which I will read out: "The key
30 socio-economic issue in relation to protection of the
31 Powerful Owl is that protection of its habitat will

1 reduce the area of State forest available for timber
2 production." Do you agree with that statement?---Yes.
3 And if you could turn to page 595, in the right-hand column
4 in the top paragraph in the last sentence, which is the
5 first full sentence in that column, reads this:
6 "Outside of POMAs, habitat for foraging is provided in
7 areas excluded from timber harvesting by general
8 prescription including wildlife corridors, steep areas
9 and unmerchantable areas and areas protected for other
10 management purposes." Would you agree with that
11 statement?---Yes.

12 Now, you can put that volume away as well if you would like,
13 just so you are not too burdened by documents on that
14 bench there. If you could go back to your December
15 2009 report, please, Dr Bilney, and in particular pages
16 28 and 29 of that report?---Yes.

17 You there state your understanding of a precautionary
18 principle from an environmental perspective, you put in
19 brackets, is that "if a particular action has the
20 potential to cause environmental impacts and the degree
21 of those impacts are unknown or uncertain, caution
22 should be taken in advance so that any potential
23 impacts are avoided, ie, if there is pressure to
24 instigate a particular action it should therefore be
25 the responsibility of the action takers to determine
26 that the action will not result in any (unacceptable)
27 harm." Now, is that still your understanding as to
28 what precautionary principle means?---I guess it is
29 part thereof. At this stage when I actually wrote
30 this, this was my understanding loosely based on that
31 idea, but I hadn't actually read the glossary in the

1 code of practice that had another definition of the
2 precautionary principle. But I still think it's
3 somewhat similar.

4 And have you since the time you prepared your report, have
5 you since read the glossary in the code of timber
6 practices?---Yes, I have.

7 And when did you do that?---Last night, actually.

8 And what prompted you to do that?---I became aware that there
9 was actually a glossary definition.

10 And how did you become aware of that?---I was notified.

11 And how were you notified?---By Debbie Mortimer.

12 All right. If I could take you now to - if the witness
13 could be shown volume 1 of the agreed book. I will
14 just take you to that document, Dr Bilney. We will
15 get it in volume 1. So if you turn to page 106 of
16 that volume, do you recognise that as the front page of
17 the code of practice we have just been
18 discussing?---Yes, I do.

19 And if you could now turn to page 185 of that volume. You
20 see at the top of that page the definition of
21 precautionary principle, is that the definition you are
22 referring to that you read last night?---Yes.

23 Would you agree with me that the definition you have used for
24 the purpose of your report is different in material
25 respects from the definition in the code that you have
26 before you?---The definition in the code goes into much
27 greater depth than what I did, and obviously states it
28 much more comprehensively than I did as well.

29 Would you agree that for the purpose of your report you have
30 not assessed the risk-weighted consequences of various
31 options, would you accept that?---Could you rephrase

1 that again, sorry?

2 You will see the definition contained in the code?---Yes.

3 Requires a proper assessment of risk-weighted consequences of

4 various options. What do you understand that

5 requirement to mean?---I guess it means that you must

6 firstly have an attempt to evaluate - in this aspect

7 it's actually to see what sort of animals or wildlife

8 or threatened species occur in a certain area before a

9 particular action is instigated.

10 And would you agree with me that in your analysis in your

11 report the only factors that you considered are

12 environmental factors?---Yes.

13 Would you agree that in applying the precautionary principle,

14 measures should be adopted that are proportionate to

15 the potential threat, would you agree with that

16 statement?---Yes.

17 Would you agree that, again in applying the precautionary

18 principle, a reasonable balance must be struck between

19 the stringency of the precautionary measures which may

20 have associated costs, such as financial, livelihood

21 and opportunity costs, and the seriousness and

22 irreversibility of the potential threat, would you

23 agree with that statement?---Could you restate that

24 first section of the question?

25 Yes, I will read it out again?---Yes, thank you.

26 Would you agree that in applying the precautionary principle

27 a reasonable balance must be struck between the

28 stringency of the precautionary measures which may have

29 associated costs, such as financial, livelihood and

30 opportunity costs, and the seriousness and

31 irreversibility of the potential threat; would you

1 agree with that statement?---It's a difficult one to
2 agree with. You must ensure first of all, and be able
3 to prove relatively well, that the actions aren't going
4 to cause irreversible damage, and that's my greatest
5 issue with that.

6 Would you agree that a balance has to be struck between the
7 consequences of the precautionary measures and the
8 seriousness of the potential threat?---No, no, I
9 wouldn't.

10 And why is it that you don't agree that that balance is a
11 necessary component of the precautionary
12 principle?---Because what is the balance, and being
13 able to actually - as I stated before, where does that
14 balance actually lie? Who comes up with a particular
15 sort of a measure, I guess, is the correct term.

16 Is it your view that - - -?---I'm sorry, can I keep going?
17 Yes?---I think it sort of works in theory, but in practice it
18 is very different - they are very different meaning.

19 Is it your view that the precautionary principle must aim at
20 zero risk?---No.

21 Would you agree that the precautionary principle should not
22 be used to try to avoid all risks; would you agree with
23 that statement?---It depends on what those "all risks"
24 are. It's very difficult to - some of those risks you
25 may have no power over. Yes.

26 Okay, I will move on to a different topic. Now, Dr Bilney,
27 you don't profess to have any expertise in the square
28 tailed kite, do you?---Not in regard to the ecology of
29 the species, I have never stated, and I have limited
30 experience of it.

31 Give me a moment and I will put this folder away. Now, do

1 you have before you, Dr Bilney, a copy of your
2 affidavit that was sworn on 1 March this year that
3 attached or exhibited your report on the square tailed
4 kite?---Yes.

5 In that report you describe two incidental observations, one
6 on 11 November of last year and the other on 15
7 December last year, that's correct, is it?---Yes.

8 Yes. Yet your report is dated almost three months after the
9 first of those incidental observations, and almost two
10 months after the second incidental observation, you
11 would agree with that?---Yes.

12 And at the time you prepared your report, are you working
13 purely from your memory of what you saw the month
14 earlier?---No.

15 What else were you working from?---At the time I made notes
16 as to the second observation when I was in the field.
17 The first incidence I actually had in my memory and I
18 actually reported that sighting on website on the
19 internet to inform other interested birdos, if you can
20 call them that, that there was a square tailed kite
21 seen. So it wasn't like I was, using my memory back
22 two or three months.

23 So insofar as the first observation, which is on 11 November,
24 you didn't take a note of that at the time, is that
25 right?---Not that I can remember; not that I can
26 re-find.

27 But you did take a note at the time concerning the second
28 observation, is that right?---Yes.

29 And do you have a copy of that note with you?---Yes.

30 Okay. Can I call for that?---Okay, yes.

31 May I have a look at the - have you turned it to the relevant

1 page?---Yes, yes.
2 If you don't mind, so I could just have a look at it.
3 Perhaps if you could pass it to
4 Ms Bleyer?---(Indistinct).
5 Okay. Is there any - you might have to help decipher for
6 me, Dr Bilney. Is there any - the two pages that you
7 have shown to me, I can't clearly decipher a location
8 being recorded. But is there in fact a location
9 recorded on those two pages?---Yes. The reason I
10 actually observed the bird was because I was standing
11 within the coupe that has previously been harvested,
12 which I think it's coupe 20, if you want to call it
13 that, and I was doing an assessment of the number of
14 live trees that are actually still standing. And
15 while I was in the middle of the coupe the bird flew
16 over the top of me. So that's why above and below
17 those notes you will see my scribble in regard to what
18 - if a tree is alive and it's approximate size and just
19 the raw data in regard to that.

20 Yes, all right, thank you.

21 HIS HONOUR: When you say the bird flew over you, which
22 direction did it fly?---It was flying in a westerly
23 direction, but it was heading straight for the unlogged
24 forested area between the coupes 19 and 15. And it
25 was from there it flew around for about eight minutes.
26 I had a pair of binoculars with me, and I watched it,
27 and as you can see there I kept recording trees for
28 quite a few minutes obviously, and then the bird -
29 until I finally lost sight of the bird. Although it
30 was probably still foraging in that area, I just
31 scribbled down eight minutes, I think it was, from

1 memory, yes.

2 MS MORTIMER: I ask my learned friend to tender that, if Your
3 Honour pleases.

4 MR REDD: Your Honour, I hadn't intended on tendering it, but
5 if I am compelled to then it will be tendered.

6 HIS HONOUR: Yes.

7

8 #EXHIBIT 34 - Dr Bilney's note of observations of the square
9 tailed kite.

10 HIS HONOUR: Yes.

11 MR REDD: Dr Bilney, at the time you were asked to prepare
12 your report on the square tailed kite, were you asked
13 to provide any notes of your detections at all?---Other
14 than just saying that I'd seen it, are you referring
15 to?

16 Yes, I mean were you actually asked for any notes that you'd
17 made of your detections or of your sightings?---No,
18 only just the verbal communication as to I have seen
19 the kite in the area, and then I was asked to produce a
20 written statement to that effect.

21 Yes. Had you told the people asking you for your report
22 about the existence of that notebook?---No - I don't
23 think so, no.

24 Okay. I didn't quite catch your answer. Was your answer
25 "I don't think so"? "No, I don't think so", was that
26 what you said, sorry?---Yes. I don't think so.

27 Now, when was it that you first told the people who
28 instructed you for this report that you had in fact
29 seen square tailed kites on these two occasions?---I
30 think the day after or possibly even on the same day I
31 informed Jill Redwood, and she - I presumed she passed

1 on that information to the lawyers.

2 And did you inform Jill Redwood, because there's obviously
3 two detections, the one on 11 November and one on 15
4 December - is your evidence that you would have
5 informed Jill Redwood on each of those days?---Yes,
6 yes.

7 I see. And have you provided that report, the square tailed
8 kite report, to the DSE at all?---Not this actual
9 document, but I have emailed them the coordinates of
10 each siting, and some very brief notes, because I know
11 that they are interested in all records of certain
12 species in the area, yes.

13 Your Honour, no further questions for this witness.

14 HIS HONOUR: Thank you.

15 <RE-EXAMINED BY MS MORTIMER>

16 Dr Bilney, do you remember when you emailed the DSE about
17 giving them the coordinates and the report?---Yes.
18 When was it?---I think it was either - about the similar sort
19 of time that this report was actually done. Because
20 I'd been in conversation with one of the DSE officers a
21 week or two before about square tailed kite records and
22 whether they were interested in receiving them.

23 Who was the DSE officer you were in contact with?---At that
24 time, actually there were two or three of them, but the
25 person I emailed was Tony Mitchell from Orbost, I think
26 he is a biodiversity officer.

27 And have you had any response from the DSE in relation to
28 that report you gave them for the record?---Yes, saying
29 that an observation of a bird just flying over doesn't
30 really have much significance in regard to whether a
31 block of forest or anything can be reserved, because

1 for a species like the square tailed kite has such an
2 enormous home range that observing a bird flying over
3 doesn't really mean a lot from a conservation
4 perspective.

5 That was the DSE response you are describing?---Yes. So
6 it's unless you find a nest, it's the only ability for
7 them to actually have some form of conservation - or
8 some form of reserve for that sighting.

9 How difficult is it to find a square tailed kite
10 nest?---Well, it's hard enough just to see a bird let
11 alone trying to actually find a nest. There would be
12 likely to be a handful of nests ever found in Victoria.
13 It's almost a needle in a haystack type of situation.

14 HIS HONOUR: Are roosting trees a little more easy?---A
15 square tailed kite probably don't really have roosting
16 sites as such. They have really only just got the
17 nest. So it's - yes, I don't know how or where to
18 begin the search for a square tailed kite nest.

19 MS MORTIMER: Now, you gave in evidence in answer to some
20 questions from my learned friend about - and His Honour
21 about where you were in coupe 20 and where you saw the
22 bird heading, and you said it was heading in a westerly
23 direction towards coupes - the unlogged forest around
24 coupes 15 and 19, and you said it flew around for about
25 eight minutes. Do you attach any significance to the
26 fact you observed the bird for eight minutes?---Mainly
27 the fact that it was obviously in sort of foraging
28 characteristics. It was hunting. A square tailed
29 kite has quite a characteristic sort of glide, it just
30 slowly meanders through and around the forest canopy,
31 and this was doing that but sort of coming back on

1 itself and repeating. It wasn't like it was just
2 heading from A to B, which is what you get with a lot
3 of birds of prey. It was - based on my observations
4 of other birds and other raptors, it was quite obvious
5 that this was a hunting sort of strategy.

6 Just while we are on the kite, can I ask you what, if
7 anything, are the notable features in the
8 identification of a kite when you see it in the way
9 that you just - a square tailed kite in the way that
10 you did?---I guess first of all it's very
11 characteristic, sort of wing and flight patterns which
12 are quite characteristic. They have sort of got -
13 the fingers or the primaries sort of seem to be very
14 prominent compared to a lot of the other birds of prey,
15 much longer wings and a sort of much more a smaller
16 body, and in this - in actually both cases with these
17 birds I had two of the best sightings I have ever had
18 of the species, being directly over my head with the
19 sun behind, so you could really see the red breast, the
20 white sort of facial - I shouldn't say mask, but at
21 least the white patches on the face and the white sort
22 of dollars, also the white marks under the wing, it's
23 very characteristic of a square tailed kite.

24 Are you able to see any of those characteristics on the
25 picture on the photo board?---Definitely, you can see
26 those fingertips there, it's very difficult obviously -
27 when you see the bird in flight, the fingertips sort of
28 seem to stick up a little bit more while it's gliding.
29 You can see the white patch in the face there as well
30 and the characteristics of the chestnutty breast, it's
31 quite distinct from anything else.

1 All right. Dr Bilney, can you go back, please, to your
2 report on sooty owls and powerful owls, have you got
3 that there?---Yes.

4 And can you go to page 9 of that report. And you were asked
5 some questions about the paragraph that starts "In
6 Victoria in an attempt", do you see that
7 paragraph?---Yes.

8 And you were asked some questions in particular about the
9 part that says "Each SOMA or POMA is considered to
10 provide sufficient habitat for a breeding pair of
11 owls." Now, Dr Bilney, by using those words "is
12 considered to provide", who were you referring to?
13 Were you referring to that you considered to provide it
14 or someone else?---Well, the actual action statement, I
15 guess, and the actual conservation guidelines consider
16 it to be enough.

17 Do you agree with that?---No.

18 Why not?---I think the size of those conservation reserves
19 are grossly inadequate in regard to each pair of either
20 sooty owl or powerful owl, because each reserve, and
21 it's been debated overseas, probably should be within
22 about 75 per cent or even greater than an average sort
23 of home range size, and a lot of the action statements
24 were written up before the good understanding of home
25 range size was actually known. And in the case of the
26 sooty owl, from my own research and from that of Rod
27 Cavanaugh's, it was found that 500 hectares may only
28 represent about probably 12 to 25 per cent of a home
29 range size for just one bird. And that needs to
30 incorporate the - to try and preserve a pair you need
31 to understand both sexes from the same site and what

1 they require long-term, and 500 hectares, if the birds
2 are seen to avoid say logging regrowth, which is also
3 what I found in my research, then 500 hectares is not
4 sufficient, from my understanding.

5 Now, can Dr Bilney be shown agreed document page 502, which
6 is the East Gippsland Management Plan. That's in
7 volume 2 - volume 1, I'm sorry. I am grateful to my
8 learned friends' instructor. Page 502, this is the
9 appendix J3. And you were asked some questions about
10 the numbers in that table in J3?---Yes.

11 Do you know, Dr Bilney, how many of the areas that are
12 nominated there are based on actual records, and how
13 many are based on habitat modelling?---Based on the
14 information from McIntyre and Henry's report, which was
15 published in 2002, I think in regard to the sooty owl
16 there were 67 known sites of sooty owl from their
17 playback, I think it was. But I have never actually
18 read a statement that says how many sooty owl
19 management areas are based on the modelling, but I know
20 it's a fairly high proportion.

21 When you say you have never read a statement, Dr Bilney, how
22 confident are you that you have read all or most of the
23 available published material in Victoria about sooty
24 owls?---Published material I have read everything.
25 There might be the odd code or management plan here and
26 there which I may not have seen, but because we are
27 referring to something that's in Gippsland, I would
28 expect that I would have read it. I definitely can't
29 recall it.

30 Now, in answer to a question from my learned friend about
31 this, you said - you gave an answer along the lines of

1 that you record another document published in 2002 that
2 may have nominated only 100 powerful owl sites. What
3 was that document?---That same document I just referred
4 to, McIntyre and Henry 2002, Conservation of Large
5 Forest Owls in East Gippsland.

6 Can you have a look at page 35 of your sooty owl and powerful
7 owl report and tell me, please, whether it's referred
8 to on that page?---Can you please repeat the page
9 number?

10 35 of your report, in the bibliography?---Sorry, yes, the
11 references, yes.

12 Yes?---Yes, it's McIntyre and Henry 2002.

13 Is that the one in the middle of the page, is that the one
14 you are referring to?---Yes.

15 And Henry SR, who is that?---That's Dr Stephen Henry, who is
16 - I am not sure of his position but he is one of the
17 main biodiversity officers in - based in Orbost.

18 Thank you. Now, in answer to another question from my
19 learned friend, or it may have been His Honour,
20 actually, about how you estimate where a roosting site
21 was, you talked about that you triangulate. Can you
22 explain to His Honour what that means, please?---Yes.
23 Usually the involves sitting or - sitting in the forest
24 on dusk waiting for obviously darkness to come,
25 listening - usually I am sort of standing waiting for a
26 call. Usually within about 15 minutes of dark, sort
27 of make sure that it's very close to where a roosting
28 site would be. I might - if I am lucky enough to hear
29 a call I then hopefully have a good bearing as to where
30 it came from. I'd try and get - use a compass to get
31 an accurate bearing. If I am on my own I then have to

1 try and come back in other nights to try and do the
2 same thing from a different location to try and
3 eventually triangulate to a particular site. But it's
4 much easier if there's - if you go out on the same
5 night with several people who can all triangulate from
6 different locations and try and pinpoint a small area
7 where a roost is likely to occur. And even then you
8 really need to actually see a bird come out of a hollow
9 on another night to actually be confident enough that
10 you have actually found say a roost or a hollow-bearing
11 tree.

12 Thank you. And on the surveys that you did in these coupes
13 for the purposes of your report, did you have anyone
14 else with you on any occasions?---I did on two
15 occasions back in the November surveys that I did.

16 Now, can Dr Bilney be shown agreed document page 595, which
17 is the powerful owl action statement. That's in
18 volume 2. And, Dr Bilney, your attention was drawn to
19 the statement at the top right-hand column of that
20 "Outside of POMAs habitat for foraging is provided in
21 areas excluded from timber harvesting by general
22 prescription including", and so forth. What do you
23 need to know about those areas to determine whether
24 they are good quality habitat for foraging?---You need
25 to know the extent of the habitat that's available, and
26 also the habitat quality, what - particularly prey
27 availability and a lot of those other important
28 resources to make sure they are actually in those
29 areas.

30 And what kind of information do you need to ascertain whether
31 powerful owls are actually using those areas?---Pretty

1 much you would have to capture owls and radio track
2 them to make sure that they are actually using those
3 areas. But yes, that's a pretty difficult process to
4 try and do.

5 Now, you were asked some questions but my learned friend
6 about the precautionary principle, and I just want to
7 ask you to explain a couple of answers you gave. You
8 gave one answer along these lines: you said that
9 "actions aren't going to cause irreversible damage"
10 or "you have to be confident actions aren't going to
11 cause irreversible damage and that's my greatest
12 issue". What did you mean when you said "and that's
13 my greatest issue"?---I should say that's my greatest
14 concern, is that irreversible damage could occur from
15 particular management practices.

16 Why do you say that?---Because it could make the areas
17 virtually unusable or at least there can be a
18 significant reduction in habitat quality which means
19 that an animal's ability to use it has been compromised
20 or it doesn't contain the extent of the resources that
21 it should.

22 And by "the extent of the resources", can you explain to His
23 Honour what you mean by that?---If I give an example,
24 just a significant prey decline may occur. Say for
25 the powerful owl, it needs a large number of say
26 greater gliders as food. If there's a significant
27 loss of hollow-bearing trees, then there will be a
28 significant decline in the number of greater gliders
29 and therefore unless that food is somehow replaced by
30 an additional prey item, it's going to have potentially
31 long-term consequences to the owl because hollows can

1 taken several hundred years to form and that's sort of
2 what I mean by irreversible damage. But also
3 irreversible damage can be complete change in the
4 structure and composition of forests, and that can
5 definitely lead to irreversible changes, because the
6 whole sort of dynamic of I guess forest succession,
7 things are completely thrown out of whack, because you
8 can get some species that just dominate to the
9 detriment of more important species.

10 And can you give me an example, when you say "some species
11 dominate to the detriment of more important species",
12 what are the two categories that you had in mind?---We
13 are talking mainly about eucalypt regrowth, that some
14 species love disturbance, the great example is a
15 species called silver top ash, or Eucalyptus Siberi,
16 that loves disturbance and loves fire, particularly in
17 say lowland forested environments, where any form of
18 disturbance, it just seems to dominate and it could
19 almost form monocultures. And the problem with silver
20 top ash is it's got very low nutrient qualities in the
21 leaves, so ringtail possums and greater gliders seem to
22 avoid it for food. The silver top also rarely forms
23 hollows, so it also doesn't provide cavities for the
24 possums and owls and things like that. So if you have
25 got a nice stand of, say, multi species, multi age,
26 which might be things like grey gums, things that are
27 really important for food and for hollows, if they
28 become eliminated and you get a species like silver top
29 ash that dominates, then that is irreversible damage.

30 Thank you. Now, can I ask you to look at the photo board,
31 please, Dr Bilney. Your Honour, I need to seek leave

1 to adduce this as evidence-in-chief of identification
2 on the photo board, I forgot to do that in-chief.

3 HIS HONOUR: Yes.

4 MS MORTIMER: If Your Honour pleases. Can you look at the
5 picture in the top right-hand corner, Dr Bilney, and
6 tell me whether that is - is that a picture of a
7 powerful owl?---Yes, it is.

8 And can you look at the one in the - the second one down, the
9 picture named sooty owl, is that a picture of a sooty
10 owl?---It is.

11 If Your Honour please, I have no further questions.

12 HIS HONOUR: Dr Bilney, I understand your example about
13 silver top ash, but when you went on to coupe 20, was
14 it apparent to you that it had been
15 aerial-seeded?---No, not at all.

16 If the evidence was that it was aerial-seeded, doesn't that
17 provide a mechanism to in effect encourage regrowth of
18 the trees indigenous to the coupe?---Not necessarily.
19 Each eucalypt species has got a different, I guess
20 stimulant to try and - to regrow. Like box species,
21 for instance, don't seem to regenerate well after
22 coupes - after logging. It could be through the
23 (indistinct), could disadvantage some species. It
24 could be competition. So there are many different
25 mechanisms, and I am not that familiar with actually
26 regeneration processes that occurs.

27 Yes?---What I usually see is the end result several decades
28 after logging to sort of see that from there you can
29 actually identify the regrowth.

30 Yes. Is there anything arising out of that?

31 MS MORTIMER: Dr Bilney, do you know in the areas in which

1 these coupes are, and please say if you don't know, do
2 you know what species are used for aerial
3 seeding?---No, I have got no idea.

4 All right.

5 HIS HONOUR: Yes, thank you, Dr Bilney, you are excused.

6 <(THE WITNESS WITHDREW)

7 (Witness excused.)

8 MS MORTIMER: Now, Your Honour, that completes the witnesses
9 that we have available today.

10 HIS HONOUR: Yes.

11 MS MORTIMER: But we will have a full complement of witnesses
12 to start tomorrow.

13 HIS HONOUR: Yes. And that's quite a list, is that right?

14 MS MORTIMER: Yes, Your Honour, but we are on schedule to
15 finish the plaintiff's - at least the plaintiff's
16 expert witnesses this week.

17 HIS HONOUR: Yes. And may you have other witnesses?

18 MS MORTIMER: We may, Your Honour. There's an issue that I
19 am discussing with my learned friends about that.

20 HIS HONOUR: Yes, I see. Well, what do you ask for, a 10
21 o'clock or a 10.30 start?

22 MS MORTIMER: Well, Your Honour, I am going to ask for 10.30,
23 if Your Honour pleases.

24 HIS HONOUR: Yes. Well, I think it's really a matter for
25 you to manage the list you have got for tomorrow and I
26 am content with that, provided, as you say, we keep
27 running according to the schedule that you have
28 provided, I am not particularly concerned about that.

29 MS MORTIMER: If Your Honour pleases, my learned friend
30 Mr Waller has a nod.

31 MR WALLER: I agree with my learned friend's suggestion of

1 10.30, and we agree that we are on schedule to finish
2 this week.

3 HIS HONOUR: Yes.

4 MR WALLER: That is, the plaintiff's evidence.

5 HIS HONOUR: Yes. And, Mr Waller, would you be able to
6 estimate in terms of next week, I take it we expect to
7 finish the evidence in your case but we may have
8 difficulty getting through the addresses, is that
9 right?

10 MR WALLER: Yes, I think that's so. We would be confident
11 that we would get through the evidence. My learned
12 friend and I have been discussing the possibility of
13 having a short break before addresses, and possibly
14 having the addresses in Melbourne, if that was
15 convenient to the court.

16 HIS HONOUR: Well, I certainly think you can have the
17 break. And depending on the exact dates, there may be
18 some difficulties for me on Monday the 22nd, I think it
19 is. But having conducted all the evidence down here I
20 am not sure that I would readily withdraw to Melbourne
21 for final addresses, but if you both wanted me to I
22 would obviously think about that. I think it is a -
23 it's a case both of general interest but of local
24 interest, and there's something to be said for having
25 the whole hearing here. I think there are some real
26 issues for me that will be debated in final address,
27 and in a sense for instance the meaning of the
28 precautionary principle is probably ultimately a matter
29 for me, whatever these witnesses may say is their
30 understanding. And so the addresses potentially are a
31 very significant part of the case. Sometimes that's

1 not so, sometimes effectively what you are doing is
2 highlighting parts of the evidence and then the court
3 has to decide who's view of the evidence it accepts,
4 and often it accepts some things and doesn't accept
5 other things, and then it comes to a conclusion. But
6 there's a conceptual framework to be debated here which
7 is a very significant issue, as I apprehend it, between
8 the parties. When I say "a conceptual frame work",
9 there are a whole series of elements in that framework,
10 if you like, which are at issue, but also the way those
11 elements are to be fitted together.

12 So you can reflect on what I have said, but I
13 think it was correct to fix the matter for sitting
14 here, although that was not a decision really made by
15 me in the first instance, and I think in the end that
16 if you like the - although they may not be represented
17 before the court as such, there are people such as the
18 logging contractors and others who have an interest in
19 this debate, apart from those who are before the court
20 in the local area, and I think the proper way to do it
21 is to try the case here rather than have a perception
22 that it was really decided in Melbourne, if I can put
23 it that way.

24 MR WALLER: Yes.

25 HIS HONOUR: And so I am not all that keen on going back to
26 Melbourne. But I think in the week after next, I
27 think that the Friday is the farewell for Chief Justice
28 Black in the Federal Court, and if I could I would wish
29 to attend that. And on the Monday there's a family
30 funeral that I would also like to attend if I can. So
31 we are a bit tight next week in terms of dates, but we

1 will see where we get to with the evidence and we will
2 plan where we going.

3 MR WALLER: If Your Honour pleases. We will obviously give
4 consideration to what Your Honour has said and we don't
5 certainly seek to say anything against anything Your
6 Honour has said, and we agree that much may turn on the
7 way the timing works out, because it may be - if we
8 were to finish our evidence halfway through next week,
9 which I doubt, then there would be little point
10 possibly in going back. But it may be that if we
11 finish at the end of the week other considerations may
12 come into play. But we have only had some discussions
13 and we have got no - - -

14 HIS HONOUR: Well, at the moment my inclination is to give
15 you some time before you address.

16 MR WALLER: Yes.

17 HIS HONOUR: And by that I mean taking into account travel
18 time and the like, so a real working opportunity, as it
19 were, to reflect on your final addresses. But I am
20 not all that keen to go back to Melbourne. Having
21 said that, you might have to give me some sort of
22 estimate of time for final addresses too, because if
23 it's going to be four days rather than two, for
24 instance, then that's something that I will have to
25 consider.

26 MR WALLER: We will give consideration to that.

27 MS MORTIMER: If Your Honour pleases.

28 HIS HONOUR: We will adjourn until half-past 10 tomorrow.

29 ADJOURNED UNTIL 10.30 AM THURSDAY 11 MARCH 2010

30

31