



COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ENVIRONMENT AND
HERITAGE

**Reference: Review of the Department of the Environment annual report
for 1997-98**

WEDNESDAY, 31 MARCH 1999

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**HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE**

Wednesday, 31 March 1999

Members: Mrs Causley, (Chair), Mrs Irwin (Deputy Chair), Mr Barresi, Mr Bartlett, Mr Billson, Mrs Gollus, Ms Gasick, Mr Jenkins, Dr Lawrence and Mrs Vale

Members in attendance: Mr Barresi, Mr Bartlett, Mr Billson, Mr Causley, Mrs Irwin, Mr Jenkins and Mrs Vale

Terms of reference for the inquiry:

Review of the Department of the Environment annual report for 1997-98

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Committee met at 11.16 a.m.

\DB\WLBCAMPBELL, Mr Andrew, Acting First Assistant Secretary, Biodiversity Group, Department of the Environment and Heritage

FORBES, Mr Malcolm, Assistant Secretary, Sustainable Industries, Environment Protection Group, Department of the Environment and Heritage

GLYDE, Mr Phillip, First Assistant Secretary, Environment Protection Group, Department of the Environment and Heritage

HYMAN, Mr Mark, Assistant Secretary, Chemicals and the Environment, Environment Protection Group, Department of the Environment and Heritage

LUDLOW, Ms Jennie, Acting Assistant Secretary, Air and Water Quality, Department of the Environment and Heritage

CHAIR—The House of Representatives Standing Committee on Environment and Heritage is undertaking a review of the annual report of the Department of the Environment and Heritage for 1997-98. Under the standing orders of the House of Representatives, the annual reports of government departments and agencies stand referred to the relevant committee for any inquiry the committee may wish to make. Parliamentary committees play an important role in seeking to hold the executive government accountable to the parliament. Conducting reviews of annual reports is one way in which committees exercise this role. Accordingly, in February, the committee resolved to undertake this review of the Department of Environment's annual report.

This is the first public hearing of the review. It involves only the Department of Environment and Heritage. The committee's proceedings are recognised as proceedings of the parliament and warrant the same respect that proceedings in the House of Representatives demand. Witnesses are protected by parliamentary privilege in respect of the evidence they give before the committee. They will not be asked to take an oath or to make an affirmation. However, they are reminded that false evidence given to a parliamentary committee may be regarded as a contempt of the parliament. The committee prefers that all evidence be given in public. However, should witnesses at any stage wish to give evidence in private, they may ask to do so and the committee will give consideration to their request.

To facilitate a structured hearing, the committee would like to call representatives from each program area to give evidence separately. The order in which officers will be called is the Environmental Protection Group, the Australian and World Heritage Group, the Biodiversity Group, the Science Group and the Marine Group. As the committee was given a briefing by the department earlier this month, there is no need to begin with opening statements from each program. To start I have called the representatives of the Environment Protection Group of the Department of Environment and Heritage. I know I said that there would be no opening statements. However, is there anything that you want to say to the committee before we ask questions?

Ms Ludlow—No.

Mrs IRWIN—I have two questions. What is the status of the development of the national water quality management strategy? What has been the reaction from industries affected by the effluent management guidelines?

Ms Tinney—The actual strategy itself is not yet complete at the moment. I will ask Jennie Ludlow to provide some further details on that.

Ms Ludlow—The strategy is aimed at protecting the quality of the nation's fresh and marine water through policy guidelines, including the national water quality guidelines for fresh and marine waters. The effluent guidelines are also being developed. The water quality guidelines are currently under review. There are a series of guidelines which are not mandatory; they are guidelines. There are over 20 of them. I could provide you with a list of them.

Mrs IRWIN—I would appreciate that.

CHAIR—There is a lot of debate in the community about water quality, be it in the city or in the country rivers. It seems to me important that we have good data to back up any policies we might be making or use even in the public debate. Probably the states collect most of this data. What are we doing to provide a complete database on the quality of water in the river systems?

Ms Ludlow—The statement that the data is collected by the states is correct. We do not have a national database on water quality.

CHAIR—Are we working towards that?

Ms Ludlow—The state of the environment certainly collects water quality data. That is not an area that I am responsible for. I cannot give you a great deal of detail about that. The Science Group might well be able to provide it.

CHAIR—Can the Science Group back that up later?

Ms Tinney—I wonder whether it would be useful if Mr Forbes and Dr Campbell talked a little about the COAG water reform.

Mr Forbes—In terms of national databases, as you may be aware, under the Natural Heritage Trust there is the Australian National Land and Water Resources Audit. One of the subprograms within the audit puts together the databases for water quality across Australia. It is a while since I have been engaged in it, but I think they have a number of focused areas where they are trying to get comprehensive data. I cannot give you the full details on that.

CHAIR—I noted a document by the ANU. It was from the CRC for freshwater ecology. Is that funded through this system? Is that doing part of the work? What is that doing?

Mr Forbes—The CRC is funded through industry.

CHAIR—It is partly government and partly industry, isn't it?

Mr Forbes—It is partly government and partly industry. Most of the government funding actually comes out of the Department of Industry, Science and Resources.

CHAIR—Are there any other questions on that subject?

Mrs IRWIN—I want to talk about the Living Cities program. Will the state and territory governments be involved in implementing the Living Cities program?

Ms Tinney—It depends a little on what program we are talking about. Perhaps it might be useful if I just describe the programs under the Living Cities program for you. For waste management, there is a proposal to create resource recovery centres in a number of areas. There is a Chemwatch program, which is basically a national collection and destruction scheme for agricultural and veterinary chemicals. Clearly, the federal government and the states will be involved in that. In fact, there has been a proposal before ANZEMC, the Australian and New Zealand Environment Ministers Council, to have Commonwealth-state matched funding for that purpose. There is also a proposal in the Living Cities program to improve air quality and to move to a national standard on air toxics. It will also involve the state governments. If we go to a national environment protection measure, the state governments will certainly have to sign off on that.

Mrs IRWIN—This is the same with urban waterways?

Ms Tinney—We have urban stormwater, Waterwatch and urban river health. They are the three programs that make up the urban waterways. There is also a program for compressed natural gas refuelling infrastructure, which is being managed by the Australian Greenhouse Office. They are basically the key elements of the Living Cities program. Some of them will involve all the states. Some of them will involve particular states depending on where the program is actually being effected.

CHAIR—Are there any questions on that subject?

Mr BARRESI—I want to turn to the urban waterways and urban vegetation issue. The policy was announced in September 1998. Has consultation with local communities actually started at this stage? We often hear about what is happening in rural and remote Australia. However, some urban based MPs are very concerned about our little creeks and streams. What is happening? Where are we at with those consultations?

Ms Tinney—I stand to be corrected if some consultations have actually started on the urban waterways. We are still waiting for the budget to actually secure the funding that underpins this program. Although some initial consultations have occurred in some of the program elements, the formal consultation process has not actually started yet. The programs are still being scoped out.

Mr BARRESI—How extensive will that consultation be? Are you seeking submissions from local councils and local environment groups? What is the process involved?

Ms Tinney—It probably has not been decided how the consultation process will run. Perhaps some of my colleagues might have developed their thinking a bit further than that.

Ms Ludlow—No, not yet. As Ms Tinney said, we are really waiting for the budget to be confirmed for the national stormwater initiative, which is the water initiative that I and my section would be responsible for. We will be scoping that for the minister. The gist of that initiative is that we will probably consult more with the states and territories. We would then

expect them to consult within their jurisdictions on any issues that they want to bring forward to Commonwealth attention. But we have not really begun that process yet.

Mr Glyde—There is another element in that water program called Waterwatch, where essentially it is a community monitoring program to monitor the health of urban waterways. Obviously in that program there will be a large degree of community consultation because we will be relying on the community to do the monitoring. It is yet to be determined exactly how we will do it and to what extent it will be done. It will vary across the program elements, I imagine.

Mrs VALE—That has not started yet?

Mr Glyde—No. Living Cities is a program that commences this coming financial year.

Mrs VALE—And the Urban Living program comes under the Living Cities program?

Mr Glyde—That is right.

Mr Campbell—I will follow up on that. The Waterwatch program is already in existence. It is already engaged in very considerable community based water quality monitoring in urban, peri-urban and rural areas. Typically it involves schools, community groups and service clubs—it particularly focuses on young people—monitoring the health of local streams, creeks, rivers, wetlands and so on. It is built into the curricula of several state education ministries. A very high degree of public consultation is involved.

Mr BARRESI—One of the issues regarding urban waterways, particularly in the eastern suburbs of Melbourne, is that there are often very good reservations for freeways. Will the strategy make some recommendations about how those two can co-exist, if at all, and what role the Commonwealth will play in converting those reservations to a five-lane or six-lane freeway or perhaps a tunnel going through a hillside? It is a big issue.

Ms Tinney—I am not aware that there has been any focus on that.

Mr Campbell—I thought your environment assessment branch might have some information on that.

Ms Tinney—That is a fair point.

Mr BARRESI—It is a common reaction.

Mr BILLSON—As the Living Cities program is being developed, is there an opportunity for it to give expression to metropolitan objectives in the broader NHT package as a complementary measure?

Ms Tinney—If I understand your question correctly, some of the measures certainly do build on programs that we have. We are being funded under the NHT. You could say that the first program I mentioned, the waste management program, is an extension of some of the funding for the Waste Management Awareness program under the NHT. Part of the improving air quality program is an extension of what we have already done under the NHT, which is the national environment protection measures on ambient air quality. The air toxics will add to that.

Mr BILLSON—I was thinking more in terms of the national vegetation initiative. It is my observation that it is very hard for urban communities to successfully advocate projects in, say, a catchment like Melbourne that covers 3½ million people. It is hard to get past some of the headline type environment issues. I am wondering whether to complement the specific measures that are in the Living Cities program we might try to communicate more effectively with metropolitan communities about opportunities under the already established Natural Heritage Trust programs. For instance, I know Mr Campbell has been very active in that area. I am wondering whether we might be able to kick that along a little bit.

Ms Tinney—Yes. Maybe Mr Campbell can explain that to you.

Dr Campbell—Bruce, you would be well aware of Senator Hill's determination to spend at least 15 per cent of the Bushcare budget in urban areas. We will be looking to improve the linkages with other elements of the urban programs.

CHAIR—We have to go. With some of the material that goes out for the NHT, it does not register with a lot of metro communities that they could be players. But on that note, we are off to a division.

Proceedings suspended from 11.32 a.m. to 11.46 a.m.

CHAIR—Mr Billson, would you like to finish your line of inquiry?

Mr BILLSON—I think we were waiting for an answer from Mr Campbell.

Ms Tinney—Could I answer this one. Clearly, the main focus of the Living Cities program was to take the direction into the urban area to try to complement the rural area.

Mr BILLSON—My observation is that they have not quite taken the opportunities that were presented. I thought this might have been a good way to leverage those programs to get more urban communities involved.

Mr Campbell—That is a point of contention. You will be aware that the coalition went to the election with a commitment to establish a Bush for Wildlife initiative. One of the main focuses for that will be on people in urban communities with backyard conservation activities working through service clubs, bird observers, field naturalists, the Society for Growing Australian Plants and service grants and so on. That initiative will try to engage a big proportion of the population in the understanding of issues such as managing wildlife habitat, local vegetation, streams, creeks and so on wherever they are, not just in rural areas. There will be an explicit focus on urban communities as part of that package.

Mr BILLSON—One last point, and I will let it carry from there: are the connections between the Natural Heritage Trust programs and other activities within the department's portfolio being explored further? I am thinking of things like going through the RFA process to identify a certain species that is under-represented in an area and then looking to address that as part of the national vegetation initiative, or the flip side might be our endangered species activities. There might be some habitat related work we could do, having that register that says, 'Hey, this is something worth while that has NHT outcomes in it but it actually delivers broader outcomes across the department.' I would like to see more of that. I am wondering whether there is a consciousness about that within the department.

Ms Tinney—There certainly is; we do not compartmentalise the application program. As with the example that you quoted, if you found something in an RFA context, you would be involving the NHT programs—if it were possible—to try to address that concern or problem. We work very closely together. To expand on the RFA example, we have an Environment Forest Task Force. In that task force, although they run the RFAs, there are representatives from all the groups in the portfolio. They come with an NHT, endangered species or impact assessment background so they understand where these things fit in within the overall departmental program focus.

Mr Campbell—Within the funding of the Natural Heritage Trust, projects integral to a regional strategy which should identify that range of environmental issues and pull together an integrated approach to dealing with them are favoured in funding under the trust. We have been quite keen to encourage the development of those strategies, not only in rural catchments but also in greater urban areas. We have also moved to reform the assessment procedures under the Natural Heritage Trust so that we have metropolitan assessment panels for the major metropolitan regions—again, in an attempt to make sure that we are dealing as rigorously with urban areas as we are with the broader rural areas.

CHAIR—How good is our data base of endangered species in the areas where they exist and their numbers, et cetera?

Mr Campbell—Not as good as it could be, for sure.

CHAIR—So we need better data there?

Mr Campbell—We work extensively with the states to use the best data that we have. Similarly, through programs such as Waterwatch and through the moves we are making with the proposed bush for wildlife initiative, we are trying to engage local communities in doing their own investigations to ensure that they are aware of any endangered species, endangered habitats or threatening processes operating in their own regions and can develop local approaches to tackling those. The truth is that, over the whole of the continent, we have quite an imperfect knowledge. I am sure Dr Bridgewater will expand with much more authority than I could on the state of our knowledge of our biota. But it is far from complete.

CHAIR—He is in the science group, isn't he? We will talk to them later.

Mrs VALE—Mr Campbell, you have raised quite a few of your questions from various booklets. I was particularly interested in your Waterwatch program. The Rivercare program comes under that, doesn't it? This is specifically for the urban rivers.

Mr Campbell—No, that is not quite the case. Rivercare is another program under the Natural Heritage Trust and focuses on areas outside the Murray-Darling Basin. It is aimed at the restoration and enhancement of riparian areas outside the basin. Within the basin, there is some funding for Waterwatch which comes out of the Rivercare budget, but—

CHAIR—Through the MDBC?

Mr Campbell—Yes, well it has very close input from the MDBC.

CHAIR—Unfortunately, members will have to leave again for a division.

Mr Campbell—Another one of my answers has cleared the room!

Proceedings suspended from 11.52 a.m. to 12.03 p.m.

Mrs VALE—Mr Campbell, I want to ask you some questions about the Rivercare program, the urban river program. Has that been formulated yet? Is it operating or is it waiting under the current budget?

Mr Campbell—The national Rivercare Initiative under the Natural Heritage Trust has been operating in areas outside the Murray-Darling Basin since the trust began. However, I think it fair to say that it has not had an emphasis within metropolitan areas in the way that is currently proposed.

Mrs VALE—To explain to you, my seat is Hughes, which is in southern Sydney. Three major rivers run through it. One is the Port Hacking river, which is essentially still almost pristine. Another is the Woronora River, which has urban run-off. The other is the Georges River, which has about 14 councils along its foreshore. It is in some stages highly toxic, which is of great concern. I think it would also be of concern to the member for Fowler because the Georges River is near Liverpool.

Mrs IRWIN—Yes.

Mrs VALE—I wanted to ask you, Mr Campbell, whether Waterwatch or Rivercare programs run in that area?

Mr Campbell—I would have to take that on notice and give you a specific answer about the Georges River and the other rivers you mentioned.

Mrs VALE—Yes. Do you have any specified or articulated objectives for these programs and for the community groups that follow them?

Mr Campbell—Yes, indeed. They are spelt out in the NHT guide to applications. I would be happy to get you a copy of that.

Mrs VALE—Yes. I would be very grateful. Thank you.

CHAIR—Could I check on how we set our water standards. I am conscious of the fact that we have very good measurement abilities these days, whether it is chemical or biota. I am mindful also of our scare in Sydney of water contamination. I am wondering whether we are putting undue concerns on the public and whether there is in fact a danger to health in some of the measurements we have at the present time.

Ms Tinney—That is a slightly complicated question in that the Commonwealth does not necessarily control the standards.

CHAIR—I know.

Ms Tinney—Perhaps we can give you a bit more background on the national water quality guidelines.

CHAIR—What I am saying is that, just because we can measure it, is it in fact dangerous to human beings?

Ms Tinney—There is an argument that some of the recent measuring devices allow you to measure things that you would never have been able to pick up previously and that there is not a danger to human health because these things existed in the water and we never knew about them. What we would like to do, of course, is set some national standards, so that there is national consistency for standards for some of these things. The states have been a little bit reluctant to agree to go down that path at this stage because they believe that we need to finalise the National Water Quality Management Strategy guidelines before we develop that.

CHAIR—To my knowledge, even though there was great concern in the community about the water quality in Sydney, I do not think there was any evidence of anyone getting sick.

Ms Tinney—I believe that is right, but I do not know that for a fact.

CHAIR—We might move on. If the committee needs to come back to the group again, we might have to do that at a later time because there are a number of groups here. We might have to leave it at that and move on to the next group, if you do not mind. Thank you very much.

[12.07 p.m.]

\DB\WLBPREECE, Mr Michael, Assistant Director, World Heritage Unit, Australian and World Heritage Group, Department of the Environment and Heritage

REVILLE, Dr Barry, Deputy Executive Director, Identification and Conservation Branch, Australian and World Heritage Group, Department of the Environment and Heritage

CHAIR—I welcome representatives of the Australian and World Heritage Group for the Department of the Environment and Heritage.

Mr BILLSON—How have the committee's recommendations about world heritage and the conservation of world heritage values been picked up since the report was tabled? Are there things that we should be looking for into the future that suggest some of the recommendations have been picked up but might not be obvious as yet?

Ms Sullivan—As you would know, the minister replied in some detail, bringing forward proposals. In brief, we would say that the Australian and World Heritage Group was in agreement with 90 per cent of the recommendations and, indeed, a number of those were being implemented. Some of the key things that either were being implemented or are under way are involving the community, setting up monitoring of world heritage values, which seemed fairly important, and reaching agreements with the states and between the states and the Commonwealth. I would say that we now have well working ministerial councils in all the jurisdictions in Australia. As well as that, we have moved to make sure that there are community consultation groups involving the local community in all our world heritage areas.

The third thing is that we have paid attention, particularly in areas like the wet tropics, to indigenous interests. As you would be aware, some of the areas which were initially nominated did not have those values, but there is now very active work with various indigenous communities to see what their interests are and how they might be expressed.

Mr BILLSON—So in respect of the more general recommendations about improving the nomination process and engaging stakeholders in that exercise, that action is happening on the ground.

Ms Sullivan—Yes, action is happening on the ground. An example of that might be the nomination which has gone forward recently, which is the Blue Mountains, which had a lot of community support and involvement at all levels. One of the things that pleased us when the World Heritage Committee representatives came out to look at the nomination was the community support we had. Mike might correct me, because he probably knows more about this than I do, but we have had a lot of support for the Blue Mountains nomination. I think you could say it was a community generated nomination.

Mr BILLSON—So you are welcomed when you arrive now, Mike, compared with—

Mr Preece—Yes, compared with some of the earlier nominations.

Ms Sullivan—I might say that, at the moment, we are working on what is called a serial nomination for convict sites. It would be the first European historic nomination, if you like. It has not gone forward yet, but it actually consists of places from New South Wales, Tasmania and Western Australia, and all of the states are working together on that.

Mr BILLSON—Has that come out of the local governments under the centenary of Federation?

Ms Sullivan—No. It has come out of the desire of the authorities in Port Arthur and Fremantle, in particular, to bring forward nominations for convict sites. The obvious thing is that, if you bring forward seven nominations for convict sites, you probably will not get them up. We have done what is called a serial nomination, which will represent the convict heritage across Australia. We have had a lot of support at local and state level.

Mr BILLSON—There is a first settlement group pushing a similar thought. I want to catch up with them at some stage. Thank you, Ms Sullivan.

CHAIR—Are there any other questions?

Mrs IRWIN—I have one other question. Has funding for the world heritage areas been increased since the committee's report in 1996?

Ms Sullivan—I will ask Mike to answer that; he has the figures right in front of him.

Mr Preece—At the stage of the committee's report in 1996, the level of Commonwealth funding to the states for the 1996-97 financial year was \$11 million. In the current financial year 1998-99, that stands at \$15 million. So, yes, it has increased.

Mrs IRWIN—Has it been provided for particular projects, or is it across the board?

Mr Preece—No. That is funding assistance to the states across the board. That is then divided down to particular properties and to particular projects within each of those properties.

Ms Sullivan—In other words, we do not give a flat allocation. There is an agreement between the states and the Commonwealth about the particular project on each occasion.

Mr BARRESI—Further to that, Mike, are you able to break the funding down in terms of the increase in user-pays and private sector dollars that may have gone into there as well? What movement has there been over the last few years?

Mr Preece—That is a very difficult one because a lot of this rests with the state management agencies as they have control over the various concessionaires and user-pays operations and programs that they are applying. At the Commonwealth level, it would be possible to provide some of that information for Commonwealth managed properties, but it would be much more difficult for us to produce that information for some of the state properties. I say 'some' because some—Tasmania for example—have very well developed user-pays programs in place and probably have a better indication of the amount of revenue that they are generating. For some of the other properties which have more disparate areas within them, it is a much more difficult area to manage.

Mr BARRESI—I am just trying to get a feel for whether declaring an area world heritage would in itself turn the area into a greater destination for both the private sector and the public.

Mr Preece—I understand there are some figures available for some of the properties, particularly for the Great Barrier Reef. There will be some figures available for the wet tropics. My understanding is that, yes, the figures there do indicate a significant increase in the regional economy as a consequence of world heritage listing through such activities as tourism and so on.

Mr JENKINS—Bruce would like me to raise a point. As part of our inquiry into the management of world heritage areas and after great discussion, given the ideological differences within the committee, we put a recommendation about exploring ways in which the private sector could be involved in infrastructure provision. Bruce is interested to know what progress has been made in incorporating that sort of thing into management plans or otherwise.

Mr Preece—That recommendation was picked up specifically at one of the world heritage managers' workshops—I cannot remember specifically which one it was; it may have been two ago or three ago—where world heritage managers posed the question as to how we could gain greater benefit from the application of user-pays principles and so on. A number of recommendations came forth from that particular workshop and were then progressed through in a policy meeting with senior state and Commonwealth officials. As to where they have progressed from there, I would have to check at this stage.

Ms Sullivan—I think that is correct, Michael. To reply more generally, I think most of the world heritage areas would have a positive view of a private sector involvement if it were in accordance with the plan of management and if it did not endanger any of the values. I suppose the example of Skyrail in the wet tropics would be an example of a long thought through decision about private investment in a world heritage area. But it often, as you will be aware,

raises a considerable amount of concern in the local community if people think the values are going to be endangered.

Mr JENKINS—The committee was able to come to that recommendation in spite of Skyrail—I do not know about it being an example. Can you expand on why the Blue Mountains listing was so successful in the community consultation? What characterised it? One of the great frustrations we have about world heritage listings is that, if you look at all the sites, there has been such a difference in the degree of embracement by the community, which has led to great delays. Having asked the question about the Blue Mountains, I then might ask you to continue and say how we are going with the Bungle Bungles listing.

Ms Sullivan—My view is that there are a couple of things here. Local authorities, especially tourism people, are becoming increasingly aware of the figures that are now available. If you look at the wet tropics figures for an increase in community income and local industrial stuff, those figures are pretty convincing. The second thing to say is about the Blue Mountains. You have a fairly sophisticated community which is close to Sydney and has a fair amount to gain from world heritage listing and not a lot, in its view, to lose, because one of the major industries of the Blue Mountains is tourism, holiday accommodation and so on.

The other issue that you might look at there is that the area being talked about is national park. All of those things come together to say that the nature conservation part of the community is very keen on this and began it. The tourism community can see that there is an application in it for them, and there is not an active group of people who are concerned about their future. That would be my assessment.

Whereas if you take the situation in some of our arid rural areas, perhaps the Lake Eyre basin, there is considerable concern there because people have probably not been sold world heritage so effectively and there is also more potential for what they see as a conflict of interest than we have in the Blue Mountains, for instance.

Mr JENKINS—What about the Bungle Bungles?

Ms Sullivan—Do you know where we are at with that, Mike?

Mr Preece—No, you might have to take that one on notice. I do not have any—

CHAIR—So we have not got management plans for all the Commonwealth areas at this stage?

Mr Preece—At this stage we have management plans for all of the properties; either completed or at advanced stages of preparation.

CHAIR—How do we go about that? How do you involve the community and also, probably in the isolated areas, the Aboriginal community? How do you involve the people in these management plans?

Mr Preece—I guess there are different ways, depending on the nature of the property and the nature of the stakeholders who have interests in that particular property. Generally, what we would do is work cooperatively with the state governments and work through their legislative processes. We would follow, for example, the national parks and wildlife process of preparing a

plan of management for world heritage property or national parks within that world heritage property.

At a broader, more strategic level, if we are preparing strategic plans of management, what we try to do is make sure that the process we follow is at least as good as the state model—or better than it, if we can improve it in terms of the public consultation. There are various ways of doing that. One is to seek to identify and then seek input from those particular stakeholders in that process—as I say, that varies depending on whether it is Aboriginal communities, conservation groups, industry or what have you—to make sure that their views are taken on board in the preparation of those documents.

Ms Sullivan—Very often, what we would do when we have a plan at a certain level of development is actually take it to the local community and have a workshop which specifically involves graziers, Aboriginal people and so on.

CHAIR—The obvious question from that is: what right of veto do they have?

Ms Sullivan—I suppose that is, once again, a negotiated thing between the Commonwealth and the states, but I would say that it is more usually a negotiated settlement than a right of veto. We have a situation where the place, at that stage, has already been declared a world heritage area.

CHAIR—It is probably an extreme word, but do they have any say at all?

Ms Sullivan—I would say so. We have an ongoing input from our Aboriginal committees. For a lot of world heritage areas, we have an Aboriginal community committee, a scientific committee and a general community committee—or we might have two instead of three of those. They have an input into management on a regular basis and an input into the ministerial meetings and so on. I might also say that one of the things that governments sometimes have to do is play arbiter between the views of perhaps the Aboriginal community and the tourism community and so on. There is quite a lot of negotiation and discussion.

CHAIR—How do we then come to a best practice of management of these areas? What sorts of benchmarks do we have for that?

Ms Sullivan—We have some very good benchmarks, I think. Some of the plans of management that have been done recently are, I would say, best practice for Australia and probably in some cases world best practice in the way they have been developed and the general acceptance of them in the community.

CHAIR—Who is going to comment on the management of the world heritage areas by states, if it can be improved, and how might the Commonwealth be able to help?

Ms Sullivan—Where would you like us to start?

CHAIR—We are just asking for a comment.

Ms Sullivan—As I have said, I think we now have developed, or are developing, specific agreements with and ministerial councils for all the states. The sites that are being managed in Queensland are the Great Barrier Reef—which, as you would know, has its own authority—the

wet tropics, Fraser Island, and part of the Australian fossil mammal sites. They all have ministerial councils, boards of management, Commonwealth-state officials committees, scientific advisory committees, community advisory committees and management plans in place—with the exception of the Australian fossil mammal sites, which is at the stage of development. It is not completed. I would also say that, for the Australian fossil mammal sites, we do not yet have a community advisory committee. Apart from that, all the things are in place. I think you could say that it is management of the values as well as land in Queensland.

In Tasmania we have the Tasmanian wilderness area. That is a very large part of Tasmania, and it is just one area. In that case, we have the community and scientific advisory committees, which are combined as one committee. The plan of management has been in place for some time, and I believe we are just completing a review of the plan of management and a financial agreement with Tasmania.

Mr Preece—I understand that the new plan of management for Tassie wilderness was approved by governments just this month.

Ms Sullivan—That was about two years in the making.

CHAIR—So ANZECC really keeps a bit of a watch over the ministerial council, do they?

Ms Sullivan—No. ANZECC does have a general interest in this, but there is a specific ministerial council for each world heritage area or set of world heritage areas. That consists of two federal ministers—always Minister Hill and then generally another representative from that state—and then two or, in some cases, three state ministers who have an interest in it. That ministerial council meets about twice a year or when required, and it is that ministerial council that makes a range of decisions about endorsing plans of management, taking on board community concerns or scientific advice and generally sorting through any issues that come up between the states and the Commonwealth.

CHAIR—And financial needs for management.

Ms Sullivan—Financial needs for management, indeed, as well. A good example of something that was negotiated at a ministerial council in Queensland is the question of the protection of dugongs in the Great Barrier Reef Marine Park Authority. That took some negotiating with fishermen and a range of people.

CHAIR—I noticed with interest the other day something which I believe to be an Australian first: the minister announced an agreement where some private property was listed in the Barwon area. I think it was under Ramsar for wetlands.

Ms Sullivan—Yes, that could be the case. It is not actually our area; that would be the Biodiversity Group. But that is the case as I understand it.

CHAIR—I will leave it until then. As there are no more questions, we will move on. Thank you very much. I call the representatives of the Biodiversity Group, Department of the Environment and Heritage.

[12.27 p.m.]

\DB\WLBBOEKEL, Mr Con, Acting Assistant Secretary, Natural Heritage Trust and Biodiversity Policy Branch, Department of the Environment and Heritage

BUTTERWORTH, Mr Robert, First Assistant Secretary, Policy Coordination Division, Department of the Environment and Heritage

CAMPBELL, Mr Andrew, Acting First Assistant Secretary, Biodiversity Group, Department of the Environment and Heritage

HICKS, Mr John William, Acting Assistant Secretary, Parks Australia South, Biodiversity Group, Department of the Environment and Heritage

MULDOON, Mr James William, Acting Director, Area Management and Planning Section, Biodiversity Group, Department of the Environment and Heritage

CHAIR—Do you wish to make any further comments about the capacity in which you appear today?

Mr Campbell—I am here representing Stephen Hunter, who is the head of the Biodiversity Group.

Mr Hicks—I am here representing the Director of the National Parks and Wildlife Service.

CHAIR—Thank you. You have had prior warning; I will hit you with the question straight away. I understand that there has been a listing, which is the first that I know of, of a wetlands area in northern NSW under Ramsar. I was interested in the extent of the area on these private properties and whether they are getting some support in management.

Mr Campbell—I will ask Mr Boekel to take that up, but in the absence of any detail we would be happy to provide you with a much more detailed report on that.

Mr Boekel—We do know that it is a first in terms of having private property holders cooperate to look after a Ramsar site.

CHAIR—I am interested in the fact that, in certain areas of Europe, areas of environmental significance are managed on a private basis.

Mr Campbell—That is right.

CHAIR—There is usually a great conflict between commercial interests and environmental interests, and I am wondering whether this is an opportunity where commercial interests could get involved in protecting environmental areas.

Mr Campbell—Through the Natural Heritage Trust, a number of programs are moving in that direction. Ninety-three per cent or so of the Australian continent is outside the formal reserve system and, obviously, a very significant proportion of our biodiversity exists on that 93

per cent of the continent. We do need to have mechanisms that can encourage private land-holders, who may well have other management objectives—and usually do for those pieces of land—to manage those conservation values in the broader public interest.

The National Wetlands program, the Bushcare program, the Endangered Species program and the National Reserve System program all provide assistance to land managers of whatever kind—local government, private land-holders, river management authorities or whatever—to manage those sites. We are moving to improve the incentive mechanisms available for private land managers to manage land in the broader public interest. There is a whole range of incentives, measures which are being employed under the trust. I know the government is also looking at taxation measures which can be taken in this area as well.

CHAIR—In this area of biodiversity—and I did ask the question before—there is considerable conflict in the community from time to time about claims of endangered species habitat being destroyed, et cetera. It seems to me that at the base of a lot of this is the fact that we do not have much data on some of these areas. How important is it that we concentrate on trying to get some data so that we do know what we are talking about?

Mr Boekel—What is happening at the moment is, in ERIN, they are working on a computer software program that will enable people to access information on the location of endangered species. It does not matter where you live; you can get on to the web, pinpoint the particular area where you live and find out whether or not there is an endangered species or a set of endangered species for that. That really requires a lot of work, because the boundaries have to be quite exact. There is a lot of work done on making sure that the information is accurate. My understanding is that that should be available by the end of the year.

CHAIR—Have you been involved in the RFA process? Have some of the biodiversity people been involved?

Mr Boekel—Yes.

CHAIR—In that process, you were just part of a chain. Were there criteria set down as to what you needed to be done? I think the National Forest Policy Statement said that we had to take into account economic considerations, biodiversity and environmental considerations and socioeconomic considerations. How did we get that balance there?

Mr Boekel—There is a framework document agreed to by the Commonwealth and state governments which sets all those out. The first step was to look at the available information, and the second step was to carry out a series of studies to fill the information gaps. Then there were the usual processes for a document which tries to balance the various interests to go out for public comment. It varies from state to state, but there are usually processes whereby stakeholders can actively in the first instance say, 'This is the information we need,' and secondly comment.

In the case of Tasmania, we had available on computer screens maps of the various values so that community groups, people from the forestry industry, farmers and beekeepers could come in and look at the implications of various scenarios, what happened if you put this bit of forest into production or set that bit aside for beekeeping. Underneath that, there was a whole series of tables that enabled people to calculate what the impact of various decisions would be. They were then able to provide comments on various scenarios for governments to consider.

CHAIR—In the north-east and mid-north of New South Wales, have you completed that? Have you got all of the information you need on that biodiversity?

Mr Boekel—I am not in the forests area now.

CHAIR—I am sorry. Is there someone who can answer it later?

Mr Boekel—Yes.

CHAIR—I will leave it until then.

Mrs IRWIN—What is the level of funding for the Waterwatch Australia program?

Mr Campbell—We will have to get back to you with the exact figure, but it is somewhere between \$10 million and \$20 million. It is in the low teens, I think.

Mrs IRWIN—I would appreciate that. I would like to ask a question on the national parks. I am new to this committee, so it is a learning process for me. Do all Commonwealth managed national parks and reserves now have management plans in place? I think you have one for Kakadu; is that correct?

Mr Hicks—Yes. We have one in place for Kakadu.

Mrs IRWIN—What about the others?

Mr Hicks—Uluru has a draft out for public comment. Booderee is presently preparing its first plan. The botanic gardens is due to have one in place by the end of the year. It has a current one, but it needs a new one and it has a draft almost ready to go out for public comment. Ashmore Reef National Nature Reserve, from memory, has got one that is current and has another year to run. Ningaloo Reef Commonwealth Waters, I think, has another year to run. Mermaid Reef does not have one yet; we have a draft almost ready to go, but we are waiting on an agreement with the Western Australian government, on a memorandum of understanding, before we can progress that. Christmas Island has a current one and Pulu Keeling has one that I think has just come into effect in March this year.

Mr Campbell—Norfolk Island?

Mr Hicks—Norfolk Island must be just about due for renewal.

Mr Muldoon—The draft plan for Norfolk Island will be released on Saturday week. There will be public notices in the *Gazette* next Wednesday saying that the draft is available for comment.

Mrs IRWIN—How are indigenous communities being involved in management of national parks?

Mr Hicks—We have three jointly managed national parks, where we have a partnership with Aboriginal landowners. Those parks are Booderee, Kakadu and Uluru. For each of those parks we have boards of management and those boards of management have the majority of landowner

representatives on them, so they have the comfort of safety of numbers. Those boards of management prepare the plans in conjunction with the director. At that higher level of policy, that setting of directions, the traditional owners have an important role.

Those boards also have other roles. They have provided advice to the minister on the management of the parks, they monitor management of the parks in conjunction with the director and they also make decisions that are consistent with the plan of management. They have a central role. As part of the management arrangements for those parks there are leases with land trusts, and under those land trusts there is a number of obligations on both parties. Some of those obligations on the director of the National Parks and Wildlife Service are there to promote the interests of Aboriginal traditional owners. Some of those plans of management are based around those sorts of premises.

CHAIR—Could I go to a couple of other matters? I was interested to read in the report, and it talks about where you have been spending some money, that you have bought some land and four projects under the national reserve system. One of interest to me was Naringaningalook. What was that about?

Mr Campbell—That is very interesting because it is a very significant native grassland in north-central Victoria, north of Bendigo. It is a property which has been in the one family virtually since white settlement and had not improved its pastures or used a lot of superphosphate. So temperate native grasslands are down to about 0.01 per cent of their original distribution. It is extremely rare to find very large areas in pristine condition. This property was virtually entirely native grassland and the landholders were very keen to ensure that it remained so. There has been an acquisition through the National Reserve System program, and it will be formally part of the national reserve system but will continue in private management.

In Victoria it is possible to put covenants on the title of private land which specify management actions that can and cannot be taken. That is the case with Naringaningalook. You might also be aware that the Victorian Trust for Nature is a partner in this exercise. This is a statutory body established in 1972 to look, in particular, at conservation management of private land.

CHAIR—There are also 22 projects approved by the minister under the indigenous protected areas component. What, in particular, were they?

Mr Campbell—Do you mean what is an indigenous protected area?

CHAIR—No, what was the significance of these areas? Why did we get involved with this?

Mr Campbell—About 16 per cent of the continent is now managed by indigenous people.

CHAIR—I thought it was actually 23 per cent.

Mr Campbell—Is it? There are some very significant conservation values on some of those lands. An indigenous protected area is an area managed by indigenous people for which the conservation values are articulated. Measures that are going to be taken to ensure that those conservation values are maintained are negotiated with the indigenous people, just as we do with private land-holders under other programs under the trust.

CHAIR—In both of these agreements, is this consideration with support for management from the department?

Mr Campbell—Yes, indeed.

CHAIR—How do you ensure that that is being done—that the management is carried out to the levels that you need it?

Mr Campbell—In the same way we do with all other projects under the Natural Heritage Trust. When we provide funding, we provide funding on a project basis with a contractual arrangement with the people who receive those funds. We also have in place a network of indigenous facilitators funded under the Natural Heritage Trust to work with indigenous communities to improve the way in which they get engaged in trust programs. Generally, there is a state agency or another organisation with whom we have a contractual arrangement to deliver what is specified against that funding, just as we do if we provide a grant to a land-holder, a Waterwatch group, a Rotary club or whatever. Is there anything to add on that?

Mr Boekel—I was in Adelaide last week and had a report of the first of these, which was with the Adnyamathana people. The report I heard was there had been a very real improvement in the land. There was some discussion about whether the calicivirus and good rains had had an impact, but people were focusing on goat control and things like that. So the story there certainly was good.

CHAIR—Do feral animals and weeds come under your area?

Mr Campbell—The feral animals and weeds programs under the Natural Heritage Trust are jointly managed by both the Environment and Heritage portfolio and Agriculture, Fisheries and Forestry Australia, AFFA. We manage half of those programs and they manage the other half.

CHAIR—We are mere backbenchers, you see, so how does the assessment process for Green Corps projects take place and who puts the priority on these?

Mr Campbell—As you would be aware, the national tender for the next Green Corps contract is currently being let, so I can talk about only the process that has occurred thus far.

CHAIR—Yes, sure.

Mr Campbell—The Green Corps program is outsourced to the Australian Trust for Conservation Volunteers; it is delivered by the ATCV. There are six calls per year for funding, so there is a two-month period between the time that applications come in and when projects get under way on the ground. It is a very tight time frame. People apply directly to community groups or whatever; there is a national call in the papers. People apply to the ATCV. The ATCV does a short listing against criteria that have been set by the Green Corps Advisory Committee, which consists of the two parliamentary secretaries—currently, Trish Worth and Sharman Stone—and the two secretaries of the portfolios of DETYA and Environment and Heritage. They do a short listing then they sit down with the two portfolios—Environment and DETYA—and, against a list of criteria, we come up with the projects that will be selected.

So we are looking not only at environmental outcomes but also at the training outcomes for the participants, at the capacity of the host organisation to actually manage a group of young

people for six months and ensure that they have an appropriate experience and so on. There is a whole range of criteria defined.

CHAIR—Do you have any questions on that?

Mrs IRWIN—No. I do not think I am going to last much longer, I'm afraid.

CHAIR—Don't expire on me—otherwise I will not have anyone! Two more are coming back. I think they are speaking in the Main Committee at the present time, and they will be back. You are actively involved in the water policy in the Murray-Darling Basin, in the cap process, et cetera?

Mr Campbell—Yes.

CHAIR—What would you see as being your overriding considerations in the whole management of that Murray-Darling system?

Mr Campbell—The environment portfolio is very concerned to ensure that the long-term sustainability of the water resources of the basin is delivered by the measures that are put in place through the initiative. We are particularly concerned to ensure that environmental flows are given appropriate consideration in water allocation. We are extremely keen to ensure that management of riparian zones, wetlands and other very significant environmental resources within the basin is accorded an appropriate priority. I would say that, without ranking them, environmental flows, water quality and very significant wetlands sites within the basin are of great importance, for both endangered species and migratory species that we would have a particular interest in.

CHAIR—The wetland areas—this is a question I should probably have asked before—are similar to the Regional Forest Agreements: you are taking into consideration the economic, environmental and socioeconomic effects?

Mr Campbell—Yes. As you would be aware, there are a number of commissioners. Our portfolio provides one commissioner, and the range of commissioners certainly reflects the range of interests, particularly in water allocation issues across the basin.

CHAIR—Given that we cannot turn the clock backwards, and it would be disastrous to turn it too far backwards, are there possibilities of managing these wetlands? The wetlands areas in the past were flooded by natural floods and overflows. Is it possible now to manage those wetland areas with diversions, pumping water into some of those areas so that it does not take a flood to maintain them?

Mr Campbell—I think that has occurred this year with some releases from some storages that have taken place purely for environmental flow reasons.

CHAIR—So you would be looking at all those avenues of trying to manage them?

Mr Campbell—Yes, indeed. The commission is looking very hard at ways to do that. In some cases, the barrages remain open for longer than they otherwise would have to ensure that the system gets a good flush. That is becoming increasingly important in the lower parts of the basin, particularly in South Australia.

CHAIR—I mentioned earlier the CRC for Freshwater Ecology. Do we have any funding into that from this department?

Mr Campbell—I would be very surprised if we did not. I know Professor Cullen is a very compelling advocate for his outfit.

CHAIR—I have read his paper.

Mr Campbell—I would be surprised if, through the national river health program or some of the other programs under the trust, particularly landcare and rivercare, there is not some funding going into the CRC. I can follow that up for you, if you wish.

CHAIR—Again, I suppose I am trying to get to some middle ground here because, as you have realised, there is quite a bit of conflict in the community about the use of water. Professor Cullen seems to make some pretty radical statements from time to time. I think he made one statement that 80 per cent of the water was being taken from the river; yet the industry is saying that they believe only 36 per cent is being taken from the river. How do we get the truth in this?

Mr Campbell—I think the independent audit established by the Murray-Darling Basin Commission was established to try and sort out some of those issues and to provide as many facts as were able to be gathered to support the various arguments.

CHAIR—It worries me that some of these statements are made and, again, we do not have the facts to back them up.

Mr Campbell—In this case, I do not think that it is correct to say that we do not have the facts. There are different ways of presenting the same data, and I think this might be an instance of that.

CHAIR—Highlighted quite frequently is the fact that the mouth of the Murray seems to be the focus at the present time. But having been the minister for water resources in New South Wales, I will declare that interest. No-one seems to talk about the barrages right down the end of the river which effectively have turned the bottom end of the river from a saltwater lake to a freshwater lake—maybe some consideration should be taken of that.

Ms Tinney—Mr Chair, you asked a question earlier in relation to data on the use of forests, and Mr Butterworth is now at the table.

Mr Butterworth—Essentially, the answer to your question on the status of the analysis of environmental values in the upper and lower north-east is that we have not completed that analysis yet. The Commonwealth's role in this process is very much to validate state analysis and data, and to do some of our own analysis from remote sensing and the like. Most of the detailed gathering of data is undertaken by the states or by other agencies where the Commonwealth and the state jointly fund research that we regard as necessary to establish those values.

As you are aware, the state of New South Wales decided to go ahead and gazette reserves prior to reaching agreement with the Commonwealth. We have not yet had access to the data we require to analyse those reserves. We are hopeful that now that the New South Wales election is out of the way, we will shortly gain access to that data and be able to move on to a detailed analysis of it and, hopefully, closure with New South Wales on a RFA for those regions.

CHAIR—It is a very complex area because we have the crossover between the subtropical and the temperate species, and there are a lot of different species in that particular area. I understand that critical to some of your analysis is the identification off aerial maps of species, which is a very specialised area.

Mr Butterworth—We have very good broadscale data of ecosystems; we have access to the best remote sensing photography and satellite imaging and the like—histories of the forests up there. But all our data tends to be rather coarse. When you are getting down to the detailed boundaries of reserves and where those boundaries lie, and what should and should not be in them, you need very much finer data, and we need the state on-ground data.

CHAIR—And you have got that at this stage?

Mr Butterworth—We do not have access to that at this stage.

CHAIR—Okay. We might allow the next group to come forward.

Mr Campbell—Just before we do, Mr Chair, Mrs Vale asked earlier about objectives of the various programs under the Natural Heritage Trust. We have got committee members copies of the NHT guide which are available from the committee secretariat.

Mrs VALE—Thank you, Mr Campbell. Is there any program in place yet for the evaluation of those objectives or is it too early?

Mr Campbell—We are about to embark on the mid-term review of the Natural Heritage Trust programs. Mr Boekel and I have just come this morning from a NHT ministerial board meeting which is establishing the direction for the entire monitoring evaluation framework under the trust. This mid-term review kicks that off.

Mrs VALE—Thank you.

[12.54 p.m.]

**\DB\WLBBRIDGEWATER, Dr Peter, Chief Science Adviser and Supervising Scientist,
Department of the Environment and Heritage**

**TINNEY, Ms Anthea, Deputy Secretary, Head, Environment Protection Group,
Department of the Environment and Heritage**

CHAIR—You have probably heard some of my questions throughout the morning about my interest in databases and scientific backup for a lot of the debate that goes on in the community. I am a little bit zealous about this. I think when we have a debate, we need to have a rational debate. A while ago we heard that we should have a database by the end of the year—that sounds great to me—but in your area, do you think we have enough data on some of these arguments or does the department need to gather more?

Dr Bridgewater—Yes, the department needs to gather more. Let me go back a stage. I agree with you, Chairman, that your proposition that we do need clear and unambiguous data is critical to have a sensible debate. The arrangements for the gathering of data within Environment Australia lie essentially with the main groups. For example, the Biodiversity Group is responsible for dealing with its areas; the Environment Protection Group deals with marine and coastal areas and so on. Our role as the Science Group is to offer some general advice from time to time but, as such, we are not involved in the gathering of data.

Nonetheless, it is possible to make some general observations. For example, in the area of endangered species, we probably do have a pretty good handle on what the endangered species are and where they are across most of the states and territories in Australia. That said, it is always still possible, particularly in some of the more remote areas, to find either new species or find species that are in fact endangered. There are quite a number of examples in the literature of species being thought extinct for a hundred years and being rediscovered, which is always nice to find.

CHAIR—Yes.

Dr Bridgewater—But I think in general the endangered species side of things is well covered. Where we do have trouble—and, again, I agree exactly with your point on the north-east of New South Wales, south-east of Queensland—is that is one of the key areas of species overlap in Australia and the precise role and importance of that area cannot be overestimated. Although that has been known for a very long time, because it is such a complex area, I think there is still plenty of work that can be done.

In that sense, I do not think you are ever going to find the complete set of data that will really give you the absolute certainty to be able to say, 'Yes, this is definitely, absolutely certain that we will not cause any species loss or reduction of populations,' as opposed to, 'Well, maybe we might.' That means, therefore, that a lot of the issues of sustainable development are essentially based on issues of managing risk rather than issues of certainty, and I think we do need to understand that perhaps a little more clearly. There are some areas where I think we can

be absolutely certain but these are rather rare. In my view, we have to take a more rational approach and understand that we are dealing, as I said, with issues of risk.

CHAIR—The management of some of these areas, which I believe impinges upon the science as well, is that our species have evolved with a certain management system and to a great extent I think our forebears probably mimicked Aboriginal controls with fire, et cetera, out of necessity in some of these areas. Sometimes we tend to adopt a different management these days where we set aside these areas and then lock them up. I have seen in my area, for instance, when these very hot fires run through the place, koalas get killed because they are up in the tops of the trees. Would you think that the science is important, that we get the management to mimic the science, if you like, to ensure the protection of these species?

Dr Bridgewater—A scientific base to resource management is totally critical. I absolutely agree. I might disagree with you, however, in that I think our forebears, particularly in the south of the continent, did not actually mimic Aboriginal uses, particularly of fire. But it is now becoming a realisation that that is what we have to do to try to regain and regenerate some of the landscape systems that were there.

I was responsible—for seven years—for the general oversight of the management of Kakadu. The fire management in Kakadu, which causes so much angst often with tourists, is based on the joint management arrangements for the Aboriginal people that we have there. They provide the advice as to where we should be burning and why we should be burning. We very rapidly moved to that after some years of dealing with people who had gone through and got natural resource management degrees and were waving around Landsat images, which did not actually help us with the management. If we ask one of our traditional owners whether the country is in good shape or not, we very quickly get an answer and know what to do.

CHAIR—We hear a lot from time to time—I suppose from people who are pushing one side of the argument—that we have lost quite a lot of mammals in Australia over the years. Is it true to say that they were lost around the turn of the century and that maybe the rabbit had a lot to do with that in western New South Wales where they ate out the food sources?

Dr Bridgewater—With these questions, I know you would love me to give absolute answers, but I cannot.

CHAIR—And I know a scientist will not give an opinion.

Dr Bridgewater—I can give you opinions! But you are not asking me for that; at the moment you are asking for fact. It is very true that we have lost a substantial number of our medium to small mammal species and have reduced the population levels of many others. It is also true that we are now finding methods of regenerating those levels. Again in Western Australia they have managed to bring back the population of the woylie by very careful feral animal control. It is feral animals that are the problem—the discussion we had earlier on the rabbit bears that out. Once we have the feral animal and weed populations under control, we will have a much better chance of managing our biodiversity. The spirit of cooperation that exists on these issues between the states, the Commonwealth and the territories is an excellent example of how we can achieve first-rate environmental objectives.

There is no doubt that the population of mammals of the type you were talking about declined quite dramatically towards the end of the last century. That is where the waves of

extinction were. That was associated as much with changes of habitat as with the feral animal itself. But once you changed the habitat, the feral animals then came through and prevented the regeneration of the species.

Mr BILLSON—I am sorry for just coming back. We were in the Main Committee talking about ozone protection—

Dr Bridgewater—I will not chance my hand on that.

Mr BILLSON—so I think my environmental credentials are intact. On the issue of the state of the environment report, I am concerned that it is viewed a bit more as an event or as a stock or point-in-time report and that the very commendable ways in which the report is compiled do not have a real-time flavour to them. I am interested in knowing from you whether we are moving towards a more continuous state of the environment reporting arrangement which would not only build on those techniques that were drawn upon to produce the report but also fold in all these other management plans and natural resource systems that we have that are supposed to be looking at microscopic bits of the big picture—whether they are feeding in quite naturally or whether we are keeping an eye out as a matter of course—rather than looking at a series of important, albeit impressive, events of environmental reporting.

Dr Bridgewater—It sounds as though one of my staff has given you that question. I am very happy to answer it because you are absolutely right. The state of the environment report that was published in 1996 was a very comprehensive attempt at producing a view of Australia's environment at a snapshot in time. Indeed, that report is extremely comprehensive in its coverage. But many environmental events move at quite different levels of time, areas of space, areas of impact and so on. The minister has recently appointed a new chair for the State of the Environment Reporting Advisory Committee—Professor Bruce Thom from New South Wales. The minister is in the process of building a committee up. Because he is doing that, I should not say who is on it, but there will be another seven key people.

Mr BILLSON—He has not rung me, so you do not have to worry about that.

Dr Bridgewater—He has not rung you yet! There will be another seven members joining. That committee will, I think, work in a very different way from the previous committee; it will be looking at the high level aspects of the report. Already in the discussions that I and my staff have had with Professor Thom, we have identified just this point: that we are dealing with a whole range of different spatial and temporal things. My forecast is that the state of the environment reporting will become a mechanism that will cover a wide range of things and be a continuous process. We will have to do something in 2001 because we accept that that is what will happen. But it almost certainly will not be as substantial in size as the 1996 one, because we will have been doing a wide range of other things.

CHAIR—What is the benchmark for the state of the environment report? Where do you start from?

Mr BILLSON—1996?

Dr Bridgewater—The 1996 one had a lot of material in it.

CHAIR—Are we looking at the way Australia was managed in the past or is it our opinions on how it should be managed?

Dr Bridgewater—We are human and it focuses on our perceptions and opinions.

Mr BILLSON—It is more about conditions and trends than—

Dr Bridgewater—But it is conditions and trends and, in order to get conditions and trends, we do have to do that sort of monitoring. In the last year, a number of reports were commissioned to look at possible indicators for a whole range of different aspects of the environment. We have brought copies of those along, which we will table for the committee to see. The key issue in all of it is that, although those books are filled with indicators, many of them are in fact not easily applicable. We envisage that it will probably have subcommittees dealing with particular specialist areas so they can work intensively and at different time rates. We will be taking that material and seeing how it can be put into practice.

Mr BILLSON—Related to that is that work in the RFA process. We have got all this good stuff going on and it just seems all over the—

Dr Bridgewater—One of the things that the minister has done besides appointing Professor Thom is to make sure that he is an ex-officio member of the Natural Heritage Trust board, as is Professor Roy Green, who is the Chair of the National Land and Water Resources Audit. We are setting up mechanisms to make sure that Professor Green and Professor Thom are in contact constantly about what is happening in those two areas because those are probably the two key auditing and indicator efforts. Outside the natural resources portfolio, the Australian Bureau of Statistics also has an interest in environmental work, and the minister has told us that he wants us to make sure that the work that the statistics people are doing is complementary and not overlapping the work that both we and the audit are doing.

We really are in an extremely good position to draw together the main things and, of course, the RFA processes. That is one aspect of it and it is a highly specialised bit of the whole process. The state of the environment reporting mechanism will be seen, certainly over the next couple of years, as a key, reflecting and measuring what is going on in these other areas but also adding to and reflecting what is going on in the other areas.

Mr BILLSON—I am also thinking of areas like fisheries management plans and those sorts of things. From my former life I bring with me a view that they are very well geared to sustainable yield questions, but do not get too far into the marine ecology condition monitoring side of things. Would you expect to see come out of your work a need to review some of those other planning management reporting tools that have got a life of their own—ones that have already put us in the area of state of the environment reporting, but are not really spitting out anything of great use?

Dr Bridgewater—I think the key for us, and certainly the key for the minister, is to ensure that the work in the state of the environment report—and this is why it is important for it not to just happen every five years—does feed into the other environmental processes, whether they are terrestrial or marine. It is envisaged that the former state of the marine environment process, which actually preceded the 1996 state of the environment process, will also become part of the whole operation, so we are actually looking at a genuine state of the environment reporting mechanism.

Mr BILLSON—Are we going out into the EEZ?

Dr Bridgewater—I do not know that we will have too many resources to do too much with that.

Mr BILLSON—We would never see you if you did!

Dr Bridgewater—You rarely see me anyway, but that would make it worse. That area is one that will need to be looked at closely and we will be wanting to discuss it with our colleagues that you will be talking to in a moment.

Mr BILLSON—I have one last question. I am sorry for asking it in this way. I have missed the appropriate spot to ask it, so I will come at it another way and make it remotely relevant to your area. Are the tools and the information that you are creating likely to give us some insight into which institutional structures are working and which are not? I am thinking, as an example, of catchment management organisations. Some seem to be doing well and holding off further degradation; few seem to be doing a whole lot of good on renewing natural systems. As a policy guide, is it going to give us the sort of performance data that will enable us to evaluate these different institutional models and policy responses, to hone in on what seems to be working and what is a whole lot of action and not a lot of progress?

Dr Bridgewater—I think the state of the environment reporting process is a little bit more macro than the issues you are discussing. I would, however, expect that, as part of that broader process, the whole idea of environment reporting will feed into, for example, all the Natural Heritage Trust activities. You should be able to get a micro level of whether this approach in this catchment is actually working, but that will not be something that we are particularly looking at because—

Mr BILLSON—Say you might want to put our mind to do an inquiry or something like that.

Dr Bridgewater—If it is, you could of course recommend to the minister that he might increase the levels of funding, because we would not be able to do that. It is probably better that that is done at that level and we confine our work to the more macro national and state level.

Mr JENKINS—Could I be a little indulgent? I notice that the group has some responsibility with the Indian Ocean territories.

Dr Bridgewater—Our group? Yes. Do you have a specific question?

Mr JENKINS—It is about the ants and the red crabs. I only raise it in the extent that Monash University does some study, they run it in their bulletin, it gets out into the popular press and it becomes a story. I really want to know what we know about the story. Is it a big problem? What is the role of the Commonwealth government?

Dr Bridgewater—Technically, you should have asked the Biodiversity Group that.

Mr JENKINS—You would make a good politician!

Dr Bridgewater—However, since they are not here, I can answer anyway. It is a very serious issue, we believe. I am hoping to go to Christmas Island in May to have a look at the issue and talk with the staff there about it. We are not entirely sure what will happen—this sounds awfully doomsday and I do not really intend it to sound quite like this—but one of the things we think we will be able to put in place now is a pretty good monitoring system. If it is as bad as, for example, Dr O'Dowd has suggested, we will be able to carefully monitor the changes that happen. I suspect we will not necessarily be able to stop them, but we will actually be able to monitor them. What will probably happen is that it will turn into an impenetrable jungle. At the moment you can walk very easily in the forests of Christmas Island. If he is right and the crabs are no longer there to clean up the forest floor, you will not be able to move.

CHAIR—The question is, of course, 'Has it happened before?'

Dr Bridgewater—No, it has almost certainly not. This is a species that has been introduced from outside the island. You are looking, therefore, at a total disturbance. This sounds like Dr Strangelove, but it will be a fascinating experiment to watch what happens if he is right.

Mr JENKINS—When did people first become aware of it?

Dr Bridgewater—I think about six months ago they began to notice very significant die-off of crabs and then the association with this ant. It is quite a small beast and it was not really obvious.

CHAIR—Fascinating.

Mr BILLSON—Are you guys getting any nearer to the acid sulfate soil phenomena? I am mindful of our next group and it might be a question for them too, but are we getting any closer to understanding—

CHAIR—It is managed by the states really, isn't it?

Mr BILLSON—Are we understanding the science that underpins that condition and what the states could do to protect against those—

CHAIR—It is really basic, isn't it? Oxidisation, isn't it?

Dr Bridgewater—There are a lot of issues on acid sulfate soils. In our group, we have spent a bit of time looking at it, not in the broad but in the specific area of mining, where it is a particular problem, but it is the same issue when you are looking at the coast. It is an issue that is of sufficient importance to attract both state and Commonwealth interests.

CHAIR—Professor White from—I think—the University of New South Wales is pretty much an expert on it.

Mr BILLSON—Yes, we had a yak with him.

CHAIR—I will ask a couple of last questions. I was interested in your ideas of the management of some of these areas, but of course the states are the land managers. What influence do we have over their management regimes in those areas? Only through the ministerial council, I suppose.

Dr Bridgewater—Yes. But that has now become quite a powerful vehicle because there are a number of working groups that ANZECC particularly has established which are looking at issues of best practice, so we are building a better comradeship between the different park services and the personnel within the park services. The knowledge is simply flowing into those areas.

CHAIR—That is certainly not obvious at the present time.

Dr Bridgewater—It depends where in the organisation you look. Can I leave it at that?

CHAIR—I have some very grave concerns, not just for biodiversity but also for humans in some of these areas, because from time to time we see some horrific fires all over Australia. There are some very real dangers building up at the present time.

Dr Bridgewater—If you are asking about fire management specifically, there is now a fairly intensive program on fire management. Specifically as part of the state of the environment reporting, we have let some work to undertake a consultancy on the fire frequency and the difference between north, centre and south. There is no doubt that fire management in the south, where so many people are living, is going to be an issue. I must say, my personal view is that we are actually part of biodiversity—

CHAIR—Yes, we are.

Dr Bridgewater—which is slightly heretical.

Mr BILLSON—It depends how you behave yourself, doesn't it?

Dr Bridgewater—Exactly. But it is going to be an issue. On the other hand, the headlines that came from those fires south of Sydney in 1994 were all about blackness, destruction and so on. I wanted to see one newspaper running a headline saying 'Biodiversity gets boost', because in many ways that is what happened.

CHAIR—It is.

Dr Bridgewater—Certainly in Royal National Park, that led to the discovery shortly afterwards, and for the first time in that area, of the New Holland Mouse.

CHAIR—They would pop up everywhere if we looked for them.

Dr Bridgewater—With that species, that is part of the problem.

CHAIR—Yes, it has been around. I know the north coast sees a lot of it too. The final question is an easy one: as a scientist, where do you rate biodiversity vis-a-vis the needs of the human?

Dr Bridgewater—I have already explained that I think we are part of biodiversity.

Mr BILLSON—The issue of genetic pollution and all that sort of stuff: is EA doing much work on that in factoring in changes in genetically modified organisms in your forward planning,

or is that something we are hoping others will sort out and we will get to read about it in a journal somewhere?

Dr Bridgewater—That is actually Ms Tinney's area.

Ms Tinney—We are certainly working on it but not in isolation. We are working on it with the department of health and with Agriculture, Fisheries and Forestry Australia.

Mr BILLSON—Is that consciousness or is it policy development or both?

Ms Tinney—It is both. We are trying to develop policy to address the issue but also to raise the consciousness outside.

Mr BILLSON—What about the broader issue of ownership? There have been two court hearings in the US where naturally occurring organisms have been granted as property to someone who happened to identify them, which is absurd.

Ms Tinney—That is really tricky. Obviously it is something that we have to take into account in the policy that we are trying to develop. I would not say that we have gone very far down that track.

Mr BILLSON—Thank you.

Mr JENKINS—I would like to raise matters relating to nuclear activities. Your group has not only had responsibility in mining activities but also had a role in working with others on nuclear codes. It strikes me that, if we are looking at the number of agencies that have to get together to put in place the code of practice for nuclear activities, should we be looking at setting aside one body to have the overall scope. What will the group's role be in any proposed new mines?

Dr Bridgewater—Can you just repeat the last part of the question?

Mr JENKINS—What will the group's involvement be in any proposed new mines?

Dr Bridgewater—I will quickly tackle that part first, and then I will hand over to Alex, who is the one in the group that glows mostly. He can answer those questions in a little more detail. Our role is actually confined to the Alligator Rivers Region in the Northern Territory, although we do provide advice if we are asked, particularly from the Environment Protection Group, on particular issues where we would have expertise. But our formal role is restricted to the Alligator Rivers Region in the statutory sense. Alex, perhaps you would like to answer.

Mr Zapantis—The nuclear codes are promulgated through the National Health and Medical Research Council in the main. There are a couple of other codes which have been established under a piece of Commonwealth legislation—the Environment Protection (Nuclear Codes) Act 1978. There are three codes under that particular piece of legislation that are being revised as we speak.

We represent the department of the environment on the Nuclear Codes Committee which is looking at those codes of practice. There are working groups established beneath that committee which are doing the drafting work. The way that these codes are put together is through a

negotiation and consensus consultation mechanism with each of the states, because it is the states which have the authority to actually enforce the legislation in the region of radiation and nuclear safety.

You are probably aware of the recent establishment of the Australian Radiation Protection and Nuclear Safety Agency which is responsible for the regulation of all Commonwealth activities in the nuclear field. That body is the body which has responsibility at the Commonwealth level for ensuring that nuclear codes are kept up to date and that new ones are promulgated as required. But that particular body has no authority to enforce that in the states; it only has the authority to regulate Commonwealth activities. It is up to the states, and that is due to our Constitution, to regulate nuclear and radiation issues through their own legislation. If it is a significant nuclear or radiation based activity, the Commonwealth will have gone through some sort of environmental impact assessment process. There is a potential mechanism for Commonwealth recommendations to be attached to any approvals, but when it comes down to actually regulating that is the state responsibility.

Mr JENKINS—You said that the codes are decided upon on the basis of consensus of the parties. If there is disagreement—and given that we have the states and a number of Commonwealth agencies in the consulting process—is consensus hard to achieve?

Mr Zapantis—You would be surprised. In this particular area, getting agreement on the content—the actual words in these codes of practice, et cetera—has been perhaps much easier than in other areas. That is possibly because at the international level there are very well established guidelines, codes of practice and requirements. In the radiation and nuclear safety regime, you are always going back to those internationally agreed data sets and codes of practice and making sure that whatever you come up with at a domestic level is consistent with those existing codes of practice and guidelines. There really is not all that much room to manoeuvre; hence, coming up with guidelines or whatever, which all states and parties agree to, is often not as difficult as one might imagine.

Mr JENKINS—Which portfolio does the agency reside in?

Mr Zapantis—Health.

Mr JENKINS—Is that agency the regulator on ANSTO?

Mr Zapantis—Yes, that is correct. ARPANSA is responsible for regulating ANSTO.

Mr JENKINS—Thank you.

CHAIR—I have always wanted to ask a scientist about one of the problems we have in the nuclear industry, and that is the waste. Why can't we put it on a rocket and send it to the sun?

Mr Zapantis—We could. There are a couple of issues. The first issue is that if the rocket fails—

CHAIR—But it is the same as if you bury it: what if?

Mr Zapantis—The transport mechanism is very different. If a rocket fails and the thing blows up in the atmosphere, it is potentially catastrophic. The cost is a minor issue, of course.

Mr BILLSON—Once you get the hang of what is in a rocket, regardless of the payload, it is just a question of degree.

Mr Zapantis—Yes. That is really the reason why it is not practical.

CHAIR—We might leave it at that because we are rapidly running out of time. Thank you very much.

[1.25 p.m.]

\DB\WLBKENCHINGTON, Mr Richard Ambrose, Executive Director, Great Barrier Reef Marine Park Authority

MACKIE, Ms Kathleen, Acting Assistant Secretary, Marine Group, Department of the Environment and Heritage

O'CONNELL, Dr Conall, First Assistant Secretary, Marine Group, Department of the Environment and Heritage

CHAIR—I welcome the Marine Group of the Department of Environment and Heritage. I think we have seen you all before, but thank you very much for coming along.

Mr BILLSON—We will start with GBRMPA. In terms of the relationship between the Commonwealth and the Queensland government, are we getting any nearer to signing the agreement and having a more transparent set of relationships between the two jurisdictions?

Mr Kenchington—In some areas the relationship is already fairly transparent in terms of many of the management issues. The core issue, which we are going through a very detailed process with at the moment, is getting a much clearer interpretation of the day-to-day management agreement, which is the jointly funded exercise between the Commonwealth and the state.

You may be aware that Dr McPhail has recently resigned and will be moving to be Director of the National Parks and Wildlife Service in Queensland. So there are two possible outcomes. It should become much easier to negotiate or, alternatively, it might become much harder. But at least we can be sure it will be somebody who has a very intimate understanding on the other side of the table of the issues from both sides.

Mr BILLSON—How are all those catchment themes, if I could describe them as that, progressing up there? Is the debate moving on? Is there some possibility of a consensus emerging out of how to handle the catchment issues?

Mr Kenchington—Yes, to answer your last question, I think there is some degree of consensus but it is a fairly detailed matter. We have within our reorganised structure a coastal development and water quality group. One of the activities that is going through is working with the Queensland departments, particularly the local government and planning departments, because what we really need on the Queensland jurisdiction is a series of coastal management plans which then dovetail in with the plans that we have on our side of the low watermark and which feed into the catchment management plans upstream.

Mr BILLSON—With that new division, you will effectively quarantine the administration of those catchment issues so the councils et cetera are very much involved with those things but not necessarily involved with GBRMPA's activities that are unrelated to the catchment issues?

Mr Kenchington—Yes. What we have tried to do with all of the issues groups is to provide clear foci so that people who have to deal with that particular issue know where to go and we have an expert within the organisation—

Mr BILLSON—It can go straight off into other areas.

Mr Kenchington—It is not so much that; it is just that we used to have a generic process related thing and people would come from outside into this relatively impenetrable structure. Now you know if you are coming into the authority that you can go into an area which deals with coastal or water quality, deals with tourism, deals with fishing or deals with conservation, biodiversity and heritage. That does seem to be streamlining a lot of things.

Mr BILLSON—So we should be more upbeat about how all those ecology issues are being handled in relation to catchment or jurisdictional interface?

Mr Kenchington—I am not playing down that there are considerable issues in handling the whole way in which the catchments are managed. The good thing about the linkage of land-water quality is that, by and large, most of the issues of avoiding land sourced pollutants coming into the marine environment also relate—wearing another hat—to conservation of soil fertility and nutrients where they are wanted—on the farm property. The process is how you get there and how the economic structure is worked out so that you get a win-win solution for the land managers—private and public—as well as the water managers, the water recipients. A lot of that is subject to research and negotiation at the moment.

CHAIR—On that particular issue, what do we know about the historic nutrient levels? What do we have today?

Mr Kenchington—I am not sure whether the committee has access to that. I can certainly table this copy and make sure that we get some more.

CHAIR—So we can go back some years with some readings of nutrient levels?

Mr Kenchington—Yes. The water research program, which is reported on in there, and which is done by a combination of the CRC reef, the Australian Institute of Marine Science, the CSIRO and a number of universities, has reached a consensus, although the consensus is not as solid as one might like. What we are dealing with now is probably about four times the level of terrestrial run-off to that which occurred prior to European settlement.

CHAIR—You can do that by core sample on the reef too, can't you?

Mr Kenchington—That is largely sedimentary evidence on the rate of accumulation. There are some figures in there for the amounts of nitrogen and phosphorous put onto the land in agricultural treatments and some figures on the levels of nitrates and phosphates reaching the Great Barrier Reef world heritage area. We also note from that program that most of the run-off—most of the terrestrial things—is entrained, meaning that the water basically turns left when it comes out of the river mouth because of the way the currents go, and relatively little gets more than five to 10 kilometres offshore. The large part of the physical structure of the reef is beyond 10 kilometres. The issues of concern are the inshore habitats, the fringing reefs and the areas closest to the river mouth.

Mr JENKINS—Is there a knock-on effect? If the damage is done more to shore, does that then affect the ecosystems alongside?

Mr Kenchington—It can. But, by and large, the inshore environments are subject to a fair amount of perturbation historically anyhow because they have always been the areas which have been subject to occasional large inundations after cyclones and to sedimentation when land forms have been destroyed. You get different species suites of corals and fish on the inshore reefs to the offshore reefs. If you do a transect from the coast out to the offshore, you get a much greater difference between the inshore and the offshore than you do if you go along in the middle or the outer shore. In some ways, you are almost dealing with quite distinctly separate environments.

CHAIR—It would seem to someone who lives just south of the border that there has been—

Mr BILLSON—Which border is that?

CHAIR—Not the Mexican border, the Queensland border. There has been some friction between the Queensland government and GBRMPA. I dare say that a lot of it is based on the politics of people's interests within that area. How are you managing that? Is that a fair statement?

Mr Kenchington—There has always been a degree of friction. It is more of a dynamic tension—going back to the old Charles Atlas body building exercise. We have got two issues there.

CHAIR—Good term, actually.

Mr BILLSON—That is the line of the day.

Mr Kenchington—There are also substantial frictions within the Queensland structure.

CHAIR—Between the departments?

Mr Kenchington—Between the primary industries monolith and the rest—that is, local government, environment and the rest. I think that probably is more broadly generic. But the friction between the two has been quite productive—if you look back at the things which have been set up for managing the Barrier Reef. A number of issues have been identified and worked on, often not at the rate which one might like in terms of catchment management things—we have been working on those for a number of years. There have been considerable changes—agronomic changes—to the sugar industry in particular. I am not saying that those agronomic changes came because we were passionately worried about what got out onto the reef. But the combination of green trash blanketing different tillage, which was identified as being one of the measures, was also identified as being a useful agronomic practice. So, within the DPI and environment—

CHAIR—It saved money, actually.

Mr Kenchington—That is right; the perfect solution of enlightened self-interest on both sides.

CHAIR—I have noticed in the news lately that there has been a resurgence of the crown of thorns. Do we know any more about the crown of thorns—its historic surges or declines on the reef?

Mr Kenchington—How long have you got? We know that we are now in the third crown of thorns episode. They have come up at roughly 15- to 17-year intervals. We have been monitoring the one which we have at the moment in the area between Cooktown and Cairns for the last two to three years. We have a new survey technique which enables us to pick up the babies when they are thumbnail size as opposed to waiting for them to get saucer size. What this is enabling us to do is identify areas where we need to redouble the adult monitoring and put the tourist industry on alert for the need to implement control programs in areas of importance to them for potentially destroying tourist dive sites.

The other side we know is that the reef has recovered, about 12 to 14 years after the previous outburst. We could be having a classic predator-prey relation. The coral builds up. When there is enough coral to sustain a population of starfish, they chop it down. We go up and down again. We know they have occurred in the past from geological strata. What we do not know is whether the frequency we are getting them now is exaggerated by what has been going on. It is something that people do. There are lots of theories about that, but we just do not know. We have not had it long enough to determine whether what we are seeing now would produce any different signal in the sediment to what has happened in the past.

CHAIR—In the greater scheme of things, where do we sit in the management of the marine environment and how do we dovetail into other countries in trying to protect the marine environment?

Mr Kenchington—I have just returned from a visit to France in the context of the International Coral Reef Initiative, an organisation whose secretariat we held for a while. There is no doubt there that we are regarded, I am frequently told, as state of the art. We are frequently asked for advice, both paid and unpaid advice, from international agencies such as the World Bank and the UN bodies through to bilateral things with the Indonesian government, the Maldivian government and so forth. There are a number of major issues in global coral reef management in which, by default, we are the global centre. The vast majority of money, effort and expertise which has been invested and created in coral reef science and management resides within 150 kilometres of Townsville. For an obvious reason, we have been concerned about it and have been spending \$40 million plus a year over the last 20 years. It would be a bit of a worry if we had not gained some sort of track record.

CHAIR—So you think that we have the environmental concerns, the socioeconomic concerns, the economic concerns, et cetera, in balance on the reef at the present time?

Mr Kenchington—It is always difficult, because the balance always changes as economic and social factors vary. I believe we have a system which enables us to work with the various groups, and it is reflected in the structure which I outlined before. The pressures and activities that relate to a shallow coastal area generally come from fishing, tourism and recreation and the issues relating to conservation, biodiversity and heritage. The fourth one is the linkages across to the other jurisdiction—the shaking hands, whether it is at three nautical miles or low water.

Mr BILLSON—In terms of Dr O'Connell's area.

Dr O'Connell—To pick up the theme of 'have we got the balance right?' I guess in terms of the development of the oceans policy process, that is where we are starting to look. There is obviously an intensive long-term set of processes running in the Barrier Reef. There has not been the same sort of activity in the rest of the EEZ at all or around the country in the same way. One of the objectives of the oceans policy process is to start to put in place a rolling series of regional marine planning processes so that we do start to look at that issue of integrating the different sectors that are currently using the resources, ensure that we are trying to accommodate the conservation needs and the social and economic needs, and make sure that we understand what the impacts of the interactions are on making decisions.

I was interested when, earlier on, you were talking about the fisheries management and said that they have been into stock assessment and stock management on the whole rather than ecosystem management. That is the sort of overlay that we would be looking to try and put on the different sectors.

CHAIR—Where are the biggest concerns in the wider marine environment? The seas, for instance: where would you see the need for some management?

Dr O'Connell—As I recall, the state of the marine environment report—which I don't have here at the moment—identified land based marine pollution as the first order one. That involves, obviously, then looking at integrated coastal management.

CHAIR—Are you talking about heavy metals and chemicals?

Mr BILLSON—And hydrocarbon run-off from roads.

Dr O'Connell—Yes, all sorts—point source and also agricultural run-off. Acid sulfate soils has come up in terms of coastal development.

CHAIR—If phosphorus and nitrogen were mixed in the environment, wouldn't they be advantageous to the marine environment?

Dr O'Connell—I am not sure.

CHAIR—For instance, the great fisheries of the world are where you get these wellings of water that are rich in nutrients.

Mr Kenchington—Yes, but—I will speak particularly of the Barrier Reef at the moment—that is an environment which developed in a low nutrient area. If you overload corals with phosphorus, they substitute phosphorus for calcium and the skeleton becomes weaker. Inshore, yes, we do get more productivity in some of the mangroves there. It is a trade-off exercise.

We have a new research program starting with the cooperative centre reef which is looking very actively at defining performance criteria for management of a whole range of activities, not just our management but the management of fishing and fisheries and the management of the catchments which discharge; at the point where the black box discharges into our area, that is the performance we want to manage. In fishing, it is much wider.

Mr BILLSON—On Dr O'Connell's point earlier, with the interrelationships that you see in the work you are doing on coastal planning, land use planning and those sorts of things and the

national environment protection measure that was foreshadowed in the government's policy, are the bits starting to come together, do you think?

Dr O'Connell—Yes, and we hope that they will come together even more strongly on a regional basis with the regional marine planning. We will need to get good cooperation from the states in making the Commonwealth-state waters process work. But we have a very good cooperative relationship with the states in terms of some of the programs we have currently got, including the coastal and marine planning program which involves the Commonwealth trying to facilitate better cooperative relationships between local councils in cross council planning issues. Currently, we have about 40 per cent of the coastline under that program. That involves something like 90 per cent of the population around where the impacts occur. So we are attacking it from the cooperative base with the states and at the local community and government level.

The other side that we are going to start looking at is from the oceans policy perspective—looking at the broader EEZ uses and coming back in. We would expect to see them come together. Our first planning process will be happening in the south-east EEZ—the waters off Tasmania, Victoria, part of New South Wales and part of South Australia—in the next couple of years.

CHAIR—Melbourne.

Mr BILLSON—Have a look at the offshore constitutional settlements and fishing and then find some fun.

Dr O'Connell—Part of the objective of the exercise is exactly to try and look at those different arrangements that are around which cause a great deal of complexity in the interrelationships and start to make sure that they are coordinated. The objective, certainly at the Commonwealth level, is to have Commonwealth agencies abide by the outcomes of the regional marine plans. We want to have, if you like, a bite on the other end of it.

Mr BILLSON—I am conscious of the time so here are two quickies. First, the ballast water program against introduced organisms: how is that going? The second is a broader question which applies to everybody here: our capacity to do more in sharing knowledge and expertise within the region is almost an aid type project. I think there is a capacity there we do not draw from.

Dr O'Connell—Activity on ballast water is managed on a national basis through the Australian Ballast Water Management Advisory Council, which comprises representatives from Commonwealth, state and industry. We have provided a large amount of money for their research fund, and we are going to be looking at a further program out of the oceans policy which will provide assistance there.

Resolved (on motion by **Mr Billson**):

That, pursuant to the power conferred by section (a) of standing order 346, this committee authorises publication of the evidence given before it at public hearing this day.

Ms Tinney—Mrs Irwin asked a question about the water quality strategy guidelines. If you could make this listing of them available to her, we would be grateful.

CHAIR—Thank you very much everyone for attending.

Committee adjourned at 1.46 p.m.