

BUDGET ESTIMATES 2022-2023

Environment and Heritage portfolio

Portfolio Committee No. 7 – Planning and Environment

Answers to Questions on Notice

Hearing: 23 August 2022



Environment and Heritage

No.	Question
1.	<p>Eradication of weeds and pests – Transcript page 6</p> <p>The Hon. PENNY SHARPE: Mr Fleming, thanks, I appreciate that. You can say that off a baseline it is three times more – good, I'm not going to complain about that. How much money does national parks spend on eradication of weeds and pests? I'm trying to understand what the field officers do, where the teams work and how much is actually being put into dealing with this problem that's costing us \$2 billion a year.</p> <p>ATTICUS FLEMING: I can give you a brief answer and then give you more detail on notice. The parks budget at the moment is significantly larger than any other budget in its history. We are spending more money on feral animal control than ever before in its history.</p> <p>Answer:</p> <p>Please refer to the answers given to the Hon Mark Buttigieg MLC to supplementary questions 41 and 42 from the August 2022 Environment and Heritage Budget Estimates hearing.</p>
2.	<p>Waste Strategy targets – Transcript page 8</p> <p>The Hon. PENNY SHARPE: Can I just clarify with you, in the new waste strategy, what are the targets for the three types of waste?</p> <p>Mr JAMES GRIFFIN: Mr Chappel or Ms Chang can give you the specific targets, but the fact that we have –</p> <p>The Hon. PENNY SHARPE: Do you not know what they are?</p> <p>Mr JAMES GRIFFIN: I will have a look for you. As you said, there's a lot of detail to be looking at. What I do know is the \$356 million that we've put into the Waste and Sustainable Materials Strategy is seeing us aggressively –</p> <p>The Hon. PENNY SHARPE: Let's be clear: The money for that comes from the waste levy, doesn't it?</p> <p>Mr JAMES GRIFFIN: Yes, and other – yes. Ms Chang, do you want to provide some comment?</p> <p>TONY CHAPPEL: Perhaps just while she comes forward, Chair, if I may, there are some new targets in the strategy, including a 10 per cent per person reduction target of waste generated. And we have an 80 per cent recovery rate aspiration across all waste streams by 2030.</p> <p>The Hon. PENNY SHARPE: We've gone from 70/70/80 to 80 across all three but, just to be clear, we're at 43/52/76. They're the last figures, unless there's updated figures that we can get into.</p> <p>TONY CHAPPEL: I understand we're very close to publishing the latest update. I'll take some advice on whether we might be able to share that.</p> <p>The Hon. PENNY SHARPE: Terrific. If you can come back this afternoon about that, that would be great. Ms Chang?</p> <p>NANCY CHANG: I just wanted to make some comments in terms of the overarching target and how this strategy differs from the last one. We understand –</p> <p>The Hon. PENNY SHARPE: Sorry, Ms Chang. I've got a very limited amount of time. I will definitely ask you about this this afternoon.</p> <p>NANCY CHANG: I'll come back this afternoon.</p>

No. Question

Answer:

The NSW Waste and Sustainable Materials Strategy 2041, and the NSW Plastics Action Plan adopt the targets endorsed by the NSW Government under the National Waste Policy Action Plan 2019. These are to: reduce total waste generated by 10 per cent per person by 2030; have an 80 per cent average recovery rate from all waste streams by 2030; significantly increase the use of recycled content by governments and industry; phase out problematic and unnecessary plastics by 2025; and halve the amount of organic waste sent to landfill by 2030. The Waste Strategy and Action Plan also commit to new targets to reduce litter by 60 per cent by 2030, reduce plastic litter by 30 per cent by 2025, and triple the plastics recycling rate by 2030.

3. Non-headshot investigations – Transcript page 11

The Hon. MARK PEARSON: How often are non-headshot reports investigated and evidence found? Because there is a quote from one of the department compliance officers, who says, "We just have to write the cases off. If there have been non-headshots reported, it is actually not possible to really assess them because the carcasses don't have a head on them." How is it possible to investigate a non-headshot when carcasses are arriving at processing plants without the head on their body?

DEAN KNUDSON: Mr Pearson, if I can just clarify a couple of things. One is that, with respect to the overall coordination and the lack of clarity that you talked about in your first question, there is an interagency working group that has been established which is trying to get exactly at the issues that you are talking about. I just wanted to clarify that. That involves Local Land Services, as well as ourselves in the biodiversity conservation area, as well as national parks, because each one has a different role with respect to kangaroo management. With respect to your question about how to actually undertake an investigation when the head of the carcass is missing –

The Hon. MARK PEARSON: It is not missing. It is standard practice.

DEAN KNUDSON: What I was going to say, though, is that the head of our compliance area obviously is not here and is overseas. So, in terms of giving you the specifics on how an individual scenario like that is dealt with, if we can come back on notice? Because I certainly don't know the details of how they manage that, in particular.

Answer:

If there is no bullet wound anywhere in the neck, body, legs or tail of the carcass then by inference the animal would have been headshot. It is standard practice to leave the head in the field because of the potential for lead contamination from the bullet to adversely impact consumers of the meat.

4. Animal welfare referrals and audit – Transcript page 12

MICHELLE DUMAZEL: Our compliance officers on the ground, when they visit the commercial harvesting/processing plants, inspect the carcass for body-shot wounds. Also, where there's welfare, noncompliance and animal cruelty incidents, we report those to New South Wales police or the RSPCA for investigation.

The Hon. MARK PEARSON: And do you follow up as to what actually occurs in relation to that investigation?

DEAN KNUDSON: I was going to say that I am not aware that we would. Normally, if we referred something to the police, that is over to the police to determine whether there is sufficient evidence to prosecute a case, et cetera, or not. But, just to make sure that I've got that right, we will come back on notice with that.

The Hon. MARK PEARSON: Yes. Can you provide a list of all of the referrals to either the police or the RSPCA or the Animal Welfare League or the Food Authority in relation to animal welfare breaches? Minister, can you confirm that, in 2022, the ABC 7.30 program

No. Question

obtained kangaroo program management data detailing some 744 – in one year – breaches of licence relating to overdue returns and other matters which were yet to be entered into the wildlife management system? Minister, aren't you concerned about this number of overdue returns and other matters?

Mr JAMES GRIFFIN: Any example of noncompliance with this program, as you would expect, does concern me, and I think we have understood –

The Hon. MARK PEARSON: Well, 744 would be alarmingly concerning, don't you think?

Mr JAMES GRIFFIN: I am not familiar with that program or that specific number, but I can say to you that –

The Hon. MARK PEARSON: The internal audit that came through in the SO 52 confirmed that that was an issue. How can the quota system have any integrity when we don't have up-to-date records of the number of kangaroos harvested by the industry at any given point in time? Considering your responsibility is to not ensure that the kangaroo meat harvesting commercial industry is thriving, but your responsibility is to protect every wild animal in New South Wales from unlawful, unnecessary and unjustifiable harm. If your department and the ABC's 7.30 have been given this level of evidence, how can you have any trust, or how can you be satisfied that this industry is being properly regulated? Really, if it isn't, it is committing an offence under the Prevention of Cruelty to Animals Act. There are offences under the Prevention of Cruelty to Animals Act and the biodiversity Act.

Mr JAMES GRIFFIN: I share your concerns and thank you for raising that issue. I have great confidence in my team – every single one of them. They do great work. They've undertaken to come back to you on notice with some of the specifics of the issues that you've raised. We will do that. I think Mr Knudson has something to add.

DEAN KNUDSON: Just simply I wanted to say that with respect to the internal audit and its findings, we can come back and give an indication of where we are up to with respect to implementation of the recommendations from that. One of the key things that we have – Ms Dumazel and I visited one of the commercial harvesting locations. We had a fairly detailed discussion with the operators as well as our compliance staff about how they're moving to an automated system to get exactly at the issue that you're talking about – the level of rigour and clarity with respect to the data that's collected under the program – so that the quotas do have robust analysis in behind them. We can provide that on notice as well.

Answer:

The Department refers incidents of animal welfare and animal cruelty to law enforcement agencies under the Prevention of Cruelty to Animals Act 1979, as required. These agencies include the RSPCA, the NSW Police Force or the Animal Welfare League. The Department does not maintain a centralised database of these referrals. The Department does not actively follow up cases that are with these agencies unless we have a specific ongoing role.

Referrals are not made where kangaroo carcasses in a chiller or processing works are found to contain a bullet wound, as this is a clear breach of the Animal Dealer Licence Conditions (Section 13, the licensee must not buy, possess, sell, import or export a kangaroo carcass or unprocessed kangaroo skin containing a bullet wound anywhere in the body other than the head) and is dealt with solely by the Department.

Record keeping in the commercial Kangaroo Management Program is accurate and timely. The commercial take against the allocated quota is reported monthly for each species in each of the commercial harvest zones. The reports are published on the Department's website.

Reporting against tag allocations is also very high and the number of unaccounted tags very low. The 2021 Annual Report – New South Wales Commercial Harvest Management

No. Question

Plan 2017-2021 notes that 99.4 per cent of harvester monthly returns were submitted at the time of drafting the report, in January 2022. Of the 519,893 tags that were allocated in 2021, just 1.2 per cent (6015 tags) were unaccounted for. Unaccounted in this context simply means they have not been reported as harvested and have not been returned to the Kangaroo Management Program (KMP).

In 2018–19 an internal audit of the commercial KMP made 27 recommendations for improving program performance and compliance outcomes. Progress against the recommendations was reported in response to a Question on Notice from the March 2022 Budget Estimates.

The Department has initiated a project to investigate the potential for the use of a digital tagging system within the commercial KMP. The project will trial the use of a scannable tag in conjunction with a smart phone application (similar to QR codes and readers) with a subset of harvesters and dealers in the fourth quarter of 2022.

The trial makes a significant step toward addressing Recommendation 3 (*Department to investigate new technologies for tracking tags that follow the supply chain and methods of field verifying records submitted by harvesters, chiller premises and animal dealers*) and Recommendation 15 (*Explore new technologies (e.g. bar coding, mobile apps) for monitoring KM compliance and investigate supply-chain tracking tags that carry or can be related to relevant compliance data needs*) of the Audit Report.

5. Threatened species – Transcript page 13

The Hon. PENNY SHARPE: Yes, I've got that. Thank you, Minister. But I'm not asking you that; I'm asking why in the budget — I've got page 5-13 of the *Outcomes Statement 2022-23*. There's basically a measure that states, "the number of threatened species and ecological communities on track to be secure in the wild". It talks about droughts and it talks about bushfires. It basically states that the target now for 2025-26 is that there will only be 150 that are "on track to be secure in the wild".

ATTICUS FLEMING: Ms Sharpe, if I may, we can take on notice providing you with an explanation for that particular line item. I suspect it relates to one program. If you step back and take a more holistic view, that is certainly not the objective in terms of threatened species in the State. In national parks, for example —

Answer:

The target figure of 150 is specific to the Saving our Species program and does not include reporting under other conservation programs. The Saving our Species lag indicator is calculated once per year and is the number of species that are on track to be secure in the wild. It is calculated at the species level for management streams.

The program has set a target of 150 species for 2025–26, commensurate with program funding for the period 2021–26, and because of uncertainty relating to impacts from unpredictable or unexpected events such as the COVID-19 pandemic, floods, droughts and bushfires.

6. 30 per cent protected area commitment – Transcript page 14-15

Mr JAMES GRIFFIN: Yes. So New South Wales is doing its bit. We are aggressively expanding all areas that we have under conservation.

The Hon. PENNY SHARPE: Sorry, did you give us a target of how — so you're saying you are aggressively expanding?

Mr JAMES GRIFFIN: Yes.

The Hon. PENNY SHARPE: Some 600,000 in the last 12 years or so. How many are we getting in the next five years, to 2030? Maybe take it on notice.

Mr JAMES GRIFFIN: Yes.

No. Question

Answer:

The NSW Government will continue to expand the protected area network.

Since March 2019, more than 600,000 hectares has been secured for the NSW national parks system. Moving forward, the focus will be on acquiring under-represented landscapes, habitat for threatened species and land that meets other priority criteria such as cultural heritage.

The NSW Government is also investing in private land conservation. Since the inception of the NSW Biodiversity Conservation Trust (BCT) in 2017 to 30 June 2022, 368 landholders have signed or plan to sign a conservation agreement with the BCT, creating conservation areas across more than 195,000 hectares.

7. Woronora Heights koala colony – Transcript page 16

The Hon. PENNY SHARPE: I'm across the actions of the plans. I'm very across it. I'm very interested, though. Here is a living, breathing example. Woronora Heights – there's a healthy koala population there. You've got a government land owned by WaterNSW. It has been there because it's been reserved for infrastructure for a long time, which is, ironically, of course, partly why it's a good corridor. Why can't you pick up the phone to the Minister and say, "Here's an opportunity for us to actually dedicate this corridor and protect it forever for this koala population?"

Mr JAMES GRIFFIN: From memory, that particular parcel that you're referencing and wrote to me about had some complications with the local council and, obviously, Sydney Water. But I do undertake to you to take that on notice and see where we can –

The Hon. PENNY SHARPE: You've already given me the answer, which is that there's only one – there's some zoning, which is E2, that they're going to put five houses on this area. What I'm saying is this is one of the easiest gets that is possible for koala protection. I assume that Sydney Water is looking to get the development through so that they can then sell off that land. Here is an opportunity, department to department, to come to some arrangement. You've got funding in the koala strategy to even compensate Sydney Water, although I'd argue that they should add it in for the cause. Your answer so far is saying it's a matter for Sutherland Council. I'm just trying to say to you here is an opportunity. Will you take it?

Mr JAMES GRIFFIN: We've, obviously, got to work with all stakeholders on that particular parcel of land. We'll continue to do that. I guess you're illustrating as well the challenges and the complexities of having various stakeholders –

The Hon. PENNY SHARPE: Minister, it doesn't get any easier than this. This is not private land. This is government land. It's got identified koalas in it. It's attached to other corridors that go into the national park. It's got a healthy koala colony and a new one that's been discovered in Heathcote. Yet you're saying it's complicated and we couldn't possibly deal with it. All you need to do is talk to Sydney Water and your departments to actually work through how you can protect this corridor. You're just telling me you can't do it.

Mr JAMES GRIFFIN: No, no. I'm not saying I can't do it.

The Hon. PENNY SHARPE: I think you are.

Mr JAMES GRIFFIN: But I'm saying that, as I set out, there is the koala strategy, which is the largest in the country. Wherever –

The Hon. PENNY SHARPE: The last koala strategy, which previously had been the largest in the country, saw koala populations – we lost them by a third or a half. So forgive me for being concerned about just pointing to strategies as the way we're going to save them. If we don't actually save the trees that they live in, how are we going to do that?

The Hon. MARK PEARSON: They get listed as endangered.

No. Question

Mr JAMES GRIFFIN: Clearly, the bushfires of 2019 put enormous and immense pressure on the koala population. I sat before this Committee at the beginning of the year and undertook to get the koala strategy out. It's out. It has—

The Hon. PENNY SHARPE: We'll get to that. That's great. So you're going to have a look at Woronora, but no guarantees.

Mr JAMES GRIFFIN: I'll undertake to do that for you. Yes.

Answer:

Acquisitions of koala habitat for addition to the national park estate are required to ensure multiple criteria are met. Firstly, habitat connectivity. Secondly, that there is a good chance of survival into the future; and finally that an acquisition will deliver the greatest benefit at the lowest cost. The Koala Strategy also identified priority habitat locations to target as they hold stronghold populations that have a high chance of survival and can ensure genetic diversity.

The National Parks and Wildlife Service (NPWS) has not undertaken a detailed assessment of the land owned by Sydney Water at 22 Bundanoon Road in Woronora Heights. However, an initial assessment shows that the site is small and disjunct from existing protected areas, already has a level of protection through land-use zoning, and the threats facing koalas at the site would not necessarily be mitigated through reservation under the *National Parks and Wildlife Act 1974*.

The decision about whether to consent to the application to subdivide the land at Bundanoon Road is a matter for Sutherland Shire Council.

8. Koala crossings – Transcript page 17

The Hon. PENNY SHARPE: My understanding is that the chief scientist identified four crossings. But you're only committed to two. Why is that?

Mr JAMES GRIFFIN: Ms Dumazel might have some further information on that. My understanding was that the Cumberland Plain Conservation Plan took on the recommendations of the chief scientist and identified two underpasses as well as the fencing and also the additional acquisition of estate. So—

The Hon. PENNY SHARPE: I'm across the fencing. But my understanding was that there were corridors that needed to be created, with crossings, from Noorumba-Menangle, Nepean Creek, Beulah-Woodhouse, Mallaty Creek and Ousedale. That's actually five in terms of the corridors. But there's only been two committed to in the plan. That's correct, isn't it?

DEAN KNUDSON: All I was going to say, Ms Sharpe, is I don't have that level of detail. But it's helpful that you've just said the four crossings. We can come back on notice on that. Where we've been focused with respect to the plan is the overall outcomes with respect to the 11,000 hectares of key koala habitat that's protected through the plan, which is one of the largest conservation regulatory decisions in the country's history.

The Hon. PENNY SHARPE: Sure.

Mr JAMES GRIFFIN: Just to clarify, crossings will be installed at Wilton and Greater Macarthur and then the underpasses will be done at Appin Road in two locations. So that may be the four that you're referencing.

The Hon. PENNY SHARPE: If you can confirm that, that would be good.

DEAN KNUDSON: We will.

MICHELLE DUMAZEL: I'll do that this afternoon.

Answer:

The Office of the Chief Scientist (OSCE) prepared three reports:

No. Question

- Advice on the protection of the Campbelltown Koala population (April 2020).
- Response to questions about advice provided in the Koala Independent Expert Panel Report 'Advice on the protection of the Campbelltown Koala population' (February 2021).
- Advice regarding the protection of koala populations associated with the Cumberland Plain Conservation Plan (May 2021).

OCSE advised in 2020 that crossing structures to traverse Appin Road will be key if the connectivity to east-west corridors is to be provided between the Nepean and Georges rivers.

The four underpasses that those reports identified for delivery, are set out below:

- Under the Cumberland Plain Conservation Plan, the Government has committed to:
 - a new koala underpass near the intersection of Appin Road and Brian Road, north of Appin township (Ousedale Creek)
 - augmentation of the existing Kings Falls Bridge where Appin Road crosses the Georges River.
- In the Greater Macarthur 2040 Update – December 2021, the Government has flagged:
 - a new koala underpass on Appin Road at Noorumba-Menangle Creek
 - a new koala underpass at Beulah-Woodhouse Creek.

In addition, a canal crossing is being investigated at the Upper Canal on Ousedale Creek.

9. Water Sharing Plan amendment advice – Transcript page 19-20

DEAN KNUDSON: There is just one very quick point I want to make. Mr Field, you talked about an email from the beginning of June. The concurrence decision was made at the end of July. In between those two dates, the in-catchment flow targets were strengthened. The Minister has talked about the independent review. That was added. The analysis of the net results with respect to the amount of water that would be retained, not extracted for floodplain harvesting – those numbers were lowered. All of these then led the department to recommend to the Minister, contrary to its advice in early June, to take concurrence. So things changed in that two months – is effectively what I wanted to say – based upon our discussions and the Minister's office's discussion, and the Minister's discussion, with Water and the water Minister.

Mr JUSTIN FIELD: Mr Knudson, can you provide to the Committee the advice that went to the Minister – the final advice – before he signed off on this water sharing plan amendments?

DEAN KNUDSON: I am not sure that I can.

Mr JAMES GRIFFIN: We'll take that on notice.

Mr JUSTIN FIELD: You're relying on it here. I'd suggest that it would be in the public interest to provide that and then we'll know exactly how the Minister weighed these things in delivering concurrence.

DEAN KNUDSON: Mr Field, what I've said is that the essence of that advice is that we recommended concurrence on the basis of the various elements that the Minister and I have laid out with respect to the additional protections that were put in place versus what was originally proposed by Water.

Mr JUSTIN FIELD: Minister, you can make the decision, I'm sure. Would you please provide that advice that you relied upon in giving concurrence?

Mr JAMES GRIFFIN: I'll take that on notice, Mr Field.

No. Question

Answer:

This advice has been provided in response to an order for papers under Standing Order 52, given by Ms Cate Faehrmann MLC on 10 August 2022 and returned by the Secretary of the Department of Premier and Cabinet on 31 August 2022.

10. In perpetuity agreements – Transcript page 20

The CHAIR: I think we'll recommence and just noting we're a couple of minutes over, so we'll tack those on at the end. Minister, with the 2,000 agreements and two-mill hectares of BCT land that is in protection, can you confirm, are they all in perpetuity agreements?

ATTICUS FLEMING: Can I come back to you after lunch with that?

The CHAIR: Yes.

ATTICUS FLEMING: I have asked for that information.

Answer:

There are currently a total of 2208 agreements in place with the Biodiversity Conservation Trust. Of these, 1430 are in-perpetuity agreements, 652 are Wildlife Refuge Agreements (that are in-perpetuity but may be revoked by the landholder so are not considered permanent), and 126 agreements are termed, that is not in-perpetuity.

11. Code of Practice for Injured, Sick and Orphaned Protected Fauna and housing development – Transcript page 26-27

The Hon. MARK PEARSON: Minister, I am going to take us to an area which hasn't probably been visited very thoroughly before. It is in relation to housing development and its impact on wildlife. I am just going to use one example of a housing development project which my office has received many concerns from the community about. The property developer Mirvac lodged plans with The Hills Shire Council to build 252 apartments and 166 houses across 25.87 hectares. This is causing the removal of 3,000 trees, which are quite well-established trees, and therefore displacing and harming untold numbers of wild animals. Can the Minister confirm that the New South Wales Code of Practice for Injured, Sick and Orphaned Protected Fauna must be applied at the Mirvac development when native vegetation is being removed and native animals are being displaced and harmed? What is the responsibility of Mirvac, or any housing development company, to those animals which are being harmed by the removal of the trees?

DEAN KNUDSON: Your question is about a specific code. I don't know the answer to that, but what I will say is that, number one, we will come back and clarify, for the specific Mirvac proposal that you are talking about, what they are subject to. Obviously, if it is a legislative or regulatory requirement, that would be binding upon —

The Hon. MARK PEARSON: Therefore, you can confirm that there would be an authorised person to rehabilitate and release, and treat or attend to protected fauna on site while the trees are being removed by the company?

DEAN KNUDSON: Again, Mr Pearson, like I said, I really will have to come back to you and talk about the specific obligations that that code would or would not apply to the Mirvac development. I don't know the answer off the top of my head.

The Hon. MARK PEARSON: Can you also provide an answer or provide information as to whether, when Mirvac or any other housing development company are going to remove flora which is likely to be a habitat, they have to include in their development application what actions are going to be taken to protect or help the animals that are harmed?

DEAN KNUDSON: That is absolutely fine; we will come back.

No. Question

Answer:

The Hills Shire Local Planning Panel approved Mirvac's development application for the demolition of existing buildings and ancillary structures, associated vegetation clearing and other associated works at 55 Coonara Avenue, West Pennant Hills, on 15 September 2021.

The Department of Planning and Environment does not have a role in approving development applications, except if a consent authority is seeking concurrence under the *Biodiversity Conservation Act 2016* to decrease the number of biodiversity credits required to be retired. The Local Planning Panel did not seek the Department's concurrence in relation to this housing development.

The approval did not require the NSW Code of Practice for Injured, Sick and Orphaned Protected Fauna to be applied at the Mirvac development.

The conditions of consent, however, required that:

- A fauna management plan is to be submitted to The Hills Shire Council for approval. This plan is to include procedures for the rescue and relocation of fauna encountered during the clearing/demolition process, including the number and type of personnel required for each task and details for the treatment and rehabilitation of any injured fauna.
- Specified tree removal and fauna protection measures are to be implemented during works, including the removal of trees. The measures require that an experienced and qualified ecologist is present to relocate any displaced fauna that may be disturbed during this activity. Any injured fauna is to be appropriately cared for and released on site when rehabilitated.
- The mitigation measures outlined in the biodiversity development assessment report (BDAR) submitted with the development application must be complied with.

When a BDAR is required for a development application, it must include measures to avoid and minimise impacts on biodiversity. The consent authority determines the conditions of consent including what actions are required to protect or help animals.

12. Kangaroo numbers – Transcript page 27

The Hon. MARK PEARSON: How do you have information that the number of kangaroos is constant or static?

Mr JAMES GRIFFIN: The data I have is that the estimated population in commercial zones from 2019 is around the 10 million to 12 million number.

The Hon. MARK PEARSON: If that is the case, why is it that kangaroo harvesters or shooters can't meet their quotas?

Mr JAMES GRIFFIN: I couldn't give you an answer to that, but I can take that on notice and we can seek to get some more information for you.

Answer:

Harvesters are not required to meet a quota. The quota instead sets an upper limit on the number of kangaroos that can be commercially harvested.

A combination of factors affects harvest levels at any particular time. These include demand, availability of other work for kangaroo harvesters, kangaroo numbers (low numbers due to drought or higher numbers due to good seasons), kangaroos being scattered and in less accessible country following good rainfall, and boggy conditions on properties due to above average rainfall.

Young and Morris (1985), Ampt and Baumber (2006), and McLeod and Hacker (2020) provided comprehensive reviews of external issues affecting kangaroo harvesting.

No. Question

References

Young, M. D. (Michael Denis) & Morris, G. J & CSIRO. Division of Wildlife and Rangelands Research (1985). Economic and administrative influences on kangaroo management in NSW: final report. C.S.I.R.O. Division of Wildlife & Rangelands Research, [Deniliquin, N.S.W.]

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McLeod S. R., Hacker R. B. (2020) Balancing stakeholder interests in kangaroo management – historical perspectives and future prospects. The Rangeland Journal 41, 567–579. <https://doi.org/10.1071/RJ19055>

13. Parramatta Female Factory – Transcript page 32

Mr JAMES GRIFFIN: My experience in going out there and visiting it personally was to see a great bit of revitalisation to get it in good shape, and the work in parallel to that in preparing and working with the community and experts to work up the World Heritage nomination was being done. The effort, time and energy of Heritage NSW staff in working to get that to a particular point has allowed me to write to the Federal Minister and seek their support, noting that it needs to be a combined —

The Hon. PENNY SHARPE: Can you tell us how much money you're seeking? You can take it on notice; that's fine.

Mr JAMES GRIFFIN: Yes, absolutely. I will take it on notice.

The Hon. PENNY SHARPE: Is this money required for the nomination to go forward?

Mr JAMES GRIFFIN: Mr Kidman?

SAM KIDMAN: The money is required to fund the preparation of the nomination.

The Hon. PENNY SHARPE: So New South Wales is saying that we're doing the revitalisation but that if we want the World Heritage listing the Federal Government has to do that? Is that the normal practice? That's not my understanding of how we have progressed World Heritage listings previously.

ATTICUS FLEMING: I think what New South Wales is saying is "We've invested in a feasibility analysis, we're spending a lot of money — \$50-odd million — to protect the site, we're ready to work with you on the nomination." Given the level of investment that the Government's making in the site, we'd appreciate the Commonwealth funding the nomination. Our staff are ready to work on it, keen to work on it and build on the feasibility work that's been undertaken.

The Hon. PENNY SHARPE: Terrific. Can I then ask this question, which is, in previous World Heritage nominations —

ATTICUS FLEMING: I think it's a mix.

The Hon. PENNY SHARPE: Could you at least on notice tell us the funding of the nomination process? This is news to me.

ATTICUS FLEMING: We can look into the previous New South Wales nomination processes, yes.

Answer:

On 19 August 2022, the NSW Minister for Environment and Heritage wrote to the Australian Minister for the Environment and Water, noting the NSW Government's commitment of \$53.8 million to conserve and protect the heritage values and future use of the Parramatta Female Factory precinct. The letter also noted that the Australian Government had made a commitment to nominate the property for listing on the World

No. Question

Heritage List and requested that the Australian Government provide funding for the development of the World Heritage nomination, with in-kind assistance from NSW.

Given the Australian Government is committed to a nomination, and the NSW Government has made an extraordinary up front financial commitment of \$53.8 million to conserve and protect the site, the NSW Government is requesting the Australian Government provide funding for the nomination process. The NSW Government will also make an additional contribution through in-kind assistance for the development of the nomination including, if agreed with the Commonwealth Government, leading its development. Noting this particular nomination is exceptional – given the extent of the up-front State Government financial commitment to the site – the proposed approach is consistent with the general principle that the State work in consultation with Commonwealth in developing a nomination, with the State being responsible for leading the preparation of the nomination.

14. Beaches Link and heritage – Transcript page 33

The Hon. PENNY SHARPE: There's a particular issue with engravings and paintings. Can you just give me an update on where that is up to? My understanding from the report is that there's one particular site that people are concerned about. There are about seven or eight sites all together?

SAM KIDMAN: Yes. I think this was the subject of some questions in the March hearing as well. That is a State-significant development, obviously, or State-significant infrastructure. So the role of Heritage NSW would be to advise the proponent, Transport for NSW, on how to manage, protect and mitigate impacts on Aboriginal cultural heritage. That would be our role. Then it would be up to the department of planning to include those mitigation measures as conditions in the conditions of consent through the approval process.

The Hon. PENNY SHARPE: But you're not at that point now?

SAM KIDMAN: No.

The Hon. PENNY SHARPE: Do you have any sense of the time frame of that?

SAM KIDMAN: I can update you on that.

Answer:

The Beaches Link Project is still at the assessment stage. Heritage NSW has not been asked to provide any additional review of the proposals by the Department of Planning and Environment. Heritage NSW last provided guidance on managing any Aboriginal cultural heritage sites following requests on 14 September 2020 and 9 December 2020.

15. Heritage items within national parks – Transcript page 33-34

The Hon. PENNY SHARPE: That would be great. I appreciate that. Minister, within national parks, there are a lot of heritage items, both Aboriginal and non-Aboriginal. Is there a current plan? Previously, I know, there were plans done to manage and, hopefully, update progressively the heritage sites within national parks. Is there a current plan to deal with this?

ATTICUS FLEMING: There's certainly a range of programs and strategies being implemented, but I'd need to take on notice the detail. I'm sorry.

The Hon. PENNY SHARPE: My understanding was that previously – this was done in the previous government – there was an audit done of all of them and then there was basically a plan. But I am pretty certain, which I'm really checking, there's not currently a comprehensive plan to deal with this.

ATTICUS FLEMING: As I said, there certainly are a lot of programs and strategies and work being undertaken.

No. Question

The Hon. PENNY SHARPE: Always a lot of programs and strategies, Mr Fleming.

ATTICUS FLEMING: You might be asking if there's one integrated, comprehensive plan. You might be right in saying that that's not in place, but I'll take that on notice and come back to you.

Answer:

Please refer to the answer given later in the hearing, recorded on page 42 of the uncorrected transcript.

16. Yanga heritage – Transcript page 34

The Hon. PENNY SHARPE: That's terrific. I think you said earlier, Minister, that you'd been to Yanga.

Mr JAMES GRIFFIN: Yes.

The Hon. PENNY SHARPE: Did you see the state of the shearing sheds there?

Mr JAMES GRIFFIN: Yes. We did a visit there, of the homestead and the sheds, again a —

The Hon. PENNY SHARPE: Did you see the falling-down houses and shearers' accommodation there?

Mr JAMES GRIFFIN: A lot of work has been put into repair and remediation of the homestead at Yanga.

The Hon. PENNY SHARPE: That's the homestead. But then, where the shearing sheds are, there's the old managers' houses, that, when I last was there, were full of holes in the floor, hornets' nests. I can show you pictures — I've got them on my phone — if you'd really like to see them. Have they been upgraded? I was there about two months ago. Have they been fixed since then?

ATTICUS FLEMING: I'd need to take that on notice. I'm sorry.

Answer:

The National Parks and Wildlife Service (NPWS) has invested significantly in the maintenance, upgrade and presentation of key heritage assets in the Yanga parks, such as the homestead and woolshed.

The broader homestead precinct is also maintained to a very high standard. Heritage buildings are available for public viewing and have extensive interpretive materials. A multimedia visitor information facility has been developed in the old Cook's Cottage and a state-of-the-art archival facility has been established to preserve important items of Yanga's pastoral heritage.

The Yanga parks have more than 150 items of built heritage and over 1500 items of moveable heritage. Not all heritage items were maintained by the previous owners and NPWS inherited many in poor condition. Maintenance priority is given to those that showcase and preserve the significant heritage of the property's pastoral history. Accordingly, some heritage assets, such as those referred to in the question, receive a minimum level of maintenance and asset upgrades are not planned.

17. Saving our Species and infrastructure spending – Transcript page 36

The CHAIR: Is it correct that, at the moment, \$60 million is the investment in the Saving our Species program? Is that around about right?

DEAN KNUDSON: The investment in Saving our Species is \$15 million a year — so, \$75 million over the five years.

The CHAIR: And yet we've got \$450 million invested in visitor infrastructure development, is that right — around about that?

No. Question

ATTICUS FLEMING: Across national parks, that's correct, over four years.

The CHAIR: Yes, and yet our obligations to protect species from becoming extinct and our visitor obligations in national parks, I would say, are a bit dubious really, aren't they, with regard to our priorities? A bit of passive recreation but, gosh, the level of development we're perhaps planning, and commercialisation and monetisation of our parks system – that's a big investment, isn't it?

ATTICUS FLEMING: It's not commercialisation and monetisation of our parks system, but I'm happy to provide more information in the afternoon.

Answer:

The NSW Government is investing in visitor infrastructure to create opportunities for visitors to safely enjoy our protected areas, appreciate nature and undertake appropriate recreational activities. Provision of these opportunities aligns with both a community expectation and a statutory responsibility. NSW national parks are critical in supporting and growing many regional communities; they attract more than 60 million domestic visits each year, contribute \$17.9 billion annually in economic activity and support more than 74,000 jobs.

Coupled with this record investment in infrastructure, is an unprecedented investment in threatened species and conservation management. This includes funding to support a suite of new and ongoing initiatives, including:

- The National Parks and Wildlife Service Threatened Species Framework, which commits to zero extinctions on park – the first such commitment of any jurisdiction in Australia which will ensure national parks are a permanent stronghold for the conservation and recovery of threatened species.
- The Saving our Species program – one of the biggest cross-tenure conservation commitments ever undertaken in NSW.
- The largest-ever investment in post-fire recovery actions following the 2019–20 bushfire events.
- Delivery of the most significant feral animal control program across the national park system in history, where the level of aerial shooting has almost tripled and aerial baiting has increased nearly five-fold.
- The NSW Koala Strategy, which represents the largest investment of any jurisdiction towards koala conservation, which will protect habitat, support local communities delivering conservation actions, improve koala health and safety, and build our knowledge of koala populations.
- A commitment to build a massive predator feral-free area network across 65,000 hectares of the national park estate which has already seen the reintroduction of 10 locally extinct mammals and will provide a meaningful conservation benefit to more than 50 threatened species.
- Protection of our most valuable environmental assets through the declaration of land as Assets of Intergenerational Significance, which will see the development and implementation of species-specific conservation action plans.
- An investment in the acquisition of land – the cornerstone of biodiversity conservation. This ongoing program will specifically target under-represented landscapes and habitat supporting threatened species, including the koala.
- The development of a ground-breaking and comprehensive ecological health monitoring program which will systematically track and measure ecological indicators that will tell us about the health of the national park estate, including

No. Question

density of feral animals, extent of weeds, populations of key threatened and indicator species, and ecological fire metrics.

18. Mount Canobolas bike path – Transcript page 37

The CHAIR: Okay. Just on Mount Canobolas, the proposal for the extensive 100-kilometre bike path network, Minister, are you aware of the main reason that that area is considered compared to the other couple of areas that were considered for that extensive bike path network on that place?

Mr JAMES GRIFFIN: Mr Fleming?

ATTICUS FLEMING: I'm not sure I understand the question, sorry?

The CHAIR: There was one really salient reason given as to why that was the preferred location for that bike path network as opposed to some other areas surrounding different State forest areas, et cetera. I suppose I was fairly shocked to read that the main salient reason is that it has a couple of really steep areas that give bike riders that extra bit of satisfaction as they're doing it. So perhaps you can just consider how that really fits within the plan of managing a really important State conservation area that has incredible significance to the traditional owners? I read it and thought it was a terribly insulting proposal. But perhaps you can have a look at that?

Mr JAMES GRIFFIN: Okay. I understand, and I'll take that on notice. I think your question though opens a further discussion about some of the conflict use with regard to illegal bike paths and activity in national parks. Where we can, we're working to deliver a cycling strategy so that we can appropriately manage the use of parks where mountain biking is taking place. We obviously experienced a boom in visitation during COVID and, as a result of that, some people are using parks for a whole different set of reasons than perhaps historically they would have. We're working as hard as we can to deal with that, but I take on board your comments.

Answer:

Before any proposed mountain bike facility development in Mount Canobolas State Conservation Area could be considered, the proponent would be required to undertake a comprehensive environmental assessment of the potential impacts associated with the proposal. This would include consideration of any potential impacts on Aboriginal cultural heritage values and the views of traditional owners.

19. Illawarra Escarpment mountain biking – Transcript page 37-38

The CHAIR: Just a final point on the bike network, where really there is a legal question about the use, I think the question will continue to be put about what is that passive recreation et cetera. But just on the Illawarra Escarpment, can I ask, why is there currently a three-part plan and we're only doing REFs in increments as opposed to probably what you would suggest would require an EIS or a more in-depth review so that we can properly look at the cumulative impacts?

ATTICUS FLEMING: Are you talking about for the mountain bike operation?

The CHAIR: I am.

ATTICUS FLEMING: I'll have to take that on notice, I'm sorry. I don't know the reason why. It might be related to the fact that that is straddling different tenures. So some of it's on park; some of it's not on park. But I'll come back to you with an answer. I'll try and do that this afternoon.

The CHAIR: Thank you. The best practice, as we know, is to look at the broadest possible footprint of the development.

No. Question

Answer:

The scale of the Illawarra Escarpment Mountain Bike project does not meet environmental impact statement (EIS) thresholds, noting all unauthorised mountain bike trails that are not part of the network will be closed and rehabilitated. The appropriate planning pathway is under Part 5 of the *Environmental Planning and Assessment Act 1979*.

There are two proposed locations and two environmental assessments for the mountain bike network, one at Mount Kembla and the other at Balgownie. The networks are geographically separate and construction will be completed in two separate stages.

The draft Review of Environmental Factors (REF) for the Mount Kembla section has been completed and was publicly exhibited in June 2022 for comment. The draft REF for Balgownie is still being developed and is scheduled to go on public exhibition in early 2023 for comment.

The third part of the project is not within the national park estate and is being managed and delivered by Wollongong City Council. This work involves upgrades to existing infrastructure to support the network and local communities. The National Parks and Wildlife Service has no role in assessing or determining this component of the project.

20. Garden of Stone biodiversity offsets – Transcript page 38

The CHAIR: Thank you. The best practice, as we know, is to look at the broadest possible footprint of the development. Can I just turn to the Garden of Stone – one more, still in this State conservation area territory? Can you just confirm, has Centennial Coal provided the \$28 million in the biodiversity offsets?

ATTICUS FLEMING: I'll have to take that on notice so that I get it right. But the arrangements have been finalised. The first payment has either been received or is due to be received. And I'll confirm the schedule – it's effectively over a period of four or five years.

Answer:

Please refer to the answer given later in the hearing, recorded on page 42 of the uncorrected transcript.

21. Illegal trade of kangaroos – Transcript page 39

The Hon. MARK PEARSON: When I was going through the SO 52 documents of the six boxes that were privileged, 1½ of the boxes was dealing with one investigation in relation to illegal trade of carcasses of kangaroos into Queensland. Yet nowhere near that amount of documentation was provided in relation to cruelty cases. For example, a harvest to kill 57 eastern greys, despite only having a valid licence to harm red kangaroos and western greys – no penalty was applied and the harvester was merely spoken to and advised after killing 57 animals unlawfully. Further documents made reports of illegal harvesting, including a person illegally harvesting for a period of over six months, accepting carcasses shot by non-licenced shooters and consigning them for sale. Minister, how much money was spent on the investigation into the illegal trade of kangaroos? Do we need to take that on notice?

DEAN KNUDSON: Yes, absolutely, we'd have to take that on notice.

Answer:

It is not possible to provide a precise figure because relevant resources are applied to a range of tasks.

No. Question

22. Alleged cruelty to animals investigations – Transcript page 39

The Hon. MARK PEARSON: Can you also inform whether the same level of investigation – the same level of resources and time and investigation – was ever undertaken in relation to alleged cruelty to animals?

DEAN KNUDSON: I would absolutely have to take that on notice as well.

Answer:

There has not been an investigation into cruelty to animals undertaken by the Department of Planning and Environment, that has involved the same level of resourcing as the investigation into the alleged illegal trade of kangaroo carcasses into Queensland.

Incidents of suspected animal cruelty are referred to the RSPCA, the NSW Police Force, or the Animal Welfare League for investigation. These organisations have enforcement responsibilities under the *Prevention of Cruelty to Animals Act 1979* and the *Prevention of Cruelty to Animals Regulation 2012*.

23. Immuno-sterility research – Transcript page 40

The Hon. MARK PEARSON: You need to take that on notice? Okay. Minister, there was a commitment made by the Government to do research and development into immuno-sterility programs for the control of the horses in Kosciuszko National Park and other places as well. Can you update me as to whether and where it's up to – that research and development?

Mr JAMES GRIFFIN: As you may be aware, the implementation of the control program in Kosciuszko is underway. There are a number of means and methods by which that control is taking place. Unfortunately, we've experienced some challenging behaviour that has put Parks staff at risk. As to the method that you're talking about – Mr Fleming?

ATTICUS FLEMING: The plan contemplates looking more closely at immunocontraception when the technology reaches a point and when the population of horses reaches a point where it could be an effective strategy. It's not anticipated that we'll be in that position in the near future, because the technology's not there and there are far too many horses for it to be effective. Being realistic, that is a few years away before it can be applied – unless the technology changes dramatically.

The Hon. MARK PEARSON: Is your department researching and developing that technology or you're relying on someone else to do it?

ATTICUS FLEMING: We're not investing in research in that technology. We have been engaged with – and I'll take on notice and try to provide you with an update on any discussions that we've had.

Answer:

Appendix 6 of the Final Report of the Kosciuszko Wild Horse Scientific Advisory Panel considered the types of reproductive control technologies available and their applicability to Kosciuszko National Park. The report informed the preparation of the 2021 Kosciuszko Wild Horse Heritage Management Plan and is available at <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/Kosciuszko-wild-horses/kosciuszko-national-park-wild-horse-scientific-advisory-panel-report.pdf>.

In 2021, the National Parks and Wildlife Service (NPWS) met with researchers from the United States Department of Agriculture about research on a new immunocontraceptive, Oocyte Growth Factor vaccine, which may prevent pregnancy for up to three years or longer from a single dose. The three-year vaccination trial has one year left. NPWS will consider the outcomes of this research to inform future management in the park.

No. Question

The efficacy and use of a gonadotropin-releasing hormone vaccine (GonaCon-Equine), used on wild horses in New Zealand for the first time in May 2022, is being closely monitored.

In 2016, NPWS commissioned a 'Review of the feasibility of current fertility control methods for management of wild horse populations (*Equus caballus*) in Kosciuszko National Park'. The outcomes of the review were subsequently peer-reviewed and published as a scientific paper.

As outlined in the 2021 Kosciuszko Wild Horse Heritage Management Plan, reproductive control is a potentially viable option where horse densities are low, and when the objective is to gradually reduce the population further or maintain it at a low density. Reproductive control options and developments in scientific understanding will continue to remain under consideration by the NSW Government over the long term as the wild horse population moves towards the target level and as a complement to other control measures.

24. State-wide Heritage Priorities Plan – Transcript page 43

The Hon. PENNY SHARPE: Can I just pick up on those heritage answers that you just gave, Mr Fleming? That's just built heritage, so it doesn't include First Nations heritage within the parks. The 7,500 is identified as the buildings?

ATTICUS FLEMING: That's my understanding, yes.

The Hon. PENNY SHARPE: What is the approximate time frame for completion?

ATTICUS FLEMING: I think I've been told it's a couple of years of development to get that priorities document put together.

The Hon. PENNY SHARPE: I think it's been about 15 years since it was last done.

ATTICUS FLEMING: I'll ask the team whether there's a chance of getting it done more rapidly.

Answer:

The heritage prioritisation project is scheduled to be completed by December 2023.

25. Threatened species tracking – Transcript page 43

The Hon. PENNY SHARPE: What has changed? What changed in 12 months that made you say, "We've got high confidence that we've got 262 on track"? I accept that you're aiming for around 400, but you had 262. It's 112 fewer threatened animals or plants. What has changed?

DEAN KNUDSON: What my staff had indicated was that there was a target of 260 species and ecological communities, but recent reporting indicates the final result will be between 350 and 400. Again, the 262 previously was the leading indicator where we wanted to end up. We have now changed it to a lag indicator, saying this is what we've actually secured versus what we're hoping to secure. That's why it went from 262 down to 150. They are actually reporting two different things.

The Hon. PENNY SHARPE: But they're on the same graph.

DEAN KNUDSON: Yes.

The Hon. PENNY SHARPE: Do you think that's a reasonable – I think that's a problem.

DEAN KNUDSON: Yes, I think that's a fair point. If indeed that's what seems to have happened, we need to clear this up before we reply on notice.

The Hon. PENNY SHARPE: I'd also be very interested to know what the list of 262 species was and what the list of 150 species is. Are you able to take that on notice and provide that?

No. Question

DEAN KNUDSON: We absolutely are, yes. I will ask, in terms of our response on notice, to clarify the 262 versus the 150, just to make sure that what I've said here is absolutely accurate and to give an indication of how we'll do it going forward so that you've got consistent points of reference over time, as you've just tried to establish.

Answer:

Saving our Species (SoS) has a lead and a lag indicator. The lead indicator is the number of threatened species and ecological communities that are known to be resourced and actively managed (under effective management) in accordance with their conservation strategy. This number may change over a year as resources (external and in-kind) and/or stochastic events can cause the number to increase or decrease.

For 2020–21, the final reported number for the lead indicator was 399 species and ecological communities under effective management. In 2021–22, it is anticipated the final figure will be about 350 to 400 species and ecological communities, with final reporting available in October 2022.

The lag indicator is calculated once per year and is the number of species that are on track to be secure in the wild. It is calculated at the species level for management streams (the site-managed, iconic and population).

The lag indicator for 2020–21 reported that 262 species were on track (see [Appendix 1](#)). In 2021–22 the target of 150 species for the lag indicator is commensurate with Saving our Species funding for 2021–26 and because of uncertainty regarding impacts from unexpected events such as the floods and COVID-19 pandemic. This target is specific to the Saving our Species program and does not include reporting under other conservation programs.

The final number of species on track for 2021–22 will be available in October 2022.

26. National park expansion – Transcript page 44

The Hon. PENNY SHARPE: I suppose it goes to my next question, which might be for you, Mr Fleming. In terms of the expansion of the national park estate, I know that you've got some figures in the budget papers of how much you think you're going to do. Using the koala as an example, with the koala plan, where do these things come together to go, "Okay, we need more protected land for koalas, and national parks is where we will do that"? How is that process decided? To date, the inclusion of new national parks has predominantly been in the western division. It has been large properties that are very important but are low-hanging fruit. How do we get the at-scale koala protection? How does that work through the process that you use? I just don't understand the process.

ATTICUS FLEMING: We have effectively been investing from two pools of money, if you like. One is a general reserve acquisition fund and the other is the koala –

The Hon. PENNY SHARPE: How much is that? Is that about \$20 million?

ATTICUS FLEMING: It has been roughly that. I'd have to take on notice the precise amounts, but that's about right.

The Hon. PENNY SHARPE: If you could give us that, yes.

Answer:

The NSW Koala Strategy 2018–21 allocated \$20 million from the Environmental Trust to permanently protect properties containing priority koala habitat. The NSW Koala Strategy 2022 allocates \$50 million over five years to 2025–26 for purchase of priority koala habitat, with a target of up to 15,000 hectares to be added to the national park estate.

27. State forests – Transcript page 45

No. Question

The Hon. PENNY SHARPE: Off the back of the rolling over of the regional forest agreements, there were undertakings given over a number of decades around identifying State forests that would be transferred into the estate. Has that process ever really been completed?

ATTICUS FLEMING: I would have to take that on notice. I am not aware of the specific obligations. As I said, we sort of keep under ongoing review whether there are areas that we should suggest as additions.

Answer:

The renewed NSW Regional Forest Agreements continue the commitment to establish and maintain a comprehensive, adequate and representative reserve system. The identification from time to time of areas of state forest suitable for transfer to the national parks system is an ongoing process.

Information about the Regional Forest Agreements can be found at:
<https://www.dpi.nsw.gov.au/forestry/regional-framework>.

28. Cumberland Plain Conservation Plan – Transcript page 45

The Hon. PENNY SHARPE: Sure. I just wanted to ask about the Cumberland Plain Conservation Plan. It is my understanding that it has got to now go to the Federal Government for approval. The idea is that it is all up-front so that then you can move forward with that. I was interested, Ms Dumazel, in some of the comments you made earlier this morning about ongoing oversight and monitoring. With regard to changing the plan or decision-making about alterations, is that now fully in the hands of the planning Minister, or is there a role for the environment Minister?

MICHELLE DUMAZEL: It's with the planning Minister.

The Hon. PENNY SHARPE: So he or she is the decision maker?

MICHELLE DUMAZEL: I will have to double-check in terms of the one- and five-year review. I thought there was reporting mechanism to the Minister for environment as well, but I don't have that detail in front of me.

The Hon. PENNY SHARPE: No, that's okay. Obviously, it is governance issue. This is a very long plan over a long time and my concern is that it looks to me, on my reading of it, that the planning Minister now is the sole decision maker, once it's signed off by the Feds. If you could come back to me – and the environment Minister may have a say – is there any kind of formal concurrence that they have to make. If you could come back to me about that, that would be great.

Answer:

The Minister for Environment and Heritage approved the Cumberland Plain Conservation Plan (CPCP) and it was gazetted on 17 August 2022. Any alterations to the approval must be submitted to and approved by the Minister for Environment and Heritage. The Minister for Planning is the proponent for the CPCP, including for any proposed modifications.

The proponent must provide annual reports to the Minister for Environment and Heritage on the delivery of the CPCP and approved conservation measures. Every five years an independent review report must be provided to the Minister for Environment and Heritage detailing the review method, findings and recommendations.

29. Environmental zoning and impact of climate change – Transcript page 46

The Hon. PENNY SHARPE: Can I just confirm that, as a result of this process, environmental zoning has been removed? Basically, what we have done is we have moved from environmental zoning to this idea of avoided land. Is that correct?

No. Question

MICHELLE DUMAZEL: I know there have been some changes, but the detail — there have been some changes. The focus of the plan has been on a landscape connectivity perspective, so we're looking at those broader strategic landscape scale components.

The Hon. PENNY SHARPE: I think we are getting deep into the planning system, so I might move on from that. We will get the planning Minister, so I might ask him.

DEAN KNUDSON: I think it might be worthwhile for us, because this is a really significant decision, as you were pointing out, and I would humbly say that that is the way that ideally you want planning to happen, taking a look at a landscape and then protecting the assets that matter most, so I think it is worthwhile, if it is okay, for us to come back and explain the 11,000 hectares that are protected under the plan, how will they be protected, how does it deal with the existing environmental zones, et cetera —

The Hon. PENNY SHARPE: I am interested in whether it is in perpetuity and who can change it.

DEAN KNUDSON: Yes, what is the level of assurance over it.

The Hon. PENNY SHARPE: Well, in the areas where it is going to be developed, in the Greater Macarthur area, as we know, there is a lot of housing going in there. The experience to date is that people who are developing that land want more housing, not less, and how much is it truly protected is really the question I'm getting to, and in what circumstances, so is it via a SEPP, is it just by a ministerial direction so that we are basically waiting for the Minister of the day and people can apply to make changes? That is what I am really trying to understand.

DEAN KNUDSON: Yes, understood.

The Hon. PENNY SHARPE: How protected is the avoided land is the very inarticulate way I am asking the question.

MICHELLE DUMAZEL: Yes and, from our perspective, that is why the reviews are so important and the environment Minister would need to approve any modifications that are made over time. I think the process of having an independent five years, because I mean we are talking out to 2056, so making sure that we've got those kinds of checkpoints in place so we can see whether we are actually still getting those strategic outcomes.

The Hon. PENNY SHARPE: The point being, obviously, that climate change is a huge issue. I mean out to 2056, hopefully we'll be at net zero by then and we will have actually turned it around, but if you can come back to us on that, other than the five-year points, and maybe you could just take on notice the consideration of climate change going into that plan. It is very difficult to see.

Answer:

Environmental zoning (now known as 'conservation' zoning) was proposed for avoided lands in the draft Cumberland Plain Conservation Plan (CPCP), which was publicly exhibited in late 2020. This was revised prior to the strategic biodiversity certification application being finalised. The planning package for the CPCP avoided land comprises a State Environmental Planning Policy (SEPP), and includes a biodiversity overlay which maps important biodiversity values on avoided lands and associated planning provisions.

When fully implemented, the CPCP will protect, connect, and restore up to 11,900 hectares of conservation land, including protecting at least 5325 hectares of threatened native vegetation to offset development. This includes establishing the Georges River Koala Reserve, to protect and restore up to 1830 hectares of koala habitat along the Georges River. A Section 9.1 Ministerial Direction also applies to the avoided land. This means it cannot be rezoned to more intensive uses, such as urban development.

Actions under the CPCP include a research component, to investigate the effects of climate change on species and communities that are impacted by the plan. Appropriate

No. Question

measures can then be considered during the selection of public and private reserve sites for the CPCP.

Any future modifications to the certified or avoided areas of the CPCP must be assessed and determined by the Minister for Environment and Heritage. The proponent must provide annual reports to the Minister on the delivery of the CPCP and approved conservation measures. Every five years, an independent review report must be provided to the Minister detailing the review method, findings, and recommendations.

30. Biodiversity Conservation Trust agreements – Transcript page 47

The CHAIR: Can I confirm, with the BCT agreements, from the numbers that you have – I take it, from the two million hectares that we are attributing to being protected through private conservation, in fact 1.6 million of those are not in perpetuity? Can you give me an indication of what we are talking about? What sort of protection?

ATTICUS FLEMING: It is around 1.9 million that is not in perpetuity. But I'll ask Alan Goodwin from the BCT, who is here, to come and give you a bit more detail.

ALAN GOODWIN: Of the agreements that we have across the land estate, yes, the one that are in perpetuity. The ones that are not could be term agreements. We have quite a few that are 15-year agreements, created since the BCT, and others are like wildlife refuges across the State. Some of them have been in place since the seventies and earlier. They are subject to revoking if required. There is a gradient from in perpetuity for a large part of the State, termed agreements, and then through to agreements that are standing but are subject – not in perpetuity and not to title.

The CHAIR: I know that there is sensitivity around the identification of private property, et cetera, but is that breakdown available, i.e. the hectare rate for the refuges versus the 15 years versus the perpetuity? Is that breakdown something that you publish annually?

ALAN GOODWIN: Yes, it is. I think the bulk of that would be on our website, but I could take that on notice and provide that information, yes.

Answer:

2.27 million hectares of land is currently being protected through private land conservation agreements. 33,279 hectares are protected through termed agreements, typically of 15 years duration. A further 1.85 million hectares is protected under Wildlife Refuge Agreements, which do not have a term limit but may be revoked by the landholder at any time. Around 390,000 hectares are protected under non-revocable in-perpetuity agreements.

31. Private Native Forestry Codes of Practice concurrence advice – Transcript page 49

Mr JUSTIN FIELD: I might turn first, if I could, to this somewhat controversial document that we've agreed to publish today. Just to be clear, it was provided to me through a GIPAA. I appreciate that the EPA has asked for it back, and I appreciate the support of the Committee in recognising the public interest in publishing it. It was advised by the Chief Scientist & Engineer – I apologise to the Chief Scientist & Engineer: We might have to talk about you and your work a little bit but in a slightly different context without direct questions to you. I will leave it up to either the EPA or officials from EHG. My first question is: Did the Minister ever see this advice?

TONY CHAPPEL: I'm not aware.

Mr JUSTIN FIELD: Could you take that on notice?

DEAN KNUDSON: Mr Field, yes. We should take that on notice. Indeed, it would have been the previous Minister, I suspect, given the documents that you're talking about predate Minister Griffin.

No. Question

Mr JUSTIN FIELD: That's a very good point, and it goes to my next question. Obviously, the decision to renew that private native forestry code was one for Minister Griffin and his concurrence responsibilities. So I'm now specifically asking: Did Minister Griffin see this advice as part of that concurrence making process?

DEAN KNUDSON: I will take that on notice, but what I will say is that the NRC did provide advice – and the Chief Scientist was involved in this process – on the private native forest codes, which have been now published, et cetera, and provided advice on the adequacy of those codes. That was provided to Minister Griffin to inform his decision. So the most recent advice from the NRC plus the final decision on concurrence absolutely was informed by the NRC and went to the Minister. Whether the previous advice on the previous formulated codes, et cetera, went to the Minister, I can't recall, but we'll come back on notice.

Answer:

Yes.

32. Native vegetation prosecutions – Transcript page 51

Mr JUSTIN FIELD: Hang on, Mr Knudson. I've asked all these questions. That's different from the answers I've received back. I've asked about prosecutions under the relevant part of the LLS Act since 2017. The responses I have from the agency is there's just two prosecutions in that entire time. I don't know where the five comes from, and I don't know where the 14 commenced prosecutions come from. Can you please clarify that?

DEAN KNUDSON: Sure. I'll actually provide you for the Native Vegetation Act, by fiscal year, the total compliance actions, the number of letters versus remediation orders, penalty notices or prosecutions by year. I think that will lay out a much more comprehensive answer to this issue. The point that you're raising about two prosecutions being completed, I want to just clarify that as well. I think that might be related to one specific type of incident. I just want to make sure that we don't conflate that as well. I appreciate, quite frankly, your frustration in trying to get to the bottom of this. I don't want to inflate that even more into a problem. I'd rather come back very explicitly, year by year, for the Native Vegetation Act and those various actions that have been taken.

Answer:

After the repeal of the *Native Vegetation Act 2003* in August 2017, the Department of Planning and Environment continued to investigate and respond to allegations of unlawful clearing that occurred while that legislation was in force. The below tables (see next page) provide outcomes for cases under the *Native Vegetation Act 2003* and Part 5A of the *Local Land Services Act 2013* by financial year after the 2017 repeal of the *Native Vegetation Act 2003*.

No. Question

Table 1: Compliance actions in response to alleged clearing under the *Native Vegetation Act 2003*

Financial Year	Advisory or Warning Letter	Official Caution	Penalty Notice	Remediation Orders	Prosecution (successful conviction)	Prosecution (commenced)
25 Aug 2017–2018	126	0	10	4	3	6
2018–2019	102	0	29	6	4	13
2019–2020	71	0	3	4	3	4
2020–2021	12	2	8	16	0	0
2021–2022	0	0	0	5	1	0

Table 2: Compliance actions in response to alleged clearing under Part 5A of the *Local Land Services Act 2013*

Financial Year	Advisory or Warning Letter	Official Caution	Penalty Notice	Remediation Order	Prosecution (successful conviction)	Prosecution (commenced)
25 Aug 2017–2018	72	0	1	0	0	0
2018–2019	125	2	10	1	0	0
2019–2020	138	1	11	4	0	1
2020–2021	220	5	17	23	1	5
2021–2022	283	24	19	11	1	2

33. Game management information sharing – Transcript page 51-52

The Hon. MARK PEARSON: In September 2018, Garth Co proposed that the department of environment seek to join the Department of Primary Industries and the game management intelligence database for cross-stakeholder compliance, investigation and monitoring across the New South Wales fauna-harvesting industry as a collective, including the kangaroo management program, OEH compliance, police, DPI Game, National Parks and Wildlife Service, and Food Authority. Sorry, it was a bit lengthy. But I'm just wondering, has any consideration of the proposal been given by the department? If not, why? The reason being is that several of the documents showed that some shooters or harvesters were also engaging in criminal activity – very serious at times. Officers in the department have made several statements that it's been very difficult to monitor these people because they weren't aware of some of those other activities that they were engaging in. Has any consideration of this proposal been taken by the department? Are you aware?

DEAN KNUDSON: I was not aware of that specific proposal. Again, it predates me. However, I have had conversations with Department of Primary Industries about increasing the ties between our two organisations with respect to kangaroo management et cetera. Those have not concluded yet, but I just think, again, what you're suggesting makes a lot of sense in a number of ways. I appreciate you raising it.

The Hon. MARK PEARSON: You can't really give me a report of where we're up to with that?

No. Question

DEAN KNUDSON: No, because, like I said, I don't know the origins of that initial point that you made in asking your question. It predates me. What I was saying, though, was that I have had some specific conversations with Planning. I've had some discussions with the Department of Primary Industries on trying to better align our work with respect to kangaroos, specifically because they have an awful lot of expertise in the management of various types of species et cetera, and I think we would just benefit from that. What I was saying was we haven't concluded that yet.

ATTICUS FLEMING: Was your letter 2018, Mr Pearson? Did you say?

The Hon. MARK PEARSON: Yes. September. Could you take it on notice and attempt to give me an update as to where that has progressed to?

ATTICUS FLEMING: Absolutely.

The Hon. MARK PEARSON: It's extremely important. Government data shows that, between 2019 and 2022, no eastern grey kangaroos were killed by commercial harvesters in the Tibooburra region, despite the kill quotas being at 21,990 per annum. Considering this startling discrepancy, do you know if there have been any eastern grey kangaroos left in the Tibooburra region at all?

DEAN KNUDSON: I don't know the specifics behind that region. But when Ms Dumazel and I were out meeting with the operator of the kangaroo facility one of the points that they did raise was that there are migratory patterns with certain species of kangaroos and sometimes, where they have been previously found in certain numbers, they've migrated for one reason or another to different areas. I don't know how large the region is. I don't know what sort of migratory patterns would be going through it et cetera. But that might be part of the explanation. That's a long way of saying, again, I think I'm going to have to come back on notice to get to the significant point.

Answer:

The Department of Planning and Environment is working on a range of approaches to continuously improve regulation of the commercial Kangaroo Management Program. This includes but is not limited to consideration of options to collect, compile, store and analyse intelligence. Our inter-agency stakeholders, including the Department of Primary Industries - Hunting, the NSW Police Force, and the NSW Food Authority, are valuable partners in the sharing of intelligence.

Regarding the harvest of Eastern Grey Kangaroos in the Tibooburra zone between 2019 and 2022, commercial harvesting is driven primarily by Red Kangaroos, with Eastern Grey Kangaroos being a secondary or opportunistic harvest species in this zone.

If there is no quota for the harvesting of Red Kangaroos within the zone, then harvesters will not operate in this area. This would result in no Eastern Grey Kangaroos being harvested that year.

34. Kangaroo harvesting licence conditions – Transcript page 52

The Hon. MARK PEARSON: When a harvester or shooter gets a licence to shoot or harm kangaroos, does that include joeys on the licence?

MICHELLE DUMAZEL: I'll have to take that one on notice.

Answer:

Professional Kangaroo Harvesters must harvest kangaroos in accordance with their licence conditions.

No. Question

Section 11 of the licensing conditions requires the licensee to harvest kangaroos in accordance with the most recent version of the *National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes* (the Code), published by the Australian Government.

The Code requires dependent young to be euthanased promptly and humanely when the mother is harvested. Thus, professional harvesters are licenced to kill dependent young to comply with the Code.

35. Special Investigation Unit – Transcript page 52

The Hon. MARK PEARSON: The department had reports of an unlicensed shooter providing training to 24 participants at a location where there were neither commercial nor non-commercial licences. The matter was referred to a specialist investigation unit. Can you explain the role and powers of this unit?

MICHELLE DUMAZEL: I'll have to take that one on notice

Answer:

The Specialist Investigations Section (SIS), within the Department of Planning and Environment's (DPE's) Governance and Legal Branch, provides an investigative service across DPE, becoming involved in more complex and protracted investigations, and instances of serious environmental harm or impact across the State.

The SIS administers certain laws including the *National Parks and Wildlife Act 1974*, *Biodiversity Conservation Act 2016*, and *Protection of the Environment Operations Act 1997*. These laws set out the powers given to authorised officers to determine whether there has been compliance with, or contravention of the particular Act or its regulations. These powers include requiring persons or corporations to provide information and records, and the compelling of persons or corporate representatives to answer questions under direction.

36. Knackeries – Transcript page 53

The Hon. MARK PEARSON: Thanks very much. This question goes to pet food production or knackeries. Is there any monitoring of knackeries in regard to the processing of untagged or underweight commercially or non-commercially killed kangaroos? There have been reports of joeys and body-shot kangaroos and non-tagged kangaroos being transported to knackeries.

DEAN KNUDSON: It's a good question. I don't know the answer to it in the sense that we normally focus on the commercial kangaroo hunters as opposed to the knackeries. But I may be wrong on that so, again, let me take that on notice and come back and just find out whether we work further up the supply chain.

Answer:

Some licensed kangaroo processing works are also knackeries. The Department of Planning and Environment's Environment and Heritage Group routinely inspects these processing works in NSW to ensure compliance with relevant laws and licence conditions.

Knackeries that are not licensed kangaroo processing works, do not routinely process kangaroos, and therefore are not routinely inspected by the Department. The Department only visits these premises where it has credible information that a breach of law or licence condition has occurred.

37. National Parks roles funded from Climate Change Fund – Transcript page 55

The Hon. PENNY SHARPE: Can I just confirm that the ongoing roles are being funded from new funding? Previously, these roles were funded out of the Climate Change Fund.

No. Question

Are there any roles within National Parks being funded out of the Climate Change Fund anymore?

ATTICUS FLEMING: I'll have to take that on notice. These roles are coming out of consolidated funding. Some of the temporary roles over the last few years — it's not accurate to say they've all come out of the CCF.

The Hon. PENNY SHARPE: One hundred and seventy-five of them have, previously.

ATTICUS FLEMING: I'd have to take that on notice.

The Hon. PENNY SHARPE: Trust me. It was 175.

ATTICUS FLEMING: I think there have been some in the past. But the bushfire roles, for example, that have been temporary have been from consolidated funding.

The Hon. PENNY SHARPE: For the roles, can you give me an idea of the 250? Just basically break down what level they're at. I'm trying to understand what's field officers, what's —

ATTICUS FLEMING: I would have to give you a more detailed breakdown on notice, but as a general answer, there will be a mix of roles. Probably more field officer roles than others, but there will be a mix across the different classifications within the organisation. And 50 of those roles are, for example, related to management of conservation assets, so that's a little different to the 200 that are ongoing firefighter roles.

The Hon. PENNY SHARPE: So are you creating a separate role that's not a field officer, but not a ranger? Is that what these 50 jobs are?

ATTICUS FLEMING: No, I didn't mean to imply that. I just meant that the mix would be different amongst those 50 than across the 200.

The Hon. PENNY SHARPE: Anything that you can provide that would paint that picture, I'd be very appreciative.

ATTICUS FLEMING: Happily we'll do that. Because the ongoing roles commence 1 July next year, we are currently doing the planning for that, so it may be something that I need to provide in eight weeks.

Answer:

In the 2022–23 financial year, \$10.9 million is provided from the Climate Change Fund for NPWS fire management labour expenses.

Funding for the 250 ongoing roles announced will commence from July 2023. These roles, funded from consolidated funds, have not yet been created or recruited. Work is currently underway to determine the classifications and role titles that will be established, according to operational needs.

38. Contaminated Land Register – Transcript page 58

Ms ABIGAIL BOYD: Is there any power for the EPA to put land onto the contaminated land register without the owners of the land requesting that?

STEPHEN BEAMAN: Can I take that on notice?

Ms ABIGAIL BOYD: Yes. The reason I ask is — well, there are lots of reasons. But one of the reasons is that the State used to own Liddell and Bayswater and when it sold those power stations within the actual terms of the sale it says very clearly that that's

No. Question

contaminated land. So it just strikes me as quite odd that we don't now have that land on the contaminated land register.

STEPHEN BEAMAN: Yes, that's why we've gone back to ask them to consider their position and come back to us.

Answer:

Please refer to the answer given later in the hearing, recorded on page 60 of the uncorrected transcript.

39. Discharge events – Transcript page 58-59

Ms ABIGAIL BOYD: Yes, it absolutely is. There are also a number of other elements within Lake Liddell that are a direct result of the toxic coal ash. So it's an absolute mess. Have there been any notifications or any work done by the EPA in relation to the recent floods and wet weather in terms of looking at whether the coal ash dams have been overflowing and accessing the nearby areas of water that they all sit on?

TONY CHAPPEL: I think in terms of Kerosene Vale, there's been ongoing sampling undertaken which has resulted in the gazettal that is now imminent, meaning this Friday. Mr Beaman, do you want to add –

STEPHEN BEAMAN: Yes, I think I'd have to take that one on notice. During the recent storm events in the last six months, particularly the March and July events, we had lots of premises just generally have uncontrolled discharge events, just due to the high amount of rainfall that we've had.

Ms ABIGAIL BOYD: Could you come back to me on notice with the discharge events, if any, that have related to the coal ash dams around the State?

STEPHEN BEAMAN: Yes, absolutely.

Answer:

As a result of extreme wet weather events, the Vales Point Ash Dam discharged in March and April 2022; and the Eraring Ash Dam discharged in July 2022. The Bayswater and Liddell Ash Dams routinely discharge to Lake Liddell, which services the operations of these power stations. Discharges from Lake Liddell occur from time to time when there are favourable conditions under the Hunter River Salinity Trading Scheme. Discharges from the Kerosene Vale Ash Repository have not occurred as a result of flooding early in 2022.

40. Coal ash reuse – Transcript page 59

Ms ABIGAIL BOYD: What is that money going towards?

NANCY CHANG: The program is currently being designed. But one of the key things that we are looking for is to use the grant funding to bring the supply and demand together and to provide basically a bit of a concierge service, to ensure that those who produce this low-carbon material are actually talking to the people in construction so that that substitution actually occurs. The other key initiative in the Waste and Sustainable Materials Strategy is government procurement. We understand from lessons learnt in Waste Less, Recycle More that infrastructure is not enough. We need to step into the market space and actually pull through that material, so government should lead the way in this space. My understanding from my colleagues at the OECC is that there is significant work in that space, and coal ash is listed as a priority material to be considered under government procurement. The premise of that program is about government leading the way in procuring recycled goods and reused goods on an "if not, why not?" basis. Transport has a really big role to play, and there are ongoing discussions with our

No. Question

colleagues in Transport on how government can lead the way in this space, particularly in coal ash.

Ms ABIGAIL BOYD: So roads and the actual building of infrastructure?

NANCY CHANG: I will have to seek the details of that, because the EPA is not leading on that particular initiative. But my understanding is that there are some very active conversations with Transport, as you would with other government agencies, because that particular initiative is about every part of government procuring goods from a circular economy perspective on an "if not, why not?" basis.

Answer:

The Environment Protection Authority is not leading on government procurement initiatives under the NSW Waste and Sustainable Materials Strategy 2041. This question should be referred to the Treasurer and Minister for Energy.

41. Heritage report – Transcript page 60-61

SAM KIDMAN: Our on-time delivery of advice in relation to concurrence and referrals on major audit that Planning commissioned about the quality of the advice that Heritage has been providing over the last year.

The Hon. PENNY SHARPE: Is that publicly available?

SAM KIDMAN: I don't know. I can take that on notice and I can check that. Certainly, the finding of that independent assessment of the quality of our advice was extremely positive.

Answer:

The 2022 Quality of Advice review, commissioned by the Department of Planning and Environment (DPE), is not publicly available. This annual report reviews the quality of agency advice for State Significant Projects and is an internal DPE document to support improvements.

The report indicated that Heritage NSW usually provided good quality, helpful advice.

42. Aboriginal Cultural Heritage Impact Permits – Transcript page 61

The Hon. PENNY SHARPE: Obviously there is a lot of discussion about Aboriginal cultural heritage. Within the AHIPs system in the past 12 months, have any applications been knocked back?

SAM KIDMAN: I don't believe so. I can check that. I'll take that on notice.

The Hon. PENNY SHARPE: I'm pretty certain that's the case. I'm just checking that I wasn't wrong.

Answer:

Heritage NSW has refused one Aboriginal Cultural Heritage Impact Permit (AHIP) application in the past 12 months.

Heritage NSW maintains a public register of AHIP determinations, which is available at: <https://www.heritage.nsw.gov.au/applications/aboriginal-objects-and-places/ahip-public-register/>.

43. Heritage delistings – Transcript page 61

The Hon. PENNY SHARPE: Can I ask you about how many items have been delisted from the State Heritage Register in the past three years?

No. Question

SAM KIDMAN: I would have to take that on notice.

The Hon. PENNY SHARPE: That's okay.

SAM KIDMAN: I know that the Loftus signal house is in the process — a recommendation is going to be progressed to the Minister shortly to delist that particular item. But that's the only one I'm aware of at this point.

The Hon. PENNY SHARPE: Of those that have been delisted in the past three years, will you be able to identify — I'll probably be able to by the name of them — how many of them are from government agencies?

SAM KIDMAN: Of course. We can provide that information.

Answer:

Please refer to the answer given later in the hearing, recorded on page 70 of the uncorrected transcript.

44. Coal ash recommendations – Transcript page 65-66

Ms ABIGAIL BOYD: Thank you for the confirmation in relation to the ability to put land onto the register without the owner's permission. That is very useful. Vales Point, Liddell and Bayswater — I understand none of them are currently on the register, and yet all of them have been sold by the State a number of years ago with contaminated land disclosed to the purchaser. I encourage you to assess those parcels of land. To finish off on the coal ash recommendations, going through each of the recommendations that the Government has supported in full — the first one, in relation to the memorandum of understanding with the dam safety, I understand that has been completed?

NANCY CHANG: Yes, it has.

Ms ABIGAIL BOYD: Is it publicly available?

NANCY CHANG: I will take that on notice.

Ms ABIGAIL BOYD: Thank you. The air and groundwater monitoring sites surrounding all power stations and coal ash dams — have they been established? This is recommendation 2.

NANCY CHANG: I believe that work has commenced.

Ms ABIGAIL BOYD: It has commenced? Do you know when it will be completed?

NANCY CHANG: I will take that on notice.

Ms ABIGAIL BOYD: Thank you, and if you could let us know when the data from those sites will be available for the public to look at, as well, that would be very useful. In recommendation No. 3, which was to conduct the study of surface and groundwater around all coal-fired power stations and associated coal ash dams — I understand that some of that has begun around Lake Macquarie but not necessarily all of the sites. Can you give me an update on that one?

NANCY CHANG: Because the EPA undertook to coordinate the tracking against each of the recommendations, we are in the process of writing to all the leads — because the different recommendations have different leads — to ask for an update so we will be able to provide a comprehensive update on all of the recommendations.

Ms ABIGAIL BOYD: You want to do that on notice, is that what you are saying?

NANCY CHANG: Yes.

Ms ABIGAIL BOYD: Will you be able to provide that in time? Will you have that information back in time to be able to provide it on notice within 21 days of two days from now?

No. Question

NANCY CHAN: Because it relies on other agencies who have the lead on the recommendations – the EPA leads on recommendations 1, 4 and 11 and a number of other recommendations have been led by others. I cannot commit to a time frame because it will rely on them providing the EPA with an update on where each recommendation is up to.

Ms ABIGAIL BOYD: Okay. I ask you to provide on notice the ones that you have heard back from by the time that you provide the answer to the question. That would be useful. Then, if you could let me know – so we have done 1. What about recommendation 4 and 11?

NANCY CHANG: Sorry. I just want to clarify. The recommendations 1, 4, 11 and 16 have been completed. We have written to the various agencies on the other recommendations for an update on where they are up to.

Ms ABIGAIL BOYD: Okay. All the ones that you are in charge of have been –

NANCY CHANG: No, sorry. We are in charge of some of the other ones, under the waste strategy. The ones I just quoted are the ones that are complete, that we will not be seeking an update from, because they are complete. I can take on notice recommendation 1, the MOU, whether that is –

TONY CHAPPEL: It is. We can confirm, it is public.

Ms ABIGAIL BOYD: It is? Thank you. I will let you take those on notice, then, and come back in supplementaries if I need to.

Answer:

A summary of NSW Government actions to address the recommendations in the Legislative Council's Public Works Committee's final report on the costs for remediation of sites containing coal ash repositories is provided below.

Recommendation 1: *That the NSW Environment Protection Authority and Dams Safety NSW establish a Memorandum of Understanding by 30 June 2021 in relation to the management and remediation of coal ash dams.*

The NSW Environment Protection Authority (EPA) and Dams Safety NSW have established a Memorandum of Understanding. It is publicly available at: <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/community/mou-epa-dams-safety-nsw.pdf?la=en&hash=2128BBF2CD8AD4178A756CCF57EE4D8611FEFE41>.

Recommendation 2: *That the NSW Environment Protection Authority establish air and groundwater monitoring sites surrounding all power stations and coal ash dams, and that current, real time and historical data of these and other existing monitoring sites be published on the Authority's website by 1 July 2022.*

Air monitoring data is available via the Department of Planning and Environment website. Real time data is available at: <https://www.dpie.nsw.gov.au/air-quality/air-quality-concentration-data-updated-hourly>. Historical data is available at: <https://www.dpie.nsw.gov.au/air-quality/air-quality-data-services/data-download-facility>.

The Environment Protection Authority (EPA) is reviewing the licence settings for discharges to surface water and groundwater monitoring to inform its regulatory requirements for ash repositories at coal fired power stations. Monitoring data over approximately the last five years is being analysed to identify where requirements for monitoring, reporting and discharge limits might need to change.

Recommendation 3: *That the NSW Environment Protection Authority conduct and publish a study of surface and groundwater around all coal fired power stations and associated coal ash dams, and their potential impacts on the surrounding environment, by the end of 2022.*

No. Question

The EPA engaged the aquatic science section of the Department of Planning and Environment to carry out a monitoring project in Lake Macquarie to better understand the current environmental condition and potential impact from coal ash repositories. The monitoring program will take a 'multiple lines of evidence' approach to assessing environmental condition. Sampling commenced in March 2022 and will continue for 12 months. Sampling is being carried out at over 29 locations around the lake, collecting nearly 350 water samples and over 80 sediment samples.

Recommendation 4: *That the NSW Environment Protection Authority publish, in real time, breaches of environment protection legislation.*

Notices of environmental protection legislation breaches are published on the EPA public register available at: <https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>. Establishing a breach of environmental protection legislation involves an evaluative process, which once finalised, must be manually input into the EPA's public register. This is done as close to real time as practically possible.

Recommendation 5: *That Dams Safety NSW publish on its website in a timely manner, where practicable, all ash dam assessments and responses undertaken by Dams Safety NSW or submitted to it by power station operators from time to time.*

To-date, there have been no prosecutions or penalty notices to be published on the Dams Safety NSW website.

AGL Dams Safety Standards reports can be accessed at: <https://www.agl.com.au/about-agl/how-we-source-energy/agl-macquarie/documents>.

Energy Australia Dams Safety Standards reports can be accessed at: <https://www.energyaustralia.com.au/about-us/energy-generation/mt-piper-power-station/mt-piper-dams-safety-standards-report>.

Origin Energy Eraring Ash Dam Safety Standards reports can be accessed at: <https://www.originenergy.com.au/wp-content/uploads/ERAD-Annual-Dams-Safety-Standards-Report-CY2021-signed.pdf>.

Delta Electricity Ash Dams Safety Standards reports can be accessed at: <https://www.de.com.au/environment/ash-management>.

Generator Property Management (GPM) Ash Dams Safety Standards reports can be accessed at: <https://gpmco.com.au/environment/>.

Recommendation 6: *That NSW Health immediately undertake an epidemiological assessment of the health of residents near coal ash dams to establish the health impacts of coal ash and publish by 31 December 2022.*

The NSW Government response noted this recommendation and stated that NSW Health will propose alternative study types which are better able to address the community's health concerns. NSW Health is engaging broadly with government and external stakeholders to conduct an exposure assessment to assess potential pathways of exposure for residents near coal ash dams.

Recommendation 7: *That the NSW Environment Protection Authority commission a comprehensive and independent assessment of the environmental impacts of coal ash dams to provide a better understanding of the issues and to inform best-practice remediation.*

The study of surface and groundwater as outlined in response to Recommendation 3 will provide the EPA the basis for further work to identify the impacts of coal ash dams compared to other sources of the same pollutants at power stations. The EPA will use the results of work under Recommendation 3 and the timing of power station shutdowns to inform next steps.

No. Question

Recommendation 8: *That the Department of Planning, Industry and Environment establish a coal ash reuse taskforce comprising state government agencies, unions, industry stakeholders and community groups to lead development of a strategy to achieve at least 80 percent reuse of coal ash produced in New South Wales, and report by 2022.*

The NSW Government noted this recommendation. The intent of this recommendation is being achieved through measures under the Waste and Sustainable Materials Strategy 2041, for example, ongoing and targeted work to implement the 'if not, why not' procurement policy with procurers and suppliers.

Recommendation 9: *That the newly established coal ash reuse taskforce inquire into and review regulations affecting coal ash reuse, including:*

- *the stability and regulation of ash dams*
- *waste standards to ensure that coal ash is not contaminated with other waste, and*
- *land remediation, including the state and effectiveness of current capping, the current and future risk of leakage of contamination into the surrounding environment, and impacts of vegetation cover (including any contaminated vegetation, release of contaminants into the air via transpiration and cracking of capping materials) to ensure the safe and beneficial reuse of coal ash while promoting strong environmental and public health standards.*

The NSW Government response to this recommendation supported the use of existing regulatory mechanisms including licence reviews, pollution reduction programs and licence conditions to drive improved performance where it is appropriate, achievable and feasible. The NSW Government considered that these existing regulatory controls combined with commitments in the Waste and Sustainable Materials Strategy 2041 provide a comprehensive way forward to ensure robust regulation and encourage innovation.

Recommendation 10: *That Transport for NSW review its procurement practices to, where feasible, mandate the use of recycled coal ash in government-funded transport infrastructure projects.*

I am advised Transport for NSW will review its procurement practices on using recycled materials by 30 June 2023 and will include any amendments to its construction standards by 31 December 2023.

Recommendation 11: *That Infrastructure NSW review its procurement practices to, where feasible, mandate the use of recycled coal ash in government-funded infrastructure projects.*

The NSW Government response noted this recommendation and stated that Infrastructure NSW does not have a role in determining specifications for materials or building methods for infrastructure delivered by other agencies.

Recommendation 12: *That Transport for NSW review the construction standards for roads, with a view to ensuring that local government trials the use of coal ash in its road construction.*

I am advised Transport for NSW will complete a determination of the acceptable fly ash (Loss on Ignition) limits by 30 June 2023 and will amend construction standards according to the findings by 31 December 2023.

Recommendation 13: *That the NSW Government partner with the Ash Development Association of Australia (ADAA) and other interested parties, and support feasibility studies and pilot projects to assess and demonstrate commercial viability of new industries, such as transformation of coal ash into lightweight aggregate or other higher value-add products.*

The EPA meets regularly with the Ash Development Association of Australia to explore ways to engage with industry and expand the coal ash reuse market in NSW through, for example, commitments made under the Waste and Sustainable Materials Strategy 2041 and the Carbon Recycling and Abatement Fund.

No. Question

Recommendation 14: *That the NSW Environment Protection Authority ensure that the quantity of coal ash stored and produced, and the destination and purpose of coal ash reused, is publicly reported.*

The EPA is investigating options for reporting on these matters.

Recommendation 15: *That the NSW Government promote circular economy principles when dealing with coal ash waste and promoting reuse, including facilitating consultation between regulatory bodies, electricity generators and key stakeholders in recycling, local government and construction sectors.*

This recommendation is being progressed through actions on a combination of other relevant recommendations, including for example, recommendation 13.

Recommendation 16: *That NSW Treasury immediately publish on its website the baseline environmental studies conducted for each operating power station to improve transparency in terms of the NSW Government's liabilities for remediation at these sites.*

The environmental baseline studies for each operating power station are publicly available on the NSW Treasury website, available at <https://www.treasury.nsw.gov.au/information-public-entities/government-businesses/post-transaction-management/environmental-baseline-studies>.

45. Lake Macquarie fish kill – Transcript page 67

Ms ABIGAIL BOYD: But is that also consistent with — could you get some sort of — even it was an oxygen depletion event from a change in water temperature?

STEPHEN BEAMAN: Possibly, yes.

Ms ABIGAIL BOYD: Could that have led to sediment churn as you've got the warmer water coming through?

STEPHEN BEAMAN: I don't know. I'd have to ask the water scientists that one.

Answer:

Initial investigations indicate a natural event may be the cause of the recent fish kill at Mannering Park, Lake Macquarie.

All tests show no significant levels of pesticides, metals or toxicity in the sampled fish.

The full water and fish testing results can be found on the EPA website here: <https://www.epa.nsw.gov.au/news/news/mannering-park-lake-macquarie-fish-kill>.

Further investigation regarding the cause of this fish kill is occurring.

46. Net zero emissions modelling and assumptions – Transcript page 68-69

Mr JUSTIN FIELD: Thank you for your patience today. My questions relate to the recently published NSW Net Zero Emissions Dashboard on the SEED portal. Am I correct that you're the knowledge holder here who put together the information that's fed into this dashboard?

MATTHEW RILEY: That's correct, Mr Field, with my Net Zero Emissions Modelling Team.

Mr JUSTIN FIELD: Can you tell me as at what date these forecasts in the dashboard are accurate?

MATTHEW RILEY: They're accurate as to earlier this year. I'd have to take on notice the exact date, but it's earlier this year. What we note with the dashboard is we've got a commitment under the net zero plan stage one to update our projections annually. We have done that, and we've gone through now into our third iteration of updated projections. The reason we do this is to ensure that when things change within the

No. Question

environment of the different sectors that we're modelling, we provide as up-to-date information as available. With that, we don't update as information comes in every day or every week or every month. That would be too much of an onerous task. We've committed to providing annual updates. But I'll get back to you with the exact date that we're updated to.

Mr JUSTIN FIELD: Correct me if I'm wrong, but this is the first year that the sector-by-sector forecasts out to 2050 have been made available. You indicated you've done three iterations now, but these are the first that have been made public. Is that right?

MATTHEW RILEY: Yes, that's correct.

Mr JUSTIN FIELD: Would you be able to provide on notice the last two forecasts, with datasets as well?

MATTHEW RILEY: I'll have to check, considering that the first forecast informed the development of the net zero plan stage one and may be considered Cabinet in confidence. If that and the second iteration – the projections which informed the update to the implementation plan, which also went to Cabinet – are not considered Cabinet in confidence, then I will seek to provide that information to you, Mr Field.

Mr JUSTIN FIELD: Is there a set date about when annual updates are going to be made in the future?

MATTHEW RILEY: We've not yet set an exact date for those annual updates. I'll take that on notice for you.

Mr JUSTIN FIELD: Obviously, each of these sector-by-sector line items has a heap of assumptions built into them. I might just pick one: for instance, land use, land use change and forestry. You'd be making assumptions about the area of land clearing that might occur in any given year, public native forestry, private native forestry, probably drought cycles as well would factor into soil carbon. Are the assumptions that are built into these forecasts available?

MATTHEW RILEY: I'll take that on notice. Our intent is to make them publicly available soon. But of course I'll make them available to you as soon as I can on notice.

Mr JUSTIN FIELD: I'd appreciate that. Even if the actual datasets in terms of – for instance, how many coalmines in a particular year are operating and at what sort of capacity level. Irrespective of those datasets, would it be possible to, in the first instance, provide just the input categories in terms of "these are the different assumptions that make it up" even if we don't have the actual data under those assumptions, just to get a sense of how broad these are?

MATTHEW RILEY: Yes, absolutely. Just as a bit of clarification as well, each of the modelling assumptions that we took for each of the sectors has undergone independent peer review. Our hope was actually to have this all made fully publicly available when we launched the dashboard. There were some issues. We're just finalising some of the technical edits for those methodologies. We did not want to delay launching the dashboard. We took the decision to launch the dashboard and just take a little bit longer to finalise the methodologies. When they are published – and we'll provide them to you prior to their publication – you'll have all that information about the assumptions that we've made and the inputs. If I may, just on one of those points regarding the data, there are some confidentiality agreements around some of the individual data because we do rely on taking data from the National Greenhouse and Energy Reporting system at a

No. Question

facility level, and we can't make that data available. But certainly we can make the methodologies available.

Answer:

The future emissions projections (2021-2050) accessible via the dashboard are accurate as of June 2021. These projections were published within the Net Zero Plan Stage 1: 2020–2030 in September 2021 and the NSW State of the Environment 2021 report released in February 2022.

The Department of Planning and Environment aims to provide updated projections annually in December each year.

The data and assumptions applied in the modelling are detailed in the methods papers available on the NSW Net Zero Emissions Dashboard page at <https://www.seed.nsw.gov.au/net-zero-emissions-dashboard>.

47. Blue Plaque recipients – Transcript page 70

The CHAIR: Thank you. Just one final thing I want to note is I've been told that, apparently, out of the blue plaque grants, there's been more dedicated to men than women. Is gender a criteria?

SAM KIDMAN: No, it is not a criteria.

The CHAIR: Perhaps that's something that could be taken on notice. It's certainly been noticed.

Answer:

Gender was not a criterion considered as part of the selection process for the first round of the blue plaque recipients. However, eight out of the initial 21 blue plaques celebrate the stories of women.

The Blue Plaques Program aims to reflect the diversity of the people and events of NSW. Any future funding rounds will continue to focus on how the Government can ensure there is greater diversity in the nominations.

Appendix 1 - On-track Saving our Species projects 2020-21

Scientific Name	Common Name
<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby
<i>Acacia dangarensis</i>	Acacia dangarensis
<i>Acacia gordonii</i>	Acacia gordonii
<i>Acacia meiantha</i>	Acacia meiantha
<i>Eucalyptus langleyi</i>	Albatross Mallee
<i>Amyema plicatula</i>	Amyema plicatula
<i>Zieria adenophora</i>	Araluen Zieria
<i>Asterolasia buxifolia</i>	Asterolasia buxifolia
<i>Asterolasia elegans</i>	Asterolasia elegans
<i>Baeckea kandos</i>	Baeckea kandos
<i>Callitris baileyi</i>	Bailey's Cypress Pine
<i>Banksia conferta</i>	Banksia conferta
<i>Banksia vincentia</i>	Banksia Vincentia
<i>Ctenophorus mirrityana</i>	Barrier Range Dragon
<i>Myuchelys georgesii</i>	Bellinger River Snapping Turtle
<i>Melaleuca biconvexa</i>	Biconvex Paperbark
<i>Hakea archaeoides</i>	Big Nellie Hakea
<i>Chiloglottis anaticeps</i>	Bird Orchid
<i>Eucalyptus rubida subsp. barbigerorum</i>	Blackbutt Candlebark
<i>Boronia boliviensis</i>	Bolivia Hill Boronia
<i>Homoranthus croftianus</i>	Bolivia Homoranthus
<i>Eucalyptus boliviana</i>	Bolivia Stringybark
<i>Bossiaea bombayensis</i>	Bombay Bossiaea
<i>Litoria booroolongensis</i>	Booroolong Frog
<i>Eucalyptus microcodon</i>	Border Mallee
<i>Bossiaea fragrans</i>	Bossiaea fragrans
<i>Zieria buxijugum</i>	Box Range Zieria
<i>Gentiana bredboensis</i>	Bredbo Gentian
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake
<i>Eucalyptus aquatica</i>	Broad-leaved Sally
<i>Mastacomys fuscus</i>	Broad-toothed Rat
<i>Phyllanthus microcladus</i>	Brush Sauropus

Scientific Name	Common Name
<i>Sophora fraseri</i>	Brush Sophora
<i>Plinthanthesis rodwayi</i>	Budawang's Wallaby Grass
<i>Diuris aequalis</i>	Buttercup Doubletail
<i>Rutidosia leptorrhynchoides</i>	Button Wrinklewort
<i>Diuris byronensis</i>	Byron Bay Diuris
<i>Grevillea caleyi</i>	Caley's Grevillea
<i>Camarophyllopsis kearneyi</i>	Camarophyllopsis kearneyi
<i>Grevillea rivularis</i>	Carrington Falls Grevillea
<i>Pomaderris walshii</i>	Carrington Falls Pomaderris
<i>Cassia marksiana</i>	Cassia marksiana
<i>Persoonia marginata</i>	Clandulla Geebung
<i>Brachyscome muelleroides</i>	Claypan Daisy
<i>Pultenaea maritima</i>	Coast Headland Pea
<i>Fontainea oraria</i>	Coastal Fontainea
<i>Pomaderris cocoparrana</i>	Cocoparra Pomaderris
<i>Corunastylis sp. Charmhaven (NSW896673)</i>	Corunastylis sp. Charmhaven (NSW896673)
<i>Pomaderris cotoneaster</i>	Cotoneaster Pomaderris
<i>Zieria covenyi</i>	Coveny's Zieria
<i>Caladenia concolor</i>	Crimson Spider Orchid
<i>Acacia curranii</i>	Curly-bark Wattle
<i>Darwinia glaucophylla</i>	Darwinia glaucophylla
<i>Melaleuca deanei</i>	Deane's Paperbark
<i>Pomaderris reperta</i>	Denman Pomaderris
<i>Diuris eborensis</i>	Diuris eborensis
<i>Olearia flocktoniae</i>	Dorrigo Daisy Bush
<i>Allocasuarina defungens</i>	Dwarf Heath Casuarina
<i>Pherosphaera fitzgeraldii</i>	Dwarf Mountain Pine
<i>Phyllota humifusa</i>	Dwarf Phyllota
<i>Genoplesium vernale</i>	East Lynne Midge Orchid
<i>Rhizanthella slateri</i>	Eastern Australian Underground Orchid
<i>Dasyornis brachypterus</i>	Eastern Bristlebird
<i>Epacris hamiltonii</i>	Epacris hamiltonii
<i>Eucalyptus sturgissiana</i>	Ettrema Mallee

Scientific Name	Common Name
<i>Eucalyptus alligatrix subsp. alligatrix</i>	Eucalyptus alligatrix subsp. alligatrix
<i>Eucalyptus sp. Cattai</i>	Eucalyptus sp. Cattai
<i>Rytidosperma pumilum</i>	Feldmark Grass
<i>Bossiaea oligosperma</i>	Few-seeded Bossiaea
<i>Digitaria porrecta</i>	Finger Panic Grass
<i>Mixophyes fleayi</i>	Fleay's Barred Frog
<i>Alexfloydia repens</i>	Floyd's Grass
<i>Tasmannia glaucifolia</i>	Fragrant Pepperbush
<i>Correa lawrenceana var. genoensis</i>	Genoa River Correa
<i>Grevillea rhizomatosa</i>	Gibraltar Grevillea
<i>Eucalyptus dissita</i>	Gibraltar Mallee
<i>Synemon plana</i>	Golden Sun Moth
<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel
<i>Boronia repanda</i>	Granite Rose
<i>Litoria aurea</i>	Green and Golden Bell Frog
<i>Pterostylis cobarensis</i>	Greenhood Orchid
<i>Grevillea obtusiflora</i>	Grevillea obtusiflora
<i>Amytornis barbatus barbatus</i>	Grey Grasswren
<i>Liopholis guthega</i>	Guthega Skink
<i>Grevillea guthrieana</i>	Guthrie's Grevillea
<i>Elaeocarpus williamsianus</i>	Hairy Quandong
<i>Haloragodendron lucasii</i>	Haloragodendron lucasii
<i>Zieria prostrata</i>	Headland Zieria
<i>Hibbertia sp. Bankstown</i>	Hibbertia sp. Bankstown
<i>Geniostoma huttonii</i>	Hutton's Geniostoma
<i>Hygrocybe anomala var. ianthinomarginata</i>	Hygrocybe anomala var. ianthinomarginata
<i>Hygrocybe aurantipes</i>	Hygrocybe aurantipes
<i>Hygrocybe austropratensis</i>	Hygrocybe austropratensis
<i>Hygrocybe collucera</i>	Hygrocybe collucera
<i>Hygrocybe griseoramosa</i>	Hygrocybe griseoramosa
<i>Hygrocybe lanecovensii</i>	Hygrocybe lanecovensii
<i>Hygrocybe reesiae</i>	Hygrocybe reesiae
<i>Hygrocybe rubronivea</i>	Hygrocybe rubronivea

Scientific Name	Common Name
<i>Dromaius novaehollandiae</i> - endangered population	Emu population in the New South Wales North Coast Bioregion and Port Stephens local government area
<i>Phascolarctos cinereus</i>	Koala
<i>Dasyercus cristicauda</i>	Crest-tailed Mulgara
<i>Leporillus conditor</i>	Greater Stick-nest Rat
<i>Macrotis lagotis</i>	Bilby
<i>Myrmecobius fasciatus</i>	Numbat
<i>Onychogalea fraenata</i>	Bridled Nailtail Wallaby
<i>Pseudophryne corroboree</i>	Southern Corroboree Frog
<i>Daphnandra johnsonii</i>	Illawarra Socketwood
<i>Zieria granulata</i>	Illawarra Zieria
<i>Eucalyptus imlayensis</i>	Imlay Mallee
<i>Isoglossa eranthemoides</i>	Isoglossa
<i>Hibbertia spanantha</i>	Julian's Hibbertia
<i>Thelymitra kangaloonica</i>	Kangaloon Sun Orchid
<i>Prasophyllum keltonii</i>	Kelton's Leek Orchid
<i>Dampiera fusca</i>	Kydra Dampiera
<i>Westringia kydrensis</i>	Kydra Westringia
<i>Hakea pulvinifera</i>	Lake Keepit Hakea
<i>Lasiopetalum joyceae</i>	Lasiopetalum joyceae
<i>Lasiopetalum longistamineum</i>	Lasiopetalum longistamineum
<i>Discaria nitida</i>	Leafy Anchor Plant
<i>Zieria citriodora</i>	Lemon Zieria
<i>Lenwebbia</i> sp. Main Range	Lenwebbia sp. Main Range
<i>Leucopogon fletcheri</i> subsp. <i>fletcheri</i>	Leucopogon fletcheri subsp. <i>fletcheri</i>
<i>Lepidorrhachis mooreana</i>	Little Mountain Palm
<i>Potorous tridactylus</i>	Long-nosed Potoroo
<i>Carmichaelia exsul</i>	Lord Howe Island Broom
<i>Calystegia affinis</i>	Lord Howe Island Morning Glory
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly
<i>Gudeoconcha sophiae magnifica</i>	Magnificent Helicarionid Land Snail
<i>Solanum sulphureum</i>	Manning Yellow Solanum
<i>Grevillea masonii</i>	Mason's Grevillea

Scientific Name	Common Name
<i>Mystivagor mastersi</i>	Masters Charopid Land Snail
<i>Calotis glandulosa</i>	Mauve Burr-daisy
<i>Calotis pubescens</i>	Max Mueller's Burr-daisy
<i>Callistemon megalongensis</i>	Megalong Valley Bottlebrush
<i>Astrotricha</i> sp. Wallagaraugh	Merimbula Star-hair
<i>Dillwynia glaucula</i>	Michelago Parrot-pea
<i>Micromyrtus blakelyi</i>	Micromyrtus blakelyi
<i>Micromyrtus minutiflora</i>	Micromyrtus minutiflora
<i>Elaeocarpus sedentarius</i>	Minyon Quandong
<i>Persoonia glaucescens</i>	Mittagong Geebung
<i>Eucalyptus recurva</i>	Mongarlowe Mallee
<i>Quassia</i> sp. Moonee Creek	Moonee Quassia
<i>Pseudocharopa ledgbirdi</i>	Mount Lidgbird Charopid Land Snail
<i>Trachymene scapigera</i>	Mountain Trachymene
<i>Xylosma parvifolia</i>	Mountain Xylosma
<i>Gaultheria viridicarpa</i> subsp. <i>merinoensis</i>	Mt Merino Waxberry
<i>Acacia atrox</i>	Myall Creek Wattle
<i>Myriophyllum implicatum</i>	Myriophyllum implicatum
<i>Allocasuarina simulans</i>	Nabiac Casuarina
<i>Acacia constablei</i>	Narrabarba Wattle
<i>Melichrus gibberagee</i>	Narrow-leaf Melichrus
<i>Corchorus cunninghamii</i>	Native Jute
<i>Persoonia acerosa</i>	Needle Geebung
<i>Grevillea renwickiana</i>	Nerriga Grevillea
<i>Gentiana wissmannii</i>	New England Gentian
<i>Acacia chrysotricha</i>	Newry Golden Wattle
<i>Allocasuarina portuensis</i>	Nielsen Park She-oak
<i>Eidothea hardeniana</i>	Nightcap Oak
<i>Persoonia nutans</i>	Nodding Geebung
<i>Acacia courtii</i>	North Brother Wattle
<i>Persoonia pauciflora</i>	North Rothbury Persoonia
<i>Eucalyptus magnificata</i>	Northern Blue Box
<i>Pseudophryne pengilleyi</i>	Northern Corroboree Frog

Scientific Name	Common Name
<i>Diuris sp. (Oaklands, D.L. Jones 5380)</i>	Oaklands Diuris
<i>Pelargonium sp. Striatellum</i>	Omeo Storksbill
<i>Owenia cepiodora</i>	Onion Cedar
<i>Eucalyptus macarthurii</i>	Paddys River Box, Camden Woollybutt
<i>Diuris ochroma</i>	Pale Golden Moths
<i>Diuris flavescens</i>	Pale Yellow Doubletail
<i>Pultenaea parrisiae</i>	Parris' Bush-pea
<i>Zieria parrisiae</i>	Parris' Zieria
<i>Uromyrtus australis</i>	Peach Myrtle
<i>Rytidosperma vickeryae</i>	Perisher Wallaby-grass
<i>Persoonia hindii</i>	Persoonia hindii
<i>Persoonia mollis subsp. maxima</i>	Persoonia mollis subsp. maxima
<i>Acacia phasmoides</i>	Phantom Wattle
<i>Phebalium bifidum</i>	Phebalium bifidum
<i>Phebalium speciosum</i>	Phebalium speciosum
<i>Anthosachne kingiana subsp. kingiana</i>	Philip Island Wheat Grass
<i>Phyloria richmondensis</i>	Phyloria richmondensis
<i>Pseudomys pilligaensis</i>	Pilliga Mouse
<i>Pimelea curviflora var. curviflora</i>	Pimelea curviflora var. curviflora
<i>Eucalyptus pumila</i>	Pokolbin Mallee
<i>Prasophyllum bagoense</i>	Prasophyllum bagoense
<i>Calochilus pulchellus</i>	Pretty Beard Orchid
<i>Euphrasia bella</i>	Pretty Eyebright
<i>Prostanthera gilesii</i>	Prostanthera gilesii
<i>Pterostylis chaetophora</i>	Pterostylis chaetophora
<i>Pterostylis despectans</i>	Pterostylis despectans
<i>Pultenaea parviflora</i>	Pultenaea parviflora
<i>Paralucia spinifera</i>	Purple Copper Butterfly, Bathurst Copper Butterfly
<i>Acacia carneorum</i>	Purple-wood Wattle
<i>Callitris oblonga</i>	Pygmy Cypress Pine
<i>Pachycephala rufogularis</i>	Red-lored Whistler
<i>Anthochaera phrygia</i>	Regent Honeyeater
<i>Polytelis anthopeplus monarchoides</i>	Regent Parrot (eastern subspecies)

Scientific Name	Common Name
<i>Genoplesium rhyoliticum</i>	Rhyolite Midge Orchid
<i>Polystichum moorei</i>	Rock Shield Fern
<i>Astrotricha roddii</i>	Rodd's Star Hair
<i>Diuris praecox</i>	Rough Doubletail
<i>Euphrasia scabra</i>	Rough Eyebright
<i>Boronia ruppii</i>	Rupp's Boronia
<i>Phebalium glandulosum</i> subsp. <i>eglandulosum</i>	Rusty Desert Phebalium
<i>Diuris arenaria</i>	Sand Doubletail
<i>Caladenia arenaria</i>	Sand-hill Spider Orchid
<i>Prostanthera marifolia</i>	Seaforth Mintbush
<i>Senecio linearifolius</i> var. <i>dangarensis</i>	<i>Senecio linearifolius</i> var. <i>dangarensis</i>
<i>Zieria formosa</i>	Shapely Zieria
<i>Neoastelia spectabilis</i>	Silver Sword Lily
<i>Sophora tomentosa</i>	Silverbush
<i>Eucalyptus canobolensis</i>	Silver-Leaf Candlebark
<i>Eucalyptus castrensis</i>	Singleton Mallee
<i>Lindsaea incisa</i>	Slender Screw Fern
<i>Crinia sloanei</i>	Sloane's Froglet
<i>Swainsona recta</i>	Small Purple-pea
<i>Cullen parvum</i>	Small Scurf-pea
<i>Diuris pedunculata</i>	Small Snake Orchid
<i>Coprosma inopinata</i>	Small-leaved Currant Bush
<i>Symplocos baeuerlenii</i>	Small-leaved Hazelwood
<i>Pseudomys fumeus</i>	Smoky Mouse
<i>Pultenaea glabra</i>	Smooth Bush-Pea
<i>Davidsonia johnsonii</i>	Smooth Davidson's Plum
<i>Prostanthera junonis</i>	Somersby Mintbush
<i>Litoria raniformis</i>	Southern Bell Frog
<i>Isodon obesulus</i> <i>obesulus</i>	Southern Brown Bandicoot (eastern)
<i>Epacris sparsa</i>	Sparse Heath
<i>Pimelea spicata</i>	Spiked Rice-flower
<i>Olax angulata</i>	Square-stemmed Olax
<i>Eleocharis tetraquetra</i>	Square-stemmed Spike-rush

Scientific Name	Common Name
<i>Pomaderris adnata</i>	Sublime Point Pomaderris
<i>Eucalyptus saxatilis</i>	Suggan Buggan Mallee
<i>Prasophyllum canaliculatum</i>	Summer Leek Orchid
<i>Acacia terminalis</i> subsp. <i>Eastern Sydney</i>	Sunshine wattle
<i>Genoplesium superbum</i>	Superb Midge Orchid
<i>Prostanthera palustris</i>	Swamp Mint-bush
<i>Prasophyllum petilum</i>	Tarengo Leek Orchid
<i>Prostanthera staurophylla</i>	Tenterfield Mint-bush
<i>Tetratheca glandulosa</i>	Tetratheca glandulosa
<i>Amytornis modestus obscurior</i>	Thick-billed Grasswren (north-west NSW subspecies)
<i>Astrotricha crassifolia</i>	Thick-leaf Star-hair
<i>Asperula asthenes</i>	Trailing Woodruff
<i>Prostanthera askania</i>	Tranquility Mintbush
<i>Grevillea wilkinsonii</i>	Tumut Grevillea
<i>Sclerolaena napiformis</i>	Turnip Copperburr
<i>Genoplesium insigne</i>	Variable Midge Orchid
<i>Diuris venosa</i>	Veined Doubletail
<i>Acacia pubifolia</i>	Velvet Wattle
<i>Prostanthera densa</i>	Villous Mint-bush
<i>Eucalyptus camphora</i> subsp. <i>relicta</i>	Warra Broad-leaved Sally
<i>Zieria tuberculata</i>	Warty Zieria
<i>Grevillea iaspicula</i>	Wee Jasper Grevillea
<i>Pseudocharopa whiteleggei</i>	Whitelegge's Land Snail
<i>Diuris disposita</i>	Willawarrin Doubletail
<i>Zieria lasiocaulis</i>	Willi Willi Zieria
<i>Leucopogon exolasius</i>	Woronora Beard-heath
<i>Thelymitra adorata</i>	Wyong Sun Orchid
<i>Litoria castanea</i>	Yellow-spotted Tree Frog
<i>Zieria involucrata</i>	Zieria involucrata
<i>Zieria odorifera</i> subsp. <i>copelandii</i>	Zieria odorifera subsp. copelandii
<i>Zieria odorifera</i> subsp. <i>warrabahensis</i>	Zieria odorifera subsp. warrabahensis
<i>Caesalpinia bonduc</i>	Knicker Nut
<i>Triplarina nowraensis</i>	Nowra Heath Myrtle