

Additional Estimates February 2017

Environment and Energy Portfolio – Monday, 27 February 2017

Question No	Program: Division or Agency	Senator	Title	Question	Proof Hansard Page & Hearing Date or In Writing	PDR Number
1	1.1: BCD	Chisholm	National Reserve System – percentage targets	<p>Senator CHISHOLM: In terms of the National Reserve System, to what extent has it reached the national criteria for comprehensive, adequate and representative?</p> <p>Ms Barnes: In terms of reaching the percentage target we are certainly there as a country. In terms of covering each bioregion and each ecosystem there is probably still more work to do.</p> <p>Mr Thompson: We could get you on notice some specific figures on that. As Ms Barnes said, we have reached the Aichi target under the Convention on Biological Diversity for 17 per cent of the land mass to be in protected estate. But in terms of the representative proportion of each of the habitats or bioregions that are represented within the protected area estate, no, we have not reached that. There are large parts of the Murray-Darling Basin, for example, that have been cleared for over a century and a half and for which we do not have a large number of protected areas covered.</p> <p>Senator CHISHOLM: Who is responsible for reviewing that? Is it a federal department or are state based agencies responsible?</p> <p>Mr Thompson: It is a collaborative exercise, because the National Reserve System is a mosaic of properties that are owned mostly by the states in the national park estate and also by the Indigenous traditional owners, through the Indigenous protected areas, which the Commonwealth does continue to fund—Indigenous</p>	Page 78	SQ17-000088

				<p>protected areas—through the Office of Indigenous Affairs, in the Prime Minister's portfolio. There is a funding stream still for that, which contributes to the National Reserve System. The smallest portion really—land based, at least—is held by the Commonwealth. We have colleagues in the department who work with the states and territories about the nature of the National Reserve System and its current state.</p> <p>Senator CHISHOLM: If there is more information to be provided on notice about the shortfall, I would be interested in that, as well.</p> <p>Mr Thompson: We are happy to do that.</p> <p>Senator CHISHOLM: Is more funding required to get closer to achieving the full CRM/NRS system? Is that why there is a shortfall?</p> <p>Mr Thompson: I think there is a debate about that. There are probably some parts of Australia and some bioregions that are never going to be comprehensively, or adequately or representatively covered, because the landscape has been modified so much. There is a debate about whether putting more money into it and purchasing property or whether there are other means by which we can enter into covenants with existing landholders, and those sorts of things, which we do with the farming community. There are still working properties that are still producing agricultural outcomes, but they also have protected areas on them.</p>		
2	1.1: BCD	Urquhart	Funding for biodiversity related programs	<p>Senator URQUHART: Yes, we did too—sorry, it has been a long day! I do not think I asked this one this morning. What has been the annual level for funding for the biodiversity related program from 2012-13 to 2017-18?</p> <p>Mr Dadswell: Are you talking about bio fund?</p> <p>Senator URQUHART: The annual level of funding for biodiversity from 2012-13 to 2017-18.</p> <p>Mr Dadswell: I do not have those figures with me.</p>	Page 104	SQ17-000001

				<p>Mr Knudson: We can certainly come back on notice. I want to understand the reach of your question. You want to understand what departmental and administered funding we have with respect to biodiversity over those years?</p> <p>Senator URQUHART: Yes. With the axing of the Green Army program, I understand there will be a final audit review of what was achieved under the program, particularly the environmental benefits, including in terms of such criteria as the Biodiversity Conservation Strategy 2010-2030. Is that correct?</p> <p>Mr Dadswell: Not under the Green Army program.</p> <p>Senator URQUHART: No, but with the axing of that program.</p>		
3	1.1: BCD	Urquhart	Election commitment projects	<p>Senator URQUHART: There does not seem to be any reasoned cause, given the number of projects they were involved in. Can the department provide a list of the 119 projects that have been listed as election commitment projects in the MYEFO update?</p> <p>Mr Dadswell: I will have to take that on notice.</p> <p>Senator URQUHART: Can you also provide their location?</p> <p>Mr Dadswell: Yes.</p>	Page 105	SQ17-000002
4	1.1: BCD	Urquhart	ANAO potential audit of the Green Army Program	<p>Senator URQUHART: The National Audit Office has flagged a potential audit of the Green Army program. Do you know if that will proceed in 2017?</p> <p>Mr Dadswell: Not that I am aware.</p> <p>Senator URQUHART: Mr Knudson?</p> <p>Mr Knudson: We can come back if we have any additional information on that.</p>	Page 105	SQ17-000282
5	1.1: BCD	Rice	Federally listed species in RFA areas	<p>Senator RICE: I will take that on board, absolutely. In terms of federally listed species in RFA areas, what measures are in place to protect them where a state lists a particular species at a lower level than the federal</p>	Page 106 and 107	SQ17-000003

				<p>listing? What level of protection does the Commonwealth require the RFA to provide?</p> <p>Mr Dadswell: Under the regional forest agreements, in addition to the comprehensive and adequate representative reserve system that was established with each agreement, each state agency is bound through their forest management practices to protect threatened species, and they have regard to both state and federal recovery plans and conservation advice.</p> <p>Senator RICE: But, specifically, if the state has it listed at a lower level than the federal listing, what level of protection is required?</p> <p>Senator Ruston: The higher level applies, doesn't it?</p> <p>Mr Dadswell: It is up to the state in terms of looking at their conservation advice, but I will have to take it on notice for further detail.</p>		
6	1.1: BCD	Chisholm	Great Barrier Reef – catchment area	<p>Senator CHISHOLM: Regarding the reef catchments, do we actually have a figure on how many farms there are that would be considered to be in the catchment area?</p> <p>Ms Parry: We can have access to those figures, but I would need to take that on notice.</p> <p>Senator CHISHOLM: This will probably be on notice: what percentage of those farmers have been involved in programs?</p> <p>Ms Parry: I will take that on notice as well, but I have a sneaking suspicion we were asked a very similar question in last estimates and we provided a written response. I will just make a quick check. Given that some of our other reef trust investments have come online since last estimates, I might again take that question on notice so that I can provide you with the most up-to-date figures.</p>	Page 110	SQ17-000004
7	1.1: BCD	Chisholm	Threatened Species –	<p>Senator CHISHOLM: Perhaps I could ask that you take on notice how much funding has been received</p>	Page 111	SQ17-000005

			funding from the private sector	from the private sector. Mr Andrews: I would be delighted to do that for you.		
8	1.1: BCD	Whish-Wilson	Threatened Species – Freshwater Crayfish	<p>Senator WHISH-WILSON: I have two more questions. One is about <i>astrocopsis caldi</i>, the freshwater crayfish or lobster. I managed to see a blue one recently. Apparently there is only one stream in the world where they are blue. It happens to also have been a river catchment where Forestry Tasmania is planning to clear-fell rainforest and go back in there. I understand there has not been any work done on recovery plans or studying that species since 2016. I know, sadly, there are too many threatened endangered species for you guys at the moment to be dealing with but do you know if there has been any work at all on that species?</p> <p>Mr Andrews: I need to take that on notice because there are 1,900 species and I do not have any notes on that one.</p>	Page 113	SQ17-000006
9	1.1: BCD	Whish-Wilson	Great Barrier Reef – Marine Plastics Program	<p>Senator WHISH-WILSON: I would urge you to watch <i>Four Corners</i> when you get a chance. I certainly will be. It is one of the biggest pollution issues on the planet. I have been asking this question for the five years that I have been in the Senate and no-one seems to know what is going on with the threat abatement plan. I would be interested if there have been any developments there at all and whether you are providing any guidelines to the states in relation to policy outcomes as well. In relation to the Great Barrier Reef, is there still federal funding being contributed towards the Great Barrier Reef marine plastics program?</p> <p>Ms Parry: As you would be aware there was the Marine Debris Program phase II of Reef Trust Investments. There has not been another marine debris investment through the reef trust. I do know, but I do not have the information to hand so I can take it on notice, that there was an election commitment to fund some</p>	Page 114	SQ17-000008

				<p>further marine debris in the Great Barrier Reef catchments directly to Tangaroa Blue. The funding went to them directly as part of election commitments, but I can get the details of that program back for you on notice.</p> <p>Senator WHISH-WILSON: Thank you.</p>		
10	1.1: BCD	Rice	Regional Forest Agreements	<p>Since the Greater Glider was listed federally as a threatened species, what steps have been taken to ensure that forestry in NSW occurring under the RFA is undertaking additional measures to protect the Greater Glider, given that it is a forest-dependent species that relies on tree hollows for breeding and that logging is a primary cause of its habitat decline?</p>	Written	SQ17-000283
11	1.1: BCD	Rice	Regional Forest Agreements	<p>Has the Department of Environment or Minister asked the NSW Environment Department, Forestry Corporation (or anyone else in the NSW Government) to take action that reflects the change of status of the Greater Glider from common to threatened?</p>	Written	SQ17-000245
12	1.1: WHM	Rice	Regional Forest Agreements	<p>The federal government recommended a recovery plan be developed for the Greater Glider. Can you advise on the status of that plan and, given logging was identified as the primary threat facing the species, how will Greater Gliders be protected via the RFA process?</p>	Written	SQ17-000246
13	1.1: BCD	Rice	Regional Forest Agreements	<p>The NSW EPA has found that koalas prefer larger trees, mature forest stages and low disturbance from fire and logging. How does the federal government propose to protect koalas via the RFA process, in light of serious population declines over the last 20 years?</p>	Written	SQ17-000304

14	1.1: BCD	Rice	Regional Forest Agreements	How will climate change considerations be incorporated into the RFA process, in light of the fact that 4th Assessment of the IPCC (that managed forests generate the greatest mitigation benefit) has now been superseded and shown repeatedly to be false in Australian temperate eucalypt forests?	Written	SQ17-000284
15	1.1: BCD	Urquhart	Eastern Foreshow Rockwall in Smithton	<p>In regards to the Eastern Foreshow Rockwall in Smithton</p> <p>a) Can I confirm the Government plans to still proceed with the Eastern Foreshow Rockwall in Smithton?</p> <p>b) Is the funding commitment still \$250,000?</p> <p>c) When does the Government expect this project to begin?</p>	Written	SQ17-000311
16	1.2: Science	Urquhart	Wombat mange	<p>Senator URQUHART: I have some questions about wombat mange, particularly in Tasmania. What role does the federal government have in researching and treating sarcoptic mange in Tasmania's wombat population?</p> <p>Ms Cherry: Off the top of my head, I think we will have to take that on notice. There are 152 projects under the National Environmental Science program. A number of those are dealing with threatened species, but off the top of my head I could not tell you if one of them deals with treating mange.</p> <p>Senator URQUHART: I have a couple of other questions. If you need to take them on notice, that is fine, but I would appreciate a quick response if possible. What funding has the federal government provided to help combat the outbreak of mange in Tasmania? If there has been any funding, who has it been provided to? Has the federal government been approached by the state government or any other organisation for funding for mange?</p>	Page 103	SQ17-000010

				<p>Mr Thompson: I do not think we have that information on us, so we will take those questions on notice. We obviously invest in supporting threatened species, as Ms Cherry said, in particular through the National Environmental Science program which supports six hubs, one of which is a threatened species recovery hub. It may have made some investments or done some work, including with the Tasmanian government, on that issue. But we will confirm that.</p>		
17	1.4: WHM	Whish-Wilson	Giant kelp forests	<p>Senator WHISH-WILSON: I know you have a million things on and that you do not have enough resources—that is life. I am just interested in whether the department will actually investigate whether it is the case that they are completely gone? I am asking this for a couple of reasons. I was also supposed to dive on them last year and was warned that they were in fragile shape, so because of my lifestyle I cancelled three times. And now I have been told that they are completely gone, so I have missed my chance.</p> <p>But I am not the only one. People from all around the world have come to dive on these giant kelp forests. It would be good to know if you are going to investigate whether that is actually the case.</p> <p>Mr Oxley: We can engage with, and will engage with, the Tasmanian government and relevant scientific agencies to get a very contemporary understanding of the status of that ecological community and convey that back to you.</p> <p>Senator WHISH-WILSON: Evidence also given by IMAS was that a very small patch is left on the south-west of Tasmania. But they believe that will not last very long either. So would the department be interested in investigating that?</p> <p>Mr Oxley: We will have a look at the evidence that was given to the references committee last week and determine whether we need to ask any further questions</p>	Page 33	SQ17-000011

				and come back with some advice through questions on notice, if that is all right.		
18	1.4: WHM	Urquhart	Whaling – briefing	<p>Senator URQUHART: How many times has the minister been briefed on whaling issues, other than when he attended the International Whaling Convention?</p> <p>Ms Callister: I would have to take that on notice. I cannot recall specifically.</p> <p>Senator URQUHART: If you could take that on notice.</p>	Page 34	SQ17-000012
19	1.4: WHM	Whish-Wilson	Swift Parrot recovery - Teleconference	<p>Senator WHISH-WILSON: Actually, following along similar lines I was interested in an update on the swift parrot recovery and what were the outcomes of the November 2016 teleconference?</p> <p>Mr Andrews: Senator, I was not part of that teleconference. The people in the Wildlife and Marine Division in outcome 1.4 attend those meetings. I would have to get back to you on that and take it on notice.</p>	Page 113	SQ17-000013
20	1.4: WHM	Whish-Wilson	Swift Parrot recovery – Program	<p>Senator WHISH-WILSON: Can you more broadly tell us about the recovery program? I think we got some answers back to questions on notice that a new revised recovery plan was underway. That was October last year. Has there been any developments in relation to that?</p> <p>Mr Andrews: Again, I would need to take that on notice so that Mr Richardson, who was here this morning, could answer it. I can tell you, and you would obviously be aware as a Tasmanian, that the single biggest driver, the single biggest thing we can do to save the swift parrot is to stop introduced sugar gliders from devouring the mums and their eggs. Sugar gliders are an introduced species in Tasmania</p>	Page 113	SQ17-000014
21	1.4: WHM	Rhiannon	Exporting Platypus	<p>Senator RHIANNON: So it is the minister who gives the final decision?</p> <p>Mr Andrews: Correct. The people at San Diego Zoo love the Tasmanian devils so much that they actually</p>	Page 115	SQ17-000009

				<p>gave one of them, Bradley, a pacemaker, so I can assure you that it is one of the best zoos in the world and no zoo would take platypuses from the wild. These are platypuses that are bred in captivity and—</p> <p>Senator RHIANNON: Is it true, also, that they do not go back—</p> <p>CHAIR: Sorry, Senator Rhiannon. Can I just remind you, Mr Andrews, that we are coming up against the tea break, so could you just keep it a little bit shorter so Senator Rhiannon can get her questions in.</p> <p>Mr Knudson: If I can just add to that, what we can do is provide on notice what the regulatory requirements are for the approval and what the process is for that.</p> <p>Senator RHIANNON: That would be good. Thank you, Mr Andrews.</p>		
22	1.4: WHM	Rhiannon	Thompson Square emergency heritage listing	What are the steps being taken by the Environment Minister to place an emergency heritage listing on Thompson Square?	Written	SQ17-000285
23	1.4: WHM	Rhiannon	Thompson Square emergency heritage listing	Is it correct that the Minister wrote to Hawkesbury Mayor Mary Lyons-Buckett confirming consideration of placing Thompson Square on the National Heritage List?	Written	SQ17-000286
24	1.4: WHM	Rhiannon	Thompson Square emergency heritage listing	Is further information on this issue required, and if so what information is required?	Written	SQ17-000287
25	1.4: WHM	Rhiannon	Thompson Square emergency heritage listing	<p>Has the Minister requested extra information from Department regarding this matter?</p> <p>a. What is the nature of that information?</p> <p>b. When will that information be provided?</p>	Written	SQ17-000288
26	1.4: WHM	Rhiannon	Thompson Square emergency heritage listing	When is the Minister's decision with regard to heritage listing Australia's oldest remaining dedicated civic space due to be provided?	Written	SQ17-000289

27	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Please provide an update on progress with the development of the Tentative Listing proposal World Heritage Listing for the Royal Reserves (Royal and Heathcote National Parks and Garawarra State Conservation Area)?	Written	SQ17-000290
28	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Does the Minister receive regular updates from the New South Wales Office of Environment and Heritage with regard to its work on the proposal for World Heritage Listing for the Royal Reserves?	Written	SQ17-000291
29	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Has the New South Wales Office of Environment and Heritage informed the Department that they have contracted GML Heritage to prepare a report on the potential world heritage values of the Royal National Park for a Tentative List proposal?	Written	SQ17-000292
30	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Is it correct that this report found that additional work is required on detailing the potential world heritage values of the Royal Reserves? a. If so what additional information is required?	Written	SQ17-000293
31	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Please detail the consideration being given for including the Royal National Park and Reserves on the Australian Tentative List?	Written	SQ17-000294
32	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	Is the Department working closely and openly with the groups that have developed the proposal for World Heritage Listing for the Royal Reserves? If not why not?	Written	SQ17-000295
33	1.4: WHM	Rhiannon	World Heritage listing Royal Reserves area (NSW)	What is the timeline with regard to the Department's activities re the Tentative Listing proposal World Heritage Listing for the Royal Reserves? a. Please list the external deadlines and internal department deadlines being worked to with this proposal.	Written	SQ17-000296

34	1.4: WHM	Roberts	Marine Bioregional Planning Process - Update	Can the government provide an update on the Marine Bioregional Planning Process (MBPP)?	Written	SQ17-000015
35	1.4: WHM	Rice	Leadbeater's possum recovery plan	Has the National Recovery Plan for the Leadbeater's Possum been finalised? If not, when will it be?	Written	SQ17-000247
36	1.4: WHM	Rice	Leadbeater's possum recovery plan	Has the National Recovery Plan for the Leadbeater's Possum been provided to Minister Frydenberg? If so: a) when was it provided? b) was it the final plan or some other version (draft or otherwise)?	Written	SQ17-000248
37	1.4: WHM	Rice	Leadbeater's possum recovery plan	Has Minister Frydenberg asked the Victorian government for its support for the release of the National Recovery plan for the Leadbeater's Possum? In particular, has Minister Frydenberg asked the Victorian Environment Minister for her support for the release and/or the substance of the plan?	Written	SQ17-000249
38	1.4: WHM	Rhiannon	Kangaroo Products	Please provide in a spreadsheet details of all exported kangaroo products, including to each importing country the following details: 1. Product category 2. Species 3. Quantity or unit 4. Value 5. Permit number, purpose and type 6. Grant and acquittal date	Written	SQ17-000297

39	1.4: WHM	Rhiannon	Export Licences	How many export licences are currently granted to kangaroo exporters including details: a. Which products, quantities and to which country by each exporter	Written	SQ17-000298
40	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	Up to 300,000 kangaroos have died in previous mass mortalities events, with the cause not understood. The most recent mortality epidemic was in December 2016. With regards to the latest mass mortality event please provide data on the final number of kangaroos that were reported as dead or dying.	Written	SQ17-000305
41	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	An ex-departmental vet was reported as expressing concern that government agencies had not been able to or prepared to investigate the epidemic mortality event. ¹ Is this correct? Please advise what funding or other resources were committed to the investigation of this epidemic.	Written	SQ17-000306
42	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	The ex-department vet was also reported as stating that the cause could be an infectious disease process, and that plant poisoning and starvation have been ruled out as causes in previous mass mortality epidemics. i. Have any of the pathogens or their vectors been identified in this or any other previous mass mortality events of kangaroos? ii. Please provide a copy of the pathogens tested and the outcomes of those tests. iii. How many of the dead kangaroos were autopsied in the latest mortality epidemic? Please provide the outcomes of those autopsies.	Written	SQ17-000307
43	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	That same vet also expressed surprise " <i>at the slow response from industry stakeholders</i> " given an	Written	SQ17-000308

				<p>action plan had been developed after the previous mass mortality events.</p> <p>Please provide a copy of that action plan.</p> <p>Please detail the response by the industry in relation to this latest mortality epidemic.</p>		
44	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	<p>Was commercial shooting of kangaroos in the affected region in the far west of New South Wales (north of Broken Hill up to Tibooburra, across to the Paroo) suspended pending identification of the pathogens killing these kangaroos? If not, why not?</p> <p>Has commercial shooting of kangaroos ever been suspended in previous mass mortality events? If not, why not?</p>	Written	SQ17-000309
45	1.4: WHM	Rhiannon	Kangaroo Mass Mortalities	<p>The vet also stated that "<i>implications are concerning not just for kangaroo meat industry, but the [Australian] meat industry in general.</i></p> <p>Is there anything in the Action Plan to prevent the meat of any kangaroos shot in the regions affected by the 2016 December mortality epidemic entering the domestic or exported meat trade?</p> <p>were commercially shot kangaroos from the affected regions prevented from entering the consumption supply chain? Please provide details of precautionary procedures enacted?</p>	Written	SQ17-000310
46	1.5: Science Supervising Scientist	Ludlam	Ranger uranium mine: legal authorities post 2026	<p>Senator LUDLAM: That is valuable. Thank you. Further to this, what legal mechanism would you expect to be in place after the cessation of the current Atomic Energy Act section 41 authority to ensure that the company actually sticks around after that 2026 date?</p> <p>Mr Tayler: I think that question would be better addressed to the Department of Industry, Innovation and Science, because they administer the Atomic Energy Act. I believe it is something they are well aware of. In</p>	Page 84	SQ17-000048

				<p>discussions with them, there are a variety of legal instruments in place to ensure that the ERA is not relinquished from their responsibility until such time as the rehabilitation process is satisfactorily completed. But they would be able to provide you with more information on that process than I can.</p> <p>Senator LUDLAM: I can try, but we are stretched a little thin. So would you be able to take on notice your understanding of what relevant legal authorities there would be post 2026. I understand the distinction you draw between capital works and the slow healing of the environment over decades or longer. But if you can provide us with some direction on that I would greatly appreciate it....</p>		
47	1.5: Science Supervising Scientist	Ludlam	Ranger uranium mine: engagement with World Heritage Committee	<p>Senator LUDLAM: At what point is the intention to involve the World Heritage Committee, IUCN and other expert advisory bodies in the closure process? I take it they were not listed in your run-down of stakeholders before. At what point do they get invited to the table?</p> <p>Mr Thompson: We provide advice to the World Heritage Centre, which is advising the World Heritage Committee on a regular basis around developments in relation to all of the World Heritage properties, including Kakadu National Park. They have so far not requested any further information, as far as I know, but Stephen Oxley, a colleague who appeared in program 1.4, would be able to provide some more information on that.</p> <p>Senator LUDLAM: Do you mean I have missed him?</p> <p>Mr Thompson: Yes. But I am happy to take it on notice if you would like.</p> <p>Senator LUDLAM: I would appreciate it—just anything that sets out their formal or informal engagement with the process all the way through.</p> <p>Mr Thompson: Sure.</p>	Page 85	SQ17-000050

48	1.5 Science Supervising Scientist	Ludlam	Ranger uranium mine: elevated electrical conductivity levels	<p>Senator LUDLAM: I have one last one on elevated electrical conductivity levels in surrounding walkways. I know you would be disappointed if you did not get at least one of these from me. I understand that remedial work has been undertaken in an attempt to limit the elevated EC levels at some of the monitoring points around the tailings dam. Could you please give us an update on how the levels have been this year? Have there been any exceedances? What sort of levels are you recording? If you have any documentary evidence to give us a more detailed idea, we would appreciate seeing it.</p> <p>Mr Tayler: There have been no statutory exceedances in the creeks around the mine this year yet. We have seen some elevated electrical conductivity events, but not above the limits. As you mentioned, there were remedial works that have been undertaken. Those remedial works were designed to cut off groundwater moving to the west of the site. It would be, and it was expected when those works were undertaken—it will take some years for that plume of solutes that was in the groundwater to express and to move through the system. So I think the events that we are seeing at the moment are not to suggest that that interception system has not worked; it is just that it will take some time for that system to flush through.</p> <p>Senator LUDLAM: Could you take on notice to provide us with a record? You have said there were no exceedances of statutory guidelines but that you did see some elevated levels so, if there is anything you are able to provide us to document that, that would be good.</p> <p>Mr Tayler: Sure.</p>	Page 85 and 86	SQ17-000054
49	1.5: ESD	Urquhart	Environmental monitoring - KPIs	<p>Senator URQUHART: How is the department monitoring the environment in Australia—what indicators are you using and what are the trends</p>	Page 86	SQ17-000020

				<p>showing?</p> <p>Mr Cahill: Currently, through the annual report we are monitoring actual performance via our performance standards in terms of timeliness of statutory decision-making, and we also monitor a range of other indicators through the annual report. I will be honest with you—most of them are more process per se but, as with any regulator or any department, we endeavour to find better performance indicators. As part of the exercise the secretary commissioned a review of regulatory maturity and one of our recommendations was that, to try and strengthen the key performance indicators, we have got to see what impacts we are having.</p> <p>Senator URQUHART: How many KPIs have you got?</p> <p>Mr Cahill: I would have to take that on notice. I have only got a couple in front of me at the moment.</p> <p>Senator URQUHART: What are the trends that they are showing?</p> <p>Mr Cahill: I can give you an example of a trend in our performance against statutory decision-making, in terms of our time frames. Over the last four years, that was at 79 per cent within the statutory period in 2013-14 and for most of the other years they have been between 65 and 75 per cent. It is currently tracking at 66 per cent for the last financial year. There are a range of factors that influence that beyond staffing letters. It turns about complexity and a range of other issues as well.</p> <p>Senator URQUHART: When you provide the indicators on notice, can you give us the trends for those indicators as well?</p> <p>Mr Cahill: Sure.</p>		
50	1.5: ESD	Urquhart	EPBC Act Reform	<p>Senator URQUHART: Has the government been contacted by stakeholders regarding reforming the act?</p> <p>Mr Tregurtha: As Mr Cahill was just talking about, the department maintains a dialogue with a range of stakeholders—industry, environment and the community</p>	Page 87	SQ17-000022

				<p>more broadly—in relation to a range of matters in relation to the EPBC Act, reform being one of those matters. So we have ongoing discussions about how we can make the act work better and what elements of the act are and how they are working and the perspectives of each of those sectors.</p> <p>Senator URQUHART: So those stakeholders are industry and—</p> <p>Mr Tregurtha: Industry, environment groups, civil community. We have a range of discussions.</p> <p>Senator URQUHART: Are you able to provide a list of who those are?</p> <p>Mr Tregurtha: I would have to take that on notice in terms of the specifics. As I said, there are a range of different stakeholder groups that we meet with, but I am sure we can provide you with something on notice.</p>		
51	1.5: ESD	Urquhart	Clearing of EPBC listed land	<p>Senator URQUHART: So how many hectares of EPBC listed threatened ecological communities have been allowed to be cleared by the federal government in the last five years? And what were the offsets?</p> <p>Mr Cahill: I will have to take that on notice. There are some elements that we may not be able to get a full picture on, because we would go through a lot of records. But I will take that on notice and see what we can do within reasonable limits.</p>	Page 88	SQ17-000023
52	1.5: ESD	Urquhart	Malabar Headland – equestrian facility	<p>Senator URQUHART: I have a number of questions on the Malabar Headland but I will put some of them on notice. I will just ask a few. I understand that work on the equestrian facility is underway and it has involved a lot of movement of soil and significant digging. What is the government doing to monitor any potential airborne contamination from that work on the headland?</p> <p>Mr Cahill: We have to take that one on notice.</p> <p>Senator URQUHART: Has testing revealed any chemicals or contaminants in the air or soil?</p>	Page 89	SQ17-000024

				<p>Mr Cahill: I will have to take that on notice.</p> <p>Senator URQUHART: What chemicals and contaminants have been identified during this work?</p> <p>Mr Cahill: I did take that ones that I did not know about—</p> <p>Senator URQUHART: I know—you did say that.</p> <p>Mr Cahill: If I had the material in front of me, I would be able to answer your questions.</p>		
53	1.5: ESD	Whish-Wilson	Macquarie Harbour - EPBC	<p>Senator WHISH-WILSON: I would like to ask some specific questions—and I will be as quick as I can, because I understand a number of my colleagues also have questions to ask—in relation to Macquarie Harbour in Tasmania and the Tasmanian salmon industry—specifically the EPBC 2012/6406, which was the federal government's decision on EPBC. Has the department reassessed the decision that the expansion of salmon farming in Macquarie Harbour is not a controlled action?</p> <p>Ms Collins: No, it has not, so that decision remains in place.</p> <p>Senator WHISH-WILSON: So what would trigger review of that decision?</p> <p>Ms Collins: I would have to take that question on notice. I am not sure whether there is a review provision for that decision.</p>	Page 90	SQ17-000025
54	1.5: ESD	Whish-Wilson	Macquarie Harbour – Publishing of reports	<p>Senator WHISH-WILSON: Are you undertaking your own assessment of Macquarie Harbour?</p> <p>Ms Collins: We have been undertaking compliance monitoring of the particular matters in which the referral decision was made.</p> <p>Senator WHISH-WILSON: Will you be publishing that detail?</p> <p>Ms Collins: We are still reviewing the findings. We were out at Macquarie Harbour only a couple of weeks ago, so we are still reviewing the findings of that. It is not normal that we would publish compliance-</p>	Page 90	SQ17-000026

				<p>monitoring reports, though.</p> <p>Senator WHISH-WILSON: Given it is a significant matter of public interest, would it be something you would consider?</p> <p>Ms Collins: I would take that on notice.</p>		
55	1.5: ESD	Rice	Hooded Plovers	<p>Senator RICE: I wrote to Minister Frydenberg about the issue of protections for hooded plovers on beaches in Victoria. I do not know if you are aware of the issue that where beaches are being used for horse training, it is impacting upon hooded plovers that are on the beaches between Port Fairy and Warrnambool. Are you aware of that issue?</p> <p>Mr Knudson: I personally am not; I am sorry.</p> <p>Mr Thompson: I suspect we are back in 1.1, which will be later this evening.</p> <p>Senator Birmingham: If you want to try your question there, Senator Rice, we can see whether it is a specific EPBC—</p> <p>Senator RICE: Basically, we have hooded plovers listed as vulnerable under the EPBC Act and we have horse training going on on the same beaches. I wrote to the minister about it and have received a reply, which I wanted to have further discussion about.</p> <p>Mr Knudson: It really depends which element of the issue you want to explore. If you are saying that this should be referred for assessment under the EPBC Act, if you are saying the listing of it as endangered is at the wrong level of protection then that is a different area of the department. I am just trying to understand what you—</p> <p>Senator RICE: Basically, the response I got from the minister is saying that it is a matter for the state government rather than the federal government, because the situation is considered to be one where the horse training activities are viewed on a horse by horse basis—so, individual actions. But what is actually happening is</p>	Page 93	SQ17-000027

				<p>that you have horse training happening en masse on the beach. What I wanted to discuss and clarify was why this documented ongoing activity is not able to invoke our federal environmental protections.</p> <p>Mr Knudson: That question in general we would need to take a look at; first of all, to look at the individual species and whether the action that is happening would constitute a significant impact on it. Obviously, I cannot give you a very fulfilling answer based upon the information I have, which is based upon your comments, but I would be very happy to come back on notice with a much more detailed answer on that for you, if that would be helpful.</p>		
56	1.5: ESD	Ludlam	Beelair Wetlands – Inquiry in Perth	<p>Senator LUDLAM: What was the cost of having those four officers across to Perth?</p> <p>Mr Thompson: We would have to come back on notice on that. I do not have those figures with me.</p>	Page 94	SQ17-000029
57	1.5: ESD	Ludlam	Beelair Wetlands – Survey	<p>Senator LUDLAM: In the interest of time, could you table the qualifications of the three individuals who did the survey?</p> <p>Mr Knudson: We will take it on notice.</p>	Page 95 and 96	SQ17-000030
58	1.5: ESD	Ludlam	Cockatoo Surveys	<p>Senator LUDLAM: It was done in 2009. I beg your pardon. What I am trying to get to is that there seems to be a lot of dispute, including from some of the scientists who gave evidence last week, about whether the three individuals identified would have had any chance at all of identifying all of the appropriate trees or the suitable trees in a couple of hours on 14 December. If they were working from the list that was generated in 2009 from the PER, there is up to 534 additional trees that may have matured since 2009 to the degree where they might provide nesting hollows. That is the reason why observers and the watchers who have been on site since the land-clearing started are observing cockatoos</p>	Page 96	SQ17-000299

				<p>basically evacuating these trees as they are being pushed over by earth-moving equipment.</p> <p>Ms Collins: My understanding is that the people who did the investigations on the ground were not working from a list. They were working from the guideline that said that any tree with a diameter greater than 500 millimetres could potentially qualify and to then have a look and see whether the trees of that diameter contained hollows. Only two of the 26 trees that were measured at that girth contained hollows and, as I said, they were found not to be suitable a habitat but were nevertheless retained.</p> <p>Senator LUDLAM: How are they doing that from the ground? I genuinely do not understand how you do that from the ground.</p> <p>Mr Cahill: We will have a look, ourselves personally, at the compliance plan that was conducted for the exercise.</p>		
59	1.5: ESD	Ludlam	Cockatoo Surveys	<p>Senator LUDLAM: In that case, I will go to your obligations. Unless you can identify a public interest immunity ground for tabling that material now, I request that you table it now. The minister has said he might table it safely the other side of state election, but that is not relevant to your reason for being here. So on what public interest immunity ground are you refusing to make that material available to us now?</p> <p>Mr Thompson: We will take that on notice. We have to take that on notice so that we understand our legal obligations and can come back with an argument.</p>	Page 97	SQ17-000032
60	1.5: ESD	Whish-Wilson	Tarkine Tracks	<p>Senator WHISH-WILSON: Yes, follow-up questions to you, Mr Barker. With the Tarkine traps, you mentioned that since October the Tasmanian government are free to open those tracks again. But then you said they have not provided a third referral. I just wanted to check: do they need to provide a third referral to the</p>	Page 98	SQ17-000035

				<p>federal government before they open those tracks or can they open those tracks without a referral?</p> <p>Mr Barker: My recollection of the Tasmanian government's media release, essentially, from October was that they were committed to providing access to the area. Exactly where they will put the tracks is obviously a matter that we will be expecting the Tasmanian government may be consulting on. The Tasmanian government have not yet made a formal referral under the EPBC Act.</p> <p>Senator WHISH-WILSON: They do not need to do that to reopen the tracks?</p> <p>Mr Barker: It depends on the character of the activity that they are proposing to undertake. We are not privy to exactly how they might be shaping that up at this point in time.</p> <p>Senator WHISH-WILSON: If you have any advice you could table, if you could do so? Or if you could take on notice what they have to look at in that respect, that would be greatly appreciated.</p>		
61	1.5: ESD	Whish-Wilson	Tyre Stewardship Australia	<p>Senator WHISH-WILSON: I just have a few quick questions. Tyre Stewardship Australia, TSA, was set up to increase domestic tyre recycling, expand the market for tyre derived products and reduce the number of Australian end-of-life tyres that I was sent to landfill. How are going with all that?</p> <p>Mr McNeer: I think you are aware that a lot of effort was put in by Australian governments including the Commonwealth government on developing Tyre Stewardship Australia and that scheme, so that is now up and running. The scheme has received authorisation from the ACCC to undertake its activities.</p> <p>Senator WHISH-WILSON: Feel free to take it on notice if you wish.</p> <p>Mr McNeer: One condition of that was that there was a review, and in fact a review has been initiated into that</p>	Page 102	SQ17-000037

				so we will be in a better position to report back on that in the future.		
62	1.5: ESD	Whish-Wilson	Tarkine Track	<p>Regarding the areas of the Arthur-Pieman Conservation Area on the west coast of Tasmania where recreational 4WD use is currently subject to a Federal Court order:</p> <p>Has the Department recently undertaken an assessment or survey of threatened species in the area? What species were assessed or surveyed? What was the outcome of this assessment or survey? Did the Department discover any threatened species in the area?</p>	Written	SQ17-000189
63	1.5: BCD	Whish-Wilson	Giant Freshwater Lobster	<p>Regarding the Tasmanian Government's plan to open up reserve land for logging in the Frankland River area of Tasmania:</p> <p>Has the Department recently undertaken an assessment or survey of the Giant Freshwater Lobster in this area? What was the outcome of this assessment or survey?</p>	Written	SQ17-000190
64	1.5: BCD	Whish-Wilson	Giant Freshwater Lobster	Has the Department been asked by the Tasmanian Government to provide advice on the potential impact of logging in the Frankland River area on the Giant Freshwater Lobster?	Written	SQ17-000191
65	1.5: ESD	Whish-Wilson	Macquarie Harbour	<p>It was stated at the Estimates hearing on 27 February 2017 that the Department was undertaking compliance monitoring in Macquarie Harbour.</p> <p>Will you publish the results, in detail, of the compliance monitoring of the particular matters in which the referral decision was made? If no: why not?</p>	Written	SQ17-000192

66	1.5: ESD	Whish-Wilson	Macquarie Harbour – Risk Rating	What is the Department’s risk rating of Macquarie Harbour?	Written	SQ17-000193
67	1.5: ESD	Whish-Wilson	Macquarie Harbour – Compliance Monitoring	What is the Department’s prioritisation of compliance monitoring in Macquarie Harbour? When do you expect this compliance monitoring to be finished? Will you be making the results of this compliance monitoring public?	Written	SQ17-000194
68	1.5: ESD	Whish-Wilson	Macquarie Harbour – Meeting Details	<p>It was stated at the Estimates hearing on 27 February 2017 that the Department and EPA Tasmania recently met regarding Macquarie Harbour.</p> <p>What was discussed at this? Was the EPA Tasmania’s new method for calculating biomass limits discussed? Did the Department express a view to EPA Tasmania regarding their new method for calculating biomass limits? Has the Department formed a view on what level of biomass is sustainable for Macquarie Harbour?</p>	Written	SQ17-000195
69	1.5: ESD	Whish-Wilson	Macquarie Harbour – IMAS Report	<p>It was stated at the Estimates hearing on 27 February 2017 that the Department was aware of the recently released IMAS report.</p> <p>When was the department provided with a copy of the Institute for Marine and Antarctic Studies report <i>Environmental Research in Macquarie Harbour: Interim Synopsis of Benthic and Water Column Conditions</i>?</p>	Written	SQ17-000196
70	1.5: ESD	Whish-Wilson	Macquarie Harbour – Outcomes of IMAS Report	<p>It was stated at the Estimates hearing on 27 February 2017 that the Department was aware of the recently released IMAS report.</p> <p>Did EPA Tasmania or any other part of the Tasmanian Government alert the department to the timetable for</p>	Written	SQ17-000197

				<p>release of this study?</p> <p>What action did the receipt or discovery of this report prompt in the Department?</p>		
71	1.5: WHM	Whish-Wilson	Orange bellied parrot	<p>In January 2017 it was reported that up to 16 orange-bellied parrots died as a result of exposure to bacteria at the Tasmanian Government's captive breeding program in Taroona.</p> <p>Has the Department assessed the Taroona captive breeding facility and management practices following the recent deaths? What are the conclusions of this assessment?</p>	Written	SQ17-000198
72	1.5: WHM	Whish-Wilson	Orange bellied parrot	<p>In January 2017 it was reported that up to 16 orange-bellied parrots died as a result of exposure to bacteria at the Tasmanian Government's captive breeding program in Taroona.</p> <p>Has the Department advised the Tasmanian Government on its captive breeding facility and management practices following the recent deaths? What was this advice?</p>	Written	SQ17-000198
73	1.5: WHM	Whish-Wilson	Orange bellied parrot – Breeding Program in Taroona	<p>In January 2017 it was reported that up to 16 orange-bellied parrots died as a result of exposure to bacteria at the Tasmanian Government's captive breeding program in Taroona.</p> <p>Has the threat management and biosecurity protocols at Taroona been re-evaluated following the recent deaths? What is the outcome of this evaluation?</p>	Written	SQ17-000199

74	1.5: WHM	Whish-Wilson	Orange bellied parrot – Threat Management and Biosecurity Protocols	Has the review of the Captive Management Plan commenced? When will the Captive Management Plan be renewed?	Written	SQ17-000200
75	1.5: WHM	Whish-Wilson	Orange bellied parrot – Captive Management Plan	In January 2017 it was reported that up to 16 orange-bellied parrots died as a result of exposure to bacteria at the Tasmanian Government's captive breeding program in Taroona. When will further aviary space be acquired?	Written	SQ17-000201
76	1.5: WHM	Whish-Wilson	Orange bellied parrot – Aviary Space in Taroona	Has the Tasmania Government reported to the Department the outcomes of monitoring progress against the Captive Management Plan? When will the next report be completed? Will this report be made public?	Written	SQ17-000202
77	1.5: ESD	Waters	Adani – Offsets strategy publication	The department noted at last estimates (QoN 113) that it has approved the Adani Biodiversity Offsets Strategy in accordance with Condition 9 of the EPBC Act approval in October 2016. When did that approval occur?	Written	SQ17-000204
78	1.5: ESD	Waters	Adani – Offsets strategy publication	Can the department clarify why that strategy has not been published publicly in accordance with condition 36 of the approval, which clearly states the expectation is that all management plans would be made public? If the reason is commercial-in-confidence, why could the Department simply not redact the commercial-in-confidence information? Given the public interest in this project and the growing public concern as to the proponents' ability to effectively protect the environment, it would surely be prudent to publish these types of strategies and management plans.	Written	SQ17-000205

79	1.5: ESD	Waters	Adani – Offsets strategy publication	Condition 36 of the approval says “Unless otherwise agreed to in writing by the Minister, the approval holder must publish all management plans, reports, and programs referred to in these conditions of approval on their website. Each management plan, report, and program must be published on the website within one month of being approved.” Is it your view that that condition is being complied with?	Written	SQ17-000206
80	1.5: ESD	Waters	Adani – Offsets strategy publication	Has the department received any of the offset management plans, or any other management plans, from Adani for assessment, per its approval conditions?	Written	SQ17-000207
81	1.5: ESD	Waters	Adani – Offsets strategy publication	Can you explain the background to the variation to the approval conditions for the mine which was made on 5 January 2017? As far as we can tell, it simply gives Adani an extra month to publish their detailed baseline studies of threatened species and other Matters of National Environmental Significance in relation to their biodiversity offsets.	Written	SQ17-000208
82	1.5: ESD	Waters	NAIF – Advice from the Department	Has the Department been asked to provide any advice to NAIF on the environmental implications of any of their proposed projects?	Written	SQ17-000209
83	1.5: ESD	Waters	NAIF – Advice from the Department	Has NAIF requested details on any environmental assessments that are currently being undertaken, or that have been completed by the Department?	Written	SQ17-000210
84	1.5: ESD	Waters	NAIF – Advice from the Department	Did the government consult with the Department before they announced in December 2016 that the Adani coal railway had received “conditional approval” for a \$1 billion loan of public money?	Written	SQ17-000211
85	1.5: ESD	Waters	Toondah Harbour development -	Can the department outline the nature of the environmental impacts that will arise from the Toondah Harbour development on Moreton Bay near Brisbane?	Written	SQ17-000212

			Brisbane	Has the assessment team sought any advice on these impacts? Who from? Was that advice internal or external?		
86	1.5: ESD	Waters	Toondah Harbour development - Brisbane	Can the department outline whether or not the dredging inside the boundaries of a Ramsar listed wetland is consistent with Australia's obligations under the Ramsar convention?	Written	SQ17-000213
87	1.5: ESD	Waters	Toondah Harbour development - Brisbane	<p>There have been reports that the department is considering wetland offsets for the Toondah Harbour project that will be delivered in Asia – in particular it's been reported as a <i>"pilot migratory shorebird offset in the Yellow Sea with an international wetlands organisation"</i></p> <p>How would compliance under such arrangements work? What would Australia's jurisdiction be to enforce compliance? What is the Department's general view of biodiversity offsets which happen overseas, outside Australia? Is that acceptable?</p>	Written	SQ17-000214
88	1.5: ESD	Waters	Toondah Harbour development - Brisbane	Is the Department aware that the proponents of this project donated \$200,000 to the Liberal party (government) in 2015-16?	Written	SQ17-000215
89	1.5: ESD	Waters	Toondah Harbour development - Brisbane	Is the Department aware that the proponents the Walker Corporation donated more than \$23,000 to the Labor party in the last few years?	Written	SQ17-000216
90	1.5: ESD	Waters	Toondah Harbour development - Brisbane	<p>Has any material about the preliminary results of this assessment process gone to the Minister's office yet? What level of engagement has there been between the Minister's office and the assessment team? I.e.</p> <p>a. How many times have you briefed them on the impacts?</p>	Written	SQ17-000217

				<p>b. Have they made any specific requests about the project assessment process?</p> <p>c. Have you had any requests for media lines from the Minister's office about this?</p>		
91	1.5: ESD	Waters	Toondah Harbour development - Brisbane	Has the Department met with the developers, the Walker Corporation? Has the Minister?	Written	SQ17-000218
92	1.5: ESD	Waters	Toondah Harbour development - Brisbane	Has the Department met with the community groups who are raising the environmental issues?	Written	SQ17-000219
93	1.5: WHM	Rhiannon	Australian wildlife for commercial industries	Please provide a detailed update on the current permissions being provided to kill and/or export Australian wildlife for commercial industries.	Written	SQ17-000346
94	2.1: DERD	Roberts	Evidence of policy direction of department	<p>Senator ROBERTS: Can I then put on notice that I request the empirical evidence upon which your department has based its plans.</p> <p>Dr de Brouwer: Yes, I am very happy to. I will give you the material from CSIRO and the Bureau of Meteorology, our own scientists in Antarctica and elsewhere that we rely on. I will provide that material.</p> <p>Senator ROBERTS: The science that is showing that the carbon dioxide from human activity is affecting the climate and needs to be reduced.</p> <p>Dr de Brouwer: That is the science.</p> <p>Senator ROBERTS: I just want to be clear: I want the empirical evidence that proves that carbon dioxide from human activity is affecting the level of carbon dioxide in the atmosphere and that it must be reduced.</p> <p>Dr de Brouwer: Okay.</p>	Page 10	SQ17-000038
95	2.1: DERD	Roberts	Department policy –	Senator ROBERTS: Yes, I have. What is the department's policy when responding to allegations that	Page 10 and 11	SQ17-000039

			<p>response to alternate beliefs</p>	<p>the belief is wrong?</p> <p>Dr de Brouwer: I think we always take every person's statement seriously, so we listen to people and we would look to then assess that against what we see to be the evidence, drawing from a wide body of knowledge. I think we always try to listen to people with respect and, if people have different views, we engage on those views.</p> <p>Senator ROBERTS: Can you tell me what respect would look like?</p> <p>Dr de Brouwer: I think it is a conversation. If people want to challenge or say that this is not right then we would listen to what they say and then look at that against what we understand to be the science.</p> <p>Senator ROBERTS: So you would scrutinise what they have to say?</p> <p>Dr de Brouwer: Yes.</p> <p>Senator ROBERTS: Can the department show any evidence of having engaged constructively with those who question the belief? I understand that a number of people have.</p> <p>Dr de Brouwer: I think if people ask us we talk about it or we provide the material that we are drawing on for our assessments.</p> <p>Senator ROBERTS: Can you give me the evidence showing that you have done that?</p> <p>Dr de Brouwer: I will have to take that on notice.</p> <p>Senator ROBERTS: That is fine.</p>		
96	2.1: DERD	Roberts	<p>Cost of reducing carbon dioxide</p>	<p>Senator ROBERTS: How much has been spent in each of the last five years by the federal government on anti-catastrophic anthropogenic global warming measures? Please include—and I will put this on notice—all departments and agencies, all grants, funding of non-government organisations, departmental and administered expenses. Include also the imposition of the renewable energy target on the economy and all</p>	Page 13	SQ17-000041

				grants and subsidies for household and grid solar and wind power. I would like the cost for the last five years by the federal government on measures to reduce carbon dioxide in the atmosphere. Dr de Brouwer: I will take that question on notice.		
97	2.1: ICCEID	Whish-Wilson	World Ocean Summit	Senator WHISH-WILSON: Previously we have strictly been told to ask questions around recycling schemes in the others. In terms of what we are doing in marine plastics I know that <i>Four Corners</i> has a program on right at the moment, which I cannot see unfortunately. There was the World Ocean Summit in Bali last week. Did we have anyone there and have there been any outcomes from that conference that you would like to share with us? Mr Knudson: Unfortunately I am not aware whether we had officers on the ground, but that is something obviously that we can take on notice and come back on what we are trying to do on ocean plastics et cetera. Senator WHISH-WILSON: There is a report that the Indonesian environment minister was declaring war on plastics in the ocean. I am glad to hear that because they are a big source of it, unfortunately. I would be very interested to know if there have been any developments in the threat abatement plans. This committee had a fantastic inquiry last year into the threat of marine plastics. The plans still have not been finalised or were certainly being completely redone. Has there been any work completed on that at all? Mr Knudson: Unfortunately I do not know the specifics on that, so we would have to come back, like you said, to answer the question.	Page 113 and 114	SQ17-000007
98	2.1: ICCEI	Xenphon	Safeguard mechanism	Senator XENOPHON: This is a question to the minister, and you may have to take it on notice. When Direct Action was established, there was a safeguard mechanism—which I am familiar with, given that I moved the amendments. That safeguard mechanism	Page 45	SQ17-000076

				<p>foreshadows a ratcheting-up of energy efficiency in terms of the baseline being set in terms of issues of energy efficiency, in terms of emissions intensity. Would the ministerial directive have any degree of funding for a coal-fired power station if it were above the anticipated baseline in the safeguards mechanism? It is a technical question. You may wish to take it on notice.</p> <p>Senator Birmingham: If we have got something to add on notice, we will certainly do so.</p> <p>Senator XENOPHON: I am not expecting you to answer it now.</p> <p>Senator Birmingham: It is a technical question. I think the issue you highlight there—they could be related but would not necessarily have to be related to in terms of where a mandate was set for the CEFC versus how baselines might work under the operation of the Emissions Reduction Fund and associated legislation. But certainly we can have a look at that.</p> <p>Senator XENOPHON: Are you saying that the safeguard mechanism proposes an increasing tightening of emissions intensity and that the ministerial directive could go outside that tightening baseline to fund something through the CEFC that actually pollutes more than what the safeguard mechanism is anticipating?</p> <p>Senator Birmingham: No. I am simply making the observation—and I suspect it would hold for current arrangements—that the CEFC mandate, as currently written, does not depend upon other factors within the operation of the Emissions Reduction Fund, and that they operate, in a sense, as stand-alone arrangements. That is not to say that the government would not—because I am confident we would—be looking to give an element of consistency in our approach across all of those different areas which would clearly be part, I would have thought, of any thinking that comes out of the 2017 review of how to meet the 2030 emissions</p>		
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				reduction targets.		
99	2.1: ICCEI	Kakoschke-Moore	Solar thermal plant in Port Augusta – action taken	What action has been taken in relation to that commitment?	Written	SQ17-000133
100	2.1: ICCEI	Kakoschke-Moore	Solar thermal plant in Port Augusta - status	What is the status of the applications made for funding for solar thermal in Port Augusta?	Written	SQ17-000134
101	2.1: ICCEI	Urquhart	Land sector emissions	Is the government reviewing its land clearing emissions data and will publish updated figures in April or May? If so, why?	Written	SQ17-000250
102	2.1: ICCEI	Urquhart	Land sector emissions	<p>Is it correct that ‘land clearing’ or ‘deforestation’ data in government accounts only includes clearing of ‘forests’ with a crown cover of over 20%?</p> <p>a. If so, this means that clearing of vegetation with less than 20% crown cover is not properly accounted for. Is that correct?</p> <p>b. If so, what are the impacts for our emission projections? How will these impacts be managed with respect to our emission reduction targets?</p>	Written	SQ17-000251
103	2.1: ICCEI	Urquhart	Land sector emissions	There appears to be a discrepancy between the data of the most recent Australian Emission Projections to 2030 and the older 2014-15 projections. In particular, the Land clearing figure dropped from 41Mt to 9Mt per annum over the period 2015-30. Some of this is due to differences between Kyoto and UNFCCC rules, but even if comparing like for like, stakeholders claim there is a discrepancy of 16Mt per year, or 252Mt to 2030. Can you shed some light on this?	Written	SQ17-000252

104	2.1: DERD	Urquhart	2017 review	<p>What exactly is the process envisioned for the 2017 Climate Change Review?</p> <p>a. Can you provide an outline of the process with dates; discussion paper, submissions, options paper, public hearings, final review report, or the like?</p>	Written	SQ17-000253
105	2.1: DERD	Urquhart	2017 review	<p>Will the review hold public hearings?</p> <p>a. If so, how many and where - will public hearings be held across the country?</p> <p>b. If no, why not?</p> <p>c. If undecided, who will make this decision and based on what criteria?</p>	Written	SQ17-000254
106	2.1: DERD	Urquhart	2017 review	<p>Does the government agree the government's 2030 emission reduction targets (26%-28% on 2005 levels) are inadequate to meet Australia's obligations under the Paris Agreement, implying that over time Australia is obliged to provide updated and more ambitious targets through the Paris 'ratchet mechanism'?</p>	Written	SQ17-000255
107	2.1: DERD	Urquhart	2017 review	<p>Will the review consider the effectiveness of policies to meet emission reduction targets that are consistent with our Paris obligations, or just our already specified 2030 reduction targets?</p>	Written	SQ17-000256
108	2.1: ICCEI	Roberts	UN-IPCC assessment reports	<p>Is your department aware that in each of the last 3 UN-IPCC assessment reports (AR3, AR4, AR5) there has been one chapter claiming unusual global warming and attributing it to carbon dioxide from human activity. These sole chapters are 12, 9 and 10 respectively.</p>	Written	SQ17-000316

				Is your department aware that none of these chapters provide any empirical evidence proving that carbon dioxide from human activities affects global temperatures?		
109	2.1: ICCEI	Roberts	Inter-Academy Council's Review	Please list the reasons why your department has not acted on the Inter-Academy Council's Review of the processes and procedures of the IPCC Oct 2010?	Written	SQ17-000317
110	2.1: ICCEI	Roberts	Funding	Has your department funded directly or indirectly any IPCC work since Oct 2010?	Written	SQ17-000318
111	2.1: DERD	Roberts	Nonlinear climate system	Why is your department dismissing all concerns about the fundamental lack of predictability in the complex nonlinear climate system?	Written	SQ17-000333
112	2.1: DERD	Roberts	Climate models	Please list your department's reasoning that climate models are fit for the purpose of identifying with high confidence the proportion of the 20th century warming that was human-caused as opposed to natural?	Written	SQ17-000334
113	2.1: DERD	Roberts	Climate models	How do you explain the growing body of evidence that climate models predict too much warming from increased atmospheric carbon dioxide?	Written	SQ17-000335
114	2.1: DERD	Roberts	Climate models	Why do you believe that the climate model simulation results, which do not include key elements of climate variability, are useful as projections for how the 21st century climate will actually evolve?	Written	SQ17-000336
115	2.1: DERD	Roberts	Climate related advice	Has your department done any due diligence on the climate related advice received from CSIRO, BoM, AAS, Chief Scientist, universities, the department's former Climate Commission? If YES, can we see the results? If NOT: What measures do you use to counter the perception that "your scientists" produce the scientific	Written	SQ17-000320

				output that suits your Belief?		
116	2.1: DERD	Roberts	Investigation	Has your department investigated the implications of science organisations rating the reputation of colleagues higher than scientific truth? When can we see the results of this investigation?	Written	SQ17-000323
117	2.1: DERD	Roberts	Accountability	Will the department's own officials defend The Belief or is the department going to rely on CSIRO, Bureau of Meteorology and the Chief Scientist?	Written	SQ17-000324
118	2.1: DERD	Roberts	CSIRO advice	Does your department still now rely on CSIRO empirical to defend The Belief?	Written	SQ17-000325
119	2.1: DERD	Roberts	Chief Scientist's advice	Does your department still now rely on the Chief Scientist's advice to defend The Belief?	Written	SQ17-000326
120	2.1: DERD	Roberts	BoM advice	Does your department still now rely on the BoM advice to defend The Belief?	Written	SQ17-000327
121	2.1: DERD	Roberts	Australian Academy of Science	<p>The Australian Academy of Science has been mentioned among your sources of advice.</p> <p>Do you consider the AAS to be an unbiased organisation free of ideologies which is capable of giving credible scientific advice on climate change, given the attached (somewhat intemperate) article in Quadrant by Tony Thomas?</p>	Written	SQ17-000328
122	2.1: DERD	Roberts	Danger	Given that CSIRO has disclaimed any use of the term <i>danger</i> in relation to human carbon dioxide and stated that dangerousness is a political prerogative, where did the notion of danger come from? Was it your department or various ministers since 2007?	Written	SQ17-000331
123	2.1: DERD	Roberts	Carbon	<p>Why has your department, staffed by carbon based life forms, use the term <i>carbon pollution</i> in describing carbon dioxide?</p> <p>By carbon do you mean carbon dioxide?</p> <p>Does the department have some agenda that prevents you from using the correct terms?</p> <p>Will your department now stop using the term <i>carbon pollution</i>?</p>	Written	SQ17-000337

124	2.1: DERD	Roberts	Carbon dioxide	Does your department not know that carbon is a solid and that carbon dioxide is a colourless odourless tasteless non-toxic natural gas essential for all life on earth?	Written	SQ17-000338
125	2.1: DERD	Roberts	Carbon dioxide	How can carbon dioxide be a pollutant when all life on earth depends on it?	Written	SQ17-000339
126	2.2: DERD	Roberts	Australian Academy of Science booklet	Why did your department fund the AAS glossy booklet entitled The Science of Climate Change - Questions and Answers that included no empirical scientific evidence for its support of The Belief?	Written	SQ17-000329
127	2.2: DERD	Roberts	Empirical evidence	Does your agency wish to provide me any additional empirical evidence in support of The Belief?	Written	SQ17-000330
128	2.2: DERD	Roberts	General Circulation Model	Why is your department not negligent when relying on GCMs (General Circulation Model) that have not been subject to the rigorous verification and validation that is the norm for engineering and regulatory science?	Written	SQ17-000332
129	2.2: DERD	Roberts	Cost benefit	How much has been spent in each of the last 5 years by the federal government on climate measures? Please include all departments and agencies, all grants, funding of NGOs, departmental and administrated expenses. Include also the imposition of the RET on the economy and all grants and subsidies for household and grid solar and wind power. How much of this has gone to Australian universities and centres for climate studies?	Written	SQ17-000340
130	2.2: DERD	Roberts	Expenses	How much has your department paid in fees and expenses directly and indirectly to each of the following: <ul style="list-style-type: none"> • Tim Flannery • Wil Steffen • David Karoly • Ross Garnaut • Ove Hoegh-Guldberg • Matthew England • Leslie Hughes • Kurt Lambeck • Andy Pitman 	Written	SQ17-000341

				<ul style="list-style-type: none"> Stephan Lewandowsky <p>How much of this has gone to the United Nations and their subsidiary bodies and associated NGOs?</p> <p>Quantitatively what has been achieved by this expenditure in terms of its impact on atmospheric CO2 concentrations and Australian temperatures?</p> <p>In economic terms what is the dollar value to these quantitative achievements?</p>		
131	2.2: ICCEID	Roberts	Power generators	If Australian hydrocarbon (fossil fuel) power generators currently meet pollution standards covering particulates and aerosols, are they then "clean" by current standards?	Written	SQ17-000342
132	2.2: DERD	Roberts	Emission of C02	Is it the emission of CO2 that makes some generators "unclean"?	Written	SQ17-000343
133	2.2: Science	Roberts	C02	<p>Is CO2 as vital to plants as oxygen is to animals?</p> <p>Are all animals directly or indirectly dependent of the eating of plants?</p>	Written	SQ17-000344
134	2.2: Science	Roberts	Plant growth	<p>Would an increase in CO2 from 0.04% to 0.1% (400ppm to 1000ppm) significantly increase plant growth?</p> <p>How then is coal unclean?</p>	Written	SQ17-000345
135	2.2: BCD	Urquhart	Improving your Local Parks Program - Funding	<p>Senator URQUHART: Are you aware of the split between the states?</p> <p>Mr Costello: I would have to take that on notice.</p> <p>Senator URQUHART: My understanding is that South Australia gets a program worth around \$14 million and South Australian projects receive 0.7 per cent of the funds, or about \$100,000. Do you know if that is correct?</p> <p>Mr Costello: Out of that component, of the \$14 million of those specific election commitment programs, that is correct.</p>	Page 115	SQ17-000042

				<p>Senator URQUHART: And Tasmania gets 2.16 per cent?</p> <p>Mr Costello: I would have to take the details on notice in terms of the percentages. I have not got those in front of me.</p> <p>Senator URQUHART: If you could take those on notice and provide them, with a breakdown of what that is allocated out to be, that would be great.</p>		
136	3.1: AAD	Whish-Wilson	Data on sea level rise	<p>Senator WHISH-WILSON: I suppose what I am most interested in is projections of sea level rise. We are not just talking about climate change per se here; we are talking about managing risk. This is a very serious issue for every council around the country that is facing the ocean and waterways. Could you take on notice if the department has any views on whether the data is substantial about changing those projections for sea level rise.</p>	Page 29	SQ17-000045
137	4.2: CEWO	Rice	Gippsland Lakes	<p>In regards to the review of the Gippsland Lakes taking place being led by David Papps.</p> <p>a)What will that review involve?</p> <p>b)What is the budget of that review?</p> <p>c)Will there be any on-ground monitoring?</p> <p>d)As part of the new review, has or will the proposal to limit the dredging at the Lakes' entrance to 3.5m rather than 5.5m be examined?</p>	Written	SQ17-000257
138	4.2: ESD	Rice	Gippsland Lakes	<p>I understand that the Victorian EDO and the Victorian Auditor General's office have raised serious concerns about the declining ecological character of the Gippsland Lakes, while the Federal government has been reporting "no change" to the Ramsar Convention Secretariat since the 1980s. Is there any provision under the EPBC for a "particular manner" decision like this one (in 2011) to be revisited if the ecological impacts of the action turn out to be more severe than expected?</p>	Written	SQ17-000258

139	4.2: ESD	Rice	Gippsland Lakes	I understand that in June 2013 the GEG contacted the former Minister for Environment seeking a reconsideration of that decision, claiming the action was having a significant impact on the ecological character of a Ramsar wetland, but that that the Department could not consider the request as valid. Why is that?	Written	SQ17-000259
140	4.2: CEWO	Rice	Gippsland Lakes	I understand that proposal could return the Lakes to the condition they were in in the 1960-70s, and hopefully recover some of the damage caused by rising salinity since 2008. Will the new review be setting out objectives for the management of the Lakes like that one?	Written	SQ17-000260
141	4.2: ESD	Rice	Gippsland Lakes	As far as the Department is aware of the rationale for the dredging, are there uses for the dredging other than navigation by boats and ships? I.e. is the deeper entrance channel being relied upon to better flush out pollution discharging into the Lakes?	Written	SQ17-000261
142	5.1: Energy	Di Natale	Building a new coal-fired power station	<p>Senator DI NATALE: Let me talk to you about the level of interest in investment in coal. Can I talk to you about that? Perhaps I will ask the question and you can then tell me whether you think it would be best directed somewhere else. Has the department engaged in any consultation in the last year with any investor anywhere that is interested in building a new coal-fired power station in Australia?</p> <p>Dr de Brouwer: I will have to take that question on notice. You are asking about the department. It is really quite a broad question, and we would have to—</p> <p>Senator DI NATALE: Check with other officials?</p> <p>Dr de Brouwer: check it out.</p> <p>Senator DI NATALE: Are you aware of any interest from any investor who wants to build new coal-fired power stations over the coming year?</p> <p>Dr de Brouwer: Can I take that question on notice.</p>	Page 13	SQ17-000055

143	5.1: Energy	Urquhart	Investments in coal-fired plant	<p>Senator URQUHART: No, I am not asking about the content. I am just asking whether or not you have actually done any analysis.</p> <p>Dr de Brouwer: Specifically on the nature of guarantees or the interventions?</p> <p>Senator URQUHART: Yes.</p> <p>Dr de Brouwer: I would have to take that on notice. That is a very specific element.</p>	Page 63	SQ17-000056
144	5.1: Energy	Urquhart	Time frame for a new coal plant to come online	<p>Senator URQUHART: If the government decided to go ahead with building one of the new USC coal plants, when could we expect it to come online? What would be the time frame?</p> <p>Dr de Brouwer: It is a speculative question. Perhaps your question is, 'What is the average time frame for a coal plant?'</p> <p>Senator URQUHART: For a USC one to come online, yes.</p> <p>Mr O'Toole: I suspect it would be a couple of years at least, but I am guessing.</p> <p>Mr Heferen: Bear in mind that there has been no announcement of any build or anything.</p> <p>Senator URQUHART: I said, 'If the government decided,' so it is very clear, but I am wondering what that time frame would be.</p> <p>Mr Heferen: It might be best if we took that on notice to provide an answer.</p>	Page 66	SQ17-000057
145	5.1: Energy	Urquhart	Commercially viable CCS coal plants	<p>Senator URQUHART: Are you aware of any commercially and financially viable CCS coal plants operating anywhere in the world? I mean plants that do not require public subsidy to be financially viable.</p> <p>Mr Heferen: There is an element of that question that is very difficult. I do not mean to be obtuse, but for argument's sake China is still at a stage—I think they may have 100 per cent electrification; at least, they make that point—of building capacity. I am sure at least some</p>	Page 66	SQ17-000058

				<p>of the new plants they are building are in the high efficiency low emission category, and they are certainly experimenting with carbon capture and storage, but the nature of the Chinese system is that they are state owned enterprises. When you say, 'without a public subsidy,' I would not say Australia is unique, but a lot of countries are yet to move to that idea of the pretty comprehensive privatisation we have across the system, and I am not sure of the situation here. I am familiar with China, but it may be best if we took that on notice to give a more comprehensive response.</p> <p>Senator URQUHART: That would be good. It might be good to take the other one on the building time frame on notice, because I understand the last one took somewhere around seven years.</p> <p>Mr O'Toole: We can take that on notice.</p>		
146	5.1: Energy	Back	Semi-scheduled generator classification	<p>Senator BACK: Are there any other jurisdictions that you know of that have this quaint semi-scheduled classification—the USA or others—or is it unique to Australia?</p> <p>Mr O'Toole: Not that I am aware of. We would have to take it on notice.</p>	Page 67	SQ17-000059
147	5.1: Energy	Back	Frequency control ancillary services	<p>Senator BACK: I want to go to frequency control ancillary services. Are these reasonable questions for you? You can answer now or later. I want to refer specifically to South Australia. Can you tell me how much reliable or on demand energy is required in South Australia to balance the grid, given the very high proportion of wind-generated or not-generated power in South Australia?</p> <p>Mr O'Toole: In terms of a specific corner, we would have to take that on notice.</p>	Page 67	SQ17-000060
148	5.1: Energy	Back	Frequency control ancillary	<p>Senator BACK: That would be fantastic. At the same time if you could assist the committee I would be</p>	Page 67	SQ17-000061

			services – average costs	<p>interested in knowing what the average costs would be in that scenario and who bears them under the current rules. I am obviously trying to get some understanding of whether it is the consumer who bears the costs or whether it is the retailer who bears the costs. Also, I am trying to come to some understanding of what might be the projected cost of new transmission infrastructure to maintain the stability in the national electricity market.</p> <p>Mr Heferen: We will take that on notice. I am sure you would be reasonably aware that the FCAS costs will be, if you like, factored into something similar to the wholesale price. Consumers will largely not be subject to that. A lot will come down to the contracts that retailers have entered into with generators as to how those costs will be passed through. Maybe they are absorbed by the retailer, but it would be a function of those contracts. One of the ongoing challenges, particularly in South Australia, is the availability of contracts that generators can provide. I just flag that, but we will take it on notice and provide a more comprehensive answer.</p>		
149	5.1: Energy	Urquhart	South Australia's electricity system	<p>Senator URQUHART: Are you able to give us a summary of how South Australia compared to other states?</p> <p>Mr Heferen: Yes. We can take that on notice.</p>	Page 74	SQ17-000064
150	5.1: Energy	Urquhart	System Average Interruption Duration Index (SAIDI)	<p>Senator URQUHART: Is the SAIDI, the System Average Interruption Duration Index, a good measure of the reliability of an electricity system?</p> <p>Mr O'Toole: I will have to take that on notice.</p> <p>Senator URQUHART: You do not know? Can you tell me what it actually measures, in layman's terms?</p> <p>Mr O'Toole: I would have to take that on notice.</p> <p>Senator URQUHART: Can you tell us what the latest SAIDI was for the states that make up the NEM?</p> <p>Mr Heferen: I think we have established that this— SAIDI?</p>	Page 75	SQ17-000067

				<p>Senator URQUHART: Yes, SAIDI—System Average Interruption Duration Index.</p> <p>Mr Heferen: No, we are not aware of that. In relation to the SAIDI measures that make up the NEM, we will have to take that on notice as well.</p>		
151	5.1: Energy	Back	Semi-scheduled generator classificaton	<p>When was the ‘semi-scheduled’ generator classification introduced into the National Electricity Rules?</p> <p>What was the reasoning behind the introduction of the ‘semi-scheduled’ classification?</p> <p>What did the introduction of the ‘semi-scheduled’ classification mean in terms of the reliability of the electricity grid?</p>	Written	SQ17-000262
152	5.1: Energy	Back	Intermittent generation	Please describe the steps involved in balancing intermittent generation in the electricity grid?	Written	SQ17-000263
153	5.1: Energy	Back	Generation delivery	Please describe how generation delivery is managed with ‘semi-scheduled’ and scheduled and how ‘semi-scheduled’ supply is backed up?	Written	SQ17-000264
154	5.1: Energy	Back	Removing the ‘semi-scheduled’ classification	What is the process by which you would go about removing the ‘semi-scheduled’ classification for generators from the National Electricity Rules?	Written	SQ17-000265
155	5.1: Energy	Back	Frequency Ancillary Control Services	Referring to Frequency Ancillary Control Services, how much reliable/ on-demand energy is used to balance the grid? How much of that is required in South Australia? What is the average cost of FACS in South Australia?	Written	SQ17-000266
156	5.1: Energy	Back	Costs	Do contributors to grid instability directly bear the costs of FACS thus providing an incentive for such generators to reduce the negative externality that they impose on the power system?	Written	SQ17-000267
157	5.1: Energy	Back	Costs	Do retailers ultimately bear the cost of FACS under the	Written	SQ17-000268

				current NEM rules?		
158	5.1: Energy	Back	Projected cost of new transmission	What is the projected cost of new transmission infrastructure that would be needed by 2020 to maintain stability in the NEM given the mandated level of renewable energy by that time?	Written	SQ17-000269
159	5.1: Energy	Back	Maintaining grid stability	Is additional expenditure on transmission the most cost effective way of increasing grid stability? Please indicate why this is the case and if it is not the case please indicate the most cost effective way of maintaining grid stability.	Written	SQ17-000270
160	5.1: Energy	Roberts	Wind and solar	Please provide evidence that wind and solar can provide base load power while still allowing any needed reliable generators to be profitable?	Written	SQ17-000319
161	5.1: Energy Security Office	Di Natale	Load shedding	<p>Senator DI NATALE: So, the morning after, what are you told about how much load has been shed?</p> <p>Ms Sewell: I am not sure whether we have got the exact record of the telephone conversation.</p> <p>Ms Bennett: The National Electricity Market Emergency Management Forum met the day after the South Australian issue. It was actually largely set up to discuss the forthcoming heatwave, so it involved the range of jurisdictions. There was some brief discussion about the South Australian outage the night before, but I would need to check the record of exactly whether or not the amount of 100 versus the 300 was discussed. I cannot recall that level of detail being discussed.</p> <p>Senator DI NATALE: Clearly, I will get that on notice.</p>	Page 71 and 72	SQ17-000063
162	Corporate: CSD	Urquhart	Program budgets	<p>Senator URQUHART: Thank you. And what is the current budget? Is that the same? What is the budget and what is the breakdown by program?</p> <p>Mr Sullivan: By program, I would have to take that on</p>	Page 5	SQ17-000079

				<p>notice, because obviously that stretches across the whole of the department, but in terms of—trying to be helpful—if I break down that \$3.81 billion, the total departmental appropriation as at portfolio additional estimates over the forward estimates is \$1.64 billion. There is a capital appropriation of \$557 million, and administered appropriation is \$1.61 billion.</p> <p>Senator URQUHART: So what are the funding trends over the forward estimates? And are you able to break them down by program?</p> <p>Mr Sullivan: I do not have the program breakdown. Again, that is because there are a number of different program lines, as you have seen in the breakdown of programs across the department, but in terms of—</p>		
163	Corporate: PAAI	Rhiannon	Senate Order – Meetings with former Ministers	<p>Senator RHIANNON: I understand the order is called order No. 20C and it states that each minister must table a record of all meetings between former ministers who are within the cooling-off period and current ministers or senior officials. Is your department complying with that order?</p> <p>Senator Birmingham: That sounds like it is an order related to the minister. I will have to take that on notice.</p> <p>Senator RHIANNON: Can you explain where that is up to please.</p> <p>Dr de Brouwer: I will have to take that one on notice.</p>	Page 8	SQ17-000080
164	Corporate: PAAI	Rhiannon	Senate Order – Meetings with former Ministers	<p>Senator RHIANNON: As far as we can tell there was only one document tabled in response to this order and that was by Senator Birmingham as the Minister for Education and Training. Did anyone in the Environment portfolio meet with any former ministers who are within their cooling-off period since November last year?</p> <p>Dr de Brouwer: I will have to take that one on notice.</p> <p>Senator RHIANNON: Considering this is an important issue and the Prime Minister has been on the record a number of times speaking about transparency, and it was</p>	Page 8 and 9	SQ17-000081

				<p>only November last year and you have come to estimates, do you really need to take it on notice? Wouldn't there be someone here who could assist, even if you cannot remember?</p> <p>Dr de Brouwer: I want to give you an accurate answer, so I will take it on notice.</p> <p>Senator RHIANNON: There is one example that has been reported, interestingly, in the <i>Townsville Bulletin</i>, of former resources minister Ian Macfarlane, who is still within the cooling-off period and, as we know, has got that important CEO position. He boasted at a business function in Townsville in February that he would talk to his 'good mates in Canberra in order to make sure our native title laws are amended in the wake of a Federal Court decision which threatens the Adani mine'. Did the minister or anyone in your department have any contact with Mr Macfarlane about this issue?</p> <p>Dr de Brouwer: I cannot speak for the minister. The department does not have control of the minister's diary. That is a matter for the minister. On the department, I will take that one on notice.</p> <p>Senator RHIANNON: Thank you for taking it on notice. If it has not been disclosed, can you then explain why it was not disclosed? If it has been disclosed, that will be informative.</p> <p>Dr de Brouwer: I will come back on notice, but the issue of continuous disclosure—what that means, how that is applied in practice—is something that we need to work out. There is always a clearance process though for these matters. I will have to come back on notice.</p>		
165	Corporate: PAAI	Roberts	Portfolio Budget Statement	<p>Senator ROBERTS: I have just one question, thank you.</p> <p>CHAIR: Okay, please go.</p> <p>Senator ROBERTS: Thank you for coming today. My staff tell me that program 5.1 does not exist in the</p>	Page 68	SQ17-000302

				<p>current portfolio budget statements. Is that right?</p> <p>Dr de Brouwer: It should be in there, in the updated ones.</p> <p>Senator ROBERTS: Could the department simply provide that? Then I will put some questions on notice.</p> <p>Dr de Brouwer: Yes, Senator.</p> <p>Senator ROBERTS: That is all, thank you.</p>		
166	Corporate: CSD	Abetz	Gender Equity Network	When was the Gender Equity Network established?	Written	SQ17-000082
167	Corporate: CSD	Abetz	Gender Equity Network	How many hours of staff time have been allocated to the staff-led Gender Equity Network since its inception?	Written	SQ17-000083
168	Corporate: CSD	Abetz	Gender Equity Network	<p>Have any guest speakers been invited?</p> <p>If so, please provide a list of all guest speakers.</p> <p>If so, please advise at what cost, specifying the cost per speaker and the split up on those costs?</p>	Written	SQ17-000084
169	Corporate: CSD	Abetz	Gender Equity Network	<p>Have any Gender Equity Network events been held since its inception open to staff?</p> <p>If so, please advise how many, where and when, with a description of each such event;</p> <p>If so, i) Is staff attendance voluntary? ii) Is staff attendance recorded? iii) Can staff attend during working hours without any impact on their wages or remuneration?</p>	Written	SQ17-000085
170	Corporate: CSD	Abetz	Gender Equity Network	For events which took place in a venue other than in the workplace please advise the approximate distance from the workplace where the event took place and whether any transport was provided, and if so, at what cost?	Written	SQ17-000086
171	Corporate:	Abetz	Gender Equity	Are staff provided with News articles on issues as part of	Written	SQ17-000087

	CSD		Network	<p>the Gender Equity Network?</p> <p>If so, advise who sources the News articles and determines their selection?</p> <p>If so, please advise the source of such articles, e.g. The Guardian, ABC, Sydney Morning Herald?</p>		
172	Corporate: CSD	Xenophon	Waste	<p>Given that government and opposition politicians have all raised concerns over time and had policies on government waste:</p> <p>Is there a central government authority responsible for the elimination of waste?</p> <p>If so</p> <ol style="list-style-type: none"> Is there a government wide definition on the meaning of 'waste', and if so, what is that definition? How does this central government authority monitor and manage waste within the Department? Is there a central government mechanism (e.g. phone number, email address, web site) for public servants or contractors to report Departmental waste? How much Departmental waste was identified by the central government authority in FY 13/14, FY 14/15 and FY 15/16? <p>If not:</p> <ol style="list-style-type: none"> Is there a departmental definition on the meaning of 'waste', and if so, what is that definition? What are the Department's arrangements for monitoring and managing waste? Is there a central Departmental mechanism (e.g. phone number, email address, web site) for public servants or contractors to report Departmental waste? How much waste was identified by the Department in FY 13/14, FY 14/15 and FY 15/16? <p>In either case:</p>	Written	SQ17-000303

				<p>a. Can Departmental officers or contractors report waste anonymously?</p> <p>b. Are they afforded a protection if they do so?</p>		
173	Corporate: CSD	Bilyk	Ministerial Functions	<p>In relation to any functions or official receptions hosted by Ministers or Assistant Ministers in the portfolio since 1 October 2016, can the following please be provided:</p> <ul style="list-style-type: none"> • List of functions; • List of attendees including departmental officials, ministerial staff and if members of the Minister's immediate family attended – number of members (names not required); • Function venue; • Itemised list of costs (GST inclusive); • Details of any food served; • Details of any wines or champagnes served including brand and vintage; and • Details of any entertainment provided. 	Written	SQ17-000135
174	Corporate: CSD	Bilyk	Departmental Functions	<p>In relation to expenditure on any departmental functions or official receptions etc since 1 October 2016, can the following please be provided:</p> <ul style="list-style-type: none"> • List of functions; • List of attendees; • Function venue; 	Written	SQ17-000136

				<ul style="list-style-type: none"> Itemised list of costs (GST <u>inclusive</u>); Details of any food served; Details of any wines or champagnes served including brand and vintage; and Details of any entertainment provided. 		
175	Corporate: CSD	Bilyk	Plants and Gardens – Indoor Plants	What was the total cost (GST <u>inclusive</u>) of acquiring and maintaining indoor plants for all departmental premises in calendar year 2016?	Written	SQ17-000137
176	Corporate: CSD	Bilyk	Plants and Gardens – External Gardens	What was the total cost (GST <u>inclusive</u>) of external gardens and landscaping for all departmental premises in calendar year 2016?	Written	SQ17-000138
177	Corporate: CSD	Bilyk	Plants and Gardens – Indoor Plants – Minister's Office	What was the total cost (GST <u>inclusive</u>) of acquiring and maintaining indoor plants for ministerial offices in calendar year 2016? Please provide separate figures for each Minister's office in the portfolio, covering ministerial offices both at Parliament House and elsewhere.	Written	SQ17-000139
178	Corporate: PAAI	Bilyk	Subscriptions - Department	What was the total cost (GST <u>inclusive</u>) of subscriptions to print and online news services, newspapers, magazines, journals and periodicals etc in calendar year 2016 for the Department? Please provide a complete list of each service top which the Department subscribed.	Written	SQ17-000140
179	Corporate: PAAI	Bilyk	Subscriptions – Minister's Office	What was the total cost (GST <u>inclusive</u>) of subscriptions to print and online news services, newspapers, magazines, journals and periodicals etc in calendar year 2016 for Ministers in the portfolio? Please provide a complete list of each service top which ministerial offices subscribed.	Written	SQ17-000141

180	Corporate: CSD	Bilyk	Gifts – Department	What was the total cost (GST inclusive) of all gifts purchased for use by departmental officials in calendar year 2016? Can an itemised list of gifts and costs thereof (GST inclusive) please be provided? Who was the recipient of each gift? For what purpose was each gift given?	Written	SQ17-000142
181	Corporate: CSD	Bilyk	Gifts – Minister's Office	What was the total cost (GST inclusive) of all gifts purchased for use by Ministers in the portfolio in calendar year 2016? Can an itemised list of gifts and costs thereof (GST inclusive) please be provided? Which Minister gave each gift? Who was the recipient of each gift? For what purpose was each gift given?	Written	SQ17-000143
182	Corporate: CSD	Bilyk	Water Coolers – Department	What was the total cost (GST inclusive) of providing water coolers at departmental premises in calendar year 2016? Please provide a breakdown of costs for acquiring and maintaining/resupplying water coolers.	Written	SQ17-000144
183	Corporate: CSD	Bilyk	Water Coolers – Minister's Office	What was the total cost (GST inclusive) of providing water coolers to ministerial offices in calendar year 2016? Please provide a breakdown of costs for acquiring and maintaining/resupplying water coolers.	Written	SQ17-000145
184	Corporate: CSD	Bilyk	Snacks - Department	What was the total cost (GST inclusive) of supplying fruit and other snacks at departmental premises in calendar year 2016?	Written	SQ17-000146
185	Corporate: CSD	Bilyk	Snacks – Minister's Office	What was the total cost (GST inclusive) of supplying fruit and other snacks to ministerial offices in calendar year 2016? Please provide a breakdown of the costs for each separate ministerial office, covering both offices at Parliament House and elsewhere.	Written	SQ17-000147

186	Corporate: CSD	Bilyk	Coffee Machines	Can an itemised list of coffee machines at departmental premises please be provided including (i) make and model; (ii) purchase or lease cost; (iii) ongoing maintenance costs; (iv) ongoing cost of supplying coffee and other consumables?	Written	SQ17-000148
187	Corporate: CSD	Bilyk	Mobile Devices	How many mobile telephones are currently on issue to departmental to staff?	Written	SQ17-000149
188	Corporate: CSD	Bilyk	Mobile Devices	Can an itemised list showing make and model please be provided?	Written	SQ17-000150
189	Corporate: CSD	Bilyk	Mobile Devices	How many new mobile phones were purchased by the Department in calendar year 2016?	Written	SQ17-000151
190	Corporate: CSD	Bilyk	Mobile Devices	What was the total cost (GST inclusive) of purchasing mobile telephones for departmental staff in calendar year 2016?	Written	SQ17-000152
191	Corporate: CSD	Bilyk	Mobile Devices	How many mobile telephones had to be replaced due to damage in calendar year 2016? What was the cost of replacement (GST inclusive)?	Written	SQ17-000153
192	Corporate: CSD	Bilyk	Mobile Devices	How many mobile telephones were reported lost or stolen in calendar year 2016? What was the cost of replacement (GST inclusive)?	Written	SQ17-000154
193	Corporate: CSD	Bilyk	Mobile Devices	How many ipads/tablets are currently on issue to departmental staff?	Written	SQ17-000155
194	Corporate: CSD	Bilyk	Mobile Devices	Can an itemised list showing make and model please be provided?	Written	SQ17-000156
195	Corporate: CSD	Bilyk	Mobile Devices	How many new ipads/tablets were purchased by the Department in calendar year 2016?	Written	SQ17-000157
196	Corporate:	Bilyk	Mobile Devices	What was the total cost (GST inclusive) of purchasing	Written	SQ17-000158

	CSD			ipads/tablets for departmental staff in calendar year 2016?		
197	Corporate: CSD	Bilyk	Mobile Devices	How many ipads/tablets had to be replaced due to damage in calendar year 2016? What was the cost of replacement (GST <u>inclusive</u>)?	Written	SQ17-000159
198	Corporate: CSD	Bilyk	Mobile Devices	How many ipads/tablets were reported lost or stolen in calendar year 2016? What was the cost of replacement (GST <u>inclusive</u>)?	Written	SQ17-000160
199	Corporate: CSD	Bilyk	Stationary and paper	How much did the Department spend on stationary and office supplies (excluding paper) in calendar year 2016 (GST <u>inclusive</u>)?	Written	SQ17-000161
200	Corporate: CSD	Bilyk	Stationary and paper	How much did the Department spend on paper in calendar year 2016 (GST <u>inclusive</u>)?	Written	SQ17-000162
201	Corporate: CSD	Bilyk	Stationary and paper	Is this paper Australian made? If no, why doesn't the Department buy Australian made paper?	Written	SQ17-000163
202	Corporate: CSD	Bilyk	Executive office upgrades	Have the furniture, fixtures or fittings of the Secretary's office, or the offices of any Deputy Secretaries, been upgraded since 1 October 2016? If so, can an itemised list of costs please be provided (GST <u>inclusive</u>)?	Written	SQ17-000164
203	Corporate: CSD	Bilyk	Facilities upgrades	Have the facilities of any of the Department's premises been upgraded since 1 October 2016, for example, staff room refurbishments, kitchen refurbishments, bathroom refurbishments, the purchase of any new fridges, coffee machines, or other kitchen equipment? If so, can a detailed description of the relevant facilities upgrade please be provided together with an itemised list of costs (GST <u>inclusive</u>)? Can any photographs of the upgraded facilities please be provided?	Written	SQ17-000165

204	Corporate: PAAI	Bilyk	Statutory, board and legislated vacancies	Please provide a list of all statutory, board and legislated office vacancies and other significant appointments vacancies within the portfolio, including length of time vacant and current acting arrangements.	Written	SQ17-000166
205	Corporate: PAAI	Bilyk	Media and public relations	How much has the Department spent on media monitoring since 1 October 2016 (GST <u>inclusive</u>)? Can a list of all Contract Notice IDs for the Austender website in relation to media monitoring contracts please be provided?	Written	SQ17-000167
206	Corporate: PAAI	Bilyk	Media and public relations	How many media or public relations advisers are employed in the Department? At what APS level (eg EL2, APS5) is each staff member employed? Can an organisational chart for the relevant area of the Department please be provided? What was the total cost of employing relevant staff in calendar year 2016 (please provide a global figure)?	Written	SQ17-000168
207	Corporate: PAAI	Bilyk	Advertising and information campaigns	How much has the Department spent on advertising and information campaigns since 1 October 2016 (GST <u>inclusive</u>)? Can a list of all Contract Notice IDs for the Austender website in relation to advertising and information campaign contracts please be provided?	Written	SQ17-000169
208	Corporate: PAAI	Bilyk	Advertising and information campaigns	How much did the Department spend on Facebook advertising or sponsored Facebook posts in calendar year 2016 (GST <u>inclusive</u>)?	Written	SQ17-000170
209	Corporate: PAAI	Bilyk	Advertising and information campaigns	How much did the Department spend on Google adwords advertising in calendar year 2016 (GST <u>inclusive</u>)?	Written	SQ17-000171
210	Corporate: PAAI	Bilyk	Market research	How much did the Department spend on market research in calendar year 2016 (GST <u>inclusive</u>)?	Written	SQ17-000172
211	Corporate: PAAI	Bilyk	Market research	Can a list of all market research contracts entered into please be provided, together with the Austender Contract	Written	SQ17-000173

				Notice number?		
212	Corporate: PAAI	Bilyk	Market research	What was the purpose of this market research? Did it relate to an advertising or information campaign? If so, which campaign?	Written	SQ17-000174
213	Corporate: Legal	Bilyk	Legal costs	What was the Department's total spend on external legal services (including services provided by the Australian Government Solicitor) (GST inclusive) for calendar year 2016?	Written	SQ17-000175
214	Corporate: Legal	Bilyk	Legal costs	Can an itemised list of costs of each legal matter (GST inclusive) please be provided?	Written	SQ17-000176
215	Corporate: CSD	Bilyk	Contract costs – Austender Notices	Can a list of relevant Contract Notices published on Austender please be provided?	Written	SQ17-000177
216	Corporate: CSD	Bilyk	Consultancies	Please provide an itemised list of costs (GST inclusive) for spending in calendar year 2016 on external consultants/service providers in the following categories please be provided: (i) social media; (ii) photography; (iii) graphic design; (iv) web design (v) electronic communications (vi) acting or public speaking training; (vii) ergonomics.	Written	SQ17-000178
217	Corporate: CSD	Bilyk	Redundancies	How many staff were made redundant in calendar year 2016? How many were voluntary redundancies? How many were forced redundancies? What was the total cost of all redundancies (expressed as a single global figure)?	Written	SQ17-000179
218	Corporate: CSD	Bilyk	Redundancies	Have any staff made redundant in calendar year 2016 subsequently carried out work for the Department as a contractor? If so, please provide an itemised list of relevant contracts and related Austender Contract Notice	Written	SQ17-000180

				numbers.		
219	Corporate: CSD	Bilyk	iTunes/Android	Does the Department have an iTunes account? If so, what was the total expenditure on iTunes in calendar year 2016 (GST inclusive)? What applications/subscriptions/services purchased through iTunes in calendar year 2016?	Written	SQ17-000181
220	Corporate: CSD	Bilyk	iTunes/Android	Does the Department have an Android account? If so, what was the total expenditure on Android in calendar year 2016 (GST inclusive)? What applications/subscriptions/services purchased through Android in calendar year 2016?	Written	SQ17-000182
221	Corporate: CSD	Bilyk	iTunes/Android	Do any ministerial offices in the portfolio have an iTunes account? If so, what was the total expenditure on iTunes in calendar year 2016 (GST inclusive)? Please provide separate figures for each Minister. What applications/subscriptions/services purchased through iTunes in calendar year 2016?	Written	SQ17-000183
222	Corporate: CSD	Bilyk	iTunes/Android	Do any ministerial offices have an Android account? If so, what was the total expenditure on Android in calendar year 2016 (GST inclusive)? Please provide separate figures for each Minister. What applications/subscriptions/services purchased through Android in calendar year 2016?	Written	SQ17-000184
223	Corporate: CSD	Bilyk	Websites	What were the top 20 most utilised (by data sent and received) unique domain names accessed by departmental staff in calendar year 2016?	Written	SQ17-000185
224	Corporate: CSD	Bilyk	Websites	What were the top 20 most accessed (by number of times accessed) unique domain names accessed by departmental staff in calendar year 2016?	Written	SQ17-000186
225	Corporate: CSD	Bilyk	Flights	What was the Department's total expenditure on flights for departmental staff in calendar year 2016 (GST	Written	SQ17-000187

				<u>inclusive</u>)?		
226	Corporate: CSD	Bilyk	Ground transport	What was the Department's total expenditure on the following categories of ground transport in calendar year 2016 (GST <u>inclusive</u>): (i) Taxi hire; (ii) Limousine hire; (iii) Private hire car; and (iv) Ridesharing services.	Written	SQ17-000188
227	Australian Renewable Energy Agency (ARENA)	Chisholm	Cost of various technologies	<p>Senator CHISHOLM: In terms of renewable energy, I am trying to get an understanding of the cost of the various technologies. This might be something that you want to take on notice, but would you be able to provide the best estimates of costs per technology basis?</p> <p>Mr Frischknecht: The ones that are currently getting built are the ones that we have the best estimates of because we are in the marketplace and we see the wind and the solar projects getting built. To give you a sense, wind projects would be in the high \$60 range per megawatt hour and solar would be in the low to high \$80 range. That is what we are currently seeing. Other technologies are, of course, not getting built at commercial scale. We would be happy to provide you with estimates on notice if you would like to see, say, wave or geothermal technology estimates.</p>	Page 49	SQ17-000028
228	Australian Renewable Energy Agency (ARENA)	Di Natale	ARENA's Budget	<p>Senator DI NATALE: On notice, are you able to provide us with a breakdown of ARENA's operations with full-time equivalent staff, and also the sort of spending you have had to do on external consultants as a result of that uncertainty? Is that something you can do on notice for us?</p> <p>Mr Frischknecht: I am happy to, though I should say it is not just because of the uncertainty. We have a need for specialist expertise that we need in the form of consultants.</p>	Page 52	SQ17-000031
229	Australian	Xenophon	Cuts to budget	What has been the effect of the \$500M cuts (over the	Written	SQ17-000300

	Renewable Energy Agency (ARENA)			<p>next five years) in your budget?</p> <ol style="list-style-type: none"> 1. Have number of staff decreased – if so, by how many? 2. How many projects have been affected by the cuts? 3. What is the overhead to front line cost ratio pre and post the cuts? 		
230	Bureau of Meteorology (BoM)	Roberts	Thermometer data	<p>Senator ROBERTS: Thank you all for attending. My question is to Dr Johnson. Why did the bureau adopt an internal policy in 1996 of not databasing and apparently routinely destroying thermometer data at sites where thermometers are observed in parallel with automatic weather stations?</p> <p>Dr Johnson: Senator, I have no knowledge of that taking place. I would have to take that on notice. It is news to me.</p>	Page 22	SQ17-000033
231	Bureau of Meteorology (BoM)	Roberts	Digitising thermometer data	<p>Senator ROBERTS: What thermometer data still exists in hard copy form and why is an effort not made to digitise it and have it accessible in the public domain?</p> <p>Dr Johnson: Again, I would have to take that on notice.</p>	Page 22	SQ17-000034
232	Bureau of Meteorology (BoM)	Roberts	Weather station data	<p>Senator ROBERTS: If no comparative data exists and no rigorous multisite comparative study is done, how is it possible to be assured that automatic weather station data is comparable in all respects with the historic thermometer record?</p> <p>Dr Johnson: Again, I would have to take that question on notice.</p>	Page 22	SQ17-000036
233	Bureau of Meteorology (BoM)	Roberts	Data comparisons	<p>Senator ROBERTS: How can temperatures measured by a single rapid sampling one hertz platinum resistance probe in a small Stevenson screen at an airport be reconciled with data observed using thermometers housed in a large screen, whose internal volume is 3.8</p>	Page 22 and 23	SQ17-000040

				<p>times larger, and which was at another location, possibly at a town post office?</p> <p>Dr Johnson: Senator, I would have to take these questions on notice. I am not an expert in measurement technology. I would be happy to engage with officers in the bureau who have expertise in those matters.</p>		
234	Bureau of Meteorology (BoM)	Roberts	BoM forecasts	<p>Senator ROBERTS: I will send you a copy of some material put together by Dr Bill Johnston who is a retired New South Wales Department of Natural Resources senior research scientist. He and his colleagues undertook regular weather observations and ran a site that was used by the Bureau of Meteorology. He and other people have compared rain outlooks, which the bureau has provided, and they contradict what actually occurred. It is the same with the temperature forecasts, which contradict what occurred just months later.</p> <p>CHAIR: Is there a question here?</p> <p>Senator ROBERTS: I had to explain the background. My question is: why do independent checks of BoM one- and three-month forecasts show 70-plus abject failures? I can give you 18 that I can send you on notice.</p> <p>Dr Johnson: I would be happy to take those on notice. My colleague Mr Webb who leads our forecasting area might want to comment on this as well.</p>	Page 23	SQ17-000043
235	Bureau of Meteorology (BoM)	Roberts	Introduction of automatic weather stations	<p>Senator ROBERTS: My understanding is that the introduction of the automatic weather stations and small screens is a major time-synchronous change in the bureau's network. Bias resulting from synchronous changes cannot be detected by differencing one dataset with another—for example, Kent Town with Adelaide Airport; Sydney Observatory and Sydney Airport. Why does the bureau use differencing to investigate data inhomogeneity?</p> <p>Dr Johnson: I am not in a position in this hearing, here</p>	Page 24	SQ17-000301

				today, to comment on individual weather stations or individual sites. Again, if you have specific feedback, I would be happy to take that on notice. Senator ROBERTS: I will put it on notice.		
236	Bureau of Meteorology (BoM)	Whish-Wilson	Readings from Cape Grim	Senator WHISH-WILSON: Dr Johnson, you may not know it off the top of your head, but could you give the committee the latest readings from Cape Grim, in terms of ppm of particulate matter? Dr Johnson: No, I cannot give it to you today, but I am aware that the concentration of CO2 did go past 400 parts per million late last year. Senator WHISH-WILSON: It was back in July last year. I just heard a rumour that it was 403. Dr Johnson: I do not have that today.	Page 26	SQ17-000046
237	Bureau of Meteorology (BoM)	Burston	Climate Change Statistics - Reasons	The BoM has altered climate change statistics over the years (and quite recently in some cases) since records were first compiled by as much as five degrees Celsius in certain locations. What are the reasons in general terms for these alterations?	Written	SQ17-000047
238	Bureau of Meteorology (BoM)	Burston	Climate Change Statistics – yearly comparisons	The BoM has altered climate change statistics over the years (and quite recently in some cases) since records were first compiled by as much as five degrees Celsius in certain locations. What do we know in 2017 about temperature data collection in the 1930s, for example, that we did not know in the 1990s?	Written	SQ17-000049
239	Bureau of Meteorology (BoM)	Burston	Climate Change Statistics - alterations	The BoM has altered climate change statistics over the years (and quite recently in some cases) since records were first compiled by as much as five degrees Celsius in certain locations. What has been the effect in general terms of these alterations?	Written	SQ17-000051
240	Bureau of Meteorology (BoM)	Burston	Climate Change Statistics - Earth temperature	The BoM has altered climate change statistics over the years (and quite recently in some cases) since records were first compiled by as much as five degrees Celsius in certain locations. Is it a fact that there has been no appreciable rise in the Earth's temperature but for these	Written	SQ17-000052

				adjustments to the BoM records?		
241	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is it true that temperatures were warmer in ancient Roman times and again in the Middle ages than they are today?	Written	SQ17-000053
242	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is it true that these warm periods were followed by mini ice ages?	Written	SQ17-000062
243	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is it true that climatologists are looking increasingly at solar activity and natural climate variability to explain the Earth's temperature variations?	Written	SQ17-000065
244	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. What is the optimal temperature of the Earth and how far above it are we today?	Written	SQ17-000066
245	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is it true that the heat retention effect of greenhouse gases is diminishing and that each additional part per million of carbon dioxide warms the atmosphere by less than the one before it?	Written	SQ17-000068
246	Bureau of Meteorology	Burston	Current temperature	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow	Written	SQ17-000069

	(BoM)		rises	of global warming and cooling as part of the natural phenomenon of climate change. Is it true that the dominant greenhouse effect on the Earth's atmosphere is not carbon dioxide but water vapour?		
247	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. How much has the Earth's temperature actually changed compared to the first IPCC projections on about 1990?	Written	SQ17-000070
248	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is there a weather satellite that monitors climate change using infrared ray technology which suggests there has been no rise in the temperature of the Earth's atmosphere for the past 18 years?	Written	SQ17-000071
249	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. What was the rate of global warming prior to human industrial activity beginning to substantially affect atmospheric carbon dioxide concentrations? What has been the warming rate since?	Written	SQ17-000072
250	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. What disagreements exist at the the BoM about the accuracy and reliability of different temperature datasets?	Written	SQ17-000073
251	Bureau of Meteorology	Burston	Current temperature	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow	Written	SQ17-000074

	(BoM)		rises	of global warming and cooling as part of the natural phenomenon of climate change. Which datasets are considered more accurate and reliable and why?		
252	Bureau of Meteorology (BoM)	Burston	Current temperature rises	The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Does the BoM regard correlational data as empirical evidence of climate change, and if so, why?	Written	SQ17-000075
253	Bureau of Meteorology (BoM)	Roberts	Data integrity and site and instrument changes	List your department's objections to the statement: <i>The Bureau's recent claims about temperature trends, extremes and trends in extremes are due to site and instrument changes and should be withdrawn.</i>	Written	SQ17-000097
254	Bureau of Meteorology (BoM)	Roberts	Automatic weather station network	At many individual sites, introduction of automatic weather stations, mostly housed in small screens has caused step-changes, which are mistakenly attributed to the climate. Why are site data not individually checked? Where data are inflated, why are they not adjusted DOWN relative to past data before being reported to media?	Written	SQ17-000098
255	Bureau of Meteorology (BoM)	Roberts	Automatic weather station network	<p>The first law of thermodynamics underpins most understandings about how the climate behaves and cannot be dismissed lightly. Partitioning of available energy between sensible heat (which manifests as maximum temperature in a Stevenson screen) and evaporative cooling (which is a constant (2.45 MJ) multiplied by rainfall (mm = kg/m²)) is well understood and long accepted in fields such as agriculture and climatology. Is it feasible that average maximum temperature can be high or extremely high in years when rainfall is near average or well above average? If so, how can it be?</p> <p>If it is not feasible, how can climate change impact directly on temperature trends, extremes and trends in</p>	Written	SQ17-000099

				extremes independently of rainfall? How can changes in data that are directly attributable to changes at sites (including equipment changes) be ignored? Why is the Bureau's default position to attribute such changes to the climate when it is manifestly obvious that sites have not remained the same?		
256	Bureau of Meteorology (BoM)	Roberts	Automatic weather station network	<p>Increasingly the Bureau describes our 'experience' of the weather rather than stating what the weather is doing. Is the Bureau engaged with CSIRO, various university institutes and groups such as the Climate Council, WWF, Climate Institute etc. in a nefarious campaign to misinform the community about temperature trends, extremes and trends in extremes?</p> <p>Should the claims of those who are personally engaged be investigated? If so how, and by whom? What should happen if claims are shown to miss-represent what is going on with the climate; or are fraudulent?</p>	Written	SQ17-000100
257	Bureau of Meteorology (BoM)	Roberts	Automatic weather station network	<p>The Bureau is asked to comment on the following, which is the conclusion drawn by Dr. Johnston after an exhaustive unfunded investigation of almost 200 individual weather station datasets from across Australia:</p> <p><i>Replacement of large standard screens in use in Australia since reliable climate records commenced around 1900, with small screens; and the change from manually observed data and well maintained sites; to automatic weather stations left largely to their own devices has been a disaster for Australian meteorology. Small screens and sensitive probes; combined with poorly exposed inconsistent sites, which are not well maintained, result in temperature trends, extremes and trends in extremes that have nothing to do with the climate.</i></p>	Written	SQ17-000102

258	Bureau of Meteorology (BoM)	Roberts	Homogenisation	If the history of sites is poorly known (or ignored); or if changes in data for individual sites are not investigated thoroughly; or if changepoints are imposed that don't align with actual data-changes; regardless of how homogenisation is done the process will result in spurious outcomes. How is it possible that climate scientists who homogenised data for Sydney Observatory did not discover that the site move in about 1948; the Cahill Expressway's opening in 1958; a wall built adjacent to the Stevenson screens in about 1972/3; or that replacement of the large screen in situ in 2000 affected temperature trends, extremes and trends in extremes?	Written	SQ17-000103
259	Bureau of Meteorology (BoM)	Roberts	Homogenisation	Use of cross-correlation to choose comparators for adjusting ACORN-site data identifies sites having parallel faults and is statistically flawed. Furthermore, as comparator-site data are not tested for homogeneity or homogenised and their temperature data are not adjusted for rainfall, there is significant scope for ACORN data to be contaminated by the process. Faults in Sydney Observatory data potentially migrate across the network as far as Alice Springs (via Tibooburra) for instance. Why does the Bureau persist with homogenisation when it is obviously statistically flawed; and when resulting ACORN datasets are neither independent or homogeneous?	Written	SQ17-000104
260	Bureau of Meteorology (BoM)	Roberts	Homogenisation	The Bureau's homogenisation process has been peer-reviewed at least twice; but reviews have been top-down: about the process, not data; nor were they intended to be critical. The null hypothesis that the homogenisation process may be flawed was not investigated. Furthermore, as CSIRO invests heavily in various facets of climate-warming climate change, it is not in a position to conduct an 'independent' review of the Bureau's	Written	SQ17-000105

				<p>processes.</p> <p>Why haven't the issues raised here been brought to light before? Did peer-review include inspections of weather stations; examinations of data and metadata; has anybody undertaken an independent audit of the Bureau's assets, capabilities and methodologies from the ground-up?</p>		
261	Bureau of Meteorology (BoM)	Roberts	Accountability	Will people be held to account for making up stories about the climate that are untrue? What of the phalanx of climate-scientists who never checked the veracity of data they use?	Written	SQ17-000106
262	Bureau of Meteorology (BoM)	Roberts	Responsibility	What about the immense cost borne by those who have been forced out of employment due to their being judged as "dirty"; not just in communities in South Australia, and Victoria; but also in the Murray-Darling Basin; due to "advice" provided by the Bureau and its sister organisation, CSIRO?	Written	SQ17-000107
263	Bureau of Meteorology (BoM)	Roberts	Responsibility	What about the cost to households forced to shoulder the burden of increased energy prices and invest in solar systems and the like to "save" the climate, which is not actually imperiled; or the cost of "climate-action"? Who will be responsible – will it be the Bureau?	Written	SQ17-000108
264	Bureau of Meteorology (BoM)	Roberts	Responsibility	<p>The Bureau is requested to comment on Johnston's overarching conclusion which is:</p> <p><i>No Australian weather station data are useful for tracking climate warming. It is simply the case that data are too coarse, sites are inconsistent and the conditions under which they are measured are too variable for small trends (if they exist) to be detected.</i></p>	Written	SQ17-000109
265	Bureau of Meteorology (BoM)	Roberts	BoM station Mundaring Weir 9031	Why does BoM station Mundaring Weir 9031 have no	Written	SQ17-000111

				rainfall data later than March 2016?		
266	Bureau of Meteorology (BoM)	Roberts	BoM station Victoria Dam 9216	Why is BoM station Victoria Dam 9216 missing rainfall data for March and June, Oct to Dec 2016?	Written	SQ17-000312
267	Bureau of Meteorology (BoM)	Roberts	BoM station Churchman Brook 9010	Why were daily rainfall readings not taken in BoM station Churchman Brook 9010 for many periods in 2016?	Written	SQ17-000313
268	Bureau of Meteorology (BoM)	Roberts	BoM station Wungong Dam 9044	When will quality control resume for BoM station Wungong Dam 9044 as it appears to have stopped in July 2016?	Written	SQ17-000314
269	Bureau of Meteorology (BoM)	Roberts	BoM station Serpentine Dam 9115	Is BoM station Serpentine Main Dam 9115 now defunct as it has no rainfall readings after May 2016?	Written	SQ17-000315
270	Bureau of Meteorology (BoM)	Roberts	Forecasts	How can the Senate be assured that these forecasts be more accurate than the ones which resulted in the DeSal plants?	Written	SQ17-000112
271	Bureau of Meteorology (BoM)	Roberts	Accountability	Will anyone from BoM be held accountable for this waste of my constituents' taxes?	Written	SQ17-000113
272	Bureau of Meteorology (BoM)	Roberts	Climate model	Which climate model is used by the BoM? Why doesn't the BoM switch to using the Russian INM-CM4 which is at least correct on one test? Christy computer model study.	Written	SQ17-000115
273	Bureau of Meteorology (BoM)	Roberts	Research	The Bureau of Meteorology is a partner in the Earth Systems and Climate Change Hub in the National Environmental Science Program.	Written	SQ17-000116

				<p>So any research based on the unreliable BoM forecasts cannot be more credible than the BoM forecasts themselves?</p> <p>Isn't this contaminating many other disciplines such as ecology, biology, agriculture, ...</p>		
274	Bureau of Meteorology (BoM)	Roberts	Records	<p>Does the statement that <i>yesterday was the hottest day since records began</i> imply the warning that we are all doomed?</p> <p>Should there not be a qualification that <i>records began last Thursday or 1950 or 1sq17-000091 0 and so do not include the hotter periods in the 1880s 1890s, Medieval Warm Period or Roman Warm Period?</i></p> <p>Should there not be a qualification that <i>the new record exceeded the old by only 0.01 deg which is within the margin of error and anyway we have adjusted the new temperature up by 0.3 deg and reduced the old temperature by 0.3 deg?</i></p>	Written	SQ17-000117
275	Bureau of Meteorology (BoM)	Roberts	Desalination costs	Are the Australian taxpayers satisfied with the wasted Billions in desalination costs for not a drop of water?	Written	SQ17-000118
276	Clean Energy Finance Corporation (CEFC)	Whish-Wilson	Tasmanian projects	<p>Senator WHISH-WILSON: Thank you. I have a couple of quick questions on Tasmania. Are there any projects being considered in Tasmania at the moment, Mr Yates?</p> <p>Mr Yates: I might have to come back on notice, but my recollection is that we do not see a large pipeline of projects in Tasmania, other than one project we have been looking at which relates to a pellet mill, in relation to wood pellets for export. The other one would be Basslink, obviously—</p> <p>Senator WHISH-WILSON: That is the one I was particularly interested in, because during the election</p>	Page 48	SQ17-000077

				<p>Minister Hunt flew in and visited the northwest and said that this was something that was being looked at. Is it being considered for financing? Have you received a proposal from the state government?</p> <p>Mr Yates: No, we have not received a proposal from the state government. We have been actively involved with Dr Tamblyn in relation to a review of that project. He is due to bring out his report—I do not know whether it is imminent, but maybe within the next month—about a review of the viability of a second interconnect to Tasmania.</p> <p>Dr de Brouwer: I think his report is being finalised at the moment.</p> <p>Senator WHISH-WILSON: Any idea when that might land, just as a matter of interest?</p> <p>Dr de Brouwer: No, sorry, but it is soon.</p>		
277	Clean Energy Regulator (CER)	Back	Shortfall charges	<p>Senator BACK: Going back to Senator Chisolm's earlier questions, the shortfall charges were \$131 million. The year before, it was \$8 million, as I understand. Is that \$8 million included in the \$131 million, or is that separate? That is the previous year.</p> <p>Ms Swirepik: That is separate, I believe. I do not have the numbers last year discretely, but I could get those fairly quickly to you.</p>	Page 55	SQ17-000132
278	Clean Energy Regulator (CER)	Leyonhjelm	The Renewable Energy (Electricity) Act of 2000	<p>Senator LEYONHJELM: Well, you might see it as noncompliance, but it seems to me that they are complying with the act. But anyway. I will just pursue that a little further. The Renewable Energy (Electricity) Act of 2000 is the legislation that applies to this. Isn't the constitutional head of power for this act the Commonwealth taxing power?</p> <p>Ms Swirepik: I would refer to our general counsel.</p> <p>Mr Purvis-Smith: I think the short answer is that there is a charges act, which applies to the charges. That is a separate piece of legislation. And from memory that is a</p>	Page 57	SQ17-000078

				<p>2010 act. I think that is the act that you are referring to as relying on the constitutional head of power in relation to taxation. But they are two separate acts.</p> <p>Senator LEYONHJELM: What head of power does the other act rely on?</p> <p>Mr Purvis-Smith: I would have to go back and refresh my memory. I was not around when the legislation came in in 2000 and certainly not within the portfolio. I would have to go back and check. Perhaps we can take that on notice.</p>		
279	Clean Energy Regulator (CER)	Back	Expected renewable energy generation in 2017	Referring to the Renewable Energy scheme, it was stated that the level of generation for 2016 is 17,300 GWh. According to the legislation the target for 2016 was 21,431 GWh, leaving a shortfall of 4,131 GWh. It was stated that there was 494 MW of new capacity that has been accredited. This new generation would be expected to generate approximately 1,500 GWh. Therefore the expected generation for 2017 would be approximately 18,800 GWh, yet it was stated that the expected generation for 2017 will be around 20,000 GWh. Please explain the difference.	Written	SQ17-000271
280	Clean Energy Regulator (CER)	Back	New capacity required to meet the 2018 legislated target	According to the legislation, the target for 2017 is 26,031 GWh. It was agreed that we will fall short of this year's target by at least 6,000 GWh. It was stated that we have about 13.4 million LGCs left in the market after the surrender period just gone by. So the shortfall for 2017 will use at least 6 million of the LGCs left in the market, leaving approximately 7.4 million yet to be surrendered (in the market). How many megawatts of new capacity would have to be built next year in order for us to meet the legislated target for 2018 of 28,637 GWh?	Written	SQ17-000272
281	Clean Energy Regulator (CER)	Back	Firm announcements of new	Will you please list the breakdown of the 2,800 MW of firm announcements that was referred to? How many of these 'firm announcements' are expected to apply for	Written	SQ17-000273

			renewable energy build	accreditation this year? What proportion of the 2,800 MW of firm announcements would be expected to be generating by the end of this year? What proportion of the 2,800 MW of firm announcements would be expected to be generating by the end of next year?		
282	Clean Energy Regulator (CER)	Back	Annual targets and generation levels for 2016 to 2020	Would you please provide information in a table showing for each year from 2016 to 2020: the legislated target for that year, the actual or expected generation level for that year, the shortfall for that year, the number of LGCs left in the market (yet to be surrendered) in that year, the estimated amount of new generation that would be required to meet the legislated target in the following year and the amount of new build (in megawatts) that will be required to meet the target in the following year.	Written	SQ17-000274
283	Clean Energy Regulator (CER)	Back	Shortfall charges	<p>The total shortfall charges for the large-scale scheme for 2016 totalled \$131 million, and in the previous year a small number of liable entities paid \$8,144,170 as a shortfall charge. Is that correct?</p> <p>The shortfall payment has resulted in 2.35 million LGCs not being surrendered, which will mean that there is an extra 2.35 million certificates in the market that can be used to make up the difference between the legislated target and the actual generation level for this year. Is that correct?</p>	Written	SQ17-000275
284	Clean Energy Regulator (CER)	Back	Meeting the target	Based on the 13.4 million LGCs currently left in the market in what year will we have insufficient certificates to satisfy the target and comply with the legislation? In that case, will liable entities then be forced to pay the shortfall charge?	Written	SQ17-000276
285	Clean Energy Regulator (CER)	Back	Emissions reductions achieved by	Referring to your response to QON 317 in point one, you have stated that the Act <i>“does not require the new renewable generation to be reconciled back to emissions</i>	Written	SQ17-000277

			renewable energy generation	<p><i>reduction” and in your response to QON 322 it is stated that “the percentage of a tonne of emissions reduction achieved by a large scale generation certificate is unknown”.</i></p> <p>Referring to Dr Joseph Wheatley’s study of the 2014 NEM data, which found it to be in the region of 0.78 of a tonne of emissions, the figure referred to by the Department of Environment was 0.82 of a tonne of emissions. Why would the Department of Environment be referring to 0.82 of a tonne when the Regulator has claimed that the figure is “unknown”, “not required by the legislation” and that “the number of certificates issued are not linked to the amount of abatement”?</p> <p>If the legislation and the objectives of the Act are to reduce emissions within the electricity sector why is there no auditing of actual emissions reductions?</p>		
286	Clean Energy Regulator (CER)	Back	Average cost of one tonne of abatement	One Australian Carbon Credit Unit (ACCU) is equal to one tonne abatement. What is the average cost of one tonne of abatement of the 33 million ACCUs that have been credited?	Written	SQ17-000278
287	Clean Energy Regulator (CER)	Back	Bald Hills wind farm	<p>As the Regulator would be aware, under the <i>Renewable Energy (Electricity) Act 2000</i>, all accredited power stations must submit an electricity generation return by close of business on 14 February each year (or the following business day), for electricity generated in the previous year. Scheme participants must bring any evidence of a breach under the Act to the attention of the Regulator.</p> <p>Prior to 14 February 2017, did the owner of the accredited Bald Hills Wind Farm in Victoria inform the Regulator that the power station was operating in breach of State planning permit obligations relating to noise</p>	Written	SQ17-000279

				<p>compliance and therefore, in contravention of the Act?</p> <p>Is this currently being investigated?</p> <p>What steps have been taken?</p> <p>What penalties are applicable for not disclosing a breach of state planning permit to the Regulator?</p>		
288	Clean Energy Regulator (CER)	Back	Powers to suspend power station accreditation	Under the Act, if an accredited power station does not comply with reporting requirements or fails to disclose a breach of state law, what steps can the Regulator take to suspend the power station's accreditation?	Written	SQ17-000280
289	Clean Energy Regulator (CER)	Back	Accreditation of power stations	What processes have been implemented to ensure that only eligible accredited power stations are participating in the scheme?	Written	SQ17-000281
290	Director of National Parks	Kakoschke-Moore	Public submissions to the Marine Reserves review	<p>Senator KAKOSCHKE-MOORE: In which case I would understand if they said, 'I send this in confidentially,' but if you could take on notice the reason why it was decided not to make it public that would be great.</p> <p>Ms Barnes: I am happy to get back to you.</p> <p>Senator KAKOSCHKE-MOORE: Thank you.</p>	Page 80	SQ17-000089
291	Director of National Parks	Siewert	Management budget for Kakadu	<p>Senator SIEWERT: I will put the rest of the fire questions on notice, as I do have quite a few. I want to ask a specific one about the budget for the management of Kakadu. Can you tell me what funding the Commonwealth provides and whether it has gone up or down, specifically about Kakadu?</p> <p>Ms Barnes: I do not have the exact figures with me at the moment. I can provide them on notice, but I am not aware of any major decrease in the last few years. In fact, Kakadu has had an increase of funding for specific</p>	Page 83	SQ17-000090

				projects to implement the Kakadu threatened species strategy and also fire-management work.		
292	Director of National Parks	Siewert	Closing down Ranger	<p>Senator SIEWERT: There is also the issue about the closing down of Ranger and what level of funding is available there.</p> <p>Ms Barnes: Ranger is outside the park but I am happy to discuss that.</p> <p>Senator SIEWERT: It is having issues around that area's management in the future—</p> <p>Ms Barnes: The transition.</p> <p>Senator SIEWERT: Yes. Could you take that on notice?</p> <p>Ms Barnes: I would be happy to.</p>	Page 83	SQ17-000091
293	Director of National Parks	Roberts	Marine Bioregional Planning Process - Update	Will the government finalise the process as soon as practicable with the right balance of sustainable commercial and recreational use with environmental protection or simply put it off until after the next election?	Written	SQ17-000016
294	Director of National Parks	Roberts	Commercial fishing	Will sustainable commercial fishing be allowed to continue without further hindrance?	Written	SQ17-000017
295	Director of National Parks	Roberts	Coral Sea Marine Reserve - Green Zones	Has the department done an impact analysis regarding the implementation of the Coral Sea Marine Reserve green zones?	Written	SQ17-000018
296	Director of National Parks	Roberts	Coral Sea Marine Reserve - Green Zones	If an impact study has been completed what is the estimated impact to the Cairns regional economy?	Written	SQ17-000019
297	Director of National Parks	Siewert	Management of Buffalo Farm	Please provide a copy of the paperwork you referred to in the recent estimates hearing on which you are basing your understanding of the Buffalo Farm management arrangements, specifically that Northern Land Council is responsible for managing the area of the Buffalo Farm? Please provide a copy of the lease you referred to.	Written	SQ17-000220
298	Director of	Siewert	Native title	In the estimates hearing, Ms Barnes stated 'That said, it	Written	SQ17-000221

	National Parks		claim	also needs to be brought to your attention that where the farm is located is in a section of Kakadu National Park where the native title claim is not finalised or clear.' As I understand it, there is no native title claim at present. Can you please explain what was meant by your comment?		
299	Director of National Parks	Siewert	Activities in the Buffalo Farm	Is the Buffalo Farm area subject to the same regulations as the rest of Kakadu and what activities are undertaken in the area known as the "Buffalo Farm"?	Written	SQ17-000222
300	Director of National Parks	Siewert	Animal Tracks commercial tourism activity permit	What period is the Animal Tracks commercial tourism activity permit for?	Written	SQ17-000223
301	Director of National Parks	Siewert	Commercial photography permit	Given Animal Tracks requires a commercial tourism activity permit, then surely it follows that other provisions of the EPBC and Kakadu Plan of Management apply at the farm. Would you agree? If so, why was no commercial photography permit required of Mr Philip Boyd?	Written	SQ17-000224
302	Director of National Parks	Siewert	Role of the Northern Land Council	Please explain the role of the Northern Land Council at the "buffalo farm".	Written	SQ17-000225
303	Director of National Parks	Siewert	Responsibility	Was there a 15-year period during which Parks simply did not know who was responsible for this area? Are you confident that you know who currently has responsibility for the area?	Written	SQ17-000226
304	Director of National Parks	Siewert	Complaints	In a television news piece broadcast on 22 December 2016 the ABC stated that, "Mr Cotsell [the manager of Kakadu National Park] says Parks had received complaints about the management of the site [the Buffalo Farm], but had no reason to investigate further." Can you please provide us with details of these complaints?	Written	SQ17-000227

305	Director of National Parks	Siewert	Park's responsibilities	What is your understanding of Park's responsibility for activities within the Buffalo Farm area? Has your understanding of Park's responsibility recently changed, noting the Facebook post on 15 December 2016 by Kakadu Park Manager Mr Cotsell stating that 'This incident took place in an area of the park we don't manage'?	Written	SQ17-000228
306	Director of National Parks	Siewert	Responsibility if death occurred	Where would responsibility have rested if instead of sustaining a serious injury Mr Boyd had died from being gored by a buffalo that day?	Written	SQ17-000229
307	Director of National Parks	Siewert	Permit	Is it correct that under the current Kakadu Plan of Management and associated EPBC regulations all commercial activities within the Park are required to have a permit?	Written	SQ17-000230
308	Director of National Parks	Siewert	Trading of diesel	How does this intersect with the exchange Mr David Lindner boasts of in an ABC news story from 22 December 2016 where money for diesel is traded for the opportunity to hunt buffalo and other animals within the Buffalo Farm area?	Written	SQ17-000231
309	Director of National Parks	Siewert	Safari hunting	Is it legal for any kind of safari hunting to happen within Kakadu National Park? What oversight would Parks have of such activities?	Written	SQ17-000232
310	Director of National Parks	Siewert	Current management arrangements	Article 5.3.13 of the current Plan of Management states as an action: Cease operation of the Buffalo Farm when current management arrangements come to an end, and arrange for rehabilitation measures. Could you please describe what these 'current management arrangements' are and describe the history of oversight of the area?	Written	SQ17-000233
311	Director of	Siewert	Access visits	What access visits have Traditional Owners had to the	Written	SQ17-000234

	National Parks			Creation Mother, Arramurrungundji (ada-moodoo-ngoon-jee), within the Buffalo Farm area?		
312	Director of National Parks	Siewert	Impacts on sacred and cultural sites	What do you know about impacts on sacred and cultural sites as a result of Mr Lindner's exclusive occupation of the site?	Written	SQ17-000235
313	Director of National Parks	Siewert	Impact of the current fire regime	The scientific literature describes many ways in which the current fire regime in Kakadu is not meeting recommended targets for fire frequency, intensity or areas of unburnt land. The impacts on ecology are such that the IUCN has rated Kakadu as of "Significant Concern" in its four-tiered assessment of all World Heritage properties. What is your opinion of the impact of the current fire regime on species loss or other ecological impacts in Kakadu, and what is Parks doing to respond to these concerns of the IUCN?	Written	SQ17-000236
314	Director of National Parks	Siewert	Indigenous fire management initiatives	Significant successes have been achieved in terms of carbon abatement and biodiversity conservation at the neighbouring Wardekken Land Management West Arnhem Land Fire Abatement Project. Given this, it would seem that any similar Indigenous fire management initiatives would be strongly supported by Parks. Please explain why these initiatives, some now over three years old, have not been developed in Kakadu.	Written	SQ17-000237
315	Director of National Parks	Siewert	Carbon abatement projects	We understand that several Indigenous organisations in Kakadu National Park have proposed carbon abatement projects based on traditional fire management practices, but that Parks has persistently failed to adequately support these efforts. Can you please provide details of proposals put to Parks in recent years and respond to suggestions that Parks is not adequately responding to these positive environmental and socioeconomic	Written	SQ17-000238

				initiatives?		
316	Director of National Parks	Siewert	Joint management	A guiding principal of the Kakadu National Park Plan of Management is for Bininj/Mungguy and Balanda to keep joint management strong by working together, communicating effectively and sharing decision-making. Are you aware of examples where such joint management has been practiced?	Written	SQ17-000239
317	Director of National Parks	Siewert	Innovative cooperative management	That same Plan of Management cites that “The management arrangements in the park between Bininj/Mungguy and the Director of National Parks continue to be cited as an example of an innovative cooperative management arrangement”. Can you provide examples of this innovative cooperative management within Kakadu?	Written	SQ17-000240
318	Director of National Parks	Siewert	Joint management	Section 1.5 of the same Plan of Management commits the Park to the following: “Through joint management the partners work to protect the park’s values and share it with the public, bringing together traditional knowledge and modern science, and creating opportunities for Bininj/Mungguy to be involved in park management at all levels, establish businesses and preserve their culture for future generations”. Can you provide examples of Aboriginal businesses that have been established in the Kakadu region through this commitment?	Written	SQ17-000241
319	Director of National Parks	Siewert	Business proposals by Aboriginal Corporations	Are you aware of any business proposals put to Park Management by Aboriginal Corporations in the last twelve months? If so, what for?	Written	SQ17-000242
320	Director of National Parks	Siewert	Participation in the planning and	Figure 6 in the Section of Joint Management within the Plan or Management cites an Outcome as “Bininj/Mungguy are integrally involved in planning and	Written	SQ17-000243

			implementation of work programs	implementing work programs”. Are you aware of any instances where Park Management has invited Aboriginal Corporations and other Aboriginal groups to participate in the planning and implementing of work programs over the last twelve months? If so, who and for what?		
321	Director of National Parks	Siewert	Application by Gundjeihmi Aboriginal Corporation	Section 4.2.6 (d) Making Decisions and Working Together cites “providing opportunities to increase outsourcing of park maintenance activities and aspects of park management such as fire management activities to Aboriginal corporations or enterprises”. What was the Park Management response to the application by Gundjeihmi Aboriginal Corporation in May 2016 and then again in November 2016 to support the registering of a carbon emissions abatement project designed to engage Indigenous Ranger groups resources and knowledge in the management of fire within the Park?	Written	SQ17-000244
322	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Bleaching event in Winter 2008	The ABC reported a bleaching event in the southern tip of the Great Barrier Reef during record cold temperatures across much of Queensland in the winter of 2008. Was there such a bleaching event? If so, isn’t that an entirely natural response from the reef due to extreme cold weather?	Written	SQ17-000119
323	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Bleaching events since 1928	Until recently bleaching was thought to be a modern phenomenon. Is it true that there have been 16 bleaching events since 1928? If not true, what is the number?	Written	SQ17-000120
324	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Advice on Climate Change	Upon whose advice does the GBRMPA rely for its views on climate change, and more specifically, on anthropogenic climate change?	Written	SQ17-000121

325	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Empirical scientific evidence	<p>Has GBRMPA ever been presented with empirical scientific evidence proving human causation of climate change and more specifically due to anthropogenic production of carbon dioxide?</p> <p>If so, please specify the source and location of such advice being book/report/journal title, author(s) name(s), chapter number, page numbers, publisher.</p> <p>If not, why not, and on what does GBRMPA rely for its view that human production of carbon dioxide is causing climate change that is threatening or destroying the GBR?</p>	Written	SQ17-000122
326	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Land clearing	Regarding comments on land clearing, is it true that farm landowners are the best guardians for protecting soil run-off and excess chemicals and fertilisers running off farmland and into creeks and out to the GBR?	Written	SQ17-000123
327	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Northern Zone	<p>My understanding from GBRMPA's latest report is that the GBR has been divided into three zones and that only the northern zone is currently stressed?</p> <p>If true, would that not indicate the threat is local and specific to the northern region and not global?</p>	Written	SQ17-000124
328	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Global factors	Is it true, sensible and credible to believe that global factors are driving damage to just one portion of the GBR and not to others?	Written	SQ17-000125
329	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Ocean temperatures	<p>Are you aware that ocean temperatures have been cooling since 1978 [Jones et al (2016)] and southern ocean heat content [Rosenthal et al (2013)] is currently the lowest in the last 9,000 years?</p> <p>If you disagree with either of these two claims, on what basis?</p>	Written	SQ17-000126

330	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Ocean temperatures in southern GBR	Is CSIRO accurate in portrayal of ocean temperatures on any given day being 4-5°C cooler in the southern GBR compared with the northern GBR?	Written	SQ17-000127
331	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Coral species in Thailand	Is it true that some GBR coral species thrive in the ocean off Thailand in water two degrees Celsius warmer than in the GBR?	Written	SQ17-000128
332	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Corals	Are corals considered to have first formed in an era when earth's temperature was far warmer than today's temperature.	Written	SQ17-000129
333	Great Barrier Reef Marine Park Authority (GBRMPA)	Roberts	Past bleaching events and recovery	In past GBR bleaching events, the bleached areas have quickly recovered. Is there anything in the latest northern bleaching that sets this event apart as unusual and that may indicate it won't recover?	Written	SQ17-000130