

**Senate Standing Committee on Environment and Communications  
Legislation Committee**

Answers to questions on notice

**Sustainability, Environment, Water, Population and Communities portfolio**

Supplementary Budget Estimates, October 2011

**Program: Division or Agency:** 1: GBRMPA **Question No:** 34  
**Topic:** Turbidity in Gladstone Harbour  
**Proof Hansard Page and Date or Written Question:** 94 (17/10/11)

**Senator Waters asked:**

Senator WATERS: That is interesting because I visited there just recently and I spoke with a number of local vets who were performing the necropsies on many of the dead animals—many of them had full stomachs. So the view of the vets was that in fact it was not a seagrass issue, it was boat strikes arising from the huge increase in shipping traffic in the harbour to build the LNG facilities. A second reason, they thought, was that the deaths were due to the smothering of what little seagrass there was left by the dredge spoil—the turbidity in the harbour. Some two million cubic metres has already been dug up from the harbour in the last few months. Noting the recent Queensland government studies which found huge turbidity in September at a number of sites in the harbour, I am interested in what GBRMPA is doing about that, if anything. I am conscious that it is within the World Heritage area but not within the marine park boundaries. I have a few other questions which will touch on those jurisdictional issues.

Mr McGinnity: The information I just gave was for the whole of the coast—which was your original question. In terms of the harbour, there has been some increase in boat strike this year. I do not know the exact numbers related to that. In terms of the full stomach of the animals, I am not sure what you are referring to. For example, with the turtles the Queensland government looked at when they were looking at the Boyne Island turtle deaths—if they had full stomachs, they were full of mangroves rather than seagrass, which is their preferred diet. I would be happy to look into what you have and provide further information, but I am not aware of the material you are citing.

Senator WATERS: That would be helpful.

**Answer:**

Gladstone harbour is not within the Great Barrier Reef Marine Park and therefore the Great Barrier Reef Marine Park Authority (GBRMPA) does not have jurisdiction to address activities occurring within the port. The necessary approvals are given under the *Environment Protection and Biodiversity Conservation Act 1999*. The conditions of those approvals are administered by the Department Sustainability, Environment, Water, Population and Communities (the department) and include a requirement for the Gladstone Ports Corporation to develop and implement a comprehensive management plan to monitor water quality and adaptively manage the impacts of dredging and spoil disposal under the guidance of technical experts.

GBRMPA was consulted by the department during the development of the permit conditions and continues to liaise with the department through the implementation process.

Under the Inter-governmental agreement for the Great Barrier Reef World Heritage Area, the GBRMPA works collaboratively with the Queensland Department of Environment and Management (DERM) to ensure there is a coordinated program for Marine Park management across Commonwealth and State jurisdictions, including monitoring and responding to strandings of dugong and turtle. Elevated dugong and turtle deaths have occurred along the urban coast in 2011. The primary cause of deaths is due to the widespread loss of seagrass following the flooding in early 2011, which also impacted Gladstone harbour.

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For the Port Of Gladstone (an area defined by the southern end of the Narrows, south into Rodds Bay and including the seaward side of Facing Island) during 2011 there have been 172 turtles recorded stranded of which 20 are confirmed cases of boat strike (11 per cent). We have been advised by DERM that they are currently investigating actions that can be taken to address these increased incidents of boat strike.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 035

**Topic:** Impact of dumping spoil near  
the marine park

**Proof Hansard Page and Date** 94 (17/10/11)  
**or Written Question:**

**Senator Waters asked:**

Senator WATERS:...I am interested in what advice you gave the minister on the impact of dumping that vast amount of spoil right on the borders of the marine park and within the World Heritage area.

Dr Reichelt: The advice has probably gone through the department on that proposal. I am not sure if it was part of the deposition made to the Senate or not, and possibly it would be for the department or the minister to release that information. Our typical advice would be to specify the conditions for the guidelines and what to have regard for in setting any conditions on that proposal. I am not sure I can go a lot further on the specific advice directed to the department. Perhaps they can confirm tomorrow morning whether or not that has been released.

Senator WATERS: I would be interested to know what conditions you did recommend and if they were adopted, if you have that information to hand.

Dr Reichelt: I do not have it here and I think it would be more appropriate if I had time to take it on notice and discuss with the department whether that has already been published or not. It is possible it is on the public record already.

**Answer:**

Advice was provided to the Department of Sustainability, Environment, Water, Population and Communities by the Great Barrier Reef Marine Park Authority on the Gladstone Port Western Basin Dredging and Disposal project in the course of assessment under the *Environment Protection and Biodiversity Conservation Act 1999* and subsequent advice by the department to the Minister.

Initial advice provided in April 2009 included reference to the likely impacts of the dredge plume, as well as the direct impacts on seagrass and other benthic communities.

In August 2010 the Great Barrier Reef Marine Park Authority was asked to comment on the Gladstone Western Basin Draft Conditions. Comments included:

- Some conditions of the draft permit were unclear and could imply approval for potential sea disposal in locations that may be inside the Marine Park.
- The need to sample for total suspended solids and organic carbon in addition to light attenuation.
- Timeframes for reporting of exceedance of trigger values needed to be included.
- The water quality monitoring program should be consistent with the Water Quality Guidelines for the Great Barrier Reef Marine Park (2009).

All GBRMPA's advice was considered by the department and all specific comments were incorporated into the final approval conditions.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 36

**Topic:** GBRMPA permit fees

**Proof Hansard Page and Date** 95 and 98 (17/10/11)  
**or Written Question:**

**Senator Macdonald asked:**

Senator IAN MACDONALD: I am told that applying for a GBRMPA permit would cost \$130,000. That cannot be correct?

Dr Reichelt: It could be, depending on the scale of the proposal. There are permit application fees that apply. I could give you the scales of those. It depends on the size and the amount of—

Senator IAN MACDONALD: Perhaps you could do that on notice as time is limited tonight. (Page 98)

Senator IAN MACDONALD: Did I ask you to put on notice your schedule of charges and to explain them.

Dr Reichelt: I took it that you had, but thanks for clarifying that.

Senator IAN MACDONALD: If I have not, could I please?

Dr Reichelt: Yes.

**Answer:**

Permit Assessment fees for the assessment of an application for a permission to carry on an activity of a commercial nature in the Great Barrier Reef Marine Park are shown in the table below. The size of the fee is generally related to the complexity of assessment.

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Item	Activity	Fee - initial permission (\$)	Fee – continuation of permission (\$)
1	Activity that requires use of an aircraft or vessel having a maximum passenger capacity of:		
	(a) fewer than 25 passengers	640	640
	(b) 25-50 passengers	930	740
	(c) 51-100 passengers	1 690	1 030
	(d) 101-150 passengers	2 810	1 490
	(e) more than 150 passengers	4 710	1 880
2	Activity that requires the use of a facility or structure in the Marine Park	2 070	2 070
3	Activity that requires a public notice to be given	7 530	2 810
3A	Activity that requires:	7 530	2 810
	(a) an assessment on referral information under Division 3A of Part 8 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> ;		
	or		
	(b) an assessment on preliminary documentation under Division 4 of Part 8 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>		
4	Activity about which a public environment report is to be prepared	37 710	37 710
5	Continuation of an activity about which a public environment report was prepared, if no other such report is to be prepared about the continuation		4 710
6	Activity about which an environmental impact statement is to be prepared	101 860	101 860
7	Continuation of an activity about which an environmental impact statement was prepared, if no other such statement is to be prepared about the continuation		4 710
8	Activity not covered by items 1 to 7	640	640

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 37  
**Topic:** Causes of water quality in  
Upstart Bay  
**Proof Hansard Page and Date** 97 (17/10/11)  
**or Written Question:**

**Senator Macdonald asked:**

Mr Skeat: We cannot be clear about that, but the proponents took our advice and indicated that they would get back to us shortly. I hasten to add it was a very positive meeting regarding the exchange of information.

Senator IAN MACDONALD: On notice, could you give me a short description of the differences in the causes of the water quality in Upstart Bay as opposed to Abbot Bay—Upstart Bay being the outlet for all the Ayr, Home Hill and upriver cane farming operations, which are very substantial. In the Upstart Bay area there is hardly any agricultural activity to speak of. I would be interested to learn more about the two areas. Also, on notice, could you indicate how it would be possible to offset nutrient output in the Abbot Bay catchment?

Mr Skeat: Yes.

**Answer:**

Upstart Bay is mainly influenced by the Burdekin River and northward moving fresh and marine flows. The Burdekin River catchment covers an area of 129 989 km<sup>2</sup> (GBRMPA, 2001):

- Grazing is the dominant land use occupying approximately 114 384 km<sup>2</sup>.
- Other land uses include approximately 393 km<sup>2</sup> of sugarcane / horticulture.
- Issues in the Burdekin River Catchment:
  - Flood plain contains intensive cropping, predominantly sugar;
  - Soil erosion is widespread; and
  - Approximately 4 122 000 tonnes of sediment, 9 936 tonnes of total nitrogen and 1 752 tonnes of phosphorous are exported from the catchment per year.

Abbot Bay is mainly influenced by northward moving flows of the Don River Catchment. The Don River catchment covers an area of 3 559 km<sup>2</sup>:

- Grazing is the dominant land use occupying approximately 2 834 km<sup>2</sup>.
- Other land uses include approximately 126 km<sup>2</sup> of sugarcane / horticulture.
- Issues in the Don River Catchment:
  - Soil erosion on the river delta and flats is significant and is caused predominantly by growing horticultural crops;
  - Intensive agriculture and extensive use of chemicals have the potential to cause contamination of soils and water; and
  - Approximately 551 000 tonnes of sediment, 585 tonnes of total nitrogen and 156 tonnes of phosphorous are exported from the catchment per year.

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The coastal waters of Abbot Bay are primarily transported to the north towards Upstart Bay, and are replenished by coastal waters originating from the south, including seasonal inflows from the Don River catchment. It is unlikely that waters from Upstart Bay, including the seasonal inputs from the Burdekin River catchment, are persistently mixed with waters of Abbot Bay. An offset strategy designed to achieve a no net increase in nutrients could include direct land acquisition (with land rehabilitation and protection) or a reduction of nutrient additions on farming land (above and beyond Reef Rescue and Queensland legislative requirements). To achieve this in Abbot Bay, given water movements and nutrient transport patterns, the Don and Elliot River Catchments would likely provide the greatest level of certainty and opportunities for offsetting.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 38

**Topic:** GBRMPA Staffing

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Birmingham asked:**

1. Within The Great Barrier Reef Marine Park Authority how many divisions are there and what are their names?
2. How many staff are there in each of these divisions?
3. Where is each division located and what are their staffing numbers?

**Answer:**

1. The Great Barrier Reef Marine Park Authority has four Branches:
  - Corporate Services Branch
  - Communication and Policy Coordination Branch
  - Environment and Sustainability Branch
  - Marine Park Management Branch
2.
  - Corporate Services Branch – 47
  - Communication and Policy Coordination Branch – 97 (includes 41 casual staff)
  - Environment and Sustainability Branch - 45
  - Marine Park Management Branch - 56
3. All Branches are located in Queensland. Three staff are located in the Canberra office of the Communication and Policy Coordination Branch.



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**Program: Division or Agency:** 1: GBRMPA **Question No:** 39

**Topic:** GBRMPA Accommodation

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Birmingham asked:**

1. How many office locations are there within The Great Barrier Reef Marine Park Authority and where is each located?
2. What is the size of each of these offices and are they leased or owned?
3. If the office is rented, what is the amount and what is the breakdown of rent per square metre?
4. What is the value of the buildings owned and what is the depreciation of those buildings?

**Answer:**

1. There are six office locations for the Great Barrier Reef Marine Park Authority (GBRMPA). The GBRMPA main office is located in Townsville with regional offices in Cairns, Mackay and Rockhampton. A small office is also located within the Department of Sustainability, Environment, Water, Population and Communities in Canberra.

2 & 3. All office space is leased.

Location	Size	Annual Rent	Rent per sq metre
Townsville Main Office	2,593	\$583,500	\$225.03
Townsville Kelleher Place	596	\$130,000	\$218.12
Cairns	326	\$91,676	\$281.22
Mackay	136	\$45,155	\$332.02
Rockhampton	86	\$26,265	\$305.40
Canberra	60	Nil	Nil

4. Not applicable

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 40

**Topic:** GBRMPA Expenditure

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Birmingham asked:**

1. Provide details on expenditure for 2010-11 for The Great Barrier Reef Marine Park Authority on the following: advertising, travel (including breakdown: of business versus economy, domestic versus international), hospitality and entertainment, ICT, consultancy, education/training of staff, external accounting, external auditing, external legal and membership or grants paid to affiliate organisations?
2. Provide a further breakdown of the above expenditure for each division with the Great barrier Reef Marine Park Authority: advertising (\$mn), travel (including breakdown: of business versus economy, domestic versus international) (\$mn), hospitality and entertainment (\$mn), ICT (\$mn), consultancy (\$mn), education/training of staff (\$mn), external accounting (\$mn), external auditing (\$mn), external legal and membership or grants paid to affiliate organisations (\$mn)?
3. Within each divisional area, provide a further breakdown of expenditure under each Executive Manager: : advertising (\$mn), travel (including breakdown: of business versus economy, domestic versus international) (\$mn), hospitality and entertainment (\$mn), ICT (\$mn), consultancy (\$mn), education/training of staff (\$mn), external accounting (\$mn), external auditing (\$mn), external legal and membership or grants paid to affiliate organisations (\$mn)?
4. Please provide a breakdown over the forward estimates of each program or activity including: program title, program summary, is the program ongoing, lapsing, or terminating , breakdown of administered and departmental costs, program staffing numbers and location?

**Answer:**

- |  |           |
|--|-----------|
| 1. Advertising/Public information                    | 254,162   |
| Travel   |           |
| Business airfares                                    | 164,666   |
| Economy airfares                                     | 679,060   |
| Domestic travel                                      | 1,686,160 |
| International travel                                 | 46,106    |
| Hospitality& entertainment                           | 1,355     |
| ICT  | 2,167,168 |
| Consultancy  | 4,881,548 |
| Education/Training of staff                          | 219,342   |
| External Accounting                                  | 0         |
| External Auditing                                    | 118,291   |
| External Legal                                       | 275,797   |
| Membership or grants paid to affiliate organisations | 10,877    |
- 
2. The Great Barrier Reef Marine Park Authority's organisational structure is not based on divisions.

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3. Breakdown of expenditure by Branch.

Branch	Corporate Services & Chairman's Office	Communications & Policy Coordination	Environment Sustainable Use	Marine Park Management
	\$m	\$m	\$m	\$m
Advertising/Public information	0.032	0.156	0.011	0.055
Travel				
Business airfares	0.044	0.047	0.049	0.025
Economy airfares	0.034	0.139	0.241	0.265
Domestic travel	0.137	0.300	0.567	0.683
International travel	0.004	0.005	0.021	0.016
Hospitality& entertainment	0.000	0.000	0.000	0.001
ICT	2.078	0.003	0	0.086
Consultancy	0.064	2.682	1.928	0.208
Education/Training of staff	0.088	0.008	0.019	0.104
External Accounting	0	0	0	0
External Auditing	0.118	0	0	0
External Legal	0.275	0	0	0
Membership or grants	0.002	0.009	0	0

4.

Program	2012-13 \$m	2013-14 \$m	2014-15 \$m
GBRMPA Operations	24,682	24.739	25.086
- Ongoing/Lapsing/ Terminating	Ongoing	Ongoing	Ongoing
- Departmental/Administered	Dept \$23.782m Admin \$0.9m	Dept \$23.839m Admin \$0.9m	Dept \$24.186m Admin \$0.9m
- Staffing	168.6	168.6	168.6
- Location	Townsville, Cairns, Mackay, Rockhampton, Canberra	Townsville, Cairns, Mackay, Rockhampton, Canberra	Townsville, Cairns, Mackay, Rockhampton, Canberra
Reef Rescue Programs	4.920	0	0
- Ongoing/Lapsing/ Terminating	Lapsing		
- Departmental/Administered	Departmental		
- Staffing	7		
- Location	Townsville, Cairns, Rockhampton		

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Field Management	16.814	16.952	17.092
- Ongoing/Lapsing/ Terminating	Ongoing	Ongoing	Ongoing
- Departmental/Administered	Departmental	Departmental	Departmental
- Staffing	22	22	22
- Location	Townsville, Cairns, Mackay	Townsville, Cairns, Mackay	Townsville, Cairns, Mackay

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 41

**Topic:** Turtle and Dugong deaths

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Waters asked:**

1. What are the GBR's data on dugong and turtle deaths this year along the Qld coast, and especially in the Gladstone area?
2. How many turtles have euthanased due to lack of resources in turtle hospitals? Have more facilities been made available?
3. What is GBRMPA doing about the disproportionate number of turtle strandings and deaths, dugong deaths and diseased fish in Gladstone harbour, within the WHA?
4. Has GBRMPA examined the link between increased boat traffic for LNG port construction and increased dredging for those ports and the marine deaths? What findings has GBRMPA made?
5. What extra budgetary allocations have been committed to ensure the response is adequate?

**Answer:**

1. Up to 25 October the data provided by the Queensland Department of Environment and Resource Management (DERM) for dugong and turtles deaths along the Queensland coast were 169 and 1063 deaths respectively. For the Port of Gladstone (an area defined by the southern end of the Narrows, south into Rodds Bay and including the seaward side of Facing Island) there have been seven dugong and 172 marine turtle deaths.
2. To the best of our knowledge, no turtles have been euthanased due to a lack of resources in turtle hospitals as the primary driver for making that decision.
3. Gladstone harbour is not within the jurisdiction of the Great Barrier Reef Marine Park Authority (GBRMPA). The Queensland government agencies responsible for responding to marine strandings and diseased fish in the Gladstone harbour are DERM and the Department of Employment, Economic Development and Innovation (DEEDI) respectively. The GBRMPA liaises closely with these agencies and receives regular updates on current issues and responses initiated by those agencies.
4. DERM have advised that they are investigating the increased level of boat strike, and the potential actions that might be taken to address this situation.
5. GBRMPA received an additional \$1.08 million in the first half of 2011 to better understand and respond to the impact of the extreme weather events of 2010-2011. This funding addressed impacts to reefs, islands, seagrass and water quality along approximately 1000 kilometres of coastline and from inshore seagrasses to reefs along the outer barrier. A number of response activities were focused on assessment of seagrass distribution and health in the area impacted by Cyclone Yasi and flooding; on training and equipping veterinarians and agency staff to respond to the predicted increase in stranded dugongs and to understand any changes in movements and patterns of habitat use by green turtles and dugong in the area impacted by Cyclone Yasi using satellite telemetry. Resources have also been directed to working with commercial fishers and Traditional Owners to modify netting practices and traditional hunting, to reduce pressures on the dugong and green turtle populations in areas affected by the extreme weather events.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 42

**Topic:** Gladstone Harbour

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Waters asked:**

1. What advice did GBRMPA give Minister Burke regarding the impacts of dumping the dredge spoil right near the boundaries of the marine parks area, when the various LNG dredging proposals were to be approved?
2. What are cumulative figures of dredging in WHA approved in the last five years? Please provide advice regarding the approved projects (quantity of material to be dredged, location, timing of dredging). Please provide same for approved offshore dumping.
3. What are cumulative figures of dredging in WHA currently applied for? Please provide advice regarding the applied-for projects (quantity of material to be dredged, location, timing of dredging).
4. What are cumulative figures of offshore dumping of dredge spoil in WHA approved in the last five years? What are cumulative figures of offshore dumping in WHA currently applied for? Please provide advice regarding the approved and applied-for projects (quantity of material to be dumped, location, timing).

**Answer:**

1. Advice was provided to the Department of Sustainability, Environment, Water, Population and Communities (the department) by the Great Barrier Reef Marine Park Authority (GBRMPA) on the Gladstone Port Western Basin Dredging and Disposal project in the course of assessment under the *Environment Protection and Biodiversity Conservation Act 1999* and subsequent advice by the department to the Minister.

Initial advice provided in April 2009 included reference to the likely impacts of the dredge plume, as well as the direct impacts on seagrass and other benthic communities.

In August 2010 the GBRMPA was asked to comment on the Gladstone Western Basin Draft Conditions. Comments included:

- Some conditions of the draft permit were unclear and could imply approval for potential sea disposal in locations that may be inside the Marine Park;
- The need to sample for total suspended solids and organic carbon in addition to light attenuation;
- Timeframes for reporting of exceedance of trigger values needed to be included; and
- The water quality monitoring program should be consistent with the Water Quality Guidelines for the Great Barrier Reef Marine Park (2009).

All GBRMPA's advice was considered by the department and all specific comments were incorporated into the final approval conditions.

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The Port of Gladstone Spoil Disposal site has been in use for several decades. Expansion of the shipping channel and spoil disposal at the site occurred between 1980 and 2000, reports available indicate that during that time 23.3 million cubic metres of spoil had been deposited at the spoil ground. Much of the spoil disposal occurred during two major dredging operations in 1980/81 and 1986/87 which resulted in disposal of 12 and 7 million cubic metres of material at the spoil site. Monitoring over that period found that the material was to the greatest extent retained on the site and did not affect areas 2km off the site.

2. The cumulative dredging volume approved under the EPBC Act in the Great Barrier Reef World Heritage Area in the last five years (since 1 January 2007) is 52,581,000 m<sup>3</sup>.

3. The dredging volume in the Great Barrier Reef World Heritage Area currently applied for and being assessed under the EPBC Act is 60,603,000 m<sup>3</sup>. There are also a number of proposals being assessed for which dredging volumes are yet to be provided.

4. The total amount of offshore dumping approved in the Great Barrier Reef World Heritage Area in the last five years (since 1 January 2007) is 22,124,000 m<sup>3</sup>. The amount of offshore dumping currently under application under the *Environment Protection (Sea Dumping) Act 1981* is 2,013,000 m<sup>3</sup>.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 43

**Topic:** GBRMPA – World Heritage Area

**Proof Hansard Page and Date  
or Written Question:** Written

**Senator Waters asked:**

1. Does the Authority agree with the decision of the World Heritage Committee at its meeting of June 2011 regarding the impact of LNG facilities on the Outstanding Universal Values of the Great Barrier Reef? Does the Authority share the "extreme concern" of the World Heritage Committee regarding LNG development?
2. Given the WHC has expressed 'extreme concern' regarding the impact of LNG development on the GBR world heritage area, what actions has the Authority taken to ensure that current approved projects will be properly managed? Can you provide details of the specific management interventions that are planned to protect the Outstanding Universal Values of the GBR and what money is being invested for each intervention?
3. Given the current level of impacts on the World Heritage Area around Gladstone Harbor can you advise what impacts the proposed Xstrata coal port development on Balaclava island are likely to have on the World Heritage Values of the Great Barrier Reef?
4. I note that the State and Federal Governments are to undertake a strategic assessment of coastal development on the Reef, in response to the World Heritage Committee's recommendation - have you advised the Minister on whether EPBC assessment of proposals currently in train should be placed on hold pending the completion of the Strategic Assessment? If so, what advice have you provided? Have you advised the Minister on whether EPBC approved projects should be suspended pending the completion of the Strategic Assessment? If so, what advice have you provided?
5. Under what conditions would the Authority be supportive of approval powers under the EPBC being devolved to the State Government for projects which may have significant impacts on the World Heritage Values of the Great Barrier Reef?

**Answer:**

1. The Great Barrier Reef Marine Park Authority (GBRMPA) is concerned about any activity or development that has the potential to impact on the Great Barrier Reef Marine Park and World Heritage Area. GBRMPA works closely with the Department of Sustainability, Environment, Water, Populations and Communities (the department) to ensure that any potential impacts on the Great Barrier Reef Marine Park and World Heritage Area are assessed and appropriately addressed in the environmental assessment process and avoided, mitigated or offset under any subsequent approval conditions.



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2. Where developments occur outside of the Great Barrier Reef Marine Park, GBRMPA generally provides advice to the department in the course of consideration of matters under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The focus of GBRMPA's advice is on ensuring any potential impacts are fully considered during the assessment process and, if the project is approved, that conditions are applied to minimise the impacts. In the case of the LNG developments on Curtis Island, conditions included requirements for managing the visual impact of construction and operation, a plan to secure and manage environmental offsets, construction environmental plans, a quarantine management plan, and environmental management plans for the Water Mouse and for Turtles. The department is responsible for administering compliance with the approval conditions. GBRMPA is not in a position to comment on the monetary value of any management interventions undertaken by the department and/or proponents.
3. The environmental impact assessment information for the proposed Xstrata coal port development on Balaclava island has not yet been provided for public comment. GBRMPA will provide the department with comments when the documentation is made available by the proponent.
4. GBRMPA strongly supports the proposed strategic assessment of the Great Barrier Reef World Heritage property and is working closely with the department and the Queensland Government to implement a range of activities to be undertaken in response to the World Heritage Committee decision. The department will manage all referred projects in accordance with the EPBC Act.
5. The strategic assessment is an opportunity for the Commonwealth and Queensland governments to comprehensively consider and assess the management arrangements for the Great Barrier Reef World Heritage Area. GBRMPA would not like to pre-empt the findings of the assessment. The department and GBRMPA are currently working closely with the Queensland Government to design the strategic assessment. GBRMPA is always willing to consider greater cooperation with the State Government in the protection of the Great Barrier Reef.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 44

**Topic:** Pesticides run off

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Waters asked:**

1. Does the Authority have any staff working on the issue of pesticides flowing into the Marine Park?
2. Does the Authority have a budget dedicated to managing the risks associated with declining water quality in the Marine Park. If so what is it?
3. Has the Authority investigated the potential threat of cumulative impact of pesticides on the Great Barrier Reef, for example, the cumulative impact of diuron, atrazine and metachlor?
4. I note the recent paper published by Davis et al. of the Queensland Environment Department (2011) in the Marine Pollution Bulletin, based on the results of the "Paddock to Reef" water quality monitoring program. In its work in this space has GBRMPA found, in line with this paper's findings, that the combined toxicity of herbicides is a far more serious threat to the Reef than previously thought?
5. What advice has GBRMPA provided to SEWPAC and/ or APVMA in relation to the current APVMA review of Diuron?
6. Would you agree it would be a serious concern to the Authority if diuron was found in the Great Barrier Reef catchment at toxic concentrations for extended periods?
7. Are you aware that the results of the Paddock to Reef Monitoring Program, as published in the Marine Pollution Bulletin, found Diuron concentrations in Barratta Creek (near Ayr in north Queensland) exceeded ANZECC water quality guidelines trigger values for more than 30 consecutive days during the period December 2009-February 2010?
8. Some years ago, GBRMPA was very concerned about water quality flowing from land-based aquaculture adjacent to the GBR Marine Park, and took action by regulating those developments. Given the clear evidence of harm to the Marine Park from land-based pesticides, why hasn't the Authority taken similar action?

**Answer:**

1. Yes. The Great Barrier Reef Marine Park Authority (GBRMPA) has a Manager for the Reef Rescue Marine Monitoring Program, which is a program that collects data, analyses it and reports on changes in water quality and its effects on ecosystem health in the Great Barrier Reef Marine Park. This program includes monitoring for pesticides. Additionally, GBRMPA has staff who are responsible for developing and reviewing our *Water Quality Guidelines for the Great Barrier Reef 2010* to ensure we are using the most up-to-date knowledge on the potential impacts of water quality on Great Barrier Reef species and ecosystems.
2. The GBRMPA's \$2 million/year Reef Rescue Marine Monitoring Program reports on water quality and ecosystem health in the inshore waters of the Great Barrier Reef.
3. Yes. Explicit examination of this matter occurred in the document published by GBRMPA titled *Water Quality Guidelines for the Great Barrier Reef 2010*. This matter is also examined through the Reef Rescue Marine Monitoring Program and reported annually through this program and the Reef Water Quality Protection Plan's Paddock to Reef Program Report Card.

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4. GBRMPA identified pesticides as being a very high risk to Great Barrier Reef Ecosystems in its Outlook Report in 2009. Results from the *Paddock to Reef* program are consistent with the Outlook Report. The *Reef Water Quality Protection Plan 2009* includes measures to address these issues.

5. GBRMPA has provided monitoring and assessment advice to the Department of Sustainability, Environment, Water, Population and Communities (the department) and the Australian Pesticides and Veterinary Medicines Authority (APVMA) on the current review of Diuron. This advice was in relation to the:

- concentrations of Diuron detected in the Great Barrier Reef Marine Park through the Reef Rescue Marine Monitoring Program; and
- potential impacts of observed concentrations of Diuron on Great Barrier Reef ecosystems based on the Water Quality Guidelines for the Great Barrier Reef Marine Park 2010.

6. GBRMPA works to address such risks by supporting the Reef Rescue Research and Development Program which is focused on understanding how these pesticides affect the Great Barrier Reef system, what actions can stop or reduce them and if there are safer alternatives.

7. Yes.

8. GBRMPA is active in addressing water quality issues in the Great Barrier Reef inshore waters. The *Reef Water Quality Protection Plan 2009* aims to “halt and reverse the decline in water quality entering the Reef by 2013 and to ensure that by 2020 the quality of water entering the Reef from adjacent catchments has no detrimental impacts on the health and resilience of the Great Barrier Reef. The Reef Water Quality Protection Plan 2009 has a number of water quality targets including that by 2013 there will be a minimum 50 per cent reduction in pesticide loads at the end of Great Barrier Reef catchments.” Investments approaching \$400 million have been made to ensure that the appropriate regulatory and on-ground management actions are taken to ensure that these water quality targets are met.

Arrangements are in place under both Australian and Queensland legislation to regulate the use of pesticides:

- The APVMA regulates the use and application of pesticides in Australia. This includes the power to review the suitability of pesticides, such as the current Diuron review.
- The Queensland Government's *Great Barrier Reef Protection Amendment Act 2009* introduced requirements to improve the quality of water entering the Great Barrier Reef. The implementing regulations apply to sugarcane growing and cattle grazing properties in the Burdekin Dry Tropics, Wet Tropics and Mackay Whitsunday catchments in North Queensland. The Queensland regulations manage pesticide application rates in specific locations and agricultural practices.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 45

**Topic:** Vessel tracking in the Marine  
Park

**Proof Hansard Page and Date  
or Written Question:** Written

**Senator Waters asked:**

1. Has GBRMPA provided/ commissioned/ or received any advice on whether additional usage of marine pilots on board ships passing through the reef would reduce risk of incidents threatening the reef? If so, can you please provide a copy.
2. Has GBRMPA provided/ commissioned/ or received any advice on the likely costs to industry of additional pilotage? If so, can you please provide a copy of this advice.
3. Will the VTS extension to the Southern GBRWHA proposed by the Navigation Amendment Act extend VTS beyond ports and to entire inner and/or outer Reef area?
4. What advice has GBRMPA provided to the Minister, or commissioned and/ or received internally on:
  - a. the projected increased shipping through the reef associated with the LNG and coal export boom
  - b. the likely impacts/ risks for the reef associated with this shipping?
  - c. options to deal with the risks associated with this increased shipping?
5. Please provide a copy of any such advice.

**Answer:**

1. The Australian Maritime Safety Authority (AMSA) is responsible for the licensing and safety regulation of coastal pilots in Australian waters. In 2008 the Great Barrier Reef Marine Park Authority (GBRMPA) received the report "The delivery of coastal pilotage services in the Great Barrier Reef and Torres Strait". The report is available online at:  
[http://www.amsa.gov.au/shipping\\_safety/marine\\_orders/CoastalPilotage.asp](http://www.amsa.gov.au/shipping_safety/marine_orders/CoastalPilotage.asp)
2. This issue is the responsibility of AMSA.
3. The Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) Area, including recent amendments, is shown at **Attachment A**. The Area extends beyond ports to the outer Great Barrier Reef.
- 4a. GBRMPA obtains projected increases in shipping from Environmental Impact Statements (EIS) submitted by proponents. Table 1 shows the projected increases in shipping associated with the proposed port expansions.

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**Table 1: Projected increase in shipping associated with proposed port expansions**

<b>Port</b>	<b>Current shipping per annum</b>	<b>Future projected # ships per annum</b>	<b>Notes</b>
Wongai	0	12	
Port of Townsville	700	1200-1400	1400 per annum would be reached when the port infrastructure is completed (projected in 30 years)
Abbot Point	190	1120-3425	When the Multi-Cargo facility is complete
Hay Point	892	increase of 25 per cent projected	
Mackay	175		
Gladstone	1200	5600	5600 per annum would be reached when the port infrastructure is completed (projected in 30-40 years)
Port Alma	50		Port Alma may remain stable. Port proposals for Balaclava Island and Fitzroy terminal will increase the number of ships adjacent to Port Alma

4b. The risks associated with shipping were considered during the preparation of the Great Barrier Reef Outlook Report 2009 (<http://www.gbrmpa.gov.au/outlook-for-the-reef/great-barrier-reef-outlook-report>).

More recently, GBRMPA has contributed to AMSA oil spill risk assessment which was released on 1 November 2011. The report, titled "Assessment of the Risk of Pollution from Marine Oil Spills in Australian Ports and Waters" was prepared by international risk assessment experts Det Norske Veritas (DNV). The report is available online at: [http://www.amsa.gov.au/Marine\\_Environment\\_Protection/National\\_plan/Reports-Fact\\_Sheets-Brochures/DNVReport.asp](http://www.amsa.gov.au/Marine_Environment_Protection/National_plan/Reports-Fact_Sheets-Brochures/DNVReport.asp)

4c. The Great Barrier Reef Shipping Management Group is comprised of AMSA, GBRMPA, Maritime Safety Queensland and the Commonwealth Department of Infrastructure and Transport. This group is currently examining shipping activity in the Great Barrier Reef.

5. Please refer to answers provided in questions 4a, b and c.

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Attachment A

3.3 Authority

The Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP) was established as a mandatory ship reporting system under the International Convention for the Safety of Life at Sea (SOLAS Regulation V/11). REEFREP was formally adopted by the IMO's Maritime Safety Committee in Resolution MSC.52(66), and later amended by Resolutions MSC.161(78) and MSC.315(88).

Australia's *Navigation Act 1912* gives the general power to make regulations to implement SOLAS (s191) and the related power to make Australian Marine Orders (s425(1AA)). The laws about mandatory ship reporting are based on these powers.

Marine Orders Part 56 (REEFREP) states that ships which are required to report to REEFVTS must do so whether they are voyaging overseas, between states or within one state.

REEFVTS manages and operates REEFREP.

4 REEFVTS Area

The REEFVTS Area is described in Marine Orders Part 56 (REEFREP) and as shown in Figure 1.

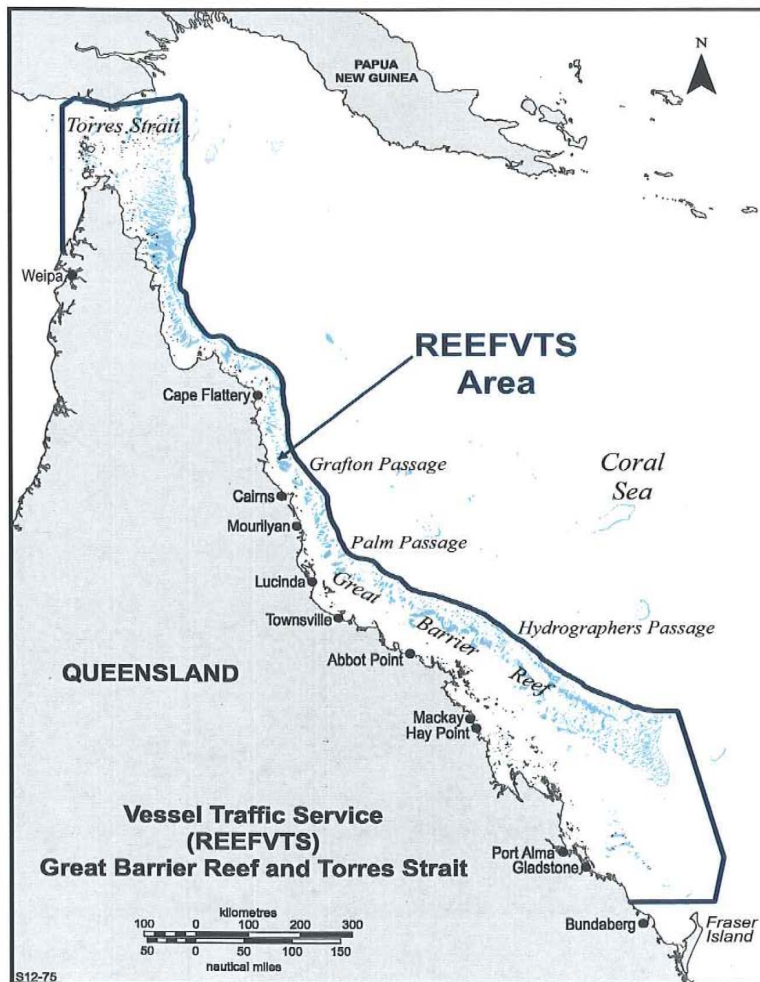


Figure 1: REEFVTS Area

More detailed information on the REEFVTS Area can be found in AUSCHART 4620, 4635 and 490.

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**Program: Division or Agency:** 1: GBRMPA **Question No:** 46

**Topic:** Crown-of-thorns starfish

**Proof Hansard Page and Date** Written  
**or Written Question:**

**Senator Waters asked:**

1. What resources are being dedicated to address the issue of crown-of-thorns starfish?
2. What advice can GBRMPA provide on why crown-of-thorns starfish are still a problem within the reef after 20 years?

**Answer:**

1. Since 2001, \$8.1 million has been provided by the Australian and Queensland governments to support crown-of-thorn starfish control programs.
2. Crown-of-thorns starfish occur naturally on the Great Barrier Reef and, at low densities, are 'normal' and an important part of the Great Barrier Reef's ecology.

Outbreaks of crown-of-thorns starfish have been a concern on the Great Barrier Reef for more than 50 years. Research has now shown that changes in water quality, together with a reduction in numbers of predators, are likely causes of crown-of-thorns starfish outbreaks. Increased concentrations of phytoplankton in the wet monsoon season (when crown-of-thorns starfish larvae develop) has led to rates of starfish larval development, growth and survival that are higher than normal levels. This and other lines of evidence suggest that frequent crown-of-thorns starfish outbreaks on the Great Barrier Reef are a result of increased nutrient delivery.

Control of crown-of-thorns starfish has focussed on locally controlling crown-of-thorns starfish numbers to sustainable levels at a small number of tourism sites. Given the economic value of the Reef tourism industry, localised control of crown-of-thorns starfish on high use tourism sites is achievable. It is managed through a permit and environmental assessment process.

Whilst crown-of-thorns starfish control programs can make a significant difference to coral cover and the value of individual sites in the short to medium term, in the longer term Australian Government initiatives to protect the health and resilience of the Great Barrier Reef are expected to help reduce the frequency and severity of crown-of-thorns starfish outbreaks.

In particular, the Great Barrier Reef Marine Park Zoning Plan and the Reef Water Quality Protection Plan are expected to contribute to lessening the severity of crown-of-thorns starfish outbreaks.

The Reef Water Quality Protection Plan, being implemented by the Australian and Queensland governments, is designed to accelerate the improvement of water quality flowing from agricultural land onto the Great Barrier Reef. Significant progress has been made in implementing Reef Water Quality Protection Plan actions. Improvements in water quality within the Great Barrier Reef are expected to reduce concentrations of phytoplankton in the wet season and subsequently decrease the potential for increased starfish larval development, growth and survival.