

## ENVIRONMENT AND COMMUNICATIONS LEGISLATIVE COMMITTEE

### *Environment Protection and Biodiversity Conservation Amendment (Great Barrier Reef) Bill 2013*

Public Hearing – Thursday, 23 February 2013

Department of Sustainability, Environment, Water, Population and Communities

#### Senate Questions

**Senator Cameron** asked the Australian Government Department of Sustainability, Environment, Water, Population and Communities on 23 May 2013:

1. Following a request to the Great Barrier Marine Park Authority (the Authority) for copies of any documentation that the Authority has sent to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) in relation to concerns about development in Gladstone, DSEWPaC committed to provide copies of documents released following requests for information under the *Freedom of Information Act 1982* (FOI Act) that relate to the Great Barrier Reef in the last year.

**Answer:** DSEWPaC's public disclosure log lists information that has been released in response to a request for access to information under the FOI Act received after 1 May 2011: <http://www.environment.gov.au/foi/disclosure-log.html>

There have been twenty relevant requests for information for which documents have been released in relation to the Great Barrier Reef in the last year, as per the table below.

DSEWPaC has agreed to work with the Committee Secretary to identify the most relevant documents from the below list.

| FOI reference | Release Date  | FOI Title                                 | Summary of information requested                                                                                                                                                                                                                                                                         | Summary of documents released               |
|---------------|---------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 051111        | 23 April 2012 | Great Barrier Reef World Heritage Listing | Demonstrating that the government/Minister was warned by UNESCO, GBRMPA, IUCN or the department of the possible threats, dangers, issues or possible developments affecting the continued world heritage listing of the Great Barrier Reef; and the Government's/ Minister's response to those warnings. | 6 documents released in full                |
| 150112        | 11 May 2012   | Great Barrier Reef World Heritage Area    | Documents relating to the commercial shipping traffic, construction of coal export terminals and LNG facilities in the Great Barrier Reef World Heritage Area.                                                                                                                                           | 15 Documents released in full and 2 in part |
| 060812        | 13 March 2013 | Sea Dumping Permits                       | Current sea dumping permits in areas adjacent to the Great Barrier Reef Marine Park or World Heritage Area.                                                                                                                                                                                              | 93 documents released in full               |
| 090213        | 02 April      | Fitzroy                                   | Communications between the                                                                                                                                                                                                                                                                               | 15 documents                                |

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|        |                  |                                                                                                                            |                                                                                                                                                                   |                              |
|--------|------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|        | 2013             | Terminal Project, Port Alma (EPBC 2011/6069)                                                                               | Great Barrier Reef Marine Park Authority and the department relating to the Fitzroy Terminal Project, Port Alma (EPBC 2011/6069) from June 2011 to November 2011. | released in full             |
| 160112 | 21 February 2012 | EPBC Matter 2008/4402: the BG International Ltd & OGC Ltd QLD Curtis LNG Project - LNG Plant and Onshore Facilities.       | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4402.     | 2 documents released in full |
| 170112 | 21 February 2012 | EPBC Matter 2008/4401: BG International Ltd & OGC Ltd QLD Curtis LNG Project - LNG Marine Facilities                       | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4401.     | 2 documents released in full |
| 180112 | 21 February 2012 | EPBC Matter 2008/4059: Santos Ltd Coal Seam Gas Field Development for Natural Gas Liquefaction Park, Curtis Island         | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4059.     | 2 documents released in full |
| 190112 | 21 February 2012 | EPBC Matter 2008/4058: Santos Ltd Development of Marine Facilities to Service Natural Gas Liquefaction Park, Curtis Island | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4058.     | 2 documents released in full |

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|--------|------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 200112 | 21 February 2012 | EPBC Matter 2008/4057: Santos Ltd Development of Natural Gas Liquefaction Park                                 | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4057.          | 2 documents released in full                |
| 210112 | 21 February 2012 | EPBC Matter 2008/4096: Santos Ltd Gas Pipeline & Alternative Pipeline to Supply Natural Gas Liquefaction Plant | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4096.          | 2 documents released in full                |
| 220112 | 21 February 2012 | EPBC Matter 2008/4399: BG International Ltd & OGC Ltd Queensland Curtis LNG Project - Pipeline Network         | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 2008/4399.          | 2 documents released in full                |
| 230112 | 21 February 2012 | EPBC Matter 2008/4405: BG International Ltd & OGC Ltd Shipping Activity Assoc with QLD Curtis LNG Project      | Documents relating to decisions made under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) for the EPBC matter 4405.               | 2 documents released in full                |
| 040312 | 09 July 2012     | Abbott Point Coal Terminal                                                                                     | Documents held by the Department relating to the industry lead cumulative environmental impact assessment of the proposed expansion of the Abbott Point Coal Terminal. | 4 documents released in full and 18 in part |
| 070512 | 24 July 2012     | Emergency Heritage Listing for part of Cape York Peninsula                                                     | Briefing to Minister Burke from the Department regarding the Wilderness Society's request for Emergency Heritage Listing for part of Cape York Peninsula               | 1 document released in full                 |

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|--------|------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 020912 | 16 November 2012 | Alpha Coal Mine                                                   | Documents relating to the EPBC referral matter 2008/4648                                                                                                 | 6 documents released in full  |
| 050912 | 23 November 2012 | Alpha Coal and Rail Project                                       | Documents regarding the approval of the Alpha Coal and Rail Project.                                                                                     | 26 documents released in full |
| 021112 | 08 January 2013  | Abbott Point Coal Terminal 3                                      | Documents relating to EPBC referral matter 2008/4468 (Abbott Point Coal Terminal 2).                                                                     | 8 documents released in full  |
| 051012 | 12 December 2012 | Approval of the Terminal 3 Project under the EPBC Act (2008/4468) | Documents prepared after July 2012, by the department, to inform and guide the Minister's decision.                                                      | 9 documents released in full  |
| 010113 | 05 April 2013    | Alpha Coal Mine                                                   | Any internal assessments of the water impacts of the Alpha Coal Mine or associated railway line made by, or for, the Interim Expert Scientific Committee | One document released in full |
| 100413 | 14 May 2013      | Shale oil Operations                                              | Copy of briefings to Minister Burke from the department in 2013 regarding planned shale oil operations in Queensland and world heritage values.          | 2 documents released in full  |

2. DSEWPac's figures on turtle deaths in Gladstone harbour in the last year.

**Answer:** DSEWPac's figures are sourced from the Queensland Government's Department of Environment and Heritage Protection website:

<http://www.ehp.qld.gov.au/wildlife/caring-for-wildlife/stranding-hotspots.html>

**Senator Moore** asked the Australian Government Department of Sustainability, Environment, Water, Population and Communities on 23 May 2013:

3. Processes used by the Independent Review of the Port of Gladstone relating to a right to reply to negative comments.

**Answer:**

The Independent Review of the Port of Gladstone is governed by the Terms of Reference agreed by the minister and the chair of the review. Governance matters not clarified in the terms of reference are resolved through agreement of the panel members, in accordance with departmental standards and procedures. For example, the online publication of submissions received was the decision of the panel, in the interests of transparency.

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The review has received in excess of about 65 pieces of supplementary information outside of the formal submission process, including scientific papers, personal evidence and responses to information provided in formal submissions. The panel has agreed to consider this information and document it in their report of findings but not publish it online. The time frame for delivering the report on findings is not conducive with a senate committee adverse comment process. Parliamentary privilege does not apply to information provided to the review.

Dr Matt Landos requested the panel consider a detailed response to the reviews of his report provided as part of the submission by the Gladstone Ports Corporation (GPC) and agree to publish it online. **Attachment A1** is a copy of the email exchange between Dr Landos and the Gladstone Review Secretariat. The panel expressed their keen interest in receiving any response and further information for their consideration. Dr Landos has provided a large number of emails and papers to the review. A written response was received from Dr Landos to the reviews by Drs Batley and Nowak on Saturday 1 June 2013 **Attachment A1a**.

**Senator Waters** asked the Australian Government Department of Sustainability, Environment, Water, Population and Communities on 23 May 2013:

4. Following a request to the Great Barrier Marine Park Authority (the Authority) to provide information on the criteria used and assurances required from proponents before the Authority issues a permit for disposal of dredging spoil within the Great Barrier Reef Marine Park, DSEWPaC committed to provide information on the criteria used by the department before granting a sea dumping permit under the *Environment Protection (Sea Dumping) Act 1981* (the Sea Dumping Act).

**Answer:** The National Assessment Guidelines for Dredging (2009) outline the assessment framework for determining whether dredge spoil is suitable for disposal at sea. That includes the sampling and analysis of sediments to assess potential toxicity and bioavailability. Alternatives to ocean disposal are also considered to determine whether appropriate opportunities exist to re-use, recycle or treat material without undue risks to human health or the environment or disproportionate costs.

The National Assessment Guidelines for Dredging (2009) are available at the DSEWPaC website here:

<http://www.environment.gov.au/coasts/pollution/dumping/publications/guidelines.html>

### **Additional information for Environment and Communications Legislation Committee**

1. DSEWPaC is funding a number of research projects which will inform the comprehensive strategic assessment and provide tools and guidance on how to best manage key threats to the Great Barrier Reef World Heritage Area, including dredging, shipping, coastal development and improving resilience to threats such as climate change. A list of projects is at **Attachment A2**.
2. The Minister for Sustainability, Environment, Water, Population and Communities has released a set of Interim Guidelines on the outstanding universal value of the Great Barrier Reef World Heritage Area for Proponents of Actions, at **Attachment A3**.

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**Attachments**

**A1** – Email exchange between Dr Matt Landos and Gladstone Review Secretariat

**A1a** – Response to Dr Batley and Dr Nowak by Dr Landos

**A2** – Summary of Commonwealth funded Great Barrier Reef research projects to complement the Great Barrier Reef comprehensive strategic assessment

**A3** – Interim Guidelines on the outstanding universal value of the Great Barrier Reef World Heritage Area for Proponents of Actions

Email exchange between Dr Matt Landos and Gladstone Review Secretariat

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Dear Matt

The Independent Review of the Port of Gladstone is not a legislatively-based inquiry. Process issues, not specified in the Terms of Reference, are resolved by the panel. The submissions are only one input for the Panel and there are many discrepancies and variances between the submissions on many issues. It is not part of the panel's job to reconcile all of these publicly but rather to take all information provided into account in their deliberations. They have agreed to extend the timeframe to allow you to provide additional information to counter any discrepancies you see in other submissions for their consideration, but posting such supplementary information online is outside their purview and not conducive with the process and timing outlined in the terms of reference.

Regards  
Celeste

**From:** Matt Landos [mailto:matty.landos@gmail.com]  
**Sent:** Wednesday, 8 May 2013 10:23 AM  
**To:** Powell, Celeste  
**Cc:** Gladstone Review  
**Subject:** RE: Graeme Batley CSIRO review of FFVS report on Gladstone- right of reply [SEC=UNCLASSIFIED]

Dear Celeste,

I do not find this an adequate response at all.  
There is an adverse comment process used in senate committees which could be used here.  
Please explain why this is not taking place.

Regards  
Matt

Dr Matt Landos BVSc(Hons)MACVS  
Director, Future Fisheries Veterinary Service Pty Ltd  
Honorary lecturer, associate researcher, University of Sydney  
PO Box 7142, East Ballina NSW 2478  
Ph +61(0)437 492 863  
Fax +61 (0)2 6103 9025  
Skype: matt.landos

**From:** Powell, Celeste [mailto:Celeste.Powell@environment.gov.au]  
**Sent:** Wednesday, 8 May 2013 10:03 AM  
**To:** 'Matt Landos'  
**Cc:** Gladstone Review  
**Subject:** RE: Graeme Batley CSIRO review of FFVS report on Gladstone- right of reply [SEC=UNCLASSIFIED]

Dear Matt

Thank you for providing this extra information, and for all of the other emails that you sent through late last week. Apologies for the delayed response. I was travelling until late on Friday.

The panel have considered your request below and have asked me to reply on their behalf.

Public submissions were prepared for the consideration of the review panel and have been published on the website in the interests of transparency. The panel have decided that, given the varied supplementary information received outside of the formal submission period of the review, these will be considered by the panel and logged in their final report but will not be published on the website. To open up the submission process for any single individual would be confusing and to create a new additional site is not warranted. Therefore, the publishing of a new submission from you in response to Graeme Batley's review on the existing website right next to the GPC submission as you have requested was not agreed.

They remain interested in understanding which aspects of the report you believe were misinterpreted or misrepresented, and are very willing to receive that information for consideration, noting their interest relates to their terms of reference. For example, the information you outlined below will be very useful for them in examining sediment and water quality sampling, analysis and reporting. The panel are looking very closely at the sediment sampling and analysis regimes in Gladstone as part of the review.

Regards

Celeste Powell

Director

Gladstone Review Secretariat

*Department of Sustainability, Environment, Water, Population and Communities*

Ph: 02 6274 2148

Mob: 0458 496 648

celeste.powell@environment.gov.au

**From:** Matt Landos [mailto:matty.landos@gmail.com]

**Sent:** Thursday, 2 May 2013 12:35 PM

**To:** Gladstone Review; Powell, Celeste; 'Michael Garrahy'; suearnold@linknet.com.au; 'Nordang, Caroline (Sen L. Waters)'

**Cc:** graeme.batley@csiro.au; nigel.preston@csiro.au; Jeff.Cowley@csiro.au; Barbara Nowak; 'Richard Whittington'; mark.crane@csiro.au; 'Brian Jones'; 'Patrick Hone'; 'Peter Horvat'; m.campbell@cqu.edu.au; 'Rowland Hill'

**Subject:** Graeme Batley CSIRO review of FFVS report on Gladstone- right of reply

Hi Celeste,

Please reply in writing as soon as possible regarding having my response to Graeme Batley's review of my report published on the website in submissions right next to the GPC submission. Many of the claims made in the document are false, or misleading if taken on face value. Please ensure this email is circulated to members of the inquiry. Submission 24 from Gladstone Ports Corporation:  
<http://www.environment.gov.au/coasts/gbr/gladstone/submission.html>

I take you to just one comment which is used repeatedly in the report, to demonstrate the lack of precision in the Batley report.



The sediments dumped from Gladstone Harbour could certainly not be considered as metal rich, based on the analytical data available (Angel et al., 2012; DEHP, 2012a). There are valid concerns

Now go to [http://www.westernbasinportdevelopment.com.au/eis\\_documentation](http://www.westernbasinportdevelopment.com.au/eis_documentation)  
Appendix L.

The sediment studies show that areas of the western basin, those that were part of the dredging and dumping program were contaminated at levels that substantially exceeded the guidelines. They were only brought under the guideline by dodgy averaging with sediments from the wider areas of the shipping channel. True hotspots were abundant in the western basin and that material was dumped at sea.

P31 of this report shows manganese sediment concentrations 10 times over the guideline. And 127/396 were over guideline. It also shows arsenic in 20 samples over guideline. For many of the metals there is no NAGD guideline value eg vanadium, manganese, iron, aluminium. P 64 gives the full summary of exceedances. And demonstrates how the use of averaging high results with lower results was done to bring levels under the guideline for manganese. When metal/metalloid rich areas were dredged, they did not automatically get their concentrations reduced by the areas with less metals which had yet to be dredged.

And more reports say similar,....

[http://www.ozcoasts.gov.au/pdf/CRC/25-PCcontaminants\\_summary.pdf](http://www.ozcoasts.gov.au/pdf/CRC/25-PCcontaminants_summary.pdf)

"However, arsenic, chromium and nickel concentrations were consistently above the ANZECC low interim sediment quality guidelines at many sites"

The Batley report claims that I undertook no weight of evidence assessment.

I find it striking, according to the Batley review that the use of terms likely and unlikely do not qualify as a weight of evidence assessment terminology in his view. If unclear for readers, just change the word "likely" to one +, "highly likely" to ++, and "unlikely" to -. Its always good to have peer review, but more appropriate when it comes from peers who are suitably qualified- in this case an aquatic veterinarian would be more appropriate, and one without a conflict of interest in competing with my commercial business. My work is not a risk assessment- it is a veterinary investigation of the causes of morbidity and mortality. Two very different things.

Given the Gladstone Review have publically published a document that directly goes to my credibility as a scientist and to the viability of my business, I request a right of reply. And similarly to any such documents which directly critique my work.

Regards

Matt

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# **Published as Submission 45**



## **Response to Gladstone Ports Corporation scientist submissions**

**<http://www.environment.gov.au/coasts/gbr/gladstone/submissions/pubs/24gpc.pdf>**

**reviewing the Future Fisheries Veterinary Service report:**

**“Investigation of the Causes of Aquatic Animal Health Problems in the Gladstone Harbour and Nearshore Waters”**

**Report for the Senate Committee considering the GBR Bill, 30 May 2013.**

**Dr Matt Landos**

**BVSc(HonsI)MANZCVS(Aquatic Animal Health Chapter)**

**Director, Future Fisheries Veterinary Service**

No payment was received from any source for the production of this report.



## Overview of Commonwealth (DSEWPaC) funded Great Barrier Reef research projects

|   | Project title                                                                                                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Supplier and Timeframe                                                                                                        |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1 | <i>Ports and Shipping Project A:</i><br>Improved Dredge Material Management for the Great Barrier Reef Region                                               | <p>The purpose of this study is to support a strategic, long-term approach for improved management of dredge material in the GBR Region. The study provides tools for decision making regarding dredge material placement adjacent to five major ports (Cairns, Townsville, Abbott Point, Hay Point and Gladstone) and Rosslyn Bay State Boat Harbour. This study is the first to incorporate the influence of large-scale currents, under the influence of the south-east trade winds, on dredged material transport. The following aspects will be delivered:</p> <ul style="list-style-type: none"> <li>• modelling the bed-shear stress within 50 km of the five ports and Rosslyn Bay State Boat Harbour to assess potential alternative dredge material placement sites</li> <li>• modelling the long term migration patterns of disposed dredge sediment at the current placement sites and potential placement sites. The model includes large scale oceanic currents and the long term migration is modelled 12 months from the commencement of a dredge project.</li> <li>• sensitive receptor risk assessment, based on the long term modelling, to characterise the relative ecological implications, risks and uncertainties associated with the current and potential placement sites</li> <li>• a cost-benefit analysis of land-based re-use options for dredge material</li> <li>• a water quality review and monitoring framework; and</li> <li>• strategies for improved dredge management which will inform the strategic assessment.</li> </ul> | <p>Sinclair Knight Merz<br/>(<i>managed by the Great Barrier Reef Marine Park Authority</i>)</p> <p>June 2012 – June 2013</p> |
| 2 | <i>Ports and Shipping Project B:</i><br>Identification of impacts and proposed management strategies associated with offshore ship anchorages in the GBRWHA | <p>This project identifies the current environmental impacts of existing offshore anchoring for the five major Great Barrier Reef ports and the likely future impacts associated with increased shipping. An environmental and socio-economic cost benefit analysis has been undertaken to identify suitable management tools to avoid, mitigate or adaptively manage the impacts associated with anchorages. This will inform the development of an environmental management strategy for offshore ship anchorages for each of the five major ports.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>GHD<br/>(<i>managed by the Great Barrier Reef Marine Park Authority</i>)</p> <p>June 2012 – June 2013</p>                  |

|   | Project title                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Supplier and Timeframe                                                                                                                                                                              |
|---|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Economic Contribution of the Great Barrier Reef                        | This research builds upon an earlier study published by Deloitte Access Economics on the economic contribution of the Great Barrier Reef in 2006-07. It estimates the economic contribution that four Reef-based economic activities make to the Australian economy –i.e. tourism, recreation, commercial fishing and scientific research. The project includes the contributions of the four activities in the Great Barrier Reef World Heritage Area and catchment. It also provides a regional economic analysis based on seven Natural Resource Management areas: Torres Strait, Cape York, Wet Tropics, Burdekin, Mackay-Whitsundays, Fitzroy, and Burnett-Mary.                                                                                                                                                                                                  | Deloitte Access Economics<br>( <i>managed by the Great Barrier Reef Marine Park Authority</i> )<br>June 2012 – February 2013                                                                        |
| 4 | Great Barrier Reef resilience decision framework                       | A multi-disciplinary project to develop a decision support framework to inform decision making in the Great Barrier Reef World Heritage Area. The framework uses qualitative modelling as the basis for analysing the cumulative impacts of different stressors on the resilience of coral reefs and seagrass ecosystems in the inshore Great Barrier Reef World Heritage Area. This will be used as a tool for the strategic assessment and for future decision-making to guide actions that maintain or enhance the resilience of the inshore Great Barrier Reef in the face of impacts such as climate change.                                                                                                                                                                                                                                                      | Great Barrier Reef Marine Park Authority ( <i>working with the Australian Institute of Marine Science and the CSIRO under a sub-contracting arrangement</i> )<br>June 2012 – June 2013              |
| 5 | Great Barrier Reef Coastal Ecosystems Assessment Framework             | This project is examining the ecosystem services provided by coastal ecosystems in seven basins in the Queensland coastal zone. It involves an assessment of the impacts that changes to these coastal ecosystems have on the inshore Great Barrier Reef ecosystem to inform an understanding of both present and future development pressures and areas important for protection or restoration. It also identifies and maps potential offset areas in the basins.                                                                                                                                                                                                                                                                                                                                                                                                    | Great Barrier Reef Marine Park Authority<br>June 2012 – June 2013                                                                                                                                   |
| 6 | Great Barrier Reef World Heritage Area integrated monitoring framework | A collaborative project across the Marine Biodiversity, Tropical Ecosystems and Environmental Decisions NERP hubs and the Great Barrier Reef Marine Park Authority to develop a systematic and standardised framework for integrating ecological, social and economic monitoring to inform the implementation of the strategic assessment and adaptive management of environmental assets. The project focuses on the Great Barrier Reef World Heritage Area, with the aim to develop a framework that can be adapted and applied to other coastal and marine regions that undergo strategic assessments. Specifically, the framework will provide clear guidance on how to develop and implement cost effective, integrated monitoring programs to provide the information needed for ongoing adaptive management of matters of national environmental significance . | NERP Marine Biodiversity Hub ( <i>in collaboration with the Tropical Ecosystems Hub, Environmental Decisions Hub, Great Barrier Reef Marine Park Authority, and AIMS</i> )<br>June 2012 – June 2013 |

|    | Project title                                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Supplier and Timeframe                                |
|----|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 7  | Defining the aesthetic values of the Great Barrier Reef World Heritage Area                                           | The aesthetic values (criterion vii) of the Great Barrier Reef World Heritage Area are not well defined. This project involved the development and application of a methodology for identifying and mapping the aesthetic values of the Great Barrier Reef World Heritage Area. It also included a sensitivity and case-study analysis to examine the sensitivity of the identified aesthetic values to certain actions and impacts. The methodology developed for this project may be applicable to other natural World Heritage properties. | Context Pty Ltd<br>June 2012 – February 2013          |
| 8  | Geological and geomorphological features of Outstanding Universal value in the Great Barrier Reef World Heritage Area | The geological and geomorphological features of Outstanding Universal Value in the Great Barrier Reef World Heritage Area (criterion viii) are not well defined. This project involved the identification and where possible mapping of these values. It also included a brief analysis of the sensitivity of the values to certain actions and impacts.                                                                                                                                                                                      | Geoscience Australia<br>December 2012 – February 2013 |
| 9  | International best practice environmental standards for ports                                                         | The project involves a literature review and analysis of case studies of international ports to determine best practice approaches used internationally for port planning/site selection, design and construction, operation, and monitoring and continuous improvement. It also involves consultation with Australian port authorities to determine the applicability of the approaches identified to the Australian context.                                                                                                                | GHD<br>February 2013 – May 2013                       |
| 10 | Survey of historical information on the Great Barrier Reef 1901-1981                                                  | This project involved a review of archival materials to identify sources of information which will help understand the baseline condition of the Great Barrier Reef and coastline from 1901 to the time of world heritage listing in 1981. The project also developed a timeline articulating the establishment and expansion of towns and major settlements along the coast and the development of key industries.                                                                                                                           | Nissen Associates Pty Ltd<br>June 2012 – October 2012 |

|    | Project title                                                                      | Description                                                                                                                                                                                                                                                                                                                                                                                                  | Supplier and Timeframe                                                     |
|----|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 11 | Recovery Plan - Littoral Rainforest and Coastal Vine Thickets of Eastern Australia | This is a background technical report to inform the development of a recovery plan for the critically endangered Littoral Rainforest and Coastal Vine Thickets of Eastern Australia ecological community that occurs along the east coast. The report identifies the distribution and extent of the community, key threats, current conservation actions and potential priority actions for future recovery. | Biodiversity Assessment and Management Pty Ltd<br>March 2012 – August 2012 |



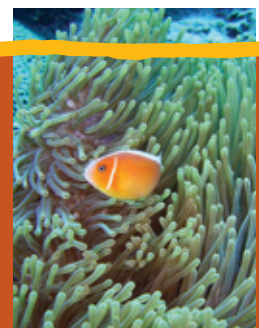


# INTERIM GUIDELINES ON THE OUTSTANDING UNIVERSAL VALUE OF THE GREAT BARRIER REEF WORLD HERITAGE AREA— FOR PROPONENTS OF ACTIONS

In 1981 the Great Barrier Reef World Heritage Area was added to the World Heritage List for its **outstanding universal value**. The Great Barrier Reef World Heritage Area is listed as a matter of national environmental significance through our national environmental law, the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). The Great Barrier Reef World Heritage Area covers an area of 348 000 square kilometres and is one of Australia's most significant environmental assets.

If your proposed action is likely to have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area, you must refer the action to the federal environment minister through the Australian Government Department of Sustainability, Environment, Water, Population and Communities (the department), regardless of whether these actions have also been referred or approved under state or local government environment laws.

Referred projects will be expected to meet a high standard of assessment and include consideration of direct, indirect, consequential and cumulative impacts on outstanding universal value where relevant. This is to help Australia meet its international obligations to protect, conserve, present and transmit to future generations the outstanding universal value of the Great Barrier Reef World Heritage Area.



## What is outstanding universal value?

Outstanding universal value (often shortened to OUV) is the key reference point for the protection and management of world heritage properties and is the central idea of the World Heritage Convention. Broadly, the meaning of outstanding universal value follows the common sense interpretation of the words:

- **Outstanding:** For properties to be of outstanding universal value they should be exceptional, or superlative – they should be the most remarkable places on Earth.
- **Universal:** Properties need to be outstanding from a global perspective. World Heritage does not aim to recognise properties that are remarkable from solely a national or regional perspective. Countries are encouraged to develop other approaches to recognise these places. Australia does this through National Heritage listing.
- **Value:** What makes a property outstanding and universal is its “value”, or the natural and/or cultural worth of a property. This is based on standards and processes established under the World Heritage Convention's Operational Guidelines (see [whc.unesco.org/en/guidelines](http://whc.unesco.org/en/guidelines)).

## What is the outstanding universal value of the Great Barrier Reef World Heritage Area?

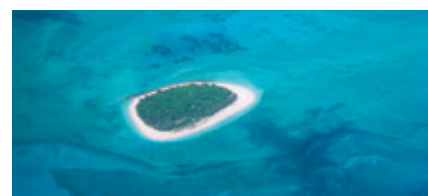
To be considered of outstanding universal value, a property needs to meet one or more of ten criteria, meet the conditions for integrity and, for cultural properties, authenticity, and have adequate protection and management arrangements in place. The criteria for outstanding universal value have evolved over time however the underlying concepts have remained stable. The Great Barrier Reef World

Heritage Area was inscribed on the World Heritage List in 1981 for all four of the natural heritage criteria specified in UNESCO's *Operational Guidelines for the Implementation of the World Heritage Convention* ([Operational Guidelines](http://whc.unesco.org/en/guidelines)).

The *natural* heritage criteria for world heritage properties are:

- **Criterion (vii):** Contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
- **Criterion (viii):** Be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.
- **Criterion (ix):** Be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.
- **Criterion (x):** Contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

The key reference point for the outstanding universal value of the Great Barrier Reef World Heritage Area is the Statement of Outstanding Universal Value for the property which can be found on the department's website at [www.environment.gov.au/heritage/places/world/great-barrier-reef/values.html](http://www.environment.gov.au/heritage/places/world/great-barrier-reef/values.html).



## Conditions of integrity and authenticity

In addition to meeting one of the ten criteria to be considered of outstanding universal value, a World Heritage property also needs to meet conditions of integrity and for cultural properties, authenticity. The Great Barrier Reef is not listed as a cultural property and so does not need to meet the requirement for authenticity.

Integrity relates to the 'wholeness and intactness' of the property as at the time of inscription and how it conveys the values it holds. Integrity can also relate to the size of the property (is it of sufficient size to continue to represent the values?) and to any threats affecting the property (is it likely that the values will be significantly degraded?).

The Great Barrier Reef World Heritage Area meets the condition of integrity, meaning that its natural attributes are considered to be whole and intact. That is, the property includes all elements necessary to express its outstanding universal value, is of adequate size to ensure the complete representation of the features and processes which convey the property's significance and is protected from threats.

## Management of outstanding universal value

All properties inscribed on the World Heritage List must have adequate protection and management arrangements in place. How a country chooses to protect and manage its properties can vary, so long as it does so effectively.

An important way in which Australia meets its international obligations to protect the outstanding universal value of the Great Barrier Reef World Heritage Area is by protecting the property's world heritage values under the EPBC Act. The world heritage values of the Great Barrier Reef

World Heritage Area are the same as the property's outstanding universal value and are encompassed within the property's Statement of Outstanding Universal Value, as noted above. The property is also protected under the *Great Barrier Reef Marine Park Act 1975* and the *Great Barrier Reef Intergovernmental Agreement*.

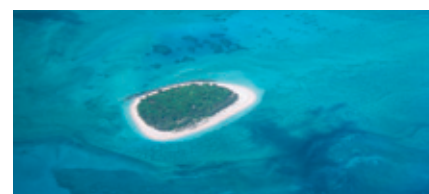
For further information on the Australian Government's management of the outstanding universal value of the Great Barrier Reef visit [www.environment.gov.au/heritage/publications/gbr/gbr-managing.html](http://www.environment.gov.au/heritage/publications/gbr/gbr-managing.html).

For more information on outstanding universal value and on the outstanding universal value of the Great Barrier Reef World Heritage Area, visit [www.environment.gov.au/heritage/places/world/great-barrier-reef/pubs/outstanding-values-factsheet.pdf](http://www.environment.gov.au/heritage/places/world/great-barrier-reef/pubs/outstanding-values-factsheet.pdf).

Also see [whc.unesco.org/en/guidelines](http://whc.unesco.org/en/guidelines) for further information on outstanding universal value and requirements for integrity and/or authenticity and management arrangements.

## How do I decide if my action is likely to have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area?

The Australian Government is developing guidelines to assist any person proposing to undertake a new development, activity or action that may impact on the outstanding universal value of the Great Barrier Reef World Heritage Area to decide whether the action will require approval under national environment law. The guidelines may be in the form of an EPBC Act policy statement.





In the interim, if you think that your action is likely to have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area, you may wish to seek expert advice. You should also seek out further information via the websites provided above, read the frequently asked questions and the case study below and consider your proposed action in that context. If you are unsure, you should seek guidance from the Business Entry Point Section of the department at [epbc.referrals@environment.gov.au](mailto:epbc.referrals@environment.gov.au) or phone 1800 803 772.

## Frequently Asked Questions

### What is a significant impact?

A significant impact is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impact.

The department's significant impact guidelines defines a significant impact on outstanding universal value – as expressed through a property's world heritage values - as the real chance or possibility that one or more of the world heritage values will be lost, degraded, damaged or notably altered, modified, obscured or diminished. You should consider these factors when determining whether an action is likely to have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area. To read the department's significant impact guidelines visit: [www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf](http://www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf)

It is important to note that actions that occur outside of the world heritage area may also have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area depending on the scale, intensity and location of the action. The department's Protected Matters Search Tool is the most accurate representation of the boundary of the GBRWHA to date which is available on the department's website at: [www.environment.gov.au/epbc/pmst/index.html](http://www.environment.gov.au/epbc/pmst/index.html).

### What types of actions could have a significant impact on the outstanding universal value of the Great Barrier Reef World Heritage Area?

Types of proposed developments within the Great Barrier Reef World Heritage Area or its adjoining catchments that may require referral to the federal environmental minister include, but are not limited to:

- agricultural developments that involve a substantive change (for example, intensification of activities or change in land use that culminate in a change in water quality)
- aquaculture developments
- defence activities
- industrial developments (for example, liquefied natural gas and minerals processing facilities/infrastructure)
- major dams or changes to the natural water regime
- mining and extractive industries
- port facilities and dredging
- residential and tourism developments
- sewage and water infrastructure
- shipping
- transport infrastructure (for example, railways).



## How do I refer?

For more information on how to make a referral under the EPBC Act please contact the [Business Entry Point](mailto:epbc.referrals@environment.gov.au) at [epbc.referrals@environment.gov.au](mailto:epbc.referrals@environment.gov.au) [www.environment.gov.au/epbc/assessments/referral-form.html](http://www.environment.gov.au/epbc/assessments/referral-form.html) or phone **1800 803 772**.

## What do I need to consider throughout the referral and assessment process?

When referring a proposed action under the EPBC Act you must consider impacts to outstanding universal value of the Great Barrier Reef World Heritage Area. Attributes of the outstanding universal value of the Great Barrier Reef World Heritage Area that may be impacted as a result of actions include, but are not limited to:

- views from the air, ground and underwater
- species diversity and abundance, including microfauna
- endemic species
- iconic species and other species that are important to ecosystem processes such as dugong, dolphins, turtles, whales, corals, seagrasses and seabirds
- seabird and turtle breeding colonies
- habitat diversity including seagrass, mangroves and coral reef components
- unique landforms and seabed structures
- water quality
- ongoing links between Aboriginal and Torres Strait Islanders and their sea-country.

Although the Great Barrier Reef World Heritage Area is not inscribed on the World Heritage List under cultural criteria, the Statement of Outstanding Universal Value for the property under criterion ix acknowledges the 'strong ongoing links between Aboriginal and Torres Strait Islanders and their sea-country'. Consideration of impacts on this aspect of the Statement of Outstanding Universal Value should be guided by the principle that: Indigenous

people are the primary source of information on the value of their heritage and the active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values. [\*Ask First: A guide to respecting Indigenous heritage places and values\*](#) provides a practical guide on effectively engaging Indigenous people in this kind of process.

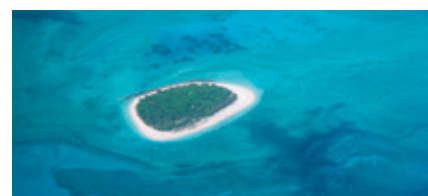
## What else do I need to consider?

Proponents must consider impacts on other matters of national environmental significance and comply with relevant Queensland state government legislation and the Commonwealth *Great Barrier Reef Marine Park Act 1975*. For more information visit:

- [www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf](http://www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf)
- [www.gbrmpa.gov.au/about-us/legislation-regulations-and-policies](http://www.gbrmpa.gov.au/about-us/legislation-regulations-and-policies).

Proponents should also be aware that the Australian and Queensland governments are undertaking a comprehensive strategic assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone. The broad objective of the comprehensive strategic assessment is to ensure that state and federal planning systems enable sustainable development while protecting the Great Barrier Reef World Heritage Area for future generations. This includes consideration of direct, indirect, consequential and cumulative impacts of development on the property's outstanding universal value. Project by project referrals that occur during this period will be considered by the department in a manner consistent with this objective.

For more information on the comprehensive strategic assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone visit [www.environment.gov.au/epbc/notices/assessments/great-barrier-reef.html](http://www.environment.gov.au/epbc/notices/assessments/great-barrier-reef.html).



## Case study—How would this actually work?

*This hypothetical case study explores what the Australian Government Department of Sustainability, Environment, Water, Population and Communities (the department) might give regard to when considering a referral for a development that is likely to have an impact on the outstanding universal value of the Great Barrier Reef World Heritage Area.*

**The department has received a referral for a development which is likely to impact on the outstanding universal value of the Great Barrier Reef World Heritage Area.**

During the assessment of this project, the department would consider potential impacts on attributes of the outstanding universal value of the Great Barrier Reef World Heritage Area under the four criteria as outlined in the Statement of Outstanding Universal Value. The department would also consider impacts on the integrity of the property and relevant management arrangements. The following provides examples only of attributes of the outstanding universal value of the property that may be considered and is not intended to be a complete list.

*Criterion (vii) Contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance*

Consideration may be given to impacts on visual aesthetics, naturalness and water quality. Ecological communities and species listed under this criterion, for example migrating whales, dolphins, dugongs, whale sharks, sea turtles, seabirds and concentrations of large fish may also

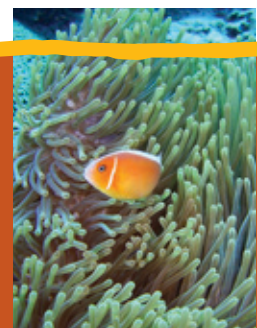
be considered. The department may consider the nature of the site (any existing developments or changes to natural state), the size and type of the development, the surrounding region and relevant measures proposed to mitigate impacts on visual amenity such as height restrictions and restrictions on buildings on ridgelines.

*Criterion (viii) Be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features*

Impacts on attributes under this criterion may be considered, including the uniqueness of the site in terms of its location within the Great Barrier Reef World Heritage Area. The department may also consider impacts on coral reefs, sand barriers and sand dunes, impacts on ongoing processes of erosion and accretion of coral reefs, and erosion and deposition processes along the coastline.

*Criterion (ix) Be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals*

Impacts on the diversity of flora and fauna and on feeding and/or breeding grounds for internationally important migratory seabirds, cetaceans and sea turtles may be considered. The department may also consider matters such as breeding, spawning and nursery habitats for resident species of the





Great Barrier Reef World Heritage Area. Flora and fauna would not necessarily be considered for their conservation status under this criterion, but for the ecosystem services they provide that support the biological health and long term viability of the outstanding universal value of the Great Barrier Reef World Heritage Area. Consideration may also be given to how the values of the proposed site contribute to the outstanding universal value of the property overall.

*Criterion (x) Contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation*

Impacts on biological diversity would be considered, including for example, impacts on species diversity, abundance and endemic species and on habitat diversity such as seagrass, mangroves and coral diversity. Impacts on EPBC listed ecological communities and species of conservation significance and their habitat (for example, dugongs and seagrass beds) would be considered both as matters of national environmental significance and as components of the outstanding universal value of the Great Barrier Reef World Heritage Area. Impacts on non-EPBC listed communities that contribute to this criterion, for example coral habitat, would also be taken into account with reference to the extent of similar habitat elsewhere within the world heritage area, the amount of habitat to be impacted and the amount of fragmentation due to habitat loss and development.

*Integrity (meaning that the outstanding universal value of the property is intact and protected from threats)*

Direct, indirect, consequential and cumulative impacts to the outstanding universal value of the Great Barrier Reef World Heritage Area as a result of the proposed action would be considered.

Direct impacts may include for example direct clearing of vegetation and habitat, construction of buildings and impacts to water quality through runoff.

Indirect and/or consequential impacts may include, but are not limited to, the risk of weed invasion, pollution, noise, increased boat strike on marine fauna and increased impacts from recreational activities, such as fishing. The department may also consider road upgrades and supporting water and power infrastructure and the possibility that urban development and population growth may be encouraged in the surrounding region as a result of the proposed development. Consideration may also be given to changes to the shoreline as a result of land reclamation.

Cumulative impacts which may be considered include coastal development (including habitat loss and degradation, and underwater noise) and changing landscape character, catchment runoff (creating greater accumulation of toxins and bacteria), climate change impacts such as extreme weather events and the combined effects of the proposed development in light of these.



## Where can I get more information?

For more information please visit the websites at the addresses provided throughout this guidance note. For up-to-date information on outstanding universal value and the Great Barrier Reef World Heritage Area also visit the department's website at [www.environment.gov.au/epbc/about/index.html](http://www.environment.gov.au/epbc/about/index.html).





**Environment and Communications Legislation Committee**  
Answers to questions on notice  
**Sustainability, Environment, Water, Population and Communities portfolio**  
Inquiry into the Environment Protection and Biodiversity Conservation Amendment  
(Great Barrier Reef) Bill 2013  
23 May 2013

|                                     |                                                             |                     |
|-------------------------------------|-------------------------------------------------------------|---------------------|
| <b>Program: Division or Agency:</b> | GBRMPA                                                      | <b>Question No:</b> |
| <b>Topic:</b>                       | Marine strandings data and information regarding 'hotspots' |                     |
| <b>Proof Hansard Page and Date</b>  | pp.53-54, 23 May 2013                                       |                     |
| <b>or Written Question:</b>         |                                                             |                     |

**Senator Cameron asked:**

**CHAIR:** Have you done an analysis of the various turtle deaths?

**Dr Reichelt:** We keep track, through the strandings database, of all turtle deaths.

**CHAIR:** That is not a *Yes, Minister* bunch of information? Is that a reasonably concise document that we could look at?

**Dr Reichelt:** Absolutely. It includes public reports and surveys by marine park people. It is done every month and by year. Records show very clearly a massive increase in dugong and turtle deaths from around 2010-11 and 2011-12—the years of the very big floods. I understand the rate of dugong deaths, appearance of onshore strandings, has now decreased to the long-term average, but turtles deaths are still elevated. They seem to take a longer time to recover, sadly.

**CHAIR:** Maybe you could table that detail for us to look at.

**Answer:**

**Marine wildlife strandings**

As a result of the above average rainfall in 2011 and 2012 and physical impacts from cyclone Yasi, dugong and green turtles in some inshore areas are struggling to find food and as a result may be in poor body condition. This is because seagrasses—their major food source—have become stressed and declined in abundance from repeated exposure to periods of murky water and low salinity following flooding in the coastal catchments.

The reduction of seagrasses (over 80 per cent decline in some locations) has contributed to green turtles becoming sluggish and having reduced breath-holding capacity, which means turtles are spending more time at the surface and travelling increased distances in search of food, increasing the likelihood of boat strike.

Marine animals in poor health are also less able to fight diseases and pre-existing injuries or escape entanglement in fishing gear.

**Update: 2013 floods in southern Queensland**

There were continued high levels of rainfall in the catchments of coastal rivers of central and southern Queensland during early 2013. There was resulting elevated flooding in the Brisbane, Mary, and Burnett and Fitzroy catchments. It is anticipated that there will be a continuation of elevated mortalities of marine turtles and dugongs in response to coastal habitat damage

caused by the river outflows. Historical trends indicate that elevated mortality and stranding rates of marine turtles and dugongs should occur 5 to 8 months following significant floods.

### Hot spots for 2013

Marine animal strandings occur all along the Queensland coast. However, an increased number of marine strandings have occurred in the Moreton Bay, Townsville and Gladstone areas since early 2011.

#### **27°S Latitudinal Block – Moreton Bay region** (encompassing Moreton Bay, Southern Pumicestone Passage, Gold Coast Broadwater)

In the Moreton Bay region (27–28°S) 61 marine turtle, 1 dugong and 2 dolphin strandings were recorded between 1 January 2013 and 30 April 2013\*.

Of the 61 marine turtle strandings, 14 either escaped naturally or were later released. Of the 47 mortalities:

- 10 were suspected or confirmed to be from interactions with vessels
- 9 were suspected or confirmed to be from fisheries-related activities, including entanglement in ropes, crab pots and ghost nets
- 1 was suspected or confirmed to have been due to natural causes including disease, predation and extended ill health
- the remaining causes of death are either undetermined or under investigation.
- Based on numbers recorded to date and when compared with other regions, in 2013 the Moreton Bay region is considered a hotspot for marine turtle strandings but not for dugongs.

Below is the total annual number of strandings reports for the Moreton Bay region for the previous two years. This number is subject to change as more records are entered and verified by trained staff. In both 2011 and 2012 the Moreton Bay region was considered to be a hotspot for dugong and marine turtle strandings. The number of dolphins reported stranded increased in the Moreton Bay region in 2012.

| Species group | Year |      |
|---------------|------|------|
|               | 2012 | 2011 |
| Turtles       | 363  | 431  |
| Dolphins      | 21   | 10   |
| Dugong        | 8    | 21   |

#### **23°S Latitudinal Block – Rockhampton region** (encompassing Gladstone, Rodds Bay, Port Curtis, Port Alma and Keppel Bay)

In the Rockhampton region (23–24°S), 6 marine turtle strandings were recorded between 1 January 2013 and 30 April 2013\*.

- 4 were suspected or confirmed to be from interactions with vessels
- the remaining causes of death are either undetermined or under investigation.
- Based on numbers recorded to date and when compared with other regions, in 2013 the Rockhampton region (including Gladstone) is not considered a hotspot for dugong or marine turtle strandings.

Below is the total annual number of strandings reports for the Rockhampton region for the previous two years. This number is subject to change as more records are entered and verified by trained staff. In both 2011 and 2012 the Rockhampton region (including Gladstone) was considered to be a hotspot for dugong and marine turtle strandings.

| Species group | Year |      |
|---------------|------|------|
|               | 2012 | 2011 |
| Turtles       | 87   | 323  |
| Dolphins      | 5    | 6    |
| Dugong        | 10   | 12   |

**19°S Latitudinal Block – Townsville Region** (encompassing the area between Dunk Island south to the Burdekin Delta, including Hinchinbrook Island, Halifax Bay, Cleveland Bay and Bowling Green Bay)

In the Townsville region (19–20°S), 52 marine turtle, but no dugong and no dolphin strandings have been reported between 1 January 2013 and 30 April 2013\*.

Of the 52 marine turtle strandings, 8 either escaped naturally or were later released. Of the 44 marine turtle mortalities:

- natural processes including disease and extended ill health were suspected or confirmed to be the cause of death in 9 of the marine turtles
- 1 was suspected or confirmed to be from fisheries-related activities, including entanglement in ropes, crab pots and ghost nets
- 1 was suspected or confirmed to be from disorientation due to confusion of light horizons
- The remaining causes of death are either undetermined or under investigation.
- Based on numbers recorded to date and when compared with other regions, in 2013 the Townsville region is not considered to be a hotspot for dugong strandings but is a hotspot for marine turtle strandings.

Below is the total annual number of stranding reports for the Townsville region for the previous two years. This number is subject to change as more records are entered and verified by trained staff. In both 2011 and 2012 the Townsville region was considered to be a hotspot for dugong and marine turtle strandings.

| Species group | Year |      |
|---------------|------|------|
|               | 2012 | 2011 |
| Turtles       | 326  | 308  |
| Dolphins      | 0    | 3    |
| Dugong        | 5    | 54   |

In December 2011, changes to the Great Barrier Reef Marine Park regulations were put in place to protect dugong populations in waters south of Townsville. The amendments change the rules for commercial net fishing within an identified high-risk area for dugong in the southern part of Bowling Green Bay. They include a 'no netting area' and a 'restricted netting area', which limit the size of nets as well as how they are to be used. Read more about the [commercial net fishing changes](http://www.gbrmpa.gov.au) ( <http://www.gbrmpa.gov.au> ).

\* All strandings were sighted by either a departmental officer or a trained volunteer, and verified by a trained staff member as being accurate. The cause of death can only be identified in a limited number of cases, when the carcass is at a location where it can be recovered for necropsy (animal autopsy) and is not too decomposed.

\* Animals taken by legal traditional hunting, a right under Native Title legislation are not included in this summary. Illegal hunting when reported will be included.

### Marine strandings until 30 April 2013

This is an update on marine strandings in 2013. Strandings reported in the table below have been entered into the database and verified by staff as being accurate. 'Unconfirmed' reports are those that have been entered into the database, which have not been validated by staff as being accurate or clearly identified.

### Dugong

**Annual strandings for the period 1 January—30 April 2013, with comparison to regional total figures for the same period in previous years.**

| Year                                     | 2013                             | 2012 | 2011 | 2010 |
|------------------------------------------|----------------------------------|------|------|------|
| All of Queensland                        | 4 total (incl. 1 released alive) | 8    | 27   | 18   |
| Moreton Bay, 27°                         | 1                                | 0    | 4    | 2    |
| Hervey Bay, 25°                          | 0                                | 0    | 1    | 1    |
| Rockhampton, 23°<br>(includes Gladstone) | 0                                | 0    | 1    | 2    |
| Mackay, 21°                              | 0                                | 0    | 2    | 1    |
| Townsville, 19°                          | 0                                | 0    | 6    | 1    |
| Cairns, 16°                              | 1                                | 2    | 6    | 8    |
| Remainder of Qld                         | 2                                | 6    | 7    | 3    |

### Data for entire calendar year

| Year              | 2012 | 2011                 | 2010               |
|-------------------|------|----------------------|--------------------|
| All of Queensland | 56   | 190 + 10 unconfirmed | 83 + 5 unconfirmed |

## Marine turtle

Annual strandings for the period 1 January—30 April 2013, with comparison to regional total figures for the same period in previous years.

| Year                                     | 2013                                                                              | 2012 | 2011 | 2010 |
|------------------------------------------|-----------------------------------------------------------------------------------|------|------|------|
| All of Queensland                        | 198 verified on StrandNet (incl.42 released alive)<br><br>25 require verification | 336  | 276  | 209  |
| Moreton Bay, 27°                         | 61                                                                                | 119  | 99   | 105  |
| Hervey Bay, 25°                          | 23                                                                                | 32   | 23   | 28   |
| Rockhampton, 23°<br>(includes Gladstone) | 6                                                                                 | 14   | 45   | 11   |
| Mackay, 21°                              | 7                                                                                 | 6    | 6    | 0    |
| Townsville, 19°                          | 53                                                                                | 56   | 44   | 11   |
| Cairns, 16°                              | 6                                                                                 | 16   | 2    | 4    |
| Remainder of Qld                         | 42                                                                                | 93   | 57   | 50   |

## Data for entire calendar year

| Year              | 2012                  | 2011                  | 2010                 |
|-------------------|-----------------------|-----------------------|----------------------|
| All of Queensland | 1468 + 10 unconfirmed | 1781 + 35 unconfirmed | 809 + 19 unconfirmed |

**Environment and Communications Legislation Committee**  
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Inquiry into the Environment Protection and Biodiversity Conservation Amendment  
(Great Barrier Reef) Bill 2013  
23 May 2013

|                                     |                                                                 |                     |
|-------------------------------------|-----------------------------------------------------------------|---------------------|
| <b>Program: Division or Agency:</b> | GBRMPA                                                          | <b>Question No:</b> |
| <b>Topic:</b>                       | Implementation of the national dredge spoil disposal guidelines |                     |
| <b>Proof Hansard Page and Date</b>  | p.59, 23 May 2013                                               |                     |
| <b>or Written Question:</b>         |                                                                 |                     |

**Senator WATERS asked:**

Perhaps you can take this on notice for us: I would like to know what concrete assurances the authority requires from proponents of offshore dumping. Are they required, for example, to do a cost-benefit analysis to demonstrate that it is not possible to dump on land or not possible for beneficial re-use? I am eager to be assured that they are not simply allowed to claim, 'We cannot afford that,' or 'Gee, there is nowhere to put it,' without actually being taken to task and being required to provide evidence—ideally, independent evidence.

**Answer:**

When considering an application to dispose of dredge spoil, GBRMPA uses the Assessment Framework of the *National Assessment Guidelines for Dredging 2009* which states that the proponent is to “demonstrate that all alternatives to ocean disposal have to be evaluated”. This is consistent with the London Protocol and the *Environment Protection (Sea Dumping) Act 1981* which seek to minimise pollution caused by ocean disposal. The guidelines provide that “a permit shall be refused if the determining authority finds that appropriate opportunities exist to re-use, recycle or treat material without undue risks to human health or the environment or disproportionate costs.” Determining whether or not costs are disproportionate and the level of certainty required around cost estimates is done on a case by case basis.

**Environment and Communications Legislation Committee**  
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23 May 2013

|                                     |                                                    |                     |
|-------------------------------------|----------------------------------------------------|---------------------|
| <b>Program: Division or Agency:</b> | GBRMPA                                             | <b>Question No:</b> |
| <b>Topic:</b>                       | Potential Impacts of dredging in Gladstone Harbour |                     |
| <b>Proof Hansard Page and Date</b>  | p. 52, 23 May 2013                                 |                     |
| <b>or Written Question:</b>         |                                                    |                     |

**Senator Cameron asked:**

Could you take on notice to provide us with any documentation that you have sent to the department in relation to your concerns about the development in Gladstone.

**Answer:**

On matters outside the Marine Park the Authority provides advice through meetings and comments on draft material received from the Department. In relation to the Gladstone dredging work, the Authority expressed its views in a series of discussions and was sent the draft conditions on the proposed approval for comment. Most of the Authority's earlier concerns were addressed in the extensive proposed conditions, and the Authority's comments on the draft final conditions were limited to:

- The need to make clear that future work that may occur in the Marine Park must be a separate proposal which would trigger the EPBC Act;
- Clarify that this approval does not provide for sea dumping in the Marine Park, and narrow the scope to existing approved disposal sites and reclaim sites;
- Specify the water quality parameters to be measured, including total suspended solids and organic carbon in addition to light attenuation, and possible effects on the water flows within the channel, and the need to follow the ANZECC 2000 Water Quality Guidelines;
- Offsets funding should cover all the department's costs of monitoring, remediation and land acquisitions that may offset loss of World Heritage area.