



Australian Government
Department of the Environment

Ms Christine McDonald
Secretary
Standing Committee on Environment and Communications References Committee
PO Box 6100
PARLIAMENT HOUSE ACT 2600

Dear Ms McDonald

**Questions taken on notice at the Senate Inquiry into the Management of the
Great Barrier Reef**

Please find attached responses to the written questions on notice arising from the Senate inquiry into the management of the Great Barrier Reef hearings. The questions on notice were provided to the Department of the Environment, the Queensland Government and the Great Barrier Reef Marine Park Authority on 1 August 2014.

I would be grateful if you could arrange for the tabling of these with the Committee.

Yours sincerely

Kimberley Dripps
Deputy Secretary

25 August 2014

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 1 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Reef Trust

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How much sediment has Reef Rescue stopped from entering the GBR in the years it has been operating? Mr John Brodie estimates approximately 360,000 tonnes – please confirm the accurate amount and the cost of abatement per tonne under Reef Rescue (estimated at approximately \$550/tonne using 360,000 tonnes at cost of \$200 million).

Answer:

The long-term, annual average sediment reduction achieved under Reef Rescue 2008-2013, as estimated by the Reef Plan 'Paddock to Reef Monitoring, Modelling and Reporting Program' is 497,000 tons.

This reduction is attributed only to sediment reduction investments in cane, grains and grazing. Water quality outcomes of investments in horticulture and dairy cannot currently be estimated.

Estimates of costs of sediment reduction are:

- Grazing: approximately \$130 per tonne (range \$43 to \$2800 per tonne across six natural resource management (NRM) regions)
- Cane: approximately \$200 per tonne (range \$100 to \$470 per tonne across four NRM regions)
- Grains: approximately \$200 per tonne (Fitzroy NRM region only)

For Reef Rescue as a whole the average across these three industries is approximately \$140 per tonne.

These reductions represent the long term, annual average load reductions achieved, the load reductions estimated to be achieved per year upon the full fruition of the works undertaken for an average rainfall year.

It should be noted that these are the costs to the Australian Government attributed to sediment reductions achieved under the Water Quality Grants component of Reef Rescue (\$146 million from 2008 to 2013).

The cost estimates include funding of delivery partner (NRM regional body) overheads, and costs of farm planning, training, extension and on-ground project works. The cost estimates do not include Australian Government (staffing) overheads, the costs of monitoring, modelling and reporting of water quality outcomes, the costs of supporting research and development, or the co-investment in direct project costs by land managers (minimum of matching cash and/or in-kind contribution).

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 2 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: AIMS comment on Strategic Assessment reports

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

What is your reaction to the statement by AIMS that “If the resources needed to carry out the various recommendations and initiatives set out in the Assessments and Program Reports are not fully scoped and provided within appropriate time scales, the ability of these documents to catalyse the protection of the Reef from further decline will be significantly compromised.” (page 4 of their submission to this inquiry)

Answer

The Australian Government notes that the Strategic Assessment Agreements for the Great Barrier Reef Strategic Assessment requires the commitments in both Programs to be adequately resourced throughout their life and must demonstrate an effective system of adaptive management that addresses uncertainty and contingency management.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 3 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: AIMS Comment on the Strategic Assessment reports

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

What is your reaction to the statement by AIMS that “Almost all of the “bad news” regarding status and trend is contained somewhere within the chapters of the document, however the summaries of chapters tend to either downplay or leave the bad news until the end of the sections.” (page 3 of their submission to this inquiry)

Answer

The comments from Australian Institute for Marine Science relate to draft strategic assessment reports and program reports that were released for public comments from 1 November 2013 until 31 January 2014. The Australian Institute for Marine Science provided similar comments during this process.

Both the Queensland Government and the Great Barrier Reef Marine Park Authority have prepared supplementary reports and revised their respective Program Reports taking account relevant public comments.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 4 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Precautionary Principle

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

Given the lack of long term data about the effects of both dredging but particularly offshore dumping, why is the precautionary principle not being applied?

Answer:

The precautionary principle has been taken into account in making decisions of approval on dredging proposals under the *Environment Protection and Biodiversity Conservation Act 1999*. This is a legal requirement under section 391 of that Act.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 5 (Department of Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Hay Point Dredging and Water Quality

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

What studies have been done regarding the impact of dredging and dumping at Hay Point in 2006 given countless anecdotal evidence about poor water quality since that operation?

Answer:

The dredging and disposal campaign undertaken by Ports Corporation of Queensland at the Port of Hay Point in 2006 was conducted after the proponent prepared an Environmental Impact Statement pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the *Great Barrier Reef Marine Park Act 1975* and the *Environment Protection (Sea Dumping) Act 1981*.

Conditions of subsequent permissions granted under these three Acts required the development and implementation of an Environmental Management Plan. The Environmental Management Plan included a range of before, during and after monitoring programs focused around sensitive habitats in and adjacent to the port and the disposal site.

The monitoring programs targeted water quality, inshore coral reefs, seagrass and benthic assemblages. A post dredge coral survey repeated the April 2006 pre-dredge baseline survey and was conducted six months following completion of dredging and disposal.

Findings of these studies are presented in: EcoPorts Monograph Series No. 24. Port of Hay Point Apron Areas and Departure Path Capital Dredging Project, Environmental Review published by Ports Corporation of Queensland in 2007. The conclusion of the report indicates that there was no adverse impact on seagrass, algal communities and inshore corals. The only loss that did occur was a 1% loss to inshore corals which was reported immediately post-dredging and was recovered in 12 months. Seagrass returned to the port waters the year after the dredging and was a higher density than prior to commencement of the dredging.

Further, all dredging and disposal activities permitted by the Great Barrier Reef Marine Park Authority since 2006 at the Port of Hay Point have required monitoring and management of potential changes in water quality.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 6 (Department of Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Dredging

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How many million cubic metres of dredging has been approved by the Abbott Government?

Answer:

The dredging of 5.9 million cubic metres of marine sediments has been approved since 18 September 2013.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 7 (Department of Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Offshore Dumping

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How many million cubic metres of offshore dumping has been approved by the Abbott Government?

Answer:

The offshore disposal of 3.8 million cubic metres of marine sediments has been approved since 18 September 2013.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 8 (Department of Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Dredging 2

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How many million cubic metres of dredging has been applied for but not yet approved under the Abbott Government?

Answer:

One application to dredge 0.5 million cubic metres of marine sediments has been referred to the Abbot Government and remains under assessment.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 9 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Offshore Dumping 2

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How many million cubic metres of offshore dumping has been applied for but not yet approved under the Abbott Government?

Answer:

Since 18 September 2013, no applications have been submitted which have identified offshore disposal of marine sediments.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 10 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Ship Speed limits in the Great Barrier Reef

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

What consideration has been given to mandating ship speed limits in the GBR, to reduce ship strikes and accidents?

Answer

Australia currently has extensive and stringent navigation and pollution prevention controls in place throughout the north-east maritime region of Australia to manage the risk from shipping incidents including:

- high quality electronic navigation charts and aids to navigation
- pilotage requirements
- vessel traffic services that monitor ship movements and intervene if shipping moves beyond
- defined limits such as designated shipping areas

The Great Barrier Reef Marine Park Authority is also working with the REEF Vessel Traffic Service and scientists to identify the areas of overlap between humpback whales seasonality and habitats and shipping routes in order to ascertain the viability of a voluntary vessel speed reduction in these areas during certain times.

The Australian Government is also finalising its North-East Shipping Management Plan (NESMP) which outlines measures currently in place to manage the safety of shipping and proposes options to further minimise the environmental impacts of these activities in this region. The Plan is due to be finalised this year.

An expected action out of the Plan is the development of a National Vessel Strike Strategy for cetaceans, led by Australian Government Department of the Environment. The overarching goal of the strategy is to minimise the risk of vessel strikes and the impacts they may have on human safety, property and marine megafaunal populations. The objectives of the strategy include:

- data collection to understand the scale of the problem in Australian waters
- development of reporting procedures which are more assessable and efficient
- development of mitigation measures in response to this information

The development and implementation of appropriate mitigation measures will be undertaken with relevant stakeholders including the shipping industry and may include speed restrictions.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 11 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Fitzroy Terminal

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

Why is Fitzroy Terminal for Mitchell Group still listed as a controlled action on the EPBC website given that the project is not proceeding?

Answer:

As of 15 August 2014 Mitchell Group has not withdrawn the Fitzroy Terminal proposal from the EPBC Act assessment process.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 12 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Port Capacity

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator WATERS asked:

At what capacity are the Qld GBR ports? At what capacity is Abbott Point currently operating (some witnesses said it was a mere 40%)?

Answer:

Listed capacity (for both new and existing port infrastructure) is often given in terms of its theoretical maximum throughput, however the actual capacity of port infrastructure is dependent on many factors, including maintenance shutdowns and adverse weather.

The current Port of Abbot Point has a listed export capacity of around 50 million tonnes of coal per year. In 2013–14, 22.9 million tonnes of coal were exported through the Port of Abbot Point.

The entire present capacity of the Port of Abbot Point has been contracted to resource companies in anticipation of increased coal production. As the entire listed capacity has been contracted, new port infrastructure will be required for new or expanding coal producers.

More generally, the throughput of ports in comparison to listed capacity is difficult to report on because of their multi-commodity operations.

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Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 6 (GBRMPA) and 13 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Salt Works

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

In relation to the consideration of alternatives to offshore dumping at Abbot Point, did you consider the offer by Mr Ken Murphy who operates salt works 17 kms from Abbott Point and claims to have capacity to store 12 million cubic metres of spoil in sealed ponds?

Answer:

Mr Murphy's saltworks was not available as an alternative at the time the assessments were completed.

North Queensland Bulk Ports have not submitted a proposal for the assessment of the disposal of dredged material at the salt works site to date.

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Reference Committee**

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 14 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Adani

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

Did the Minister consider, or is the Department aware of, the environmental history of Adani in approving their proposal for the Carmichael coal mine which will ship coal through the Great Barrier Reef and contribute to climate change that will damage the Reef? Is the Minister or Department aware of successful legal action for multiple breaches of environmental conditions relating to ports in the company's home country of India? If so, what role did this information play in the approval process?

Answer:

Information on Adani's environmental history was considered during the approval process, as required under section 136 of the *Environment Protection and Biodiversity Conservation Act 1999*.

The decision maker was aware of media reports and public submissions relating to Adani's overseas environmental history.

Information on Adani's environmental history was one of a range of matters that were considered during the approval process.

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Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 15 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: World Heritage Committee

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

The World Heritage Committee requested Australia postpone the transfer of decision making powers from the Commonwealth to the states (pp 116-117, para 6 of the recent decision). Has the Department considered this request? What impact (if any) has this decision had on approval bilateral agreement negotiations?

Answer:

The Government has considered the World Heritage Committee's request to postpone the accreditation of Queensland planning systems until the Reef 2050 Long-Term Sustainability Plan is released. The Government intends to release the Reef 2050 Long-Term Sustainability Plan for public comment before the Approval Bilateral Agreement with Queensland is considered for finalisation.

In order to be accredited as part of the one stop shop reform, state and territory processes must meet high national environmental standards. A strong assurance framework will be implemented to ensure standards are maintained.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 16 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Approval Bilateral 2

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

The draft approval bilateral agreement between Qld and the Commonwealth proposes to delegate approval powers to Queensland to approve actions in or impacting on the Great Barrier Reef Marine Park and the wider GBR World Heritage Area. Clause 5.4(a) establishes that advice must be sought from GBRMPA and taken into account but that the details of the provision of this advice will be set out in an MoU between GBRMPA and Queensland. Where is the transparency? Will the new arrangements be consulted upon before they are adopted? Will the advice from GBRMPA to Queensland be required to be made publicly available?

Answer:

The One-Stop Shop for environmental approvals will accredit specific Queensland authorisation process under national environmental law to create a single environmental assessment and approval process for nationally-protected matters.

Before Queensland processes can be accredited to make approval decisions it must be demonstrated that the processes meet the high environmental standards set out in the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act).

The Approvals Bilateral Agreement, if endorsed, would allow Queensland to assess and approve actions that are taken within the state waters, or may significantly impact on, the Great Barrier Reef Marine Park and World Heritage Area.

The Great Barrier Reef Marine Park Authority continues to be responsible for permit requirements under the *Great Barrier Reef Marine Park Act 1975 (Cth)*.

The Australian Government continues to be responsible for permits under the *Sea Dumping Act 1981 (Cth)* and for approvals for actions under the EPBC Act that are taken within a Commonwealth area of the Great Barrier Reef Marine Park and World Heritage Area or are undertaken by a Commonwealth agency.

The Memorandum of Understanding between Queensland and the Great Barrier Reef Marine Park Authority, on the provision of advice on proposed actions which are within, or likely to impact on, the Great Barrier Reef Marine Park, is being developed. Clause 7.2 of the draft Approval Bilateral Agreement requires that, in relation to actions that fall within the scope of the Agreement, Queensland will publish all the approval decisions for those actions, and the primary material on which those decisions are based, on the Internet as soon as practicable after the an approval decision is made.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 17 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Approval Bilateral 3

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

Why is the draft approval bilateral between Qld and the Commonwealth not addressing the lack of equivalency of the provisions of the EPBC Act relating to consideration of a person's environmental history (s 136) and the lesser standards in s 54W(3)(a) of the State Development and Public Works Organisation Act (including that the 'environmental record' in the SDPWOA does not extend to executive officers and is limited to actual legal proceedings)?

Answer:

The definition of environmental record in section 54I of the State Development and Public Works Organisation Act 1971 (Qld) does not specifically reference executive officers of a corporation, but does include the environmental policies and planning framework of the proponent and the proponent's parent corporation, where relevant, in addition to actual legal proceedings. Section 54W(3) allows the Coordinator-General to consider any other matter the Coordinator-General considers relevant, when making an approval decision (or deciding whether to impose conditions). This could include the environmental record of the executive officers of a corporation, if the Coordinator-General considers it relevant.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 18 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Approval Bilateral 4

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

How can the assurance framework in the draft approval bilateral agreement between Qld and the Commonwealth possibly achieve the same level of protection for matters of national environmental significance, including the Great Barrier Reef, when the hurdle for the federal Minister to step back in under clause 16 of the draft agreement is at a different level to “significant impact”, and when the timing of the exercise of the call-in must occur before a decision is made by Queensland (which may be impossible for the Minister to have the requisite state of knowledge if Qld fails to notify the Commonwealth in time)?

Answer:

Under the One-Stop Shop, states and territories will be responsible for considering whether actions are likely to have a significant impact on MNES, conducting the assessment of those impacts and deciding whether or not to approve the action.

The assurance framework applies to those classes of actions covered by an approval bilateral agreement which are being assessed under an accredited state or territory process. This is supported in the approval bilateral agreements which have provisions for the sharing of information between the parties and public consultation processes throughout assessment and approval phases.

The assurance framework includes an escalated dispute resolution mechanism that provides for regular, ongoing discussions between the Commonwealth and states and territories. The escalated dispute resolution process is intended to resolve issues between the Australian Government and the state or territory at the lowest possible level through a Senior Officers Committee. This Committee will be the forum for ongoing consultation between the Australian Government and state or territory senior officers to address project-by-project issues if they arise. Most issues are expected to be resolved through this process.

If the Commonwealth requires further information about a particular project, a Notice of Particular Interest may be issued to a state or territory. The notice would be publically available. These steps provide additional assurance that issues will be resolved prior to the Commonwealth Minister exercising a call in provision.

A call-in provision would only be exercised by the Commonwealth Minister where negotiations do not address issues raised in the public Notice of Particular Interest, and serious impacts to MNES and a significant breach of the agreement is likely. This is only expected to occur in exceptional circumstance

The escalated dispute resolution process also includes an opt-out provision that enables states and territories to request Commonwealth regulators to assess or approve an individual project prior to the state approval decision based on agreed criteria.

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Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

As a matter of last resort, the EPBC Act allows the Commonwealth Minister to suspend or revoke an agreement in whole or in part if they are not satisfied that the relevant state or territory has complied or will comply with the agreement. The EPBC Act also includes provisions for emergency suspension if the Minister is satisfied that the relevant state or territory is not complying with the agreement, or will not comply with it.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 19 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Approval Bilateral 5

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

The draft Qld approval bilateral and proposed accredited legislation do not confer extended legal standing for community groups for judicial review or open standing for enforcement actions equal to what the EPBC Act currently confers. Relevant Qld laws do not include those rights. How does this reality match with the claims that the EPBC standards will remain the same once approvals are delegated to the states?

Answer:

All decisions made in relation to the assessment and approval of projects under the processes proposed for accreditation in the draft Queensland Approval Bilateral Agreement are subject to the Judicial Review Act 1991 (Qld).

The Department's analysis indicates that judicial review and standing available under the Judicial Review Act 1991 (Qld), in relation to decisions made under the processes proposed for accreditation, are broadly equivalent to judicial review and standing currently available for decisions made under the EPBC Act.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 20 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Approval Bilateral 6

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

The Qld State Government is not resourced to adequately administer Commonwealth laws and its poor record of enforcement has been exposed in 2014 by the Queensland Audit Office. What resources will be provided to Queensland to implement bilateral approval responsibilities?

Answer:

The Memorandum of Understanding between the Australian and Queensland Governments, executed on 19 October 2013, commits the governments to support any accredited arrangement through identifying agreed areas of cooperation. This includes exchanging data and joint analysis of environmental conditions and trends, and ensuring there are agreed arrangements for greater information sharing, consultation and dispute resolution, including through the use of governance arrangements that promote strong communication and cooperation. The Memorandum of Understanding also commits to the exchange or placement of staff to support implementation of the One Stop Shop reform.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 1 (GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Conflicts between budget and offset payments

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

How do you manage the conflict of interest in facing a significant portion of your budget to manage the GBR coming from offset payments into the GBR Reef Trust Fund for actions that adversely impact on the OUV and MNES within the GBR?

Answer:

The Great Barrier Reef Marine Park Authority does not make the approvals decisions that require offsets under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Reef Trust, the intended vehicle for future offsets payments, is not administered by the Great Barrier Reef Marine Park Authority.

Projected Great Barrier Reef Marine Park Authority budget from offsets in 2014-15 is approximately \$675,305. The Great Barrier Reef Marine Park Authority annual budget from Commonwealth and State governments in 2014-15 is approximately \$48 million.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 2 (GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Cap on dredge spoil

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

Why is there no cap on the amount of dredge spoil that may be permitted by GBRMPA outside of port boundaries?

Answer:

Dredging and dredge material disposal is an activity that is allowed with permission under the *Great Barrier Reef Marine Park Zoning Plan 2003*. All applications to dispose of dredge material to the Great Barrier Reef Marine Park are assessed on a case by case merit and risk based process in accordance with relevant policies and guidelines.

The disposal of dredge material at sea is guided by Annex 2 of the London Protocol, the *Environment Protection (Sea Dumping) Act 1981* and the National Assessment Guidelines for Dredging 2009. Annex 2 of the London Protocol states that a permit to dump wastes or other matter shall be refused if the permitting authority determines that appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to human health or the environment or disproportionate costs. The practical availability of other means of disposal should be considered in the light of a comparative risk assessment involving both dumping and the alternatives.

The Great Barrier Reef Marine Park Authority supports the Queensland ports strategy that concentrates port development around long-established major ports in Queensland, and encourages port master planning. A strategic reduction on dredge material disposal in the Marine Park could form part of the port master planning process.

The Great Barrier Reef Marine Park Authority will also facilitate the development of a whole of government policy to provide a strategic and consistent approach to the sustainable management of dredging and dredge spoil disposal in the Great Barrier Reef World Heritage Area.

**Senate Standing Committee on Environment and Communications
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Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 3 (GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Cost of land based disposal

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

How much more expensive is land based disposal of dredge spoil?

Answer:

Cost associated with land-based disposal options for dredge material vary between locations and dredging projects. The cost depends on a number of factors such as the type of dredge material (for example the proportion of sand, silt and clay), the location (such as costs for construction of reclamation areas and perimeter bunds for de-watering), and the volume of dredge material.

Land-based disposal of dredge material is generally more expensive. The Sinclair Knight Merz 2013¹ study undertaken to inform the comprehensive strategic assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone found the placement of dredge material offshore was significantly cheaper than all of the options considered for reuse and land disposal. The higher cost of land-based options was predominantly due to the de-watering process (i.e. drying of the dredged material), which involves the storage of the dredge material, as well as the de-watering, stabilisation and separation of the material. The main constraint for all study locations along the Great Barrier Reef (i.e. Cairns, Townsville, Abbot Point, Hay Point, Gladstone and Rosslyn Bay State Boat Harbour) was the availability of large areas of flat land for de-watering of dredge material.

This study had a number of assumptions and therefore a formal project specific assessment process for land based disposal options is still required. Land acquisition costs were also not included in the analysis of the study.

Reference

1. SKM 2013, *Improved dredge material management for the Great Barrier Reef Region*, Great Barrier Reef Marine Park Authority, Townsville.

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Reference Committee**

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 4 (GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Realising the benefits of water quality offsets

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

How long does it take for the GBR to realise the benefits of water quality offsets – witnesses have suggested 10-20 years.

Answer:

Recent work by the Australian Institute of Marine Science, University of Queensland and James Cook University, looking at 10 years of data on turbidity changes at Cleveland Bay, in inshore waters near the Burdekin River (the largest source of sediment entering the Great Barrier Reef), shows that annual changes in turbidity in this bay is strongly related to the loads of sediment coming from that river.

The study suggests therefore that reducing this sediment load should see improvements in inshore water quality in much shorter timeframes than previously thought, being years rather than decades. As such offsets to improve water quality are expected to be effective within development timeframes.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 5(GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Dalrymple Bay

Question Date: 1 August 2014

Question Type: written

Senator WATERS asked:

What went wrong at Dalrymple Bay regarding evidence of polluted stormwater running off into the GBR because of inadequate stormwater containment? Why is the mandated solution still 3 years away?

Answer:

The Queensland Government has advised:

Dalrymple Bay Coal Terminal was issued with a notice to prepare an environmental evaluation under Chapter 7 Part 2 of the Queensland Government's Environmental Protection Act 1994 in March 2011 in relation to stormwater discharges off site and the potential for environmental harm.

This environmental evaluation required a receiving environmental monitoring program to be completed. The environmental evaluation timeframes were extended in November 2012 after the Queensland Department of Environment and Heritage Protection and the Queensland Department of Science, Information Technology, Innovation and the Arts requested substantial changes to the reports submitted.

The changes were required to ensure the intent of the environmental evaluation, and potential for environmental harm could be appropriately evaluated. The final report was received in May 2014 and the environmental evaluation was finalised by Queensland Department of Environment and Heritage Protection on 4 June 2014.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 6 (GBRMPA) and 13 (Department of the Environment)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Salt Works

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

In relation to the consideration of alternatives to offshore dumping at Abbot Point, did you consider the offer by Mr Ken Murphy who operates salt works 17 kms from Abbott Point and claims to have capacity to store 12 million cubic metres of spoil in sealed ponds?

Answer:

We are advised that Mr Murphy's saltworks was not available as an alternative at the time the assessments were completed.

North Queensland Bulk Ports have not submitted a proposal for the assessment of the disposal of dredged material at the salt works site to date.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 7(GBRMPA)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Composition of dredge spoil

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Senator Waters asked:

What is the composition of the dredge spoil proposed to be dumped offshore at Abbot Point? Is it likely to contain garnet with chemicals in it including flux from welding, and coal dust? Did GBRMPA consider the evidence in the court case involving whistleblower John Broomhead regarding the likely composition of dredge spoil when assessing the Abbot Point dredging and dumping application?

Answer:

- The composition of dredge material derived from the Port of Abbot Point Capital Dredging Project and approved for unconfined ocean disposal is on average: 7 per cent gravel, 54 per cent sand, 19 per cent silt, and 20 per cent clay.
- The dredge material is unlikely to contain garnet as the capital dredge material is not associated with the existing shipping berths and trestle.
- The sediment was analysed for heavy metals and polynuclear aromatic hydrocarbons (PAHs), which are commonly associated with coal dust contamination. Both heavy metals and PAH's were below the relevant National Assessment Guidelines for Dredging 2009 Screening Levels.
- The Great Barrier Reef Marine Park Authority considered information contained within the proponent's Supplementary Public Environment Report, released on 18 May 2013 regarding the potential contamination issue due to the sand blasting (garnet). The supplementary report provided the following statement:

"DEHP advised NQBP on 11 Feb that the chemicals in the PER for the Abbot Point dredging sediment surveys covers off on the chemicals associated with garnet, and the chemicals that were listed in the tests associated with the John Holland case at Hay Point and Abbot Point. DEHP's assessment is that the PER adequately tests for garnet."
- The dredge material was analysed in accordance with the National Assessment Guidelines for Dredging 2009 and determined to be suitable for unconfined offshore disposal by the Great Barrier Reef Marine Park Authority. This means that potential contaminants of concern were found to be below the required Screening Levels. A Screening Level is the level of a substance in the sediment below which toxic effects on organisms are not expected.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 1 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Port Alma

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

What is the status of Port Alma – is it proposed to be within or outside of a PPDA? UNESCO Recommendation 5 says that the Australian Government has confirmed that PPDA's will exclude Fitzroy Delta, Keppel Bay and North Curtis Island. Please confirm whether the Qld Government has made this commitment and where and how it will be implemented

Answer:

It is proposed that five Priority Port Development Areas (PPDAs) be declared at six long-established major ports on the Queensland Coast:

- the Port of Abbot Point
- the Port of Brisbane
- the Port of Gladstone
- the Port of Hay Point and the Port of Mackay
- the Port of Townsville.

Port Alma, also known as the Port of Rockhampton, will not be declared a PPDA.

PPDAs will include land and marine areas integral to the current and future operations of each port. The spatial boundary of each PPDA will be determined through a port-specific master planning process that requires careful consideration of issues beyond the port.

The development of a port master plan will require engagement with relevant stakeholders such as port users, industry, supply chain operators, local governments and local communities.

Public consultation will be an integral part of the process. During the public consultation period, all community members and stakeholders will be given the opportunity to make a submission on the draft port master plans, including the proposed boundaries of each PPDA.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 2 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Port Capacity

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

At what capacity are the Qld GBR ports? At what capacity is Abbott Point currently operating (some witnesses said it was a mere 40%)?

Answer:

Listed capacity (for both new and existing port infrastructure) is often given in terms of its theoretical maximum throughput, however the actual capacity of port infrastructure is dependent on many factors, including maintenance shutdowns and adverse weather.

The current Port of Abbot Point has a listed export capacity of around 50 million tonnes of coal per year. In 2013–14, 22.9 million tonnes of coal were exported through the Port of Abbot Point.

The entire present capacity of the Port of Abbot Point has been contracted to resource companies in anticipation of increased coal production. As the entire listed capacity has been contracted, new port infrastructure will be required for new or expanding coal producers.

More generally, the throughput of ports in comparison to listed capacity is difficult to report on because of their multi-commodity operations.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 3 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Abbot Point spoil site

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Why is the Qld Government on its Reef Facts website repeating industry claims about the Abbott Point approved offshore dump site that the nearest Reef is 40 kms away from offshore reefs when there are coral isolates (commonly called “flower pots”) throughout Abbot Bay, and when the nearest fringing coral reefs are Holbourne Is and Nares Rock both within 5-8kms of the approved dump site?

Answer:

The Queensland Government’s Reef Facts website is factually correct. The four square kilometre area where the dredge material is currently approved to be placed does not contain any hard coral or seagrass and is 39-44 metres deep. It is located 40km away from the nearest offshore coral reef. A video of the seafloor near the proposed disposal site is available on the website showing a sandy bottom area.

While there may be some examples of inshore corals around Abbot Bay, it is important to note that the Abbot Point approval is subject to strict conditions to prevent impacts. For example, dredging will only be permitted to take place between 1 March and 30 June each year to protect water quality during critical times for seagrass growth and coral spawning.

Additionally, the port operator must fund initiatives to reduce sediment loads from local catchments equivalent to 150% of the fine sediment portion of the dredged material, resulting in a net benefit overall to water quality. This net benefit will support improved marine health in both the inshore and offshore marine environments.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 4 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Coral Mortality

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Will you now update your Reef Facts website to take account of recent evidence by the ARC Centre of Excellence for Coral Reef Studies and AIMS about dredging doubling the risk of coral mortality from white syndrome disease? What other action will be taken as a result of this new knowledge?

Answer:

The Reef Facts website includes a page which links to relevant articles. This page was last updated on the 21 July 2014 to include a link to recent article by Pollock et. al. *Sediment and Turbidity Associated with Offshore Dredging Increase Coral Disease Prevalence on Nearby Reefs*.

A review of the findings in the article confirms that the conditions applied to the Abbot Point development are sound. The study shows elevated levels of coral disease were only found in areas exposed to a 'high' sediment plume over a period of 296-347 days approximately 5 kilometres away from dredge operations.

In contrast, the Abbot Point approved dredge disposal site can only be used between 1 March and 30 June each year and is more than 40 kilometres from off-shore coral reefs. Under the imposed conditions, the Great Barrier Reef Marine Park environmental site supervisor will also have the authority to stop, suspend or modify works which are likely to cause harm to the environment.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 5 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Coal Dust

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Will you now update your Reef Facts website to take account of recent evidence discussed by Dr Kathy Burns from JCU showing coal particulates travelling to the outer GBR? What other action will be taken as a result of this new knowledge?

Answer:

The Queensland Government's Reef Facts website outlines what the government is doing to protect the reef from the primary causes of ecosystem health decline. The assessment of the greatest risks is based on extensive scientific evidence as brought together through a series of scientific consensus statements.

The 2013 scientific consensus statement on water quality was prepared by 40 leading scientists. The statement indicates that the greatest water quality risks to the Great Barrier Reef are from nitrogen discharge, linked to Crown of Thorns starfish outbreaks, and fine sediment discharge, which reduces the light available to seagrass and inshore reefs. The main source of excess nutrients and fine sediments is run-off from agricultural areas. Relative to agriculture, other sources of pollutants such as urban and ports development are minor.

Any new evidence that is produced will be taken into account as a part of the broad suite of scientific evidence and weighed against the overall understanding of threats to the Reef. All evidence will be incorporated into future scientific consensus statements to ensure that environmental investments and water quality improvement initiatives are targeted at the highest priority issues and achieve the most cost-efficient and effective improvements.

The Queensland Government welcomes new research. It notes that the coal dust study does not indicate whether the associated aromatic hydrocarbons are bio-available and does not say whether the coal dust would accumulate, absorb into corals and be toxic to marine species. The study outlines steps that can be taken to improve port practices to reduce the potential of coal dust entering the Great Barrier Reef ecosystem which will be valuable to port operators and in the development of Port master-plans.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 6 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Port Hinchinbrook Acid Sulphate

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

What action did the government take in response to complaints of sulphuric acid discharge into the GBR at Cardwell and at Port Hinchinbrook (the latter under a 2010 dredging licence). Why is the Qld Government not reviewing these and other discharge licences along the GBR coast to ascertain whether they are up to standard, and increasing them where they are not?

Answer:

The Queensland government issued permits for the reconstruction of the Cardwell foreshore following cyclone Yasi. Those permits did not permit any discharge of acid waters to the environment and required acid sulphate soils to be managed in accordance with Queensland Government guidelines for the management of acid sulphate soils.

During the construction period the Queensland government received and investigated several complaints regarding the management of acid sulphate soils relating to the project. While investigating officers did not identify any acid discharge, they did raise a number of concerns with the management practices on site. These concerns were addressed by the contractor and an Acid Sulphate Soil Management Plan developed and implemented.

The 2010 environmental authority for Port Hinchinbrook does not allow for ocean disposal of dredge spoil and contains stringent conditions for the management of the tailwaters generated by land disposal of the dredge spoil. The environmental authority contains conditions specifically addressing the risks associated with acid sulphate soils. The conditions were developed in accordance with the Queensland Government Environmental Protection (Water) Policy 2009 (EPP Water) and take into consideration the environmental values of the receiving environment, the nature of the activity being conducted and the relevant water quality guidelines.

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

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 7 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Yabulu Conditions

Hansard Page:

Question Date: written

Question Type: Written

What is your response to WWF's contention that "New DA [sic] criteria recently issued provide QNPL with a mechanism to bypass GBRMPA permitting and exceed water quality guidelines trigger values by more than an order of magnitude." Please detail the changes made to the permit held by Qld Nickel following alleged unlawful breaches in 2009 and 2011. Why do you contend that these changes "significantly raise the environmental standards required to be achieved" (7.2 of your submission to this inquiry) when witnesses contended that the changes relaxed water quality criteria and allowed two new discharge points in areas that fell outside GBRMPA's jurisdiction?

Answer:

1. The amended (2013) Environmental Authority does not create a mechanism to bypass GBRMPA permitting requirements. The amended (2013) Environmental Authority does list discharge locations that were not specifically mentioned in the previous (2004) licence, however these are not new discharge locations. The amended (2013) Environmental Authority now formally identifies these points to improve regulation and monitoring of the site.
2. With respect by the conditions of the amended (2013) Environmental Authority adopts a tiered approach to contaminant discharge. Three different levels are prescribed as follows:
 - Compliance limits – which specify the maximum level of a contaminant that must not be exceeded. These levels represent the short term (acute) acceptable concentration levels.
 - Water quality objectives – which specify the long term (annual 50th percentile) values that must be achieved. These values represent the long term (chronic) acceptable concentration levels.
 - Investigation triggers – which specify the levels at which an investigation into the potential for environmental harm must be undertaken.

In determining the appropriate values for each of the criteria specified above, expert technical advice was obtained regarding the nature of the receiving environment and the mixing zones that are associated with the authorised contaminant release points.

3. Discharges via the ocean outfall pipeline in 2009 and 2011 were not in breach of the (2004) Environmental Authority. Questions regarding compliance with Commonwealth laws should be referred to the Great Barrier Reef Marine Park Authority.
4. The amended (2013) Environmental Authority significantly raises the environmental standards that the refinery is required to achieve by:

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Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

- including outcome focussed and more enforceable water management conditions for the site, including specific discharge criteria.
- imposing new conditions relating to discharge sediment quality.
- expanding environmental monitoring requirements, including requirements to monitor groundwater and a requirement for a receiving environment monitoring program to continually assess the environmental impacts of the refinery over the long term.
- setting clear and more enforceable conditions and standards for the management of hazardous containment facilities on the site, including the tailings storage facility.
- imposing new conditions relating to ambient air quality standards.
- requiring rehabilitation of land disturbed by the activities of the refinery.

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Reference Committee**

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 8 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Port Development

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

What impact has the World Heritage Committee's 2014 recommendation 8 noting that the Ports Strategy only applies to future port proposals (and hence not those they were "extremely concerned" about) had? Will the Queensland Government comply with UNESCO recommendations 5 and 8 regarding the Ports Strategy?

Answer:

The Queensland Ports Strategy sets out the Queensland Government's policy direction for the ports network over the next decade and meets the requirements of the World Heritage Committee decision.

Under the strategy:

- Within and adjoining the Great Barrier Reef World Heritage Area, the Queensland Government will prohibit dredging of new, or expansion of existing port facilities outside Priority Port Development Areas (PPDAs);
- Port master plans will contain an environmental management framework to manage land and marine-based environmental values including Matters of National Environmental Significance, Outstanding Universal Value, Matters State Environmental Significance and cumulative impacts.

The World Heritage Committee also sought assurance that plans to be developed for each PPDA exclude from development areas identified as of conservation significance under the 2003 Great Barrier Reef Zoning plan. The four major port areas (Townsville, Abbot Point, Mackay/Hay Point and Gladstone) are located outside Great Barrier Reef Marine Park and therefore exclude areas identified as of conservation significance under the 2003 Great Barrier Reef Zoning Plan.

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Reference Committee**

Answers to questions on notice

Senate Inquiry into the management of the Great Barrier Reef

Question No: 9 (Qld)

Hearing: Senate Inquiry into the management of the Great Barrier Reef

Topic: Uranium Transport

Hansard Page:

Question Date: 1 August 2014

Question Type: Written

Will the Qld Government categorically rule out shipping uranium through the GBR, including from the Port of Townsville or Mackay? Will it legislate this prohibition?

Answer:

There are currently two ports in Australia with the required Federal and State permissions to ship uranium ore products: Darwin in the Northern Territory and Adelaide in South Australia. There are currently no licenced export ports in Queensland.

Through its "Operational Policy for Uranium Mining"

(http://www.dnrm.qld.gov.au/__data/assets/pdf_file/0007/189502/operational-policy-uranium-mining.pdf) the Queensland Government has clearly stated its preference for uranium export to occur through existing licenced ports.