

# Chapter 5

## Managing ports in the Great Barrier Reef region

5.1 The terms of reference for this inquiry require the committee to examine the 'management of impacts of industrialisation of the Great Barrier Reef coastline, including dredging, offshore dumping, and industrial shipping'.<sup>1</sup> This chapter therefore focuses on the management of industrialisation of the Great Barrier Reef region, and in particular on issues relating to ports and dredging, including:

- a general overview of the concerns about industrial development including ports along the Great Barrier Reef;
- an overview of existing ports and proposed expansions and new ports in the Great Barrier Reef region, including the Queensland Ports Strategy; and
- an examination of the impacts of ports and the associated dredging and disposal of dredge spoil.

### General overview of concerns

5.2 Many submitters and witnesses were concerned about 'unprecedented growth' in industrial activities in the Great Barrier Reef region, particularly port developments and the associated dredging and disposal of dredge spoil, which they suggested would increase pressure on the reef.<sup>2</sup> For example, Mr Richard Leck of WWF-Australia told the committee that 'the pace and scale of industrial development along the coast in the last few years is unprecedented in the reef's history'.<sup>3</sup>

5.3 Some submitters referred to a 'declaration by concerned scientists on industrial development of the Great Barrier Reef coast', signed by over 140 scientists in June 2013. The statement expressed concern about:

...the additional pressures that will be exerted by expansion of coastal ports and industrial development accompanied by a projected near-doubling in shipping, major coastal reclamation works, large-scale seabed dredging and dredge spoil disposal—all either immediately adjacent to, or within the

---

1 Term of reference (a).

2 See, for example, Professor Hoegh-Guldberg, *Submission 6*, pp 1 and 2; CAFNEC, *Submission 19*, p. 3; Ms Felicity Wishart, Great Barrier Reef Campaign Director, Australian Marine Conservation Society, *Committee Hansard*, 21 July 2014, p. 15; Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, p. 18.

3 Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, p. 18.

Great Barrier Reef World Heritage Area. We believe these activities will exacerbate impacts upon an ecosystem already in decline.<sup>4</sup>

5.4 The statement called upon the Queensland and Australian Governments to, amongst other matters, restrict port developments to within existing major, long-established port areas until an agreed future coastal development strategy for the entire Great Barrier Reef coastline is completed; require new development to minimise its industrial footprint through efficient sharing of infrastructure; and improve all aspects of the management of shipping through the World Heritage Area to ensure maximum environmental protection.<sup>5</sup>

5.5 Professor Hoegh-Guldberg told the committee that the Great Barrier Reef is 'now under serious threat due to the increasing and competing uses and the cumulative impacts' of activities, including:

...dredging, offshore dumping of dredging spoils, and international shipping, all of which further contribute to the problems that Queensland is facing with respect to the health of its [Great Barrier Reef]...it is absolutely vital that disturbances to catchments along the Queensland coastline are being decreased as opposed to being increased.<sup>6</sup>

5.6 He further suggested that recent port developments and expansions have sent the wrong message to the world on the management of the reef:

They suddenly got a message that said that we were not really the best marine park managers in the world and doing the best for the Great Barrier Reef, that we were cutting corners...there is a real risk that we could get to a point where the Great Barrier Reef is listed as World Heritage in danger.<sup>7</sup>

5.7 Professor Terry Hughes told the committee that 'if Australia does not adequately address the issue of poor governance of ports and its energy policy, I believe UNESCO will put the [Great] Barrier Reef on the endangered list'.<sup>8</sup>

### ***Response to concerns from ports and related industry groups***

5.8 In contrast, ports and related industry groups suggested that their impact is relatively minor, that they are highly regulated and are strongly committed to environmental sustainability.<sup>9</sup>

---

4 *Declaration by concerned scientists on industrial development of the Great Barrier Reef coast*, June 2013, p. 1, [http://www.australiancoralreefsociety.org/c/document\\_library/get\\_file?uuid=fbae2bca-0dc2-41e3-b4b3-16a269ad8e5d&groupId=10136](http://www.australiancoralreefsociety.org/c/document_library/get_file?uuid=fbae2bca-0dc2-41e3-b4b3-16a269ad8e5d&groupId=10136) (accessed 7 August 2014); referred to, for example, by Whitsunday Charter Boat Industry Association, *Submission 46*, p. 5; CAFNEC, *Submission 19*, p. 3; Mr Tony Brown, Whitsunday Charter Boat Industry Association, *Committee Hansard*, 22 July 2014, p. 9.

5 *Declaration by concerned scientists on industrial development of the Great Barrier Reef coast*, June 2013, p. 1.

6 Professor Hoegh-Guldberg, *Submission 6*, pp 1 and 2.

7 Professor Ove Hoegh-Guldberg, *Committee Hansard*, 21 July 2014, p. 10.

8 Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 30.

5.9 For example, Ports Australia submitted that 'claims around the environmental impacts of dredging and shipping in Queensland ports have been exaggerated whereas scientific research has indicated that the impacts are at a low or minimal level...port developments and shipping activities are not recognised as the primary impacts upon the Reef'.<sup>10</sup> Mr Anderson from Ports Australia told the committee that port developments are undertaken with a 'highly precautionary approach' and that:

...the science tells us that ports are not a significant contributor to the damage to the reef such as it has occurred.<sup>11</sup>

5.10 Mr Chris McCombe from the Minerals Council of Australia similarly told the committee that:

...current debate on management of the Great Barrier Reef is disproportionately focused on what are already highly regulated activities and not the recognised major drivers of decline. Whilst it is entirely appropriate that these activities are tightly managed and continually improved in line with the science, it is important to ensure that government, industry and community efforts are proportionally directed towards addressing the priority threats to the outstanding universal value of the reef.<sup>12</sup>

5.11 Ports Australia further submitted that:

...port development can and must be permitted to continue in an environmentally responsible manner whilst ensuring that the Outstanding Universal Value of the World Heritage Area is protected together with the values of the Great Barrier Reef Marine Park.<sup>13</sup>

5.12 Ports North similarly submitted that it strongly believes that 'port operations and growth can continue whilst ensuring important environmental values are protected'. It suggested that they 'have a long and successful history of responsible, well managed operations near areas of high conservation value', as well as a strong commitment to ensuring the 'long term capacity of natural values in and surrounding port areas are appropriately conserved and protected'.<sup>14</sup>

---

9 See, for example, Mr Chris McCombe, Assistant Director, Environmental Policy, Minerals Council of Australia, *Committee Hansard*, 21 July 2014, p. 31; Ports Australia, *Submission 11*, p. 2; Queensland Ports Association, *Submission 13*, p. 3.

10 Ports Australia, *Submission 11*, p. 2; see also Queensland Resources Council, *Submission 28*, p. 7.

11 Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, pp 23 and 27.

12 Mr Chris McCombe, Assistant Director, Environmental Policy, Minerals Council of Australia, *Committee Hansard*, 21 July 2014, p. 31; see also Minerals Council of Australia, *Submission 35*, pp 7 and 8.

13 Ports Australia, *Submission 11*, p. 3 and see also Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22.

14 Ports North, *Submission 12*, p. 1.

5.13 The Queensland Ports Association similarly emphasised that its members 'are strongly committed to environmental sustainability and ensuring that the World Heritage values in and surrounding port areas are conserved and protected'.<sup>15</sup>

5.14 Industry groups also emphasised that 'oil drilling, mining and exploration' have been prohibited in the Great Barrier Reef region since the *Great Barrier Reef Marine Park Act 1975* came into force.<sup>16</sup>

5.15 Dr Russell Reichelt of GBRMPA noted that ports have had a lot of focus, and told the committee that governments have endorsed the notion of 'fewer, better managed ports is a better way'. He described the Queensland Ports Strategy, which 'restricts the expansion of new ports' as 'a positive step'. He further noted that there are opportunities to 'improve technologies and to restrict the footprint of ports further'.<sup>17</sup>

### **Ports in the Great Barrier Reef region**

5.16 This section outlines the existing ports in the Great Barrier Reef region, the proposed expansions, and the Queensland Ports Strategy. As the *Outlook Report 2014* states:

Port activities in and adjacent to the Region are increasing and there are proposals for further expansions, including new capital works and continuing or increasing dredging in the coming decade. The direct and flow-on effects of port activities generally occur in areas of the Region that are already under pressure from an accumulation of impacts. Understanding of the ecosystem effects of port activities, in particular the fate of dredge material disposed at sea, is still incomplete but improving. While the effects of port activities are significant, they are relatively more localised than the broadscale impacts from land-based run-off.<sup>18</sup>

5.17 The *Outlook Report 2014* also states that:

The significantly elevated number of port development proposals in the Region has accentuated concerns, both in Australia and internationally, about the likely future impacts of ports and port activities on the Region. Although some of the proposed port developments had the potential to threaten the Region's ecological processes and integrity, it is pertinent to recognise that to date port developments have not resulted in any significant, widespread deterioration of the Region. Some localised effects are recognised, for example at dredging and marine disposal sites.<sup>19</sup>

---

15 Queensland Ports Association, *Submission 13*, p. 3.

16 See, for example, Shipping Australia, *Submission 3*, p. 4; Queensland Resources Council, *Submission 28*, p. 5.

17 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 52.

18 GBRMPA, *Outlook Report 2014*, p. vi.

19 GBRMPA, *Outlook Report 2014*, p. 205.

### ***Existing ports in the Great Barrier Reef region***

5.18 There are currently 12 ports in or adjacent to the Great Barrier Reef region. The *Outlook Report 2014* states that Gladstone, Hay Point, Townsville and Cairns are the busiest ports in relation to commercial vessel visits. In terms of infrastructure and operational capacity, the largest ports are Abbot Point, Gladstone, Hay Point and Townsville. The Gladstone, Abbot Point and Hay Point ports are major hubs for the export of coal. Hay Point is one of the largest coal export terminals in world.<sup>20</sup>

### ***Economic importance of ports and shipping in the Great Barrier Reef region***

5.19 Industry groups highlighted the importance and value of ports and shipping in the Great Barrier Reef region. Ports Australia noted that 'Australia's seaborne trade is worth about 97% of our total trade in goods'.<sup>21</sup>

5.20 Ports Australia further noted that Australia, as an island-trading nation, is 'reliant on seaports for linkages to global markets' and identifies shipping as 'the most environmentally efficient form of bulk transportation'.<sup>22</sup> Ports Australia submitted that:

...Australia's shipping channels are key pieces of national economic infrastructure and like our road and rail networks need to be maintained and developed to support the competitiveness of our economy...a substantial portion of Australia's GDP is generated by our seaborne trade with direct implications for Australian industries and jobs.<sup>23</sup>

5.21 Mr Michael Roche, Chief Executive of the Queensland Resources Council, told the committee that exports worth around \$40 billion per year are moved through the ports along the Great Barrier Reef.<sup>24</sup>

5.22 The *Outlook Report 2014* notes that, for all Queensland ports combined, coal makes up 63 per cent of the throughput volume, petroleum six per cent, and metals and minerals five per cent. Other commodities include agricultural products and general cargo. Ports in or adjacent to the Great Barrier Reef Region account for 76 per cent of the total throughput for all Queensland ports combined.<sup>25</sup>

---

20 GBRMPA, *Outlook Report 2014*, p. 129; see also GBRMPA, *Ports and Shipping Information Sheet: Ports in the Great Barrier Reef*, p. 2, [http://www.gbrmpa.gov.au/\\_data/assets/pdf\\_file/0009/28809/Ports-in-the-Great-Barrier-Reef.pdf](http://www.gbrmpa.gov.au/_data/assets/pdf_file/0009/28809/Ports-in-the-Great-Barrier-Reef.pdf) (accessed 11 July 2014).

21 Ports Australia, *Submission 11*, p. 1.

22 Ports Australia, *Submission 11*, Attachment 1, p. 59; see also Queensland Ports Association, *Submission 13*, p. 2.

23 Ports Australia, *Submission 11*, p. 3 and Attachment 1; see also Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22.

24 Mr Michael Roche, Chief Executive, Queensland Resources Council, *Committee Hansard*, 21 July 2014, p. 30; see also Queensland Resources Council, *Submission 28*, p. 5; Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22.

25 GBRMPA, *Outlook Report 2014*, p. 129.

5.23 Queensland Ports Association similarly submitted that ports adjacent to the Great Barrier Reef support the four key pillars of the Queensland economy: the resources, agriculture, tourism and construction sectors. The Association emphasised that ports in the Great Barrier Reef region:

...contribute significantly to the underlying economic well-being and social infrastructure of Queensland by supporting thousands of jobs.<sup>26</sup>

5.24 Shipping Australia also emphasised the importance of shipping routes through the reef from an economic perspective, submitting that 'there is no doubt that routine ship access to Queensland ports via the Great Barrier Reef is crucial to Australia's economic future'.<sup>27</sup> Shipping Australia further submitted that:

Australia's economy is dependent on shipping to export vast volumes of bulk cargo from ports located around Australia including the eastern seaboard, which require vessels to transit the Great Barrier Reef (GBR) and Torres Strait. Unreasonable restrictions placed on shipping, which increase cost and reduce reliability of the supply chain, will no doubt lead to overseas consumers sourcing their products from other countries. This would be severely damaging to Queensland's and Australia's economies and reduce the national resources available to monitor and protect the Great Barrier Reef.<sup>28</sup>

5.25 Shipping Australia submitted that the Great Barrier Reef 'is one of the most closely managed marine areas in the world and already sets the example for effective multi-use management of a particular sensitive sea area'.<sup>29</sup>

### ***Proposed port expansions***

5.26 There has been a 'major growth in port activity' on the Great Barrier Reef regions over the past two decades. Many of the existing 12 commercial ports in the region have active proposals for port expansions, including, for example, Cairns, Townsville, Hay Point and Gladstone.<sup>30</sup> In December 2013, the Minister for the Environment also approved four projects at Abbot Point and the Port of Gladstone. These are outlined in further detail in the next chapter.

5.27 However, Mr Anderson of Ports Australia told the committee that 'there has been no explosion in port development'.<sup>31</sup> Mr Kaveney of Queensland Ports Association agreed that there is no 'rapid expansion of port development'. The

---

26 Queensland Ports Association, *Submission 13*, p. 1.

27 Shipping Australia, *Submission 3*, p. 1.

28 Shipping Australia, *Submission 3*, p. 2.

29 Shipping Australia, *Submission 3*, p. 3.

30 GBRMPA, *Outlook Report 2014*, p. 129; see also GBRMPA, *Answers to questions taken on notice at hearing on 21 July 2014*, pp 11–12, 14–15; GBRMPA, *Great Barrier Reef Region Strategic Assessment, Strategic Assessment Report*, August 2013, p. 5–24.

31 Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 24.

Queensland Resources Council further advised that 'a large number of publicly announced projects do not proceed to construction or completion': of 25 port-related projects referred under the EPBC Act, only five have been approved, nine have been withdrawn and none have commenced.<sup>32</sup>

5.28 Shipping Australia submitted its support for current and proposed port developments in the Great Barrier Reef region and suggested that 'dredging and offshore dumping are subject to very strict environmental conditions'.<sup>33</sup> Shipping Australia further submitted that:

...port areas should be excluded from the World Heritage Area as their core purpose is industrial and inconsistent with absolute conservation. That being said, their conservation achievements in concert with recent developments have been commendable.<sup>34</sup>

#### *Port capacity issues*

5.29 Some submissions queried the need to expand existing ports, arguing that Queensland ports are operating at below capacity. For example, WWF-Australia and AMCS submitted that 'it is crucial that there is an optimisation of existing port capacity prior to further expansions'. They referred to reports showing that 'existing coal ports are operating at 65 per cent of capacity'.<sup>35</sup>

5.30 This issue was also identified in the GBRMPA Region Strategic Assessment Report, which noted that the three major coal ports (Hay Point, Gladstone and Abbot Point) operated at only 52 per cent of their combined capacity in 2011–12 and that 'the total capacity of planned infrastructure projects progressing through the approval process exceeds the projected volumes of commodity exports out to 2025'. At the same time, the report noted that 'a lower than expected ability to make use of this capacity was identified as a key risk' and that 'further capacity expansion may be required to compensate for the lack of consistent throughput'.<sup>36</sup>

5.31 In contrast, Mr Michael Roche of the Queensland Resources Council told the committee that there is 'very little latent capacity' in Queensland Ports 'under the

---

32 Queensland Resources Council, *Submission 28*, p. 7; see also Mr Thomas Kaveney, Environmental Policy Advisor, Queensland Ports Association, *Committee Hansard*, 21 July 2014, p. 26.

33 Shipping Australia, *Submission 3*, p. 2.

34 Shipping Australia, *Submission 3*, p. 6.

35 WWF-Australia and AMCS; *Submission 23*, p. 2; see also Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, p. 21; Mr Michael McCabe, Coordinator, Capricorn Conservation Council, *Committee Hansard*, 22 July 2014, p. 33; Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 38; Mr Allen Grundy, Director, Southern Cross Sailing Adventures, *Committee Hansard*, 22 July 2014, p. 42.

36 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 5–24. Note that capacity issues at Abbot Point are discussed further in the next chapter.

anticipated growth rates' and that 'our industry does not build *Field of Dreams* ports. The ports are developed in anticipation of a need'. He suggested that 'industry will make a judgement about whether and when further expansions are required to meet demand'.<sup>37</sup>

5.32 Mr Anderson from Ports Australia agreed that:

People are not going to make investments, and the private sector certainly is not going to make investments, in increased port capacity unless they have reasonable surety of contracts and supply.<sup>38</sup>

5.33 Mr Kaveney from the Queensland Ports Association also explained that 'terminals never run at that 100 per cent' and that there are 'a range of other factors that affect the ability to get product through the terminal, and that includes supply chain issues and climate conditions'. He suggested that around 75 to 85 per cent of terminal capacity is what is achievable.<sup>39</sup>

5.34 The Department of the Environment similarly advised that 'the actual capacity of port infrastructure is dependent on many factors, including maintenance shutdowns and adverse weather'.<sup>40</sup>

5.35 Mr Anderson from Ports Australia further noted that the Queensland Ports Strategy (discussed in further detail below) has 'generated a more rigorous conversation about supply chains and the utilisation and efficiency of our supply chains' and will create an 'impetus' to get the best out of our supply chains.<sup>41</sup>

### ***New port proposals***

5.36 The Australian and Queensland Governments submitted that:

Since 2011 no port developments or associated port infrastructure projects have been approved outside the existing and long-established major port areas within or adjoining the GBRWHA.<sup>42</sup>

5.37 However, there are proposals for the development of new ports on previously undeveloped sites at Wongai (in Cape York) and Fitzroy Terminal (in the vicinity of

---

37 Mr Michael Roche, Chief Executive, Queensland Resources Council, *Committee Hansard*, 21 July 2014, pp 32 and 34.

38 Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 25.

39 Mr Thomas Kaveney, Environmental Policy Advisor, Queensland Ports Association, *Committee Hansard*, 21 July 2014, p. 25.

40 Department of the Environment, *Answers to written questions on notice*, p. 12.

41 Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 26.

42 Australian and Queensland Governments, *Submission 34*, p. 21.



Port Alma).<sup>43</sup> These are discussed briefly below. The company involved in a proposed development at Balaclava Island (near Curtis island, Gladstone) announced its withdrawal of the project in May 2013, citing, among other reasons, 'poor current market conditions', 'excess port capacity in Queensland' and 'specific shipping limitations'.<sup>44</sup>

### *Fitzroy Delta*

5.38 The Fitzroy River Delta<sup>45</sup> is the delta and coastal floodplain of the Fitzroy River downstream of the barrage in Rockhampton. It is listed as a nationally important wetland.<sup>46</sup> Ms Ginny Gerlach of the Keppel and Fitzroy Delta Alliance described the Fitzroy Delta as a 'unique and sensitive estuarine habitat' that 'requires urgent, long-term protection and definitive regulation that it is not included in the priority port development area of Gladstone'.<sup>47</sup> Mr Leck from WWF-Australia agreed that the Fitzroy Delta deserves listed protection as an area of high conservation value.<sup>48</sup>

5.39 Some submissions and witnesses expressed concern about that status of a 'transshipping' proposal in the Fitzroy River Delta region.<sup>49</sup> Under the proposed Fitzroy Terminal Project, a coal export facility would be developed and operated at Port Alma. The coal would be transported onto export vessels via covered barges and

---

43 GBRMPA, *Ports and Shipping Information Sheet: Ports—challenges for the Great Barrier Reef*, p. 4, [http://www.gbrmpa.gov.au/\\_data/assets/pdf\\_file/0019/28810/Ports-challenges-for-the-Great-Barrier-Reef.pdf](http://www.gbrmpa.gov.au/_data/assets/pdf_file/0019/28810/Ports-challenges-for-the-Great-Barrier-Reef.pdf) (accessed 11 July 2014); see also GBRMPA, *Outlook Report 2014*, p. 129.

44 Glencore Xstrata, 'Glencore Xstrata relinquishes Balaclava Island Coal Export Terminal (BICET) development', *Media release*, 13 May 2013, <http://www.glencore.com/assets/Uploads/media/glencore/2013/20130513-GlencoreXstrata-relinquishes-Balaclava-Island-Coal-Export-Terminal-development.pdf> (accessed 10 July 2014); see also Mr Dean Knudson, First Assistant Secretary, Department of the Environment, *Committee Hansard*, 21 July 2014, p. 51.

45 See Term of Reference (1)(a)(iii)

46 See further, Department of the Environment, 'Fitzroy River Delta – QLD012', *Directory of Important Wetlands in Australia – Information Sheet*, [http://www.environment.gov.au/cgi-bin/wetlands/report.pl?smode=DOIW&doiw\\_refcodelist=QLD012](http://www.environment.gov.au/cgi-bin/wetlands/report.pl?smode=DOIW&doiw_refcodelist=QLD012) (accessed 6 August 2014).

47 Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 35 and see also p. 37.

48 Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, pp 15 and 16; see also, for example, Mr Michael McCabe, Coordinator, Capricorn Conservation Council, *Committee Hansard*, 22 July 2014, p. 33; Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, pp 35 and 37.

49 WWF-Australia and AMCS, *Submission 23*, pp 2 and 6; Capricorn Conservation Council, *Submission 27*, p. 13; Keppel and Fitzroy Delta Alliance, *Submission 40*, Attachment 1, pp 4 and 24; Ms Felicity Wishart, Great Barrier Reef Campaign Director, AMCS, *Committee Hansard*, 21 July 2014, p. 15; Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 35.

transshippers in open waters.<sup>50</sup> The committee heard that the proposal had lapsed under the Queensland process but was still active under the EPBC Act process.<sup>51</sup>

5.40 These submitters and witnesses expressed dismay that, despite GBRMPA's advice, the proposal had 'unacceptable high risks and should not have been referred', the proposed development has progressed to the stage of the development of Environmental Impact Statement.<sup>52</sup> In answers to questions on notice, the Department of the Environment advised that 'the proponent is currently preparing a draft EIS [Environmental impact Statement]'.<sup>53</sup>

5.41 There was some discussion as to how the Fitzroy Delta will be treated under the Queensland Ports Strategy (discussed further later in this chapter). For example, Mr Leck of WWF-Australia expressed concern that 'there is no explicit protection or measures given for the Fitzroy Delta' under the ports strategy.<sup>54</sup> Ms Wishart of AMCS noted that this was despite the fact that the Queensland Government 'gave undertakings to UNESCO recently that it would protect the Fitzroy Delta from such development in its ports strategy' and that it would not be part of a 'Priority Port Development Area' (PPDA) under the Queensland Ports Strategy.<sup>55</sup>

5.42 However, representatives of the Queensland Government informed the committee that 'the boundaries of PPDA's will be determined at a later date'. There was initially no clear evidence as to whether Port Alma in the Fitzroy Delta would be considered part of a PPDA or not. Representatives of the Queensland Government told the committee that 'would be speculation', whereas a Commonwealth official told the committee that 'you would not expect it to be' since 'Port Alma is recognised as part of the port of Rockhampton'.<sup>56</sup> However, in response to written questions on this

---

50 See further EPBC Referral 2011/6069, [http://www.environment.gov.au/cgi-bin/epbc/epbc\\_ap.pl?name=referral\\_detail&proposal\\_id=6069](http://www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=referral_detail&proposal_id=6069) (accessed 19 August 2014).

51 See, for example, Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 35.

52 See, for example, Ms Felicity Wishart, Great Barrier Reef Campaign Director, Australian Marine Conservation Society, *Committee Hansard*, 21 July 2014, pp 15–16; WWF-Australia and AMCS; *Submission 23*, p. 6; Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 35.

53 Department of the Environment, Queensland Government and GBRMPA, *Answers to questions on notice from public hearing on 21 July 2014*, p. 16.

54 Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, pp 18–19; see also Ms Ginny Gerlach, Director and Coordinator, Keppel and Fitzroy Delta Alliance, *Committee Hansard*, 22 July 2014, p. 36.

55 Ms Felicity Wishart, Great Barrier Reef Campaign Director, AMCS, *Committee Hansard*, 21 July 2014, p. 19; see also p. 16; WWF-Australia and AMCS, *Submission 23*, p. 6.

56 Mr Adrian Jeffreys, Executive Director, Environment Taskforce, Queensland Department of Environment and Heritage Protection and Dr Kimberley Dripps, Deputy Secretary, Department of the Environment, *Committee Hansard*, 21 July 2014, p. 61.

issue, the Queensland Government confirmed that 'Port Alma, also known as the Port of Rockhampton, will not be declared a PPDA'.<sup>57</sup>

5.43 The Australian and Queensland Governments also submitted that the Queensland Ports Strategy 'will not seek to retrospectively prohibit projects that have been previously approved or proposals that have begun the environmental assessment and approval process'. They noted that the Fitzroy Terminal proposal has been referred to the Commonwealth under the EPBC Act, but had lapsed under the Queensland process in 2014. They noted that only the proponent has the ability to withdraw a proposal under EPBC Act assessment process, and 'to date has not elected to do so'.<sup>58</sup>

#### *Cape Melville and Bathurst Bay*

5.44 The committee notes that its terms of reference refer to current and proposed developments in Cape Melville and Bathurst Bay. Cape Melville and Bathurst Bay are north-west of Cooktown on Cape York. There is a proposal currently undergoing assessment for the construction and operation of a new underground coal mine called the 'Wongai Project'. The proposed mine will extract 1.5 million tonnes of coal per annum, and also involves the transport of coal 'via a covered conveyor transport systems to a barge loading facility where it will be barged prior to loading onto ships for export to market'.<sup>59</sup>

5.45 The Wongai Project is currently undergoing assessment under the EPBC Act, the *State Development and Public Works Organisation Act 1971* (Qld) and will also require a permit from GBRMPA under the GBRMP Act.<sup>60</sup>

5.46 While the committee received little evidence on this project, it is noted that the GBRMPA website states that:

The Bathurst Bay and Princess Charlotte Bay areas are biologically significant areas for the Great Barrier Reef Marine Park and the Great Barrier Reef World Heritage Area. It is home to a number of threatened

---

57 Queensland Government, *Answers to written questions on notice*, p. 29.

58 Australian and Queensland Governments, *Submission 34*, p. 15; see also Department of the Environment, *Answers to written questions on notice*, p. 11.

59 See further Department of the Environment, EPBC Referral 2011/6092, [http://www.environment.gov.au/cgi-bin/epbc/epbc\\_ap.pl?name=referral\\_detail&proposal\\_id=6092](http://www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=referral_detail&proposal_id=6092) (accessed 15 August 2014); GBRMPA, *Wongai underground coal mine project in Cape York*, <http://www.gbrmpa.gov.au/about-us/consultation/current-proposals-under-assessment/wongai-underground-coal-mine-project-in-cape-york> (accessed 15 August 2014).

60 Mr Dean Knudson, First Assistant Secretary, Department of the Environment, *Committee Hansard*, 21 July 2104, p. 51; see also GBRMPA, *Wongai underground coal mine project in Cape York*, <http://www.gbrmpa.gov.au/about-us/consultation/current-proposals-under-assessment/wongai-underground-coal-mine-project-in-cape-york> (accessed 15 August 2014).

and endangered species. It is also an area of significant cultural and heritage values associated with the Flinders Island group.<sup>61</sup>

5.47 Several submitters and witnesses referred to the Wongai Project in the context of concerns about the development of Northern Australia (as discussed in the previous chapter). WWF-Australia and AMCS commented that:

The Far Northern Section of the Great Barrier Reef is in good condition and the impacts from coastal development are very limited given the relatively intact condition of the coastal environments and catchments. It is important to maintain the integrity of this region by not allowing any new development in the Far Northern Area, This includes port development, including trans-shipping infrastructure in the Cape Melville and Bathurst Bay area.<sup>62</sup>

5.48 Mr Josh Coates from CAFNEC told the committee that the Wongai Project was of particular concern to CAFNEC, as it would 'involve transshipping of coal in a particularly sensitive area of the Great Barrier Reef'.<sup>63</sup>

5.49 Representatives of the Department of the Environment told the committee that an approval decision under the EPBC Act could be considered likely in the fourth quarter of 2015.<sup>64</sup>

### ***Queensland Ports Strategy***

5.50 As noted in Chapter 2, the Queensland Government recently released the Queensland Ports Strategy, which outlines the Queensland Government's framework for port development over the next ten years. The strategy proposes a new Ports Act, to prohibit dredging within and adjoining the Great Barrier Reef World Heritage Area for the development of new, or the expansion of existing port facilities outside 'Priority Port Development Areas' (PPDAs) at Gladstone, Hay Point/Mackay, Abbot Point and Townsville, for the next ten years.<sup>65</sup>

5.51 The Australian and Queensland Governments submitted that the Queensland Ports Strategy 'reflects the Queensland Government's commitment to protect pristine areas of the Great Barrier Reef from the impacts of port development'. However, at

---

61 GBRMPA, *Wongai underground coal mine project in Cape York*, <http://www.gbrmpa.gov.au/about-us/consultation/current-proposals-under-assessment/wongai-underground-coal-mine-project-in-cape-york> (accessed 15 August 2014).

62 WWF-Australia and AMCS; *Submission 23*, p. 6.

63 Mr Josh Coates, CAFNEC, *Committee Hansard*, 23 July 2014, p. 10; see also CAFNEC, *Submission 19*, p. 1.

64 Mr Dean Knudson, First Assistant Secretary, Department of the Environment, *Committee Hansard*, 21 July 2014, p. 51; see also GBRMPA, *Wongai underground coal mine project in Cape York*, <http://www.gbrmpa.gov.au/about-us/consultation/current-proposals-under-assessment/wongai-underground-coal-mine-project-in-cape-york> (accessed 15 August 2014).

65 Australian and Queensland Governments, *Submission 34*, p. 14; see also Queensland Government, *Queensland Ports Strategy 2014*, <http://www.dsdp.qld.gov.au/infrastructure-and-planning/queensland-ports-strategy.html> (accessed 8 July 2014).

the same time, they noted that the Strategy 'will not seek to retrospectively prohibit projects that have been previously approved' or proposals that have begun an environmental assessment process prior to the commencement of the Ports Act.<sup>66</sup>

5.52 The Australian and Queensland Governments noted that the proposals (mentioned above) for the Fitzroy Terminal and the Wongai in Cape York have been referred, and as such are exempt from the Ports Strategy restrictions. However, they further noted that the Fitzroy Terminal proposal had lapsed under the Queensland process in 2014, but at this stage the proposal had not been withdrawn from the EPBC Act assessment process. In contrast, the Balaclava Island proposal has been withdrawn and will therefore be prohibited under the Queensland Ports Strategy.<sup>67</sup>

#### *Support for the Queensland Ports Strategy*

5.53 Industry groups generally expressed support for the Queensland Ports Strategy.<sup>68</sup> For example, the Queensland Ports Association submitted that, through the Ports Strategy, the Queensland Government has 'responded appropriately' to the World Heritage Committee's request to restrict major port development to long-established port development areas within the Great Barrier Reef World Heritage Area.<sup>69</sup>

5.54 Mr Anderson of Ports Australia also supported the Ports Strategy, noting that the Queensland Government will 'legislate the requirement of long-term master plans to be developed for each of the priority ports—each to be supported by an environmental management framework and committed to high values'.<sup>70</sup>

5.55 Some submitters and witnesses noted that the World Heritage Committee has welcomed Australia's intention to focus port development to the 'Priority Port Development Areas' and the commitment to protect 'green-field' areas from the impacts of port development.<sup>71</sup> Indeed, Mr Jon Black, Director-General of the Queensland Department of Environment and Heritage Protection, told the committee that 'the Queensland government made a very clear commitment to meeting the World Heritage Committee's desires' and the Queensland Ports Strategy reflects that commitment. In terms of the Priority Port Development Areas (PPDAs), the

---

66 Australian and Queensland Governments, *Submission 34*, p. 14.

67 Australian and Queensland Governments, *Submission 34*, p. 15.

68 See, for example, Mr Michael Roche, Chief Executive, Queensland Resources Council, *Committee Hansard*, 21 July 2014, p. 31; Mr David Anderson, Chief Executive Officer, *Ports Australia*, 21 July 2014, p. 23; Queensland Ports Association, *Submission 13*, p. 5; Queensland Resources Council, *Submission 28*, p. 9.

69 Queensland Ports Association, *Submission 13*, p. 5; see also Mr David Anderson, Chief Executive Officer, *Ports Australia*, 21 July 2014, p. 31.

70 Mr David Anderson, *Ports Australia*, *Committee Hansard*, 21 July 2014, p. 23.

71 UNESCO World Heritage Committee, Decision 38 COM 7B.63, 2014, p. 116; see also Shipping Australia, *Submission 3*, p. 7; Mr Michael Roche, Chief Executive, Queensland Resources Council, *Committee Hansard*, 21 July 2014, p. 33.

committee was advised that 'the boundaries of PPDAs will be determined at a later date', but that:

...there is a process that includes very, very rigorous public consultation on that process in terms of the definition of those areas and that is obviously a matter for the proponents to take forward.<sup>72</sup>

5.56 In contrast, Mr Brodie told the committee that the World Heritage Committee wants the Australian and Queensland Governments to 'show some real action on better port governance, and that is just not happening'.<sup>73</sup>

#### *Criticisms of the Queensland Ports Strategy*

5.57 Other submitters were critical of the Queensland Ports Strategy. WWF-Australia and AMCS suggested that it:

...would still allow for significant expansion in the footprint of port facilities within the port limits, a major increase in dredging and dumping, and the number of ships traversing the World Heritage Area.<sup>74</sup>

5.58 CAFNEC agreed that the strategy still allows significant expansions of existing ports, describing the Queensland Ports Strategy as 'misleading'. CAFNEC further noted that most of the concerns 'regarding port expansion on the Great Barrier Reef are in response to significant expansion of existing port limits'.<sup>75</sup> For example, both CAFNEC and the Cairns Local Marine Advisory Committee expressed grave concerns about the proposed expansion of Cairns Port in Trinity Inlet 'to allow large cruise ships direct access to the city wharf'. This would involve capital dredging of up to five million cubic metres of potentially acid sulphate soils, followed by annual maintenance dredging of 580,000 cubic metres.<sup>76</sup>

5.59 Mr Coates of CAFNEC suggested that there is an existing solution for cruise ships, whereby passengers are transferred to shore by smaller boat. He further explained that the Cairns port development proposal sits outside the Queensland Ports Strategy, and argued that this:

...is not in the spirit or the intent of the Queensland Ports Strategy and it does not fit within what the Queensland government is telling the

---

72 Mr Jon Black, Director-General, Queensland Department of Environment and Heritage Protection; see also Mr Adrian Jeffreys, Executive Director, Environment Taskforce, Queensland Department of Environment and Heritage Protection, *Committee Hansard*, 21 July 2014, pp 60–61.

73 Mr Jon Brodie, *Committee Hansard*, 23 July 2014, p. 27.

74 WWF-Australia and AMCS, *Submission 23*, p. 2.

75 CAFNEC, *Submission 19*, pp 4–5; see also Ms Ellen Roberts, Coordinator, Mackay Conservation Group, *Committee Hansard*, 22 July 2014, p. 16.

76 CAFNEC, *Submission 19*, p. 1; Cairns Local Marine Advisory Committee, *Submission 7*, p. 2; WWF and AMCS, *Submission 23*, p. 2; see also Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 9, 12–13.

international bodies like UNESCO...in restricting port expansions to those five priority port areas.<sup>77</sup>

5.60 Both CAFNEC and WWF-Australia and AMCS further submitted that the Queensland Ports Strategy:

- contains very broad exemptions for projects which have already commenced to the planning stage (such as the Cairns and Fitzroy Terminal proposals);
- has a timeframe of only ten years, which is not in keeping with the Strategic Assessment and long-term sustainability plan timeline (which is out to 2050);
- is being completed before the Strategic Assessment and long-term sustainability plan are complete; and
- does not adequately deal with cumulative and combined impacts of port development.<sup>78</sup>

5.61 Ms Wishart of the AMCS described the Queensland Ports Strategy as a 'serious failure':

We had high hopes that the government here in Queensland would increase protection but that is not the case. It is essentially business as usual...we had high hopes that we would see constraints around the ports and that we would see a commitment, for example, to no dredging and dumping in Cairns. But those things are not clearly outlined in the strategy.<sup>79</sup>

5.62 In terms of timeframes, the Australian and Queensland Governments' submission noted that the ten-year timeframe:

...aligns with standard legislative review timeframes. The legislation is required to be reviewed within ten years. The review will determine whether the commitment is extended by the Queensland Government.<sup>80</sup>

### **Impacts of ports, dredging and dredge spoil disposal**

5.63 The *Outlook Report 2014* identifies the impacts of the installation, maintenance and operation of ports as including:

...clearing and modifying coastal habitats; disturbance, displacement, dredging, disposal and resuspension of dredge material; injury and death of wildlife; the risk of large and small chemical and oil spills; some contribution to marine debris; altered light regimes; and diminished

---

77 Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 15.

78 CAFNEC, *Submission 19*, pp 12–13; Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 10; see also WWF-Australia and AMCS, *Submission 23*, p. 2; Ms Ellen Roberts, Coordinator, Mackay Conservation Group, *Committee Hansard*, 22 July 2014, p. 21.

79 Ms Felicity Wishart, Great Barrier Reef Campaign Director, AMCS, *Committee Hansard*, 21 July 2014, p. 19; see also p. 16.

80 Australian and Queensland Governments, *Submission 34*, p. 14.

aesthetic values. Noise pollution associated with general port activities such as pile driving may be affecting marine life. However little is known of its effects in the Region.<sup>81</sup>

5.64 However, the key issue raised in evidence to the committee was the impacts of dredging and disposal of dredge spoil in the Great Barrier Reef region. This is discussed in further detail below.

### ***Levels of dredging and disposal in the Great Barrier Reef region***

5.65 A key concern with the proposed new ports and port expansions was the associated dredging and dredge spoil disposal. 'Dredging' involves:

...the extraction of parts of the seafloor (predominantly sand and fine silt, but also harder substrate such as rock) to deepen an area and allow increased access for navigation.<sup>82</sup>

5.66 Both 'capital' dredging and 'maintenance' dredging were discussed during the committee's inquiry. The term 'capital' dredging refers to dredging undertaken to create, lengthen, widen or deepen channels, berth areas, swing basins, marinas and harbour areas. 'Maintenance' dredging is undertaken to ensure that previously dredged depths are maintained (that is, removing accumulated silt from the channel).<sup>83</sup>

5.67 The *Outlook Report 2014* noted that between 2001 and 2013, the total volume of dredge material (from both capital and maintenance dredging) disposed in the Great Barrier Reef World Heritage Area was around 28 million cubic metres.<sup>84</sup> Dr Reichelt of GBRMPA advised that an average of around 1.2 million tonnes is disposed of each year within the Great Barrier Reef World Heritage Area.<sup>85</sup> The largest quantity of dredge material disposed in the Marine Park in a single campaign was 8.6 million cubic metres associated with the Port of Hay Point in 2006.<sup>86</sup> In January 2014, a proposal for Abbot Point was approved to dispose of three million cubic metres (discussed further in the next chapter).<sup>87</sup>

---

81 GBRMPA, *Outlook Report 2014*, pp 130–131. Note that noise pollution is considered further in the discussion of the impacts of shipping elsewhere in this report (although the committee acknowledges that noise pollution is not just caused by shipping).

82 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–29.

83 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–29; see also Queensland Ports Association, *Submission 13*, p. 7 and Mr David Anderson, Chief Executive Officer, *Ports Australia*, 21 July 2014, p. 22.

84 GBRMPA, *Outlook Report 2014*, p. 129; see also GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–30.

85 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 61.

86 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–30.

87 GBRMPA, *Outlook Report 2014*, p. 129.



5.68 In terms of future dredging and disposal projects currently under assessment, the *Outlook Report 2014* states that:

Proposals involving sea disposal [of dredge spoil] in the Great Barrier Reef World Heritage Area that are currently under assessment include (but are not limited to): Cairns shipping development project (five million cubic metres); Townsville port expansion (5.7 million cubic metres); and expansions of the Dudgeon Point coal port facility (up to 13 million cubic metres) and the Port of Gladstone (up to 12 million cubic metres).<sup>88</sup>

5.69 WWF-Australia and AMCS expressed concern that if:

...all new port and port expansions go ahead there will be at least 70 million cubic metres of capital dredging required within the Great Barrier Reef World Heritage Area. At least 43 million cubic metres of this dredge material will be dumped back into the waters of the Great Barrier Reef World Heritage Area.<sup>89</sup>

5.70 At the same time, Ports Australia submitted that dredging 'is not an indulgence but an economic imperative', since shipping channels are 'key pieces of national economic infrastructure and their capacity determines supply chain performance'.<sup>90</sup> Queensland Ports Association agreed that 'dredging is not an optional activity':

Few ports in the GBRWHA are naturally deep and dredging is needed to allow ships to enter ports efficiently, quickly and safely. Dredging is not an optional activity and has been an essential element of operating ports in the [Great Barrier Reef] for more than 100 years. Maintenance dredging as well as periodic enlarging and development of navigation channels is required to allow trade to occur and enable economic growth. All dredging and at sea placement activities are subject to detailed management measures to ensure impacts are effectively managed and do not result in unapproved impacts.<sup>91</sup>

---

88 GBRMPA, *Outlook Report 2014*, p. 130; see also GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–29. Note that some of the exact disposal at sea volumes are yet to be determined: Department of the Environment, Queensland Government and GBRMPA, *Answers to questions on notice from public hearing on 21 July 2014*, pp 11–12.

89 WWF-Australia and AMCS, *Submission 23*, p. 2.

90 Ports Australia, *Submission 11*, p. 1; see also Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22.

91 Queensland Ports Association, *Submission 13*, p. 7; see also Queensland Resources Council, *Submission 28*, pp 11–12.

### *Impacts of dredging and disposal of dredge spoil*

5.71 The committee notes that the GBRMPA *Outlook Report 2014* rated dredging as a 'medium risk' and disposal of dredge material as 'high risk' to the health of the Great Barrier Reef.<sup>92</sup>

#### *Impacts of dredging*

5.72 The Great Barrier Reef Region Strategic Assessment lists the impacts of dredging activities as: seabed disturbance; removal or modification of habitats; loss of, injury or mortality to species; changes to species behaviour; degradation of water quality, including increased turbidity; changes to hydrodynamics and coastal hydrology; increased underwater noise; and an increased risk of oil spills.<sup>93</sup> The *Outlook Report 2014* adds that:

The most severe effects are at the site of dredging but some, including sedimentation, turbidity, noise and disruption of fish habitats, may also occur some distance from the site.<sup>94</sup>

5.73 Professor Mumby of the Australian Coral Reef Society told the committee that until recently 'there has not been a real discussion about the actual impact of dredging' in the scientific community, but 'there has been a lot of speculation'.<sup>95</sup>

5.74 Dr Reichelt of GBRMPA told the committee that 'there has been a lot of scientific and technical monitoring of dredging operations' and that 'there is no evidence that I am aware of that shows any impact in the short-term...within a five to 10 kilometre radius'.<sup>96</sup>

5.75 Mr Jon Brodie referred to research indicating that 'dredging has large effects on coral and fish'.<sup>97</sup> In particular, several witnesses and submitters referred to a recent study which tied dredging to coral disease and coral mortality on the west coast of

---

92 GBRMPA, *Outlook Report 2014*, p. 256; see also Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 52; Whitsunday Charter Boat Industry Association, *Submission 46*, p. 9.

93 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–30; see also GBRMPA, *Outlook Report 2014*, p. 131.

94 GBRMPA, *Outlook Report 2014*, p. 131.

95 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 3.

96 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 60.

97 Mr Jon Brodie, *Committee Hansard*, 23 July 2014, p. 27.

Australia.<sup>98</sup> Professor Pandolfi of the Australian Coral Reef Society told the committee that the study has direct implications for the Great Barrier Reef:

One might say, 'What does that have to do with us? The dredging was eight kilometres away from the reef. Is that really an issue for the Great Barrier Reef?' In fact, the Great Barrier Reef and all reef ecosystems share a tremendous amount of connectivity. The sediment plumes and the oceanography dictate that any resuspended sediments caused by dredging or run-off or any kinds of these issues will eventually make their way to the Great Barrier Reef. We even have evidence that these kinds of sediments are reaching the outer part of the Great Barrier Reef. If anybody wants to tell you that it has nothing to do with the Great Barrier Reef, I would like to state here quite unequivocally that it does.<sup>99</sup>

5.76 Professor Mumby agreed that, due to this study, 'there is now unequivocal evidence that sediment from dredging can have a negative effect on coral reefs'.<sup>100</sup>

5.77 However, in answers to questions on notice, the Department of the Environment advised that:

There are no past approvals or projects currently under assessment in the Great Barrier Reef that involve a dredging campaign over a similar timeframe and in close proximity to the reef, that would be considered comparable to the study.<sup>101</sup>

#### *Impacts of disposal of dredge spoil*

5.78 Once material is extracted from the seafloor during dredging, it requires disposal. Disposal sites may include ocean disposal sites, near-shore reclamation areas and land-based receiving facilities. Chapter 2 outlined the regulatory arrangements relating to 'sea dumping' in the Great Barrier Reef region. There was considerable discussion during the committee's inquiry of the extent to which all the impacts of the disposal of dredge spoil—direct and indirect, short and long term—are understood.

5.79 Industry groups suggested that the risks and impacts of dredging and its disposal are overstated and well understood. They also emphasised that dredged

---

98 FJ Pollock et al, 'Sediment and Turbidity Associated with Offshore Dredging Increase Coral Disease Prevalence on Nearby Reefs', July 2014, PLoS ONE 9(7), <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0102498> (accessed 20 August 2014). Note that this study is also discussed in relation to the Abbot Point case study in the next chapter.

99 Professor John Pandolfi, Councillor and Past President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 2; see also for example, Mr Tony Brown, President, Whitsunday Charter Boat Industry Association, *Committee Hansard*, 22 July 2014, p. 11.

100 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 3.

101 Department of the Environment, Queensland Government and GBRMPA, *Answers to questions on notice from public hearing on 21 July 2014*, p. 1.

material is subject to management measures and is never dumped on coral reefs or on habitats of high conservation value.<sup>102</sup>

5.80 For example, Queensland Ports Association submitted its view that the draft Strategic Assessment 'significantly overstates the risks and impacts of dredging and dredge material placement at-sea'.<sup>103</sup> Queensland Ports Association submitted that impacts associated with 'dredging and dredge material placement in the [Great Barrier Reef] over recent years have been localised and short term', and that 'approaches to predicting such impacts are accurate and dredge management techniques effective'.<sup>104</sup> Queensland Ports Association further submitted that 'where some dispersal [of dredged material] does occur, monitoring studies have shown that this is limited and has not affected areas of high conservation value'.<sup>105</sup>

5.81 Shipping Australia agreed that:

...claims of widespread and unintentional effects of many recent dredging projects in northern Australia are not supported by the results of extensive monitoring that has been carried out.<sup>106</sup>

5.82 As noted earlier in this chapter, Ports Australia submitted that:

Claims around the environmental impacts of dredging and shipping in Queensland ports have been exaggerated whereas scientific research has indicated that the impacts are at a low or minimal level. We reiterate that port developments and shipping activities are not recognised as the primary impacts upon the Reef.<sup>107</sup>

5.83 Mr Anderson from Ports Australia reiterated this during the committee's hearing, telling the committee that 'the impact of dredging on the reef is not significant' and that 'the sediment impacts from dredging are minor in comparison to those from river discharges and cyclones'.<sup>108</sup>

5.84 Ports Australia also expressed its disappointment in the process for dredge management research adopted by GBRMPA as part of the Strategic Assessment (the role of GBRMPA and the Strategic Assessments are discussed in further detail in Chapter 8). Ports Australia also supplied a report, *Dredging and Australian Ports*, to 'bring factual information about the impacts of dredging which had been deliberately

---

102 See, for example, Queensland Ports Association, *Submission 13*, p. 7; Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22; Queensland Resources Council, *Submission 28*, p. 11.

103 Queensland Ports Association, *Submission 13*, p. 10.

104 Queensland Ports Association, *Submission 13*, p. 7.

105 Queensland Ports Association, *Submission 13*, p. 7; see also Mr David Anderson, Chief Executive Officer, Ports Australia, *Committee Hansard*, 21 July 2014, p. 22.

106 Shipping Australia, *Submission 3*, pp 3–4.

107 Ports Australia, *Submission 11*, p. 2.

108 Mr David Anderson, Chief Executive Officer, *Ports Australia*, 21 July 2014, pp 22 and 25.

misrepresented by some groups, particularly in relation to impacts on the Great Barrier Reef'. Ports Australia emphasised that:

...the vast majority of dredging in northern Australian ports involves clean sediments and, where any toxic material are identified, it is disposed of on land not at sea'.<sup>109</sup>

5.85 Ports Australia also suggested that ports put 'substantial effort and resources' into 'responsibly assessing and managing dredging projects to protect areas of high conservation value', and that they have 'a proven and positive record in relation to dredging and continually strive to ensure they adopt the latest dredging modelling and management techniques'.<sup>110</sup>

5.86 Ports Australia further described the legal framework around dredging as 'detailed and complex', and the *National Assessment Guidelines for Dredging* (as mentioned in Chapter 2) as 'internationally recognised as leading practice'.<sup>111</sup>

5.87 Mr Kaveney from the Queensland Ports Association told the committee that 'the impacts that can occur from the placement of material in the marine environment are well understood and can be well managed'. In relation to dredging projects he told the committee that 'understanding what impacts can occur and how you might manage them is a well-developed science'. He further stated that most of the science shows that 'the disposal into the marine environment does not have significant impacts'.<sup>112</sup>

5.88 In contrast, many other submitters and witnesses argued that dredging and dredge spoil disposal can have adverse impacts, and identified a need for more information on the impacts of dredging and dredge spoil. For example, Professor Hughes told the committee that:

...the claim by the port authorities that they are having no impact on corals is simply not tenable. The issue here is that the monitoring required of dredging operations and port expansions is woefully inadequate, so there is a lack of information.<sup>113</sup>

5.89 CAFNEC submitted that there is 'insufficient scientific information on the effects of sediment dumping in or near coral reef and seagrass ecosystems' and that 'more studies on dredge spoil components and their individual, combined and cumulative impacts are needed prior to any more approvals'.<sup>114</sup>

---

109 Ports Australia, *Submission 11*, p. 2; see also Shipping Australia, *Submission 3*, pp 3–4; Queensland Ports Association, *Submission 13*, p. 8.

110 Ports Australia, *Submission 11*, p. 2.

111 Ports Australia, *Submission 11*, p. 3.

112 Mr Thomas Kaveney, Environmental Policy Advisor, Queensland Ports Association, *Committee Hansard*, 21 July 2014, pp 24–25.

113 Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 29.

114 CAFNEC, *Submission 19*, pp 7 and 9; see also Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 10.

*Decline in visibility in the Whitsundays*

5.90 The committee also received anecdotal evidence, particularly from tourism operators in the Whitsunday region, querying whether dredging and dredge spoil disposal is impacting on water quality and reduced visibility in that area. For example, Mr Colin McKenzie, of the Association of Marine Park Tourism Operators (AMPTO), told the committee that 'we need more information' on this issue:

There has been a drop in visibility in the Whitsundays. The average visibility in 2006 was about 15 metres. The average visibility in 2007 dropped—and it was a very quick event—to less than nine metres and it has not recovered from that.<sup>115</sup>

5.91 He queried whether it had been caused by dredging at Hay Point in 2006:

The only major event that occurred in that time frame was in 2006 when we dredged Hay Point. A lot of people, particularly tourism operators within the Whitsundays, are concerned that that dredge spoil just continued to drift north and then we had a sudden and dramatic decline in visibility. The water still looks beautiful from the top—a nice blue and it looks pristine—but when you get into it and it is like trying to swim in milk.<sup>116</sup>

5.92 Similarly, Mr Tony Brown queried 'why is our water quality diminishing, compared to somewhere like Cairns, which has been stable? What is impacting our water quality that is not impacting the Cairns water, because it has had cyclones and flooding?'<sup>117</sup>

5.93 However, in response to questioning, Dr Reichelt of GBRMPA told the committee that it is difficult to distinguish the impacts of the Hay Point dredging from the impacts of flood events, but that 'the signal from the floods is much greater than the spatial extent of the dredging effects', although the Hay Point dredging 'would have added to that plume from the rivers'.<sup>118</sup>

5.94 In response to questioning on whether studies have been done regarding the impacts of the dredging and disposal at the Port of Hay Point in 2006, the Department of the Environment responded that the conditions of approval for the dredging and disposal included a range of 'before, during and after monitoring programs' which

---

115 Mr Colin McKenzie, Executive Director, AMPTO, *Committee Hansard*, 23 July 2014, p. 33; see also Mrs Jan Claxton, *Committee Hansard*, 22 July 2014, p. 3; Mr Tony Fontes, *Committee Hansard*, 22 July 2014, p. 4; Mr Allen Grundy, Director, Southern Cross Sailing Adventures, *Committee Hansard*, 22 July 2014, p. 41.

116 Mr Colin McKenzie, Executive Director, AMPTO, *Committee Hansard*, 23 July 2014, p. 33; see also Mrs Jan Claxton, *Committee Hansard*, 22 July 2014, p. 3; Mr Tony Fontes, *Committee Hansard*, 22 July 2014, p. 4; Mr Allen Grundy, Director, Southern Cross Sailing Adventures, *Committee Hansard*, 22 July 2014, p. 41; Whitsunday Residents Against Dumping, *Submission* 39, pp 3–4.

117 Mr Tony Brown, President, Whitsunday Charter Boat Industry Association, *Committee Hansard*, 23 July 2014, p. 13.

118 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 54 and p. 62.

'targeted water quality, inshore coral reefs, seagrass and benthic assemblages'. The department further advised that 'all dredging and disposal activities' permitted by GBRMPA since 2006 'have required monitoring and management of potential changes in water quality'.<sup>119</sup>

#### *Movement of dredge spoil*

5.95 However, many other witnesses and submitters also expressed concern about the potential movement and resuspension of dredge spoil. As Professor Peter Mumby told the committee, the concern is that 'the ocean is highly connected by ocean currents. Therefore, the major concern is that you can dump somewhere but they [the sediments] do not stay there, they move'.<sup>120</sup> For example, Mr Tony Brown of the Whitsunday Charter Boat Industry Association asked:

How long is sediment considered sediment before it becomes natural? How far does it travel? How long? When it gets resuspended through a weather event, is it sediment? Is it natural now or was it part of the dredge sediment. These are the questions that we keep going to and non-one can answer, because the fact is that studies have not been done to really understand that aspect.<sup>121</sup>

5.96 Similarly, Mr Jeremy Tager suggested that 'there is significant resuspension of sediments, from dredging and dumping and things such as storms and extreme events'.<sup>122</sup> Ms Margaret Moorhouse similarly explained that the issue is that 'every time you dredge...you are re-suspending the solids and giving whatever is in them another life, another time to do damage and to be carried out further towards the outer reefs'.<sup>123</sup>

5.97 In terms of the fate of sediments that are disposed offshore, Dr Reichelt of GBRMPA told the committee that there 'are some good scientific papers' which indicate that 'sediment does move but you are talking category 4 or category 5 cyclones to make it move'. He further noted that 'it becomes difficult to distinguish the sediments that have come from a one-off suspension by dredging versus all of the other active sediments'.<sup>124</sup>

5.98 The committee notes that the *Outlook Report 2014* states that the 'major direct impacts of sea disposal include the burial or smothering of plants and animals on the sea floor, degradation of water quality, and loss and modification of habitats'. It also

---

119 Department of the Environment, *Answers to written questions on notice*, p. 5.

120 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 7.

121 Mr Tony Brown, President, Whitsunday Charter Boat Industry Association, *Committee Hansard*, 22 July 2014, p. 11.

122 Mr Jeremy Tager, *Committee Hansard*, 23 July 2014, p. 7.

123 Ms Margaret Moorhouse, Spokesperson, Alliance to Save Hinchinbrook, *Committee Hansard*, 23 July 2014, p. 17; see also, for example, CAFNEC, *Submission 19*, p. 3.

124 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 61.

notes that there is 'emerging evidence of a higher prevalence of coral disease in areas exposed to dredge material'. The *Outlook Report 2014* states that 'recent modelling suggests resuspended sediment could potentially travel considerably further than previously understood'. The *Outlook Report 2014* explains:

Dredging and disposal of dredge material can also remobilise, redistribute and resuspend sediments and nutrients that were otherwise held within seafloor sediments. Fine sediments can become resuspended over several years by wind and waves, contributing to increased turbidity.<sup>125</sup>

5.99 The GBRMPA Region Strategic Assessment agreed that the 'effects of dredge disposal may be more widespread than previously understood':

Recent research indicates re-suspended dredge material may move over much greater distances from disposal sites than previously assumed. While the full extent of any effects on the Region's values is not well understood, uncertainty regarding the additional effects of sea dumping is a key concern, particularly given the potential for large volumes of proposed dredge material to be dumped and resuspended in areas of the Region already in poor condition.<sup>126</sup>

5.100 The GBRMPA Region Strategic Assessment also identified a need to improve understanding of the effects of sea dumping, as well as modelling of dredge material movement.<sup>127</sup> The GBRMPA Region Strategic Assessment states that:

There is evidence that material disposed at existing dredge disposal grounds does not remain within the defined disposal area and that previous modelling of predicted sediment plumes may have significantly underestimated the dispersal and direction of sediments and thus the full extent and potential magnitude of potential impacts.<sup>128</sup>

5.101 Dr Oliver of AIMS told the committee that 'we actually do not have very good data at all on the long-term fate of these dredged spoil disposal areas'.<sup>129</sup> AIMS noted that work on direct dredging impacts within the Great Barrier Reef Marine Park 'has been carried out to a high scientific standard and with expert peer review', but that:

The less direct impacts of spoil dumping and long-term dispersal of spoil material, and the cumulative impact of repeated dredging or multiple dredging in the region has received less attention...<sup>130</sup>

---

125 GBRMPA, *Outlook Report 2014*, p. 131 and see also p. 50.

126 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–74.

127 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2013, p. 6–40.

128 GBRMPA, *Great Barrier Reef Region Strategic Assessment: Strategic Assessment Report*, August 2014, p. 6–30.

129 Dr Jamie Oliver, Research Director, AIMS, *Committee Hansard*, 23 July 2014, p. 23.

130 AIMS, *Submission 36*, p. 2; see also, for example, CAFNEC, *Submission 19*, p. 9.



5.102 To deal with the 'uncertainties in the science associated with dredging', AIMS explained that GBRMPA and AIMS recently co-convened an expert Dredging Panel to review what is known about the impacts of dredging on the GBRWHA, where key knowledge gaps exist, and to help provide guidance to future dredging operations and assessments. AIMS explained that:

The results of the Panel's work will be communicated later this year, however it is highly likely that work to address identified knowledge gaps will require a significant investment of resources over several years.<sup>131</sup>

5.103 As noted in Chapters 3 and 6, some submitters and witnesses queried, in light of this uncertainty, why dredging and disposal approvals are still being approved, given the legislative requirements to consider the precautionary principle. The Department of the Environment responded that 'the precautionary principle has been taken into account in making decisions of approval on dredging proposals'.<sup>132</sup>

### ***Impact of dredging and disposal on other strategies***

5.104 A key concern was that the dredging and disposal will undermine other efforts to reduce run-off to the reef, as discussed in Chapter 3. For example, CAFNEC described the dredging and disposal approvals and proposals as 'a slap in the face' for 'farmers and land managers who have been and still are being asked to change practices, to prevent sediment runoff to the reef'.<sup>133</sup>

5.105 Similarly, Mr Brodie told the committee that he has 'worked for 30 years to get a scheme together to manage agricultural run-off to the Great Barrier Reef' and it is having some success, but that:

All of that success is now at risk from what is happening in port management, and the work of all those people is put at risk by the poor governance we are seeing at port developments.<sup>134</sup>

5.106 Mr Brodie suggested that the dredging proposals in the region 'dwarf' the efforts to reduce catchment run-off, explaining that the 'anthropogenic sediment delivery to the Great Barrier Reef from all of the catchments is six million tonnes per year on average', which has been reduced by about 10 per cent, or 600 000 tonnes. He calculated that the proposed dredging programs will generate around 10 million tonnes per year.<sup>135</sup>

---

131 AIMS, *Submission 36*, p. 2; Dr Jamie Oliver, Research Director, AIMS, *Committee Hansard*, 23 July 2014, pp 18–19.

132 Department of the Environment, *Answers to written questions on notice*, p. 4.

133 CAFNEC, *Submission 19*, p. 5; see also, for example, Cairns Local Marine Advisory Committee, *Submission 7*, p. 2; Carefish, *Submission 16*, p. 3; Mr Tony Brown, President, Whitsunday Charter Boat Industry Association, *Committee Hansard*, 23 July 2014, p. 13; Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 9.

134 Mr Jon Brodie, *Committee Hansard*, 23 July 2014, p. 27.

135 Mr Jon Brodie, *Committee Hansard*, 23 July 2014, p. 28.

5.107 Professor Mumby similarly told the committee that:

...if all of the ports were extended in the way that some plans might have them, we would be more than doubling the current level of sediment entering the system through human impact.<sup>136</sup>

5.108 Professor Mumby also warned that the success of measures to improve catchment run-off quality could be 'dwarfed' by port expansion and that:

...we have to be very careful that we do not, on the one hand, invest in restorative activities in the watershed while we, on the other hand, develop at a very fast rate in maybe not the most environmentally friendly way and completely overwhelm those benefits we have had.<sup>137</sup>

5.109 In the same vein, Mr McKenzie of AMPTO queried why 'hundreds of millions of dollars' are being spent trying to clean up water quality and then 'we are looking at proposals to dump ten or 20 times the amount of sediment that we have saved back on the reef'.<sup>138</sup>

5.110 Professor Hoegh-Guldberg told the committee that, given that water quality has been identified as one of the greatest threats to the Great Barrier Reef, recent decisions to dispose dredge spoil into GBRMPA waters (and particularly the recent Abbot Point decision discussed in the next chapter) are 'inconsistent with solving the problem of declining water quality within the GBRMPA, and with the World Heritage Committee recommendations'.<sup>139</sup>

### ***Alternatives to dredging and sea disposal***

5.111 Several submitters and witnesses were concerned that alternatives to dredging and, in particular, disposal of dredge spoil, are not being fully considered and implemented.<sup>140</sup> For example, WWF-Australia and AMCS suggested that:

...all steps be taken to avoid dredging including maximising the efficiency of existing port capacity, utilising alternative designs for port infrastructure such as extended trestles, and introducing limits to the size of ships for coastal ports.<sup>141</sup>

5.112 Whitsunday Residents Against Dumping similarly submitted:

---

136 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 7.

137 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 4.

138 Mr Colin McKenzie, Executive Director, Association of Marine Park Tourism Operators, *Committee Hansard*, 23 July 2014, p. 35.

139 Professor Hoegh-Guldberg, *Submission 6*, p. 6.

140 See, for example, Mr Jon Brodie, *Committee Hansard*, 23 July 2014, pp 27 and 31; Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 27; WWF-Australia and AMCS, *Submission 23*, p. 3; Whitsunday Residents Against Dumping, *Submission 39*, p. 2.

141 WWF-Australia and AMCS, *Submission 23*, p. 3.

Factors and alternatives to consider to minimise the need for capital dredging should include but not be limited to, maximising the use of existing infrastructure prior to approving any expansions, using alternative designs such as extended trestles, land based disposal, and limiting the size of ships for coastal ports.<sup>142</sup>

5.113 Professor Mumby also expressed concern that alternatives to dredging are not being adequately considered: 'some of the safer and more environmentally friendly options, whilst being more expensive, do not seem to be considered very seriously'.<sup>143</sup> Mr Leck of WWF-Australia described Abbot Point (discussed further in the next chapter) as a 'case in point' on this issue, arguing that sea disposal was put forward 'because it was cheap'.<sup>144</sup> As Professor Hoegh-Guldberg told the committee:

...if there are other mechanisms to deal with that dredge, we should take them, even if they are more expensive, because the value in perpetuity of the Great Barrier Reef is enormous.<sup>145</sup>

5.114 However, the Queensland Ports Association referred to the *National Assessment Guidelines for Dredging* (as mentioned in Chapter 2), noting that they require alternatives to be evaluated prior to any approvals being granted for at-sea placement of dredge spoil. Queensland Ports Association further submitted that:

Placement of material at sea is generally the best environmental option in Queensland. Land based options are not viable as coastal areas of Queensland have high conservation, residential or cultural value. Land based options are viable only for small amounts of material or one-off projects...land placement of dredged material (particularly fine grained maintenance material) was not a viable long term option for the six major ports in the Great Barrier Reef region.<sup>146</sup>

5.115 Queensland Ports Association also suggested that 'in many cases the material dredged is not suitable for reclamation or other land based uses'.<sup>147</sup> In response to questioning on this issue, Mr Kaveney from the Queensland Ports Association argued that 'marine disposal is very often—not always—the best outcome'. He explained:

What we are talking about is the dredging of marine sediments and the placement of marine sediments back into the marine environment. It is not a particularly alien concept to return that material to where it has come from.

---

142 Whitsunday Residents Against Dumping, *Submission 39*, p. 2.

143 Professor Peter Mumby, President, Australian Coral Reef Society, *Committee Hansard*, 21 July 2014, p. 3.

144 Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, p. 21.

145 Professor Ove Hoegh-Guldberg, *Committee Hansard*, 21 July 2014, p. 10.

146 Queensland Ports Association, *Submission 13*, p. 8, citing SKM (2013). *Improved dredged material management for the Great Barrier Reef Region*. Literature Review and Cost Analysis of Landbased Dredge Material Re-use and Disposal Option. Report prepared in conjunction with Asia-Pacific Applied Science Associates for Great Barrier Reef Marine Park Authority.

147 Queensland Ports Association, *Submission 13*, p. 8.

Globally it is seen as best practice in many situations. Keeping that sediment in the coastal process system is often very desirable...<sup>148</sup>

5.116 The committee notes that this appears to be a somewhat simplistic view, given the evidence received in relation to acid sulphate soils which are common along the Queensland coastline and potentially present at some proposed dredging sites.<sup>149</sup>

5.117 Other witnesses suggested that alternatives such as trestles are not necessarily a good alternative either. For example, Mr Simon Meyjes from Australian Reef Pilots told the committee that from a port safety perspective, 'you are introducing another range of risks because the further out to sea you are, the worse the weather conditions are likely to be'.<sup>150</sup>

### ***Prohibition on disposal of dredge spoil in the Great Barrier Reef***

5.118 Several submissions and witnesses suggested there should be a ban on the industrial-scale dumping of dredge spoil anywhere near the Great Barrier Reef World Heritage Area.<sup>151</sup> For example, Mr Leck of WWF-Australia, identified 'prohibiting industrial scale dumping of dredge spoil in the Great Barrier Reef World Heritage Area' as a key action to reduce the decline of the reef. He further suggested that in 2015, the World Heritage Committee will be looking for a 'very different policy with regards to dredging and dumping'.<sup>152</sup>

5.119 WWF-Australia and AMCS and others argued dredging and dumping in the Great Barrier Reef area is placing additional stress 'on an already stressed system':

The health and resilience of the reef is in serious decline and drastic actions need to occur now in order to turn things around. While land run-off, crown of thorns and increasing climate change impacts have been the main contributors to the past decline of the Great Barrier Reef, these are issues that will take a long time to be addressed. Proposals for dredging and dumping along the Reef's coast are far beyond what has ever been seen before in the region and it is unknown what this impact will have in addition to current stressors.<sup>153</sup>

---

148 Mr Thomas Kaveney, Environmental Policy Advisor, Queensland Ports Association, *Committee Hansard*, 21 July 2014, pp 24–25.

149 See, for example, Dr Matt Landos, *Committee Hansard*, 22 July 2014, p. 55; Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 9; Ms Margaret Moorhouse, Spokesperson, Alliance to Save Hinchinbrook, *Committee Hansard*, 23 July 2014, p. 14; Mr Colin McKenzie, Executive Director, AMPTO, *Committee Hansard*, 23 July 2014, p. 38.

150 Mr Simon Meyjes, Chief Executive Officer, Australian Reef Pilots, *Committee Hansard*, 21 July 2014, p. 46.

151 See, for example, WWF-Australia and AMCS, *Submission 23*, p. 3; CAFNEC, *Submission 19*, p. 11; Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 26; Whitsunday Residents Against Dumping, *Submission 39*, p. 1.

152 Mr Richard Leck, National Manager, Marine Conservation and Sustainable Development, WWF-Australia, *Committee Hansard*, 21 July 2014, pp 15 and 18.

153 WWF-Australia and AMCS, *Submission 23*, pp 2–3.

5.120 CAFNEC similarly advocated a 'ban on new (non-maintenance) dredging and dumping in the World Heritage Area' until conclusive evidence can be presented that the resuspension of sediments from capital dredging programs can be undertaken with no impacts on World Heritage values. CAFNEC suggested a 'concurrent review of the impacts of maintenance dredging also be undertaken 'with a focus on implementing practices that lead to a drastic reduction of impacts'.<sup>154</sup>

5.121 As noted elsewhere, the committee was advised that as a result of the Strategic Assessment, a dredging policy will be developed by the Queensland Government, and that policy will be one of the elements in the long-term sustainability plan (discussed further in Chapter 8).<sup>155</sup> Dr Reichelt from GBRMPA suggested that 'the principle behind the dredge policy should be a capping and a reduction'.<sup>156</sup>

5.122 In response to questioning about the potential for a cap on dredge spoil, GBRMPA noted that 'a strategic reduction on dredge material disposal in the Marine Park could form part of the port master planning process' under the Queensland Ports Strategy. Further GBRMPA advised that it will be facilitating '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'.<sup>157</sup>

### ***Ports and coal pollution issues***

5.123 Other submissions and witnesses expressed a specific concern about the pollution from coal particulates and its impact on the Great Barrier Reef.<sup>158</sup> In particular, Professor Hughes tabled a recent scientific study which concluded that 'coastal sediments offshore of the Hay Point coal port are already contaminated with coal residues which exceed the Australian and New Zealand toxicity guidelines'. He told the committee that this is:

...a very damning conclusion based on samples that were collected across the entire breadth of the Great Barrier Reef. It shows that coal dust has already spread hundreds of kilometres from coal ports and that it has now accumulated everywhere on the Great Barrier Reef and not just the

---

154 CAFNEC, *Submission 19*, p. 11; see also Mr Josh Coates, Marine Program Coordinator, CAFNEC, *Committee Hansard*, 23 July 2014, p. 10.

155 Dr Kimberley Dripps, Deputy Secretary, Department of the Environment, *Committee Hansard*, 21 July 2014, p. 63; Ms Carolyn Cameron, Assistant Secretary, Department of the Environment, *Committee Hansard*, 21 July 2014, p. 63.

156 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 61.

157 GBRMPA, *Answers to written questions on notice*, p. 23.

158 See, for example, Mackay Conservation Group, *Submission 42*, p. 28; Mr Peter Dallas, *Committee Hansard*, 22 July 2014, pp 17–18; Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 25.

dredging sites or near the ports themselves. It is exceeding toxic levels in nearshore locations.<sup>159</sup>

5.124 The Mackay Conservation Group also tabled this study and similarly submitted that 'coal ports are a significant source of sediment and coal particulate pollution to the Great Barrier Reef'.<sup>160</sup>

5.125 The *Outlook Report 2014* noted this study, stating that:

High concentrations of coal dust have been detected around a loading facility, but the potential effects of this and any other port-generated atmospheric pollution are not well understood.<sup>161</sup>

5.126 Dr Reichelt of GBRMPA acknowledged the need to do 'more work on the impact of coal particles' as a 'very high priority' and noted that one option might be to cover coal piles and coal stacks in the Great Barrier Reef region.<sup>162</sup>

5.127 In response to questioning as to what action is being taken as a result of this study, the Queensland Government advised that, while it welcomes new research:

...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.<sup>163</sup>

---

159 Professor Terry Hughes, *Committee Hansard*, 23 July 2014, p. 25.

160 Mackay Conservation Group, *Submission 42*, p. 28.

161 GBRMPA, *Outlook Report 2014*, p. 131.

162 Dr Russell Reichelt, Chairman and Chief Executive, GBRMPA, *Committee Hansard*, 23 July 2014, p. 52 and see also p. 60.

163 Queensland Government, *Answers to written questions on notice*, p. 33.