

## Proposed improvement to fuel storage and supply on Christmas Island, Indian Ocean Territories

- 3.1 The Department of Regional Australia, Local Government, Arts and Sport (the Department) seeks approval for a project that will increase bulk fuel storage capacity and integrate and co-locate fuel storage on Christmas Island (CI).
- 3.2 The objectives of the Christmas Island Fuel Consolidation Project are to:
- increase fuel storage capacity for diesel, petrol and aviation fuel within the approved project constraints
  - integrate and co-locate storage of diesel and petrol
  - relocate bulk storage of petrol and the service station away from the tourist precinct.
- 3.3 This proposed project was referred to the Committee on 22 March 2012.

### Conduct of the inquiry

- 3.4 Following referral, the inquiry was advertised nationally and submissions sought from those with a direct interest in the proposed project.
- 3.5 The Committee received two submissions to the inquiry and three supplementary submissions, including a confidential submission detailing the project costs. A list of submissions can be found at Appendix A.
- 3.6 The Committee held a public hearing and an in-camera hearing on the project costs on 3 May 2012 in Sydney.

- 3.7 The transcript of the public hearing and a copy of the submissions to this inquiry are available on the Committee's website.<sup>1</sup>
- 3.8 The Committee visited CI between 7 and 10 June 2011, to inspect approved public works on the island and receive briefings regarding projects which would be referred to the Committee in the near future. During this visit, the Committee inspected a number of sites associated with the fuel consolidation project and received a briefing from representatives of the Department.

### Need for the works

- 3.9 CI has a high dependency on fuel to maintain essential services and operations owing to its isolated location. Diesel is used primarily in the generation of electricity on CI. Aviation fuel is essential for commercial and government aviation operations. Unleaded petrol is used for private, commercial and government vehicles.<sup>2</sup>
- 3.10 All fuel is transported to CI via ship. Diesel and petrol are transported in bulk via tanker ship and aviation fuel in containerised parcels (which are referred to as isotainers).<sup>3</sup>
- 3.11 Adverse weather conditions, particularly those prevalent during the swell season, limit docking and often prevent ships from being unloaded. As a result, bulk deliveries of diesel and petrol are typically scheduled to occur just prior to and immediately following the swell season. However, scheduled deliveries can be compromised due to variances in when the swell season begins and ends.<sup>4</sup>
- 3.12 The current fuel storage facilities (diesel, aviation fuel and petrol) were built based on historic demand. Increased activity, including sea, land and air transport components, has increased demand, particularly for diesel and aviation fuel. The ability to meet the current demand in order to maintain essential services and operations on CI is limited by the current capacity of the fuel storage infrastructure.<sup>5</sup>

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1 <[www.aph.gov.au/pwc](http://www.aph.gov.au/pwc)>

2 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 6.

3 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 6.

4 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 8.

5 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, pp. 8-9.

## Diesel

- 3.13 In recent times there has been an increase in demand for diesel on CI primarily for generation of mains electricity and supply to other diesel fuel customers.<sup>6</sup>
- 3.14 Increased demand for mains electricity is largely due to:
- construction and operation of the Christmas Island Immigration Detention Centre
  - increases in the semi-permanent population, due to persons employed either directly or indirectly by the immigration detention centre and government agencies
  - increased operations and activity at the airport.<sup>7</sup>
- 3.15 Other diesel fuel customers include Royal Australian Navy vessels, construction companies and passenger and private vessels.<sup>8</sup>
- 3.16 The increased demand for diesel coupled with the static diesel storage capacity and the inability to deliver diesel during the swell season has placed pressure on diesel fuel stocks. During the 2010-11 swell season, the power station was operating at the limits of its diesel supply and essential services were very nearly compromised.<sup>9</sup>
- 3.17 When asked about the possibility of the diesel fuel supply running out and compromising power generation, the Department explained:
- We had up to several weeks supply, depending on how some of our major users, particularly the immigration detention centre and the mine, were able to constrain their use. At the [Emergency Management Committee] level we reviewed the fuel stocks, discussed the options and concluded that at that time we did not need to attempt to make any formal restrictions but that we would revisit it if the ship was not able to unload, which occurred within the next couple of days, so there was no need to go to more formal restrictions on power use. But it was uncomfortably close.<sup>10</sup>

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6 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 9.

7 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 9.

8 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 9.

9 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 9.

10 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 3.

## Aviation fuel

- 3.18 Consumption of aviation fuel on CI is limited by the storage capacity of the commercial operator. During the two most recent swell seasons, aviation fuel stocks were compromised due to an inability to unload new supplies from the ship. The fuel stock had to be rationed until it was replenished.<sup>11</sup>
- 3.19 Regular passenger transport air services, government charters, airfreight services, medical evacuations, surveillance and search and rescue flights operate regularly to and from CI.<sup>12</sup>
- 3.20 There has been a rapid increase in total aircraft movements to CI in recent years. Between 2008 and 2011, aircraft movements rose from 20 per month to over 60 per month, and total passenger movements increased from 965 per month to 2,950 per month.<sup>13</sup>

## Unleaded petrol fuel

- 3.21 Bulk petrol fuel storage on CI consists of two 370 kL tanks located on an escarpment above the Indian Ocean at Rocky Point. This location is subject to extreme local weather conditions resulting in ongoing erosion around the tank footings, corrosion to tank fabric and risk of damage by waves breaking against the cliff face.<sup>14</sup>
- 3.22 The location of the petrol tanks is also constraining the future development of the foreshore area for tourism and commercial purposes. The Shire of Christmas Island town planning strategy has identified the foreshore area, including the current service station location, for tourism and commercial purposes.<sup>15</sup>
- 3.23 The Committee is satisfied that there is a need for the proposed works.

## Scope of the works

- 3.24 The proposed scope of the works is detailed in Submission 1: Department of Regional Australia, Local Government, Arts and Sport.<sup>16</sup>

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11 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 10.

12 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 11.

13 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 11.

14 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 12.

15 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 12.

16 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, pp. 19-20.

- 3.25 The Department discussed the scope for bulk diesel fuel storage:
- ... the project's scoping study has identified opportunities to maximise use of Commonwealth-owned infrastructure on Christmas Island through the use of a diesel fuel tank currently leased to the Indian Ocean Oil Company, itself a subsidiary of Phosphate Resources Ltd, the operator of the mine on Christmas Island. The Department has commenced negotiations with the Indian Ocean Oil Company to secure access to additional storage capacity at Smith Point.<sup>17</sup>
- 3.26 The project proposes that aviation fuel storage capacity will be increased through the provision of one or two 110 kL tanks and up to ten 23 kL isotainers. The fixed storage tanks are proposed to be located on a site adjacent to Air BP's current depot at the airport. Provision will also be made for the storage of the additional isotainers at the proposed bulk fuel installation.<sup>18</sup>
- 3.27 The project proposes that the existing 370 kL bulk petrol storage tanks will be relocated from Rocky Point to a new bulk fuel installation that will be constructed on Murray Road adjacent to the power station. The project also proposes to co-locate the service station with the bulk petrol storage tanks.<sup>19</sup>
- 3.28 One new pipeline to transfer petrol is proposed for construction between Smith Point and the new bulk fuel installation on Murray Road. The new infrastructure will utilise the existing public utility corridor.<sup>20</sup>
- 3.29 Subject to Parliamentary approval of the project, construction is planned to commence on the project in late 2012 and completion would be expected by June 2014.<sup>21</sup>
- 3.30 The Committee finds that the proposed scope of works is suitable to meet the need.

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17 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 2.

18 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 19.

19 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 20.

20 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 20.

21 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 32.

## Cost of the works

- 3.31 The approved budget and current project estimate for this project is \$19.5 million, excluding GST. This includes all costs for design, project management, construction costs, fittings and equipment, contingencies and an allowance for escalation.<sup>22</sup>
- 3.32 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent agency.

## Project issues

### Service station location

- 3.33 The location of the service station appears to be the key issue for this project.
- 3.34 The Shire of Christmas Island provided a key submission to the inquiry. The submission provided valuable input to the discussion regarding the proposed location of the service station and bulk fuel storage.
- 3.35 Regardless of the location of the service station, the Department and the Shire of Christmas Island agree that the bulk fuel storage facility cannot stay at Rocky Point. The Shire's submission stated:
- Council is strongly of the opinion that the tanks located as they are on the foreshore are a "disaster waiting to happen". They are an unacceptable risk to the community and unique environment of Christmas Island. The project proposal to remove the tanks from this location would in Council's opinion alleviate significant safety concerns of the community and the Department is commended in their action to address this issue.<sup>23</sup>
- 3.36 The Department identified four possible outcomes for the service station:
- co-locate it with the bulk fuel installation at Murray Road
  - a new station at Drumsite
  - a new station at Taman Sweetland

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22 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 30.

23 Shire of Christmas Island, Submission 2, pp. 1-2.

- remain in its current location.<sup>24</sup>
- 3.37 The Department outlined the key advantages and disadvantages of each option its submission to the inquiry.<sup>25</sup>
- 3.38 The Department's preferred option is to co-locate the service station with the bulk fuel installation at Murray Road.<sup>26</sup>
- 3.39 The Department outlined the key advantages of the Murray Road location:
- consolidates fuel storage and retail supply in the same location
  - reduced infrastructure requirement and lower cost, i.e. no truck fill stand point would be required
  - there would be no requirement to transport flammable unleaded petrol or diesel via tanker truck on public roads.<sup>27</sup>
- 3.40 The Department also outlined the key disadvantages of the Murray Road location:
- located approximately 6-7 km from the existing service station
  - located in close proximity to crab migration corridor
  - would increase the volume of traffic past the school on Murray Road.<sup>28</sup>
- 3.41 The Department elaborated on the preferred Murray Road option:
- Our analysis suggests that the bulk fuel installation site provides the enduring lowest cost of petrol to the community because it co-locates the petrol station with the storage facility, so there are no trans-shipment costs ... so you remove the need for a tanker truck and a driver to move fuel between the bulk storage facility and another location, given that none of the other locations can have the bulk fuel because of their proximity to residential areas. So locating the petrol station with the bulk fuel site delivers long-term lower cost of fuel to the community, which we consider to be a reasonably significant matter. It also has fewer safety concerns

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24 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, pp. 22-23.

25 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, pp. 22-24.

26 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 22.

27 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 22.

28 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 22.

because you are not then driving fuel, petrol particularly, on the roads near to residential areas.<sup>29</sup>

3.42 The Department also elaborated on a potential disadvantage of the Murray Road option:

It does have – and our submission acknowledges this – the effect of locating the petrol station in a site where, for periods of time each year, people will need to drive a longer way to get to it to refuel ... [approximately] three or four kilometres. But I also have to note that, because the road is regularly closed, this is something the community is used to doing ... It is a common occurrence that they need to divert around that road when it is closed.<sup>30</sup>

3.43 The Department stated that Murray Road is closed regularly as it is located near a traditional red crab migration corridor.<sup>31</sup>

3.44 The Department added that engineering measures are proposed to be put in place to provide greater protection to the crabs at the Murray Road location, including:

- an extension to current crab funnelling fences
- either overhead or underground corridors that the funnelling fences will lead into providing safe passage for the crabs across or under Murray Road.<sup>32</sup>

3.45 The Department further discussed the closure of Murray Road for crab migration:

[Murray Road] is the one that runs past the power station. It is the extension that leads to the western part of the island. It is on a major crab migration path from areas of jungle above the road. Typically in each November the crabs commence their migration and the road is closed by Parks ... The duration varies ... it is to do with the phases of the moon and the tides. It can be shut for short or long periods ...<sup>33</sup>

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29 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 6.

30 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 6.

31 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 15.

32 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 15.

33 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 6.



- 3.46 The Department explained that a final location is yet to be determined and will be subject to community consultation.<sup>34</sup>
- 3.47 The Department discussed the public consultation process:
- ... we received some 63 written submissions. We also had a public meeting on the island. The view from the submissions and the public meeting is a split of around fifty-fifty between leaving the petrol station where it is and moving it – with, if it is moved, a preference towards the Murray Road bulk fuel installation site.<sup>35</sup>
- 3.48 The Department believes that, based on feedback from the community, there is support for the relocation of the bulk petrol storage tanks and approximately a 50-50 split between retaining the service station at its current location and relocating it to the proposed bulk fuel installation site.<sup>36</sup>
- 3.49 The Shire outlined its opinions on the most appropriate option for the community:
- [The Murray Road] option quite clearly is the option of lowest cost. However the service station being at this location provides the least overall community amenity and benefit. In the opinion of Council this needs to be carefully weighed against costs in the decision making process that affects the broader Island community.<sup>37</sup>
- 3.50 The Shire disagrees with the Department’s proposal for the service station to be re-located to Murray Road, suggesting that the Taman Sweetland location would be more suitable as it:
- provides the best balance of community amenity
  - provides potential for development of small retail facilities associated with the service station which will assist in servicing adjacent areas planned for future urban development
  - may be able to be integrated with intersection upgrade works designed to provide access to the light industrial area.<sup>38</sup>
- 3.51 The Shire’s submission provides further detailed analysis and discussion on the Department’s preferred option.<sup>39</sup> In particular, the Shire states:
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34 Department of Regional Australia, Local Government, Arts and Sport, Submission 1, p. 22.

35 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 6.

36 Department of Regional Australia, Local Government, Arts and Sport, Submission 1.2, p. 3.

37 Shire of Christmas Island, Submission 2, p. 2.

38 Shire of Christmas Island, Submission 2, p. 3.

Murray Road (Option 1) is not supported by Council as despite this being the option with the least infrastructure costs the option:

- provides the least level of amenity to the community
- increases traffic within the school zone
- is the least favourable in terms of potential future service station retail development.<sup>40</sup>

3.52 The Shire's submission also provides further analysis of its preferred option of locating a new service station at Taman Sweetland. In particular, the Shire argues that the location of the site is central to the community as a whole and represents the best balance of possible site locations.<sup>41</sup>

3.53 The Shire does acknowledge the higher cost of infrastructure required for this option, but considers that this is offset by the advantages of the site. The Shire noted:

... that this service station will be required to service the community long into the future and a location that provides the greatest amenity should rank highly in the consideration of the site chosen.<sup>42</sup>

3.54 The Department provided a supplementary submission to the inquiry, primarily addressing concerns raised by the Shire's submission.

3.55 The Department discussed the Shire's preferred Taman Sweetland option:

The Taman Sweetland (Option 3) is located in an intermediate area between the Drumsite and Settlement residential areas and has potentially multiple ingress/egress paths, and services (water, communications, sewer, stormwater) exist in the area. However, the location has some key disadvantages, namely:

- location is relatively close to a childcare centre
- diesel and petrol have to be transported by tanker truck on a public road
- road intersection near the proposed location may require an enhanced traffic management solution
- higher comparable cost of fuel at bowser than the preferred option on Murray Road

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39 Shire of Christmas Island, Submission 2, pp. 3-4.

40 Shire of Christmas Island, Submission 2, p. 6.

41 Shire of Christmas Island, Submission 2, p. 5.

42 Shire of Christmas Island, Submission 2, p. 6.

- this site was identified as the preferred option by only 5% of all responses received in the recent community consultation feedback.<sup>43</sup>

3.56 The Department's supplementary submission also further discusses the advantages that the Murray Road option has over the Taman Sweetland option:

- consolidates fuel storage and retail supply in the same location
- consolidates the area for bulk ship unloading into one location (Smith Point); reduced infrastructure requirement and lower cost, that is, no truck fill stand point would be required
- no requirement to transport flammable unleaded petrol or diesel via tanker truck on public roads
- likely to provide the lowest cost of fuel at the bowser in comparison with other options
- services and road infrastructure are already in this area
- this site was identified as the preferred option of 40% of all responses received in the recent community consultation feedback.
- the Christmas Island Economic Development Consultative Group supports the Murray Road option.<sup>44</sup>

3.57 The Department reiterated its processes for developing a solution that is suitable for the community and provides value for money:

The Department has in Stage 1 of the project investigated various locations for the service station including retaining the service station in its current site. The final decision on the service station location will be based on information collected in the investigation stage including community feedback, alignment with Project objectives and alignment with Christmas Island Strategic and Master Plans. Although cost is a factor, it is not the driver for deciding the final location of the service station.<sup>45</sup>

3.58 The Committee sought reassurance from the Department that full and open consultation would be undertaken during the detailed design phase of the project. The Department explained:

... we will have the project steering committee at senior levels of the department doing the sign-off on the high-level governance aspects, one of which would be around how the consultation with

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43 Department of Regional Australia, Local Government, Arts and Sport, Submission 1.2, pp. 3-4.

44 Department of Regional Australia, Local Government, Arts and Sport, Submission 1.2, p. 5.

45 Department of Regional Australia, Local Government, Arts and Sport, Submission 1.2, p. 4.

the community and the shire is going. The practical day-to-day work is done by a project management team which is comprised of departmental staff and our relevant contractors to do the day-to-day work of consulting with the community, consulting with the shire and getting the relevant approval processes up and running.<sup>46</sup>

### Committee comment

- 3.59 It is obvious to the Committee that the decision to move the service station is significant for the community.
- 3.60 The Committee recognises the need for a solution that will provide the appropriate services and amenity for the community, as well as a practical infrastructure solution that represents value for money.
- 3.61 The Committee thanks the Shire of Christmas Island for its valuable input to the inquiry and is pleased that the island's residents have such forthright representation in negotiations with the Department.
- 3.62 The Committee is relying on the Department, which has overall responsibility for Christmas Island, to make the best informed decision concerning the location of the service station.
- 3.63 The Committee is confident that the Department, in making that decision, will do all it can to incorporate the community's views and ameliorate any negative impacts associated with the selected location.

### Final Committee comment

- 3.64 The Committee was satisfied with the evidence provided by the Department regarding the proposed project.
- 3.65 The Committee was particularly pleased to receive input to the inquiry from the Shire of Christmas Island.
- 3.66 The Committee is confident that the Department of Regional Australia, Local Government, Arts and Sport will develop appropriate specific design solutions to achieve successful outcomes for this project.
- 3.67 Having regard to its role and responsibilities contained in the *Public Works Committee Act 1969*, the Committee is of the view that this project signifies

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46 Mr J. Yates, Department of Regional Australia, Local Government, Arts and Sport, *transcript of evidence*, 3 May 2012, p. 11.

value for money for the Commonwealth and constitutes a project which is fit-for-purpose, having regard to the established need.

## **Recommendation 2**

**The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: Proposed improvement to fuel storage and supply on Christmas Island, Indian Ocean Territories.**