



**Flinders Island Ports Vision Study
Flinders Council**

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Appendix A

Consultation Outcomes

1. Introduction

1.1 The Brief

Aurecon Australia Pty Ltd was appointed by Flinders Council to undertake the development of the 'Flinders Island Ports Vision'. This project brief was extended to include an 'Optimal Shipping Service Analysis' which compliments the development of the 'Flinders Island Ports Vision'. These reports have been prepared in conjunction with one another; however each is presented in a stand alone report format. In particular, this vision makes recommendations for the future of port related activities and infrastructure for Flinders Island.

Sea access is acknowledged as a key economic development driver of the Flinders Island economy. The local economy is dominated by agricultural business which has prevailed over the historically strong fishing industry which remains active but in a reduced capacity.

Whitemark is recognised as the commercial centre of Flinders Island and accommodates a range of commercial, recreational and civic based activities. Whitemark is afforded modest port facilities which are tide dependant.

Recently, the predominant port related activities have occurred at Lady Barron which is located 25 kilometres by road from Whitemark on the south coast of Flinders Island. The Lady Barron Port facilities are more extensive and have accommodated the vast majority of port related arrivals and departures in the period leading up to the development of this vision.

The ports and associated marine infrastructure on Flinders Island have developed primarily to service the fishing and agricultural industries and include significant stockyard areas at both the Whitemark and Lady Barron Ports. The Lady Barron Port includes former fish processing facilities which are leased on Crown Land. They are owned and operated privately for abalone.

Improvement of the long term sustainability of the port(s), efficiencies in port operations and the visual amenity of sea access gateway(s) to Flinders Island are important objectives of the Flinders Island Port Vision. In part, this is in recognition of the significant tourism opportunities which are offered by the spectacular natural environmental features of Flinders Island. Of equal focus however, is the need to optimise the port facilities so as to provide improved efficiencies for agriculture, industry and general cargo which leaves and arrives Flinders Island by sea.

This Vision has reviewed the key recommendations and findings of the *Flinders Island Council Strategic Plan* (Draft at December 2008) and focuses upon **a growing economy that increases visitors and residents**, provides a framework for **responsible, planned future development & environmental management** of the ports and promotes **health and well being** while also improving **community infrastructure**.

The report aims to provide a vision for the future land use and development of the port(s) precincts which promote economic prosperity, social cohesion, and environmental sustainability through recommendations which are both practical and achievable.

1.2 Methodology

The process for developing the Flinders Island Ports Vision has involved detailed desktop review of the ports context and their relevance to the Flinders Island Community followed by site inspections to ascertain the physical condition and spatial relationship of the ports to the community, industry and agriculture.

Site investigations were undertaken in May 2009 which included assessment of the existing ports at Whitemark and Lady Barron and related marine infrastructure. This included a visual assessment of the layout of the port facilities and photographic survey of the port related infrastructure.

In addition to site assessments, a public consultation meeting was held in Whitemark on 25 May 2009. This consultation meeting was well attended by local residents and those associated with port activities on Flinders Island. The consultation meeting enabled the gathering of community views about existing port infrastructure and views relating to infrastructure requirements to meet the perceived future needs of Flinders Island. The consultation notes which resulted from the group sessions forming part of the consultation meeting are included at 'Appendix A' of this report.

In addition to the group consultation, specific meetings were arranged in both Whitemark and Lady Barron to meet with key community representative groups and stakeholders. These included local associations, representatives of Council committees and business owners who have financial interests in the future of port facilities on Flinders Island.

Following the site visit and consultation meetings, additional desktop research was undertaken and phone interviews were conducted with operators, users and managers of port related infrastructure on Flinders Island. This extensive consultation has revealed a variety of views relating to the future of port facilities on the Island and provided useful material for the preparation of this vision for the future of port and related facilities on Flinders Island.

2. Strategic Context

Flinders Island forms part of the Furneaux Group of Islands and is the largest of the group in terms of geographical area and population. Flinders Island has an area covering around 1,376 square kilometres and has a permanent population of around 900 residents. This number increases in the summer months when holiday makers visit the Island.

The geographic location of Flinders Island off the north east coast of Tasmania is dominated by Mt Strzelecki which rises 756m from Flinders Island and Mt Munroe on Cape Barron Island which rises 687m. The Darling Range, which runs from north to south, coupled with stunning beaches makes Flinders Island an ideal location for nature based tourism.

The Flinders Island economy continues to rely upon agriculture and related industries including meat processing. Agriculture on the Island produces sheep and wool, cattle, and other agricultural pursuits. There are also crayfish, abalone and scalefish wild fisheries. Commercial Fishing operators also operate around the Furneaux Group and are mainly based at Lady Barron on Flinders Island.

The remote coasts and engaging scenic beauty of Flinders Island makes it a key location for attracting sustainable tourism and associated commercial growth. Flinders Island's location in the north-east of Tasmania within Bass Strait provides unique lifestyle opportunities which are sustained both through on-island activities and imports of goods and services from the Tasmanian mainland and Victoria.

The Flinders Council Strategic Plan provides a suitable framework for development of a vision for Flinders Island promoting sustainable growth to support an increase in population and commercial trade which will open up the Island and its natural resources to the wider Australian community.

Additional improvements to local infrastructure and making 'attractions' more accessible to the visitor should be considered. In particular this should include facilities associated with the ports.

2.1 Flinders Island Ports

As detailed above, Flinders Island is currently served by two small multi-user ports, one at Lady Barron (on the southern island coastline) and the other at Whitemark (central west coastline). Both of these ports are owned, maintained and managed by TasPorts¹.

Lady Barron Port handles the majority of the Island's cargo and has better waterside access and port related infrastructure. Whitemark Port is considered to be better located to the commercial operations of Flinders Island by the local population; however it suffers significantly from poor waterside access degraded facilities and exposure to prevailing westerly weather conditions. Each port is discussed in more detail below.

2.1.1 Lady Barron

As identified above Lady Barron is the main operational port on Flinders Island and is accessible by commercial and recreational vessels under all states of the tide and most weather conditions. The port is located on a small headland (see **Figure 2.1**) that protrudes into the secluded Adelaide Bay and is accessed via a deep water channel that connects it to Franklin Sound. The surrounding geography and terrain, including the location of Little Green Island within the centre of Adelaide Bay, results in the port being well protected from the prevailing Bass Strait and Tasman Sea waves and winds. However, the port is exposed to extreme weather events from the south to south easterly direction which can make access to the berths hazardous. Under these conditions vessels usually shelter away from the main port. The port also has a tidal range of 2.4m as outlined in **Table 2.1** below.

¹ For further information on TasPorts please consult their web site: www.tasports.com.au.

Table 2.1 Lady Barron Tide Levels

Tide Levels	Height (m Chart Datum)
Highest Astronomical Tide (HAT)	2.4
Mean High Water Spring (MHWS)	2.1
Mean High Water Neaps (MHWN)	1.4
Mean Sea Level (MSL)	1.2
Mean Low Water Neaps (MLWN)	1.1
Mean Low Water Spring (MLWS)	0.4
Lowest Astronomical Tide (LAT)	0.0

Source: Australian Chart AUS 179 (Australian Hydrographic Service, 2002)

The Lady Barron Port itself provides a range of multi-user water and landside facilities, many of which are shown in **Figure 2.2**. These include:

- **Waterside**
 - o **Roll on Roll off (Ro/Ro) Berth**
 - A single Ro/Ro berth is located along the Western side of the main jetty (Concrete Wharf), as shown in **Images 6, 7, 8 and 9** (of **Figure 2.2**). This berth is capable of accommodating a range of coastal Ro/Ro vessels of up to 43 metres in length and 5-6m wide ramps.
 - However, it should be noted that this is achieved with an overhang of approximately 20m past the end of the adjacent wharf structure.
 - This Ro/Ro berth is operational under all tide states and has an alongside water depth of 6.1m, to Chart Datum (CD).
 - A key issue with the existing Ro/Ro berth operation is that at peak tide the angle of the ship ramp is such that moving vehicles between the vessel and shore is not possible.
 - o **Fixed Berths and Jetties**
 - A number of concrete / steel and timber wharfs, jetties and piers are provided to the east of the Ro/Ro berth (**Images 3, 4, 6, 10 and 11**, of **Figure 2.2**).
 - These structures are currently used by a mixture of commercial, fishing and recreational vessels and provide a diverse range of deck widths, levels and loading capacities.
 - There is also the partial remnant (base only) of a fixed quayside crane that was previously located on the concrete wharf.
 - The deck level of the concrete / steel wharf is approximately 5.5-7m CD and it has an alongside water depth of approximately 4-6 metres.
 - Power connections are available on the jetties associated with the fishing fleet and other recreational users.
 - o **Boat Ramp**
 - Adjacent to one of the smaller timber piers (located to the North East of the concrete / steel wharf) is a 5m wide boat ramp that provides access at all tide levels. It should be noted that as this boat ramp is located within the middle of port operational area, limited car and trailer parking is available.
 - o **Cauf Ramp**
 - A cauf ramp located near the Ro/Ro berth is used for launching dinghies and loading and unloading crayfish.

- **Landside**

○ **Transit Shed**

- A relatively modern single storey transit shed (**Images 5 and 7 of Figure 2.2**), with a 18m by 12.5m floor plan and 3.5m by 4m main access door, is located immediately adjacent to the Ro/Ro berth loading / unloading ramp for the handling of transit cargo.
- It is understood that this shed is leased to private parties who use the shed for informal private storage. LD Shipping use this shed for storage of cargo however Southern Shipping do not have access to the shed.
- The residence at the Lady Barron Police Station and the two other residences between there and the fish factory are located on land included in the Port Zone in the Flinders Planning Scheme.

○ **Stock Yards**

- To the North of the transit shed cattle holding yards have been developed for live cattle and sheep export / import using the Ro/Ro berth (where a permanent cattle race / ramp is installed off to one side).
- These stock yards cover a significant area in excess of 3,000m² and can hold several hundred head of cattle or sheep.
- Prior to stock loading / unloading temporary fencing is installed across the port cargo handling area connecting the stock holding yards and Ro/Ro berth stock race / ramp.
- The holding areas associated with stock yards appear to have the ability for more efficient use and/or expansion in the event that stock movements increase in the future.

○ **Port Office**

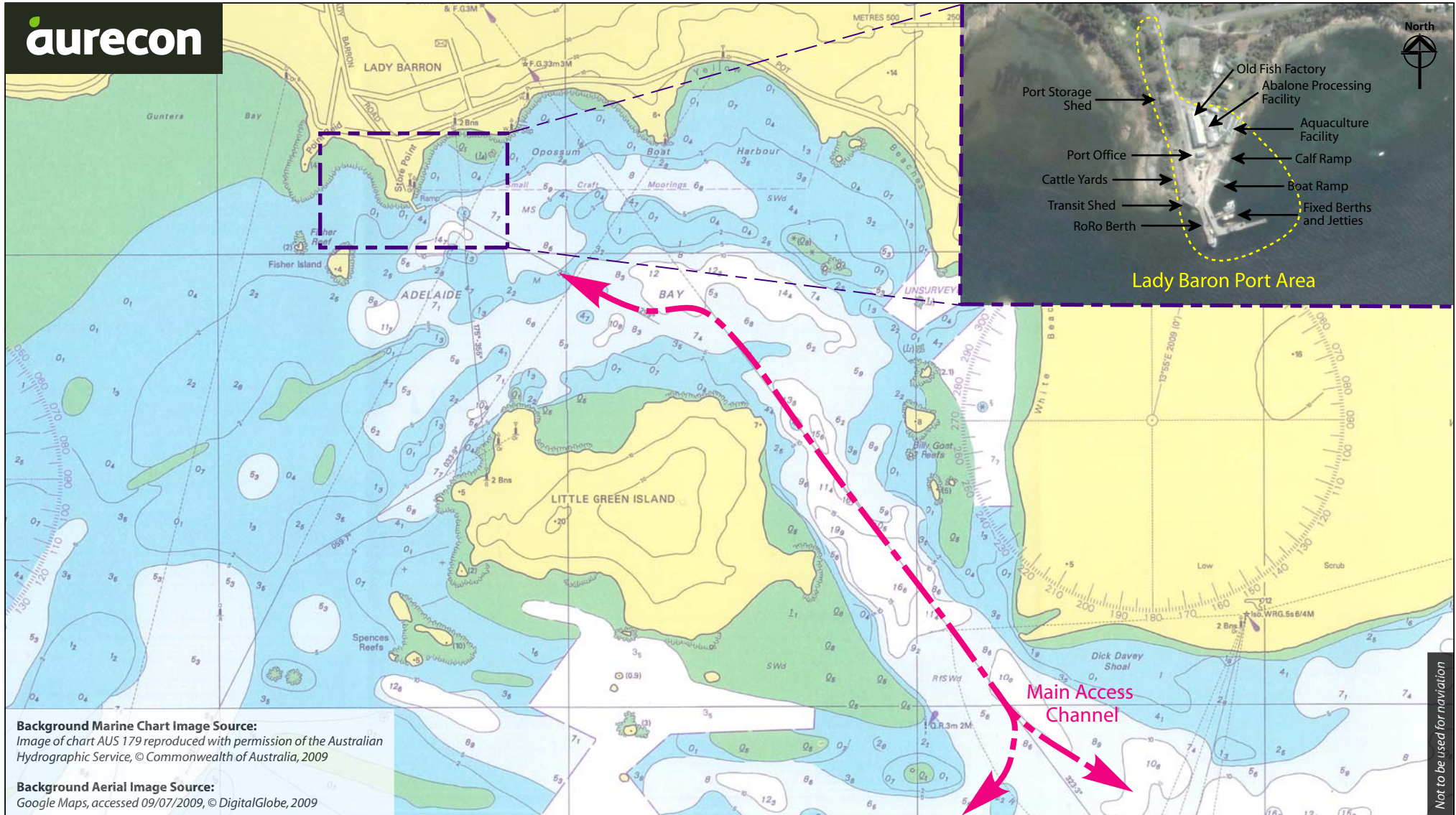
- A TasPorts port administration and management office is located to the north of the cargo handling area and is the administrative base of TasPorts on Flinders Island.

○ **Cargo Handling Area**

- Adjacent to the main port facilities there is a broadly triangular marshalling and cargo handling area (approximately 1,350m² in size) as shown in Image 3 of Figure 2.2.
- This cargo handling area is reasonably flat, with the exception of the area adjacent to the boat ramp which dips down, and covered with a medium duty pavement.
- A cool storage container exists for bait which is owned and operated by local crayfishers with an agreement to have it in the port area.
- A secondary cargo handling area (Image 1 of Figure 2.2) is located back along the port access road and this appears to be the location where empty containers are stored and some unpacking / loading is undertaken. This cargo handling area is approximately 1,200m² in size.

○ **Miscellaneous Fisheries Facilities**

- To the north and north east of the Port Office there are a range of miscellaneous fisheries related industries including an old fish processing factory with dimensions of 18m by 50m (Image 2 of Figure 2.2), former abalone processing facility of 16m by 40m and associated aquaculture installation. The fish factory is still being used for commercial purposes under a lease from the Crown.



Background Marine Chart Image Source:
 Image of chart AUS 179 reproduced with permission of the Australian Hydrographic Service, © Commonwealth of Australia, 2009

Background Aerial Image Source:
 Google Maps, accessed 09/07/2009, © DigitalGlobe, 2009

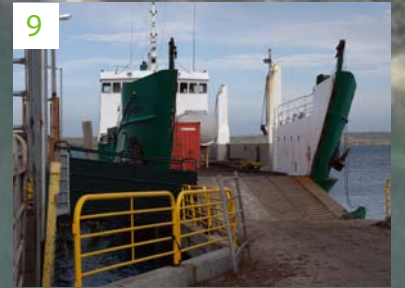
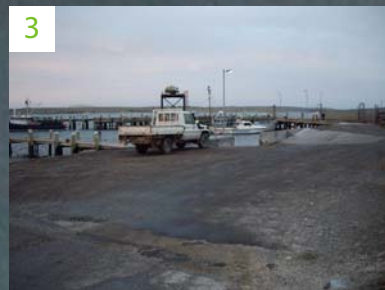
Lady Barron Port.ai

Flinders Island Port Vision

Lady Barron Port and Surrounds

Figure 2.1

Not to be used for navigation



Background Aerial Image Source:
Google Maps, accessed 09/07/2009, © DigitalGlobe, 2009

Lady Barron Site Photos.ai

Flinders Island Port Vision

Lady Barron Port Site Photos

Figure 2.2

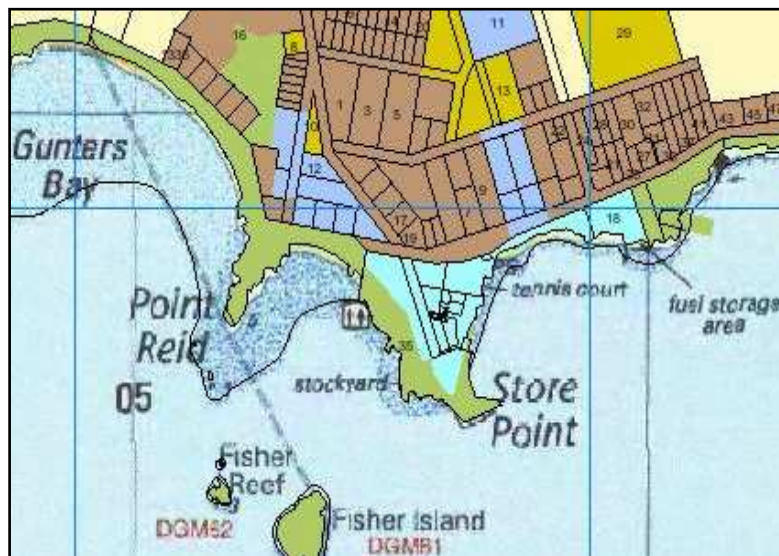
The condition of port facilities at Lady Barron can be described as functional. Inspection of the jetty and Ro/Ro berths suggest that maintenance will be required in the short to medium term. Opportunities for expansion of the port facilities are somewhat limited by existing structures which have been constructed in a relatively ad hoc manner over many years.

Existing boat ramps are located on western side of the port headland and are provided with restricted access due to the topography of the land and the location of a storage facility with security fence which has recently been used for the purpose of timber storage.

There is a demonstrated lack of storage and handling facilities with a particular emphasis added to undercover storage. As such it appears that many goods are stored in unsheltered conditions for extended periods which raise the risk of weather damage and a lack of security once cargo is off loaded. At the time of inspection this was apparent and was also communicated as a significant issue in the community consultation meeting.

The former fish processing plant and abalone farm are significant 'on land' facilities associated with the Lady Barron Port. Both of these buildings appear to be in fair to poor condition and are both underutilised. These buildings may have a negative impact on the comprehensive redevelopment of the Lady Barron Port if retained in their current use and tenure.

In accordance with the Flinders Planning Scheme, the Port Zone extends to incorporate all infrastructure outlined above and extends east to include the fuel storage facility as demonstrated below:



Lady Barron Planning Zones

Source: The List

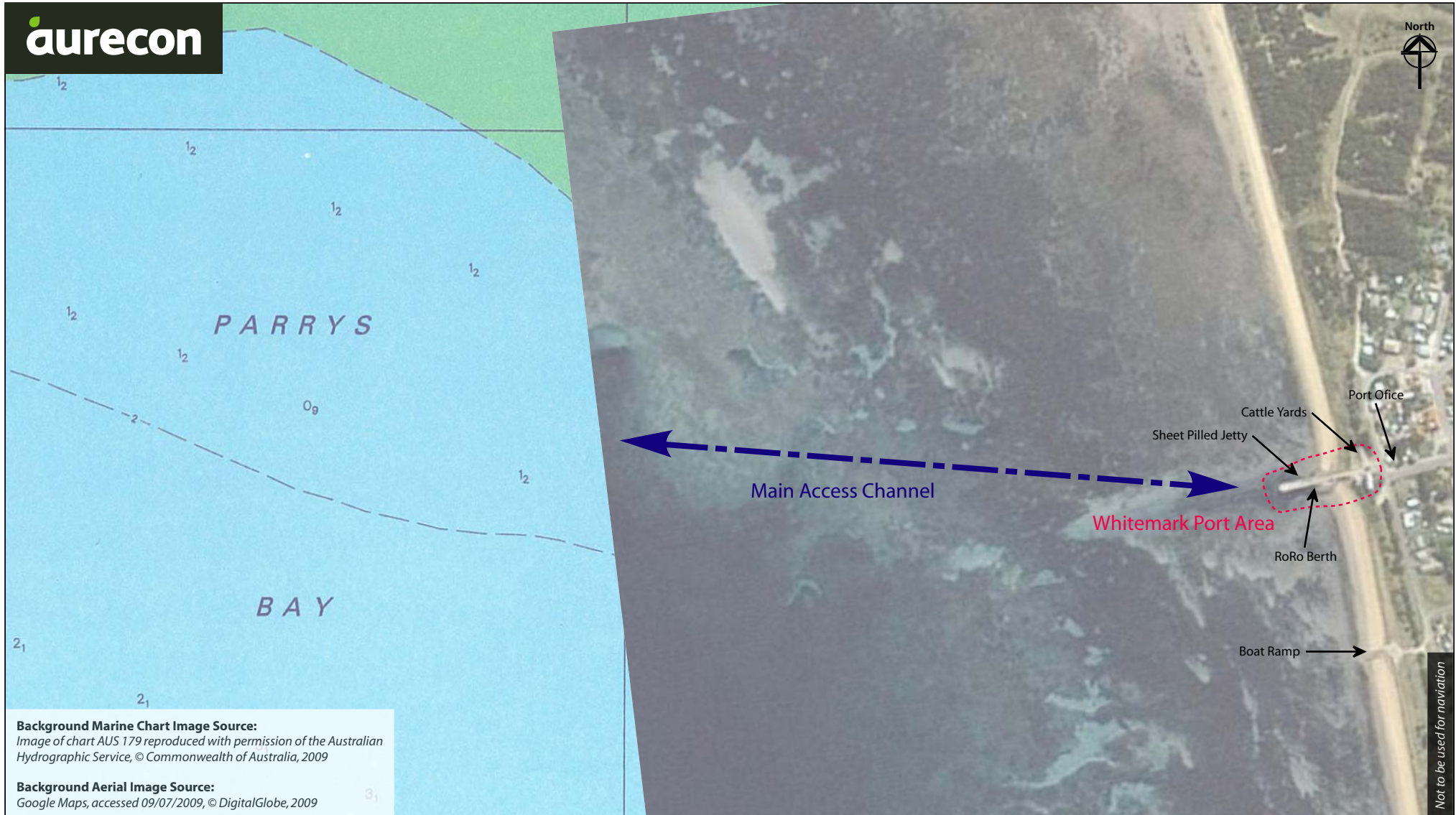
2.1.2 Whitemark

A secondary port on Flinders Island is located at Whitemark which is the main business and civic centre for Flinders Island. The Whitemark Port location has the advantage that it has convenient connection to the Whitemark Township and to the majority of the Island's population. In addition, it is afforded shorter vessel travel times to both Tasmanian and Victorian ports, including Bridport and Port Welshpool.

There are however a number of significant limitations to the use of Whitemark as a port and these are largely due to its location on the large and exposed Parrys Bay (Figure 2.3) which has very limited water depth. This results in the port only being accessible from the median tide to high tide water levels. In addition, Whitemark faces the west and is therefore exposed to prevailing weather patterns. The port is used by a number of commercial vessel operators, however only on an as needs basis.

A range of multi-user water and landside facilities are provided at Whitemark and these are identified on Figure 2.4. Key facilities include:

- **Waterside**
 - o **Sheet Piled Jetty**
 - A sheet piled wharf structure of approximately 45m length was constructed in 1985 at Whitemark alongside a Ro/Ro berth. The wharf provides the main port berthing facility whilst also offering a certain level of wind, wave and current protection to vessels using the Ro/Ro berth. The jetty is generally around 12-15m wide and has a pavement level of approximately 4.5-5.5m CD.
 - The jetty is only accessible by commercial vessels for approximately 4-6 hours each day, when the tide is high.
 - o **Ro/Ro Berth**
 - A Ro/Ro berth is located immediately adjacent to the south side of the jetty and is able to accommodate commercial Ro/Ro vessel with 6m wide ramps.
 - The Ro/Ro berth is also tide-dependent and only usable for approximately 4-6 hours a day by commercial vessels, due to draft limitations.
 - o **Boat Ramp**
 - A boat ramp is provided approximately 300m south of the wharf. This ramp is around 4m wide and is also only usable from the half tide level and above. The boat ramp is not within the Port Zone and is a Council managed facility.
 - A car and trailer parking and turning area is provided adjacent to the boat ramp and has the capacity for the parking of approximately 2-3 standard car and trailer combinations without impacting on the accessibility and operation of the ramp.
- **Landside**
 - o **Stock Yards**
 - Stock holding yards have been developed for live stock export / import to the north east of the wharf and Ro/Ro berth. These yards are connected to the wharf by a permanent cattle race.
 - These stock yards cover an area of approximately 900m² however it appears that some of the area adjacent to the port has previously been used for stock yards.
 - o **Whitemark Wharf Shed**
 - A shed at Whitemark Wharf is leased and used for storage of cargo by entities other than Southern Shipping.



Background Marine Chart Image Source:
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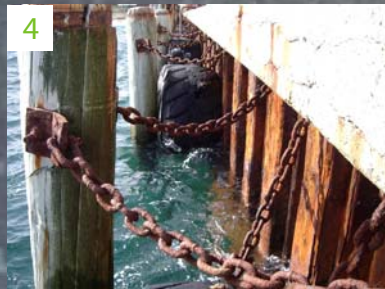
Background Aerial Image Source:
Google Maps, accessed 09/07/2009, © DigitalGlobe, 2009

Whitemark Port.ai

Flinders Island Port Vision

Whitemark Port and Surrounds

Figure 2.3



Background Aerial Image Source:
Google Maps, accessed 09/07/2009, © DigitalGlobe, 2009

Whitemark Site Photos.ai

Flinders Island Port Vision

Whitemark Port Site Photos

Figure 2.4

The Whitemark port facilities have been in place for a substantial period of time. The condition of the sheet piled jetty is relatively poor and appears to be in need of maintenance in the short term. There is clear evidence of substantial corrosion of the piling structure and the jetty surface has clear areas of substantial sagging.

The Ro/Ro ramp is well located for function of the port facility, however it is constructed from makeshift materials which suggest a patchwork of on going maintenance of the RO/RO over time. Inspection of both the jetty and Ro/Ro suggest that significant maintenance and capital investment would be required for functional operation.

Existing undercover storage facilities are limited to the shed described previously. The stockyards are well located and maintain significant area in addition to existing ramps and stock race. It is understood that the existing shed is leased to private users for storage purposes. It appears that some maintenance and upgrade of these facilities would be required in the short to medium term.

In accordance with the Flinders Planning Scheme, the Port Zone includes the land west of the main access road as demonstrated below:



Whitemark Planning Zones

Source: *The List*

2.2 Surrounding Land Uses

2.2.1 Lady Barron Port

Lady Barron Port is located on a natural headland which projects into Adelaide Bay. The surrounding land uses include a fish processing factory, recreation area, two tennis courts and three private residences including the Lady Barron Police house. The above mentioned are all located within the Port Zone in accordance with the Flinders Planning Scheme.

To the west of the specified port area is the fuel storage facility which is located in the Port Zone; however it is segmented from the balance of port uses.

Land to the west of the port access road is utilised for stock holding. A foreshore reserve extends along Adelaide Bay to the north west of the Port Zone, with residential properties further north (these properties actually sit within a Commercial Zone). The immediate township includes in excess of 60 dwellings of which the majority appear to be permanently occupied.

The Lady Barron Township is serviced by a number of commercial operations including the Furneaux Tavern which also offers overnight cabin accommodation. Other smaller scale accommodation facilities are also located in the township and take advantage of the views over Franklin Sound. A convenience store is the only retail facility within the township and provides day to day and discretionary goods for sale.

2.2.2 Whitemark Port

Whitemark is the primary commercial and civic centre for Flinders Island and includes access to services normally associated with a small rural township. Approximately 85 dwellings are located in Whitemark and most are permanently occupied. Commercial facilities in the town include a supermarket, local shops, café, bakery, hotel, post office and Council offices.

The port facilities are located on a narrow foreshore reserve to the west of Whitemark Township and all heavy traffic using the port must travel through the commercial centre of town to access the port. Residential properties are located adjacent to the port and would be impacted by significant changes in the use and traffic associated with the port.

2.3 Other Port Related Infrastructure

In addition to the infrastructure noted above, a range of other port related infrastructure exists on Flinders Island which is not specifically located at the identified port precincts characterised by the Port Zone. This infrastructure includes the slipway and fuel storage facilities located on the foreshore at Lady Barron to the north of the port and various boat ramps located around Flinders Island which are mainly associated with recreational boating activities.

2.3.1 Slipway

A 60 tonne slipway (as shown in Figure 2.5) is currently located near Lady Barron (less than 1km from the port) and is used for the maintenance and repair of vessels on Flinders Island. This slipway is used regularly and local operators are understood to consider it to be integral to their operations. The next closest commercial slipway is located at Bridport on the Tasmanian mainland or in Victoria at Port Welshpool. It is noted that this slipway is located outside the Port Zoned land under the Flinders Planning Scheme.



Source: Aurecon, 2009

Figure 2.5 Existing Flinders Island Slipway

The Flinders Island slipway is owned and operated by TasPorts. A visual inspection and anecdotal evidence gained from the stakeholder consultation indicates that the slip is in both good structural and working condition. It is understood that TasPorts undertakes regular maintenance of the slipway and that it is available for use by both local boat operators and visiting vessels.

An issue with the existing slipway arrangement is that the working area is not currently bunded and as a result surface run-off is currently released directly into the adjacent coastal waters. Any hazardous materials generated during vessel maintenance activities, including fuels, chemicals and flammable products that are not contained during work are being discharged without treatment. Therefore, the slipway is considered likely to have an adverse impact on surrounding water quality and aquatic habitats, and potentially on human health.

2.3.2 Boat Ramps

There are a number of boat ramps located around the island including North East River, West End, Port Davies and Badger Corner. These provide formal and informal boat access to the various settlements. The ramps vary in condition and form. For example, the boat ramp facilities at Killiecrankie on the north of the Island are improvised and informal, whilst the boat ramp at Palana, also on the north coast, has been recently upgraded with funding provided by Marine and Safety Tasmania (MAST) (see figure 2.6).



Source: Aurecon, 2009

Figure 2.6 Palana Boat Ramp

2.3.3 Fuel Storage Facilities

Fuel is delivered to the island via Lady Barron Port and is stored in a tank farm approximately 300-400m to the east of the port. Fuel arrives in ISO Tank containers from the Tasmanian mainland and transferred to the storage tanks by truck. The location of the fuel storage facility is less than ideal due to its proximity to residential land uses, the visual impact of the tanks and its proximity to Adelaide Bay.

The existing fuel storage facility is located on Crown Land which is leased to King Island Ports. Based upon information gained through the consultation process, we understand that the location of the fuel storage facility was originally selected when fuel could be pumped on shore directly from delivery vessels. Although the fuel storage area is located in the Port Zone in the planning scheme, it is not connected to other Port Zone land at Lady Barron.

Figure 2.7 shows the existing fuel storage facility.



Source: Aurecon, 2009

Figure 2.7 Existing Flinders Island Fuel Storage Facility

3. Key Limitations

3.1 Tourism Limitations

Accessibility to Flinders Island by air is restricted to approximately 16 scheduled flights per week operated out of Launceston and 3-4 flights per week originating from Essendon. The route is serviced by Airlines of Tasmania. However, the cost of airfares and a 15 kilogram per passenger limit on baggage is a barrier to visitors flying to the Island and limits opportunities for expansion of tourism and local business ventures. The following table provides a summary of current fares.

LAUNCESTON TO FLINDERS ISLAND

Child Fare	One - Way	Return
3-11 Years	\$110.00	\$220.00
Student Fare	One - Way	Return
12 -16 Years	\$124.00	\$248.00
Aged Pensioner Fare	One - Way	Return
	\$149.00	\$298.00
Adult Fare	One - Way	Return
	\$159.00	\$318.00

ESSENDON TO FLINDERS ISLAND

Child Fare	One - Way	Return
3-11 Years	\$150.00	\$300.00
Student Fare	One - Way	Return
12 -16 Years	\$170.00	\$340.00
Aged Pensioner Fare	One - Way	Return
	\$206.00	\$412.00
Adult Fare	One - Way	Return
	\$214.00	\$428.00

Source: Airlines of Tasmania – August 2009

Figure 2.8 Schedule of Air Fares – Airlines of Tasmania

The remote location of the Island and restrictions to modes of accessible transportation has historically limited the number of international tourists visiting Flinders Island. Group accommodation is not catered for and there is a distinct lack of tourism accommodation available for large visitor groups.

Tourism-related issues that are specifically relevant to the Port Precincts include the lack of shore-based facilities for passengers on visiting recreational craft and passengers on regular shipping vessels that service the Island. Facilities that would be expected include public amenities such as showers, toilets, general storage and undercover passenger waiting areas.

The consultation process also revealed that there is a desire to attract more recreational boats to Flinders Island. However, the community confirmed that there is a general lack of safe mooring facilities on Flinders Island for visiting recreational vessels. Despite this, it is evident that the Furneaux Group offers an ideal setting for recreational boating and that this may be a legitimate tourist attractor in its own right. Increased passenger travel is, however, recognised as an opportunity which must be catered for in any port redevelopment.

3.2 Commercial Freight Limitations

There are a number of commercial freight limitations associated with the existing shipping services on Flinders Island. These limitations include the physical attributes of the ports, their geographic location and spatial association to the community, agricultural activity and industry.

The contractual obligations of the existing shipping operator require the provision of a weekly shipping service to Flinders Island. It is clear from the consultation with the community and identified stakeholders that the frequency and dependency of the service is a key limitation upon the operation of the ports. This has implications for the transfer of goods to and from the island and in particular transfer of stock in a timely manner and in condition fit for receipt by purchasers.

The lack of scheduled shipping services appears to be due to several factors including off island connection points for the service such as Bridport which is understood to be tide dependant. This situation is potentially compounded where the Whitemark port is used as it is also tide dependant.

The physical condition of the Whitemark port facilities is also a significant issue. It is understood that the condition of the port infrastructure, coupled with the tide dependant nature of Whitemark, has been the key reason for TasPorts determining to close the Whitemark port to commercial operation.

The road connection between Lady Barron and Whitemark was also identified as a limitation in relation to movement of general goods and stock. We note that the road connection is approximately 25km in length and that the road is in relatively good condition given that it is the most frequently travelled road on the island. This issue was raised mainly by those residents and business owners who have association with Whitemark. The lack of appropriate cold storage and excessive transfer costs were also identified by local retailers and the abattoir operator.

The lack of suitable and available storage facilities at both ports is considered to be a key issue for the ongoing port operation. In particular, possible damage to goods which are open to the elements is considered to be a significant risk to business. This is particularly relevant to goods that do not arrive in containers such as fertilizer and other agriculture supplies which can be damaged if left exposed to the elements.

Opportunities to cater for increased passenger travel to Flinders Island are limited due to the configuration of the vessels which service the island and the nature of cargo which is largely livestock and bulk goods.

3.3 Environmental Limitations

The location of the established port facilities on Flinders Island appears to be having some impact upon their existing environment. However, it is notable that the port facilities are established and generally accepted in their locations. There does appear to be some remediation works that would improve the environmental credentials of the port operations. These would include removing redundant infrastructure such as jetties and former port related buildings and upgrades to environmental controls at existing infrastructure such as the slipway located approximately 1km to the east of the Lady Barron Port.

At present we are advised that there is limited, if any, need for dredging in order to access the Lady Barron Port facility, where as extensive dredging would be required in the event that an upgrade was proposed at the Whitemark Port. This may also be the case if a new port location were to be pursued. On this basis, the deep water located at Lady Barron is considered to be a positive aspect of the port and contributes to its environmental advantage over the alternatives.

The existing fuel storage facility at Lady Barron is identified as an environmental issue both in terms of its visibility within the township and its proximity to the high water mark of Adelaide Bay. Whilst we are unaware of any issues associated with ground and water contamination, it is suspected that this may become an issue over time. On this basis, the identification of an alternative location for the fuel storage facility should be recognised as a medium term priority.

3.4 Sea Level Rise

The Tasmanian Government has undertaken independent research on the impact of sea level rise on the Tasmanian coast (Sharples Report). This advice has recommended that the Government adopt a 0.9 metre level as the likely 1:100 year event for planning purposes. Although the Government is yet to adopt a benchmark for planning assessments, similar policies have been implemented interstate and are likely to be included in Tasmanian planning provisions in the future.

This consultancy was not tasked to consider the effects of Sea Level Rise on the existing ports or any anticipated mitigation works that may be appropriate to address sea level rise and resultant higher tides. However, it is recommended that future detailed planning and design for land uses and infrastructure needs to make allowance for the impact of a rise in sea level in the port precinct.

4. Opportunities and Constraints Analysis

The following opportunities and constraints assessment was assembled from the site investigations and consultation process. The brief for the project was open to the extent that the assessment was not limited to existing port locations and options for a new port facility were discussed at the consultation meeting. Some participants suggested general locations for new port facilities. These are described in Section 5.3 of this report.

We have considered the concept of an alternative port location as opposed to reinvestment at either Lady Barron and/or Whitemark. The cost, environmental issues and approvals required to establish a new port facility would be prohibitive. Therefore, we have focused the opportunity and constraint analysis on the existing port facilities as follows:

4.1 Lady Barron – Positive Aspects

Waterside

- Deep water, all tide access port
- Options available for additional berths
- Condition of wharf infrastructure (compared to Whitemark)
- Concentration of marine activities and facilities
 - General cargo operations
 - Livestock operations (part)
 - Fishing fleet
 - Vessel fuel services (fishing and recreation)
 - Slipway and maintenance services
 - Fresh water connection

Landside

- Available land for expansion
- Road access is currently not through the town centre and therefore more appropriate for the transfer of heavy goods
- Proximity of existing fuel depot
- Limited residential interface
- Available land for cargo storage
- Power currently supplied to the site

Other

- TasPorts preference for redevelopment at Lady Barron
- Opportunity to combine recreational boating facilities with port location

4.2 Lady Barron – Negative Aspects

Waterside

- Additional shipping time to Bridport and Welshpool (compared to Whitemark)
- Structural integrity and condition of existing jetty
- Lack of environmental controls at Slip
- Potential exposure to south east and south westerly wind.

Landside

- Distance to Whitemark (the island's main population centre)
- Lack of covered cargo storage and handling area
- Existing land-use and layout

- Compliance and safety of fuel depot
- Lack of potable water
- Additional wear and tear on the local road network
- Additional cargo transfer costs
- Safety
 - Operational Health and Safety
 - Public access

4.3 Whitemark – Positive Aspects

Waterside

- Shorter shipping time to Bridport and Welshpool (compared to Lady Barron)

Landside

- Proximity to main population centre
- Reduced wear and tear on roads
- Lower road transport costs on Flinders
- Closer proximity for stock delivery by land and water
- Power and water services available via existing town services
- Proximity to airport

4.4 Whitemark – Negative Aspects

Waterside

- Shallow water requires significant dredging to improve tidal access
- Tidal access (limits operations)
- Channel maintenance / dredging
- Exposed to westerly weather
- Poor structural condition of existing wharf
- Harbour is not safe for recreational boating
- Environmental Impact of dredging and associated approvals now required to facilitate upgrade

Landside

- Lack of cargo handling and storage facilities
- Stock delivery through town centre impacts on safety and amenity of Whitemark
- Coastal processes – sand accumulation
- Proximity to residential areas
- Expansion limited to the narrow strip of foreshore land adjacent to residential precincts

Other

- Tas Ports prefer Lady Barron
- Cost to up-grade

5. Options and Cost Assessment

5.1 Major Redevelopment of Lady Barron

The operational Lady Barron Port is appropriately located on a headland with deep water alongside and in approach channels. There are also appropriate refuge locations for commercial vessels visiting Flinders Island during extreme weather events. However, greater protection is required for recreational vessels which remain exposed in particularly poor weather when Franklin Sound can become hazardous.

The existing port related infrastructure appears to have evolved out of need rather than purpose at Lady Barron. To this extent, it is clear that significant operational improvements would be possible if an appropriate opportunity presented to improve the existing facilities.

The existing stockyard facilities are in fair to poor condition and it is notable that some of the northern most paddock areas have been transformed into refuse and miscellaneous storage areas. Whilst there does appear to be sufficient room for enlargement of the stock holding area, it is considered that the fencing, surface treatment and access to the existing Ro/Ro berth needs to be upgraded.

The location of the existing large storage shed, which is understood to be a former fish processing plant, disrupts efficient use of the Lady Barron port. Coupled with the now disused abalone farm, the location of these facilities is clearly limiting the functionality of the Lady Barron Port. Whilst there would be some levelling and filling required, the removal of these buildings would provide the opportunity to provide an appropriate distinction between the commercial and recreational activities of the port and resolve existing access issues.

It is recognised that the existing wharf is in need of maintenance in the short to medium term. This would provide the opportunity to widen and lengthen the wharf and extend mooring facilities for larger vessels using the Ro/Ro berth. Although there are likely to be environmental issues associated with any redevelopment of the Lady Barron Port, the lack of dredging and limited need for water-side works will make the process significantly more manageable. Consultation with existing users suggests that the existing depth of the port comfortably meets that required for vessels currently using the port.

As trade and shipping activity increases, there is sufficient area to provide for an additional Ro/Ro berth to the west of the existing wharf which could provide the opportunity for multiple vessels to load and/or unload. Any future planning and development of the port should retain this option.

The existing lighting associated with the Lady Barron Port is inadequate for night loading and unloading. Provision of appropriate lighting could provide the opportunity for significant improvements in the operation of the port which could address future demand associated with increased stock levels on Flinders Island.

Lady Barron is ideally located as a destination port for recreational boating and there is ample opportunity for the development of recreational boating facilities including a small marina associated with the current operations. The waters immediately east of the existing wharf provide a suitable location for the development of a marina. Weather protection via a wave screen would be required to screen moored craft from southerly weather patterns. Such a facility would compliment existing tourism operations that already exist at Lady Barron and provide new investment and a variety of opportunities associated with recreational boating. The marina facilities should include a new launching ramp, which would enable the existing ramp that now has restricted access, to be closed.

The location of the existing slipway can be maintained, however, an upgrade of the surrounding work area is recommended to address apparent environmental issues associated with current operation.

The location and visual impact of the fuel storage facility should also be addressed in the medium term being 5-15 years.

5.2 Major Redevelopment of Whitemark

The Whitemark Port is closely associated with the Whitemark Township and offers accessibility for local business and the civic precinct. However, the port infrastructure is in poor condition and has been declared inoperable by TasPorts.

In order to meet the needs of graziers and the potential growth of stock numbers on the island, Whitemark port area would have to be upgraded to improve access conditions on a wider tide range and increase the capacity of the existing stock holding yards. This would likely require the use of additional land area that is currently within the Port Zone but not specifically developed for port functions. It is also noted that there are no fuel or dedicated cold storage facilities in close proximity to the port.

Containerisation of the port would open up a range of options for increased trade and export opportunities for local business. At present there is no capacity at Whitemark to accommodate 25-tonne containers and this should be given key consideration in terms of the infrastructure required to support a future increase in container storage and associated commercial growth.

The existing sheet piled wharf facility is in poor condition and it is considered that the structure would need to be completely replaced if the Port were to resume commercial operations. There is little if any existing security infrastructure associated with the wharf and a major upgrade of security infrastructure would be required as part of any significant upgrade of the Whitemark Port facility. Any redevelopment would also need to account for the coastal processes evident in Parrys Bay where the existing wharf structure is impacting on natural long shore drift.

Following inspection of the port facilities along with consultation with local residents and long time users of the Whitemark Port, it is apparent that the greatest issue that constrains the redevelopment of the Whitemark Port is the fact that it is tide dependant despite being located closer to the destination ports in at Bridport and Port Welshpool. We are also advised that this issue is part of the reason that it has been made non-operational by TasPorts.

Significant dredging would be required to create a channel to accommodate the existing vessels that service the Island. Like any port related channel, this would require regular maintenance and would provide a complication for ships entering the port, particularly in poor weather conditions where there are also limited opportunities for safe mooring points in proximity of the Whitemark Port.

In addition, if Whitemark were to become channel dependant there may be issues associated with access by new vessels which require deeper draft and greater shelter to approach the berth. These vessels may include ships that are capable of carrying double-stacked containers offering greater efficiency in port deliveries.

The existing port facilities would also require significant new lighting in order to enable a greater window of opportunity to load and unload goods and stock. This is partly based upon the tidal nature of Whitemark Port but also in light of the anticipated increase in stock numbers on the Island.

5.3 New Port Facility at Specified Location

There were a number of suggestions offered during consultation meetings for the location of new port facilities to service Flinders Island. These suggestions include Sawyers Bay and Port Davies on the west coast of Flinders Island. Others suggested locations were near the existing Whitemark port and had the advantage of being close to the main commercial and civic township; none of the options overcome the exposure on the west coast and tide dependent nature of the port.

The construction of a new purpose built port facility would be an extremely expensive process likely to be in excess of \$30 million for a basic facility to meet the needs of Flinders Island. It is also notable that it is likely that there would be significant environmental cost associated with the construction of a new port facility particularly if dredging were required. Road and access costs have not been included in these calculations; however significant investment in connecting any new port facility to Whitemark and Lady Barron would be required.

If a new port facility was determined to be the preference of Council, the process of site selection would include detailed marine mapping review to identify suitable locations which offered deep water access as well as suitable mooring shelter from severe weather and sea conditions. The scope and extent of any dredging would need to be determined. This would require the expert advice of a maritime engineer and suitably qualified marine environment personnel.

In addition to the sea based assessments, the tenure of the land, its environmental and botanical significance as well as its cultural heritage significance would also need to be assessed. Provision of a new port facility would likely require the provision of a new 'Port Zone' and the necessary amendments to the Flinders Planning Scheme.

These processes are beyond the scope of this project, however anecdotal evidence provided by those consulted as part of this study and inspection of alternative locations suggests that the issues identified above are likely to lead to significant procedural hurdles. In addition, the Lady Barron port location appears to have been a well selected port location which meets many of the requirements identified above and is operative as an existing port in the Port Zone.

6. The Vision

Following inspection and review of the existing port facilities on Flinders Island it is our recommendation that future development and investment should occur at Lady Barron and that the Whitemark port should remain inoperable. Consultation undertaken during the course of the project along with a review of strategic opportunities for the Island in the Flinders Strategic Plan, confirm this recommendation.

6.1.1 Considerations

- Inadequate shipping volumes and frequency to warrant the need for two ports on Flinders Island
- Economies of scale can be achieved by concentrating port activity in one location
- New commercial and recreational opportunities will be better facilitated in the waters around Lady Barron
- Expansion of port infrastructure, if required can readily be achieved at Lady Barron without compromising access by land or sea
- The need for public and private investment to improve the ports, in particular, visual amenity.

6.1.2 Future Directions

- A growing economy that increases visitors and residents
- Expansion of tourist and recreational boating activity
- Responsible, planned future development and environmental management
- Health and well being of Flinders residents
- Community Infrastructure.

6.1.3 The Vision

To provide for the sustainable redevelopment of the Lady Barron Port precinct by improving port infrastructure and operational systems to facilitate shipping services that meet the needs of the general community, agriculture and business and provide appropriate opportunities for tourism investment.

6.1.4 Table of Vision Objectives and Actions

The following table sets out the objectives and relevant actions outlined in this report.

Table 6.1 – Vision Objectives and Actions

Strategic objectives	Other Stakeholders	Council Role	Redevelopment Actions
Improve General Port Infrastructure	Federal Government State Government TasPorts Shipping Companies Charter operators Commercial Fisherman MAST King Island Ports Ship and Boat owners	<i>Provider Facilitator Advocate</i>	<ul style="list-style-type: none"> • Bunding of existing slipway • Consider alternative location for fuel storage • Specific redevelopment actions are listed below
Manage Traffic Circulation and Access	Federal Government State Government TasPorts	<i>Provider Facilitator Advocate</i>	<ul style="list-style-type: none"> • Accessway and Circular Road construction • Boat ramp located away from commercial precinct • Lighting upgrade (24 hour operation)

Provide Improved Cargo Handling Area	Federal Government State Government TasPorts	<i>Facilitator Advocate</i>	<ul style="list-style-type: none"> • Establish dry cargo storage area • Formalise container storage area • Improve access/visibility and general safety
Clearly Designate Stock Handling Area	Federal Government State Government TasPorts	<i>Facilitator Advocate</i>	<ul style="list-style-type: none"> • Stock yard upgrade • Lighting upgrade (24 hour operation) • Improved ramps for transfer of stock • Upgrade existing Ro/Ro to improve loading access
Embrace Commercial Fishing Fleet and Charter Operators	Federal Government State Government TasPorts MAST	<i>Facilitator Advocate</i>	<ul style="list-style-type: none"> • Upgrade mooring and wharf facilities • Provide improved wash down facility • Cold storage facility
Provide improved Recreational Boating Opportunities	Federal Government State Government TasPorts MAST	<i>Facilitator Advocate</i>	<ul style="list-style-type: none"> • Marina and Wave Screen • Possible Yacht Club • New boat ramp
Provide Public Parking	Federal Government State Government TasPorts MAST	<i>Facilitator Advocate</i>	<ul style="list-style-type: none"> • Car and Trailer Parking
Improve Landscape and Visual Amenity	Federal Government State Government TasPorts MAST	<i>Provider Facilitator Advocate</i>	<ul style="list-style-type: none"> • Relocation of fuel storage facility (medium term) • Improved safety • Provision of improved landscaping

6.1.5 Implementation

In order to implement the Ports Vision identified above, it is necessary to develop a master plan for the redevelopment of the Lady Barron Port. Part 7 of this Ports Vision provides a high level master plan for the redevelopment of the Lady Barron Port. It is noted that this is a concept layout which has been developed following consultation with stakeholders and inspection of the existing port facilities.

7. The Lady Barron Masterplan

7.1 Introduction

Lady Barron port is located at the south eastern end of the Island on a narrow peninsula of land jutting into Adelaide Bay off Franklin Sound. The port is accessible via a sealed bitumen road (Main Street) and being on a peninsula, is well buffered from adjoining land uses. The port offers all-tide deep water access and is accessible in all but extreme weather conditions. Adequate land is available in the vicinity of the dock facilities for cargo and stock storage and handling and a fuel storage facility is located a short distance along the coast to the north on Franklin Parade.

Although Lady Barron is considered to be the preferred location to service the Island for general cargo and stock handling facilities, the current land use and traffic arrangements are inadequate and won't meet the long-term needs of the Island.

Lady Barron is also an attractive location for recreational boating and offers opportunities as a stop-over for yachts returning from Hobart and as a base for vessels owned by people who live on the Island or the mainland and travel to the Island for holidays.

7.2 Primary Purpose

The primary purpose of the Master Plan is to create a multi-purpose port to service Island residents and businesses and a safe harbour for general recreational and commercial boating for smaller craft on a permanent and casual mooring basis.

7.3 Port Land Use

A revised layout is proposed for port infrastructure in the Lady Barron port precinct (refer Figure 7.1). Four distinct land use areas are proposed in the revised master plan. They are:

- Improved vehicle and pedestrian access
- General cargo handling areas
- Undercover cargo storage and distribution facilities
- Stock holding and loading facilities and
- Recreational boating facilities including marina berths.

7.4 Port Infrastructure

Interviews with current users and changed shipping patterns over recent years indicate that there will be an increase in throughput of live cattle over the next 10 years and a demand for improved cargo handling and storage facilities. Consequently, additional berthing facilities will be required to maintain growth and development opportunities on the Island. This is likely to be matched with additional general cargo needs and recreational traffic. Therefore the following new port infrastructure/upgrades are proposed:

- A new Ro/Ro berth dedicated to stock loading and unloading
- Upgrade of the existing Ro/Ro berth as a dedicated general cargo and passenger terminal
- Addition of 12 pontoon-style berths for visiting vessels up to 20 metres in length
- Addition of a staged development of 60 permanent pontoon-style berths for a range of vessel sizes from 12 -18 metres
- Installation of a wave screen to protect new berths from south/south-easterly weather conditions
- Installation of a new 2-lane boat ramp inside the protected marina precinct

7.5 Traffic Circulation and Access

A revised road layout is proposed to provide access to all major precincts in the master plan. This road is designed to enable large vehicles to circulate through the port area without having to undertake

reversing or turning manoeuvres. Main Street needs to be upgraded to provide two-way access into the port precinct for heavy vehicles and the “port loop road” should be developed as a 4 metre wide one way loop for heavy traffic. This road would be shared with vehicles entering and exiting the boat ramp. Detailed design is required for the boat launching and retrieval areas associated with the ramp to ensure they do not impede other port traffic.

7.6 Cargo Handling Facilities

The existing Ro/Ro berth should be upgraded to operate as a dedicated cargo and passenger berth. Outdoor storage for bulk and general commodities, such as building supplies etc is proposed in the area immediately adjacent to the berth.

The existing sheds, inside the proposed loop road should be upgraded to handle cold storage and cargos that require weather protection. Pick-up and drop-off facilities should be developed in association with the traffic circuit on the loop road.

7.7 Stock Handling and Loading

A dedicated stock holding and loading area is proposed west of Main Street. Entry and exit from this area for vehicles unloading and loading stock should be via service roads off Main Street so that large vehicles do not interrupt traffic flows on the port loop road. The holding yards should be appropriately penned to manage stock numbers in the yard and on/off races designed to segregate arriving and departing animals in the yard.

The key advantage of dedicated stock facilities is that regular shipping services will not be delayed while stock are loaded and unloaded and animal waste will not contaminate pedestrian precincts and general cargo facilities.

7.8 Commercial Fishing Fleet

The existing Lady Barron wharf is proposed to be retained and upgraded as required for use as a dedicated commercial fishing berth. Vehicular access to the wharf will only be available through the outdoor cargo handling yard. Public access to the wharf should be along a new walkway along the foreshore connecting to the proposed marina and boat ramp.

7.9 Recreational Boating Facilities

An integrated recreational boating precinct is proposed adjacent to the port facilities. This precinct is proposed to include pontoon-style wet berths for a staged development of 60 permanent and 12 casual/visiting vessels. A range of berth sizes from 12-20 metres is proposed with a wave screen for weather protection from the south/south-east.

A new two-lane boat ramp and trailer parking is also proposed in this precinct together with the option for the construction of a marina boat/yacht club-facility. This facility could incorporate public dining and/or kiosk outlets and boat chandlery supplies if required. A detailed layout plan is required for the boat ramp, arrangement of launching lanes and trailer parking before the project can be adequately costed.

7.10 Public Parking

A general car park for port workers and visitors to the boating precinct is proposed adjacent to Main Street at the port entry. The existing tennis courts and public recreation areas are to be retained at the intersection of Franklin Parade and Main Street.

7.11 Landscaping and Amenity

A detailed landscape plan is required for the port precinct to ensure the stock handling yards and trailer/car parks are effectively screened from Main Street and residential precincts in town.

LADY BARRON

PORT & RECREATIONAL
BOATING DEVELOPMENT



72 BERTHS
- 60 PERMANENT
- 12 CASUAL



8. Indicative Costing for Lady Barron Redevelopment

A staged cost estimate of the proposed works recommended in the Lady Barron Master Plan is presented in Figure 8.1.

The cost estimate is all inclusive and is broken into three stages, which include a phased implementation of the marina facilities. Allowance has been made for all works associated with the construction of a new public car park and trailer parking facility. In addition, the costing provides for new road construction to improve access to the proposed recreational precinct and the commercial port operations precinct.

The cost estimate also allows for the construction of a second Ro/Ro berth to the west of the existing wharf and Ro/Ro as depicted in the master plan. This could become a dedicated stock loading berth as deemed necessary.

The costs associated with the development of the marina are broken down as follows:

- Stage 1 includes the central row of marina berths and an abbreviated wave screen.
- Stage 2 includes the central and northern row of marina berths and the full extent of wave screen.
- Stage 3 includes all three rows of marina berths and the full extent of wave screen.

This cost estimate has been developed following a desktop review of the port location and the photographic survey undertaken in May 2009. It should be noted that no on-site drilling or geological investigations have been undertaken and that such investigations may result in a higher or lower cost estimate. As the cost estimates are preliminary they are not based on detailed design and should not be used for construction or financial analysis purposes. Detailed investigations, including a cost benefit analysis should be undertaken before any investment decisions are made in relation to the port or associated infrastructure.

Lady Barron Port and Recreational Boating Development

Item Description	Unit	Rate	Stage 1 + carpark		Stage 2		Stage 3	
			Qty	Total	Qty	Total	Qty	Total
Site Works								
Demolition of existing building	m2	\$50.00	1000	\$ 50,000.00	1000	\$ 50,000.00	1000	\$ 50,000.00
Remove Trees on Site	EACH	\$500.00	10	\$ 5,000.00	10	\$ 5,000.00	10	\$ 5,000.00
Remove larger trees on site	EACH	\$1,300.00	2	\$ 2,600.00	2	\$ 2,600.00	2	\$ 2,600.00
Excavate to remove topsoil	m3	\$15.00	4500	\$ 67,500.00	4500	\$ 67,500.00	4500	\$ 67,500.00
New Ro/Ro								
RoRo Construction	EACH	\$750,000.00	1	\$ 750,000.00	1	\$ 750,000.00	1	\$ 750,000.00
Pile Rig Set up	EACH	\$7,500.00	1	\$ 7,500.00	1	\$ 7,500.00	1	\$ 7,500.00
Dolphin Berths for RoRo	EACH	\$35,000.00	2	\$ 70,000.00	2	\$ 70,000.00	2	\$ 70,000.00
Marina								
Floating Attenuator	m2	\$3,200.00	280	\$ 896,000.00	612	\$ 1,958,400.00	612	\$ 1,958,400.00
Floating Concrete Pontoon	m2	\$1,800.00	616	\$ 1,108,800.00	1062	\$ 1,911,600.00	1360	\$ 2,448,000.00
Support Facilities								
Stormwater Pits	EACH	\$2,000.00	4	\$ 8,000.00	4	\$ 8,000.00	4	\$ 8,000.00
Drainage System	m	\$250.00	50	\$ 12,500.00	50	\$ 12,500.00	50	\$ 12,500.00
Landscaping	m2	\$70.00	25	\$ 1,750.00	25	\$ 1,750.00	25	\$ 1,750.00
Carpark Base material	m2	\$35.00	6000	\$ 210,000.00	6000	\$ 210,000.00	6000	\$ 210,000.00
Asphalt layer	m2	\$35.00	1500	\$ 52,500.00	1500	\$ 52,500.00	1500	\$ 52,500.00
Concrete Kerb	m	\$120.00	400	\$ 48,000.00	400	\$ 48,000.00	400	\$ 48,000.00
Carpark Signage	EACH	\$80.00	4	\$ 320.00	4	\$ 320.00	4	\$ 320.00
Boat Ramp Construction	EACH	\$312,500.00	2	\$ 625,000.00	2	\$ 625,000.00	2	\$ 625,000.00
Construct Kerb Stop	Item	\$ 500.00	2	\$ 1,000.00	2	\$ 1,000.00	2	\$ 1,000.00
Cost Estimate			Stage1	\$ 3,916,470.00	Stage2	\$ 5,781,670.00	Stage3	\$ 6,318,070.00
Contingency (25%)				\$ 979,117.50		\$ 1,445,417.50		\$ 1,579,517.50
Location surcharge (35%)				\$ 1,370,764.50		\$ 2,023,584.50		\$ 2,211,324.50
Total Cost Estimate				\$ 6,266,352.00		\$ 9,250,672.00		\$ 10,108,912.00
Cost per berth				\$ 179,038.63		\$ 156,791.05		\$ 140,401.56

* Please note that all costs are indicative and subject to review of local conditions. No allowance has been made for drilling of piles/dolphins

9. Conclusion

Shipping and port related activities will continue to be of the highest significance to the Flinders Island community. Improvements in the existing port infrastructure and associated amenities will provide the necessary physical framework for significant improvements in the operation and efficiency capability of the Lady Barron Port.

The Flinders Island Strategic Plan (December 2008) identifies six directions for Council's agenda for the island. Improvements to port facilities are critical to the successful implementation of these directions. Implicit in achieving these goals, is the need to grow the economy and increase visitor patronage to Flinders Island.

The sustainable redevelopment of the Lady Barron Port will provide a significant step towards achieving the directions of the Flinders Council and to diversify what Flinders Island has to offer to residents and visitors. This should include delineation of the commercial and recreational activities of the Lady Barron Port and provide specific opportunity to a small scale marina development to compliment the immense natural tourist potential of Flinders Island.

It is recognised that in addition to the improvement of port related infrastructure, there is a clear need for a reliable shipping service that enables industry, agriculture and the community to plan in confidence and deliver the 'Flinders' brand of produce to the destination ports as anticipated. In addition, provision of a dependable shipping service is significant to the quality of life and socio-economic well being of the Flinders Island Community.

This *Flinders Island Port Vision* has outlined the existing circumstances and the possibilities that exist to improve on the current port facilities at Flinders Island. Lady Barron is the recommended location for substantial future improvements and investment in port infrastructure. The draft master plan and indicative costings provide Council with preliminary suggestions as to the future port scenario at Lady Barron. The community consultation, research and future predictions (as contained in our *Flinders Island Shipping Needs* report), demonstrate that strengthening the Port Infrastructure and Services at Lady Barron will boost the economy and assist in delivering the directions contained in the Flinders Strategic Plan.

In order for Flinders Island to establish suitable port related infrastructure which meets the needs of the community, visitors and maritime agencies, the vision for Lady Barron Port is:

To provide for the sustainable redevelopment of the Lady Barron Port precinct by improving port infrastructure and operational systems to facilitate shipping services that meet the needs of the general community, agriculture and business and provide appropriate opportunities for tourism investment.

Appendix A

Consultation Outcomes

Flinders Island Port Vision Summary of Community Workshop Session

Positives

- Visual beauty (natural)
- Mostly regular supplies
- Deep water – Lady Barron
- Whitemark – north export closer
- Whitemark central location
- Port city – Whitemark
- No additional roads required to Whitemark
- New port – new location
- Roll on /roll off berth at Lady Barron
- Shorter travel time to Whitemark (some ports)
- Lady Barron all-weather
- Whitemark all-weather
- Lady Barron = pretty
- Two ports – if sustainable
- Lady Barron – existing infrastructure

Negatives

- Not good infrastructure
- Located in built-up area
- Only accommodates 1 vessel at a time
- Lack of planning – (x2) negative for both ports
- Access through town – (x2) negative for both towns
- Lady Barron – abalone growing / houses and recreation in port precinct
- Shortage of space at Lady Barron
- Shortage of space at Whitemark
- Layout of Lady Barron – negative
- Lady Barron = tidal
- Trailer boat facilities Lady Barron
- Lack of recreation facilities – Lady Barron / Whitemark
- Land available through crown
- Two ports = operational
- Tas Ports – pre-emptive decision on future of Whitemark
- Lack of planning
- Adjacent storage facilities
- Security
 - excludes public
 - visual impact

Group 1***Discussion Topic 1 – Prioritise strengths / opportunities for Whitemark & Lady Barron*****Lady Barron**

1. all weather access and tide
2. tourism precinct and marina
3. relocate and modernise fuel depot
4. road realignment to utilise adjacent land
5. use existing factory for storage

Whitemark

1. potentially green field site
 - more available land adjacent to port
2. central location
 - less reliance on road transport
3. closer to north markets

Discussion Topic 2 – What role should each port play over the next 15 years**Lady Barron**

- tourism
- fishing
- marina

Whitemark

- commercial
 - stock
 - freight
 - fuel (inland)

Killiecrankie

- pulp mill

Discussion Topic 3 – Additional Infrastructure**Lady Barron**

- public access to wharf
- increased capacity for fishing and recreational use
- entry point for tourism
- resort / marina, café, mini sea port

Whitemark

- gantry cranes for containers
- roll on / roll off facility
- wharf suitable for roll on / roll off and containers
- dredging access
- cattle yards
- containerise stock transport

Discussion Topic 4 – new commercial and recreational opportunities

Allow ports to specialize in specific purposes

Lady Barron

- Fishing, recreational, tourism
- Facilities for cruises, yachties

Whitemark

- Commercial

Discussion Topic 5 – Land use and management needs for future growth**Lady Barron**

- Need to recognize natural hazards
- Breakwater
- Maintain visual sensitivity

Whitemark

- Dredging management
- Zoning for commercial / industry uses
- Local representation and influence in statutory ports authority
- Scope for local operation of ports

Group 2***Discussion Topic 1 – Prioritise strengths / opportunities for Whitemark & Lady Barron*****Lady Barron**

1. deep water
2. all weather – yachts / recreational boats, etc
3. future potential for developing ‘tourist’ marina
4. visually appealing
5. existing infrastructure for tourism (ie. tennis courts)
6. police based at Lady Barron

Whitemark

1. central location
2. road infrastructure – less damage
3. more efficient transport for major business
4. closer to Victorian ports (steaming time for livestock)
5. closer to stock yards (sales / Roberts)

Discussion Topic 2 – What role should each port play over the next 15 years**Lady Barron**

- Tourism – gateway, growth centre
- Commercial fishing / charter
- Recreational fishing
- Access to Birding Island / indigenous
- Marina
- Cruise ships
- Employment (youth)

Whitemark

- Commercial centre
- Recreational fishing (west side)
- Commercial fishing / charter
- Marina
- Island based commercial / trading (from port)
 - would create employment
- less visual impact
- tidal – dredge?

Discussion Topic 3 – Additional Infrastructure**Lady Barron**

- based on recreational, with commercial
- sheds
- marina
- refuelling
- amenities (showers, toilets, laundry, etc)
- depot
- storage for containers, stock

Whitemark

- based on commercial, with recreational
- under cover storage
- storage facilities for containers, etc
- storage facilities for stock
- containerization

Discussion Topic 4 – new commercial and recreational opportunities**Lady Barron**

- marina
- slipway
- water based adventure activities
- cruise ship facilities
- Laundromat
- Gift shop and galleries
- Coffee shop – ‘restaurants’
- Increase accommodation

Whitemark

- Dredge channel with roll on, roll off facilities
- Lease Whitemark to private enterprise or council
- Restaurant
- Refuelling

New site

- Elsewhere (Gulch – inland, internal marina) Or at the bluff

Discussion Topic 5 – Land use and management needs for future growthLady Barron

- Move fuel depot from ports
- Safeguard housing

Lady Barron and Whitemark

- Increase special land use zone
- Revisit planning scheme!
- Sewerage, waste water resolution
- Reclamation off shore

New site

- Build ramps (pylons to moor)

Group 3***Discussion Topic 1 – Prioritise strengths / opportunities for Whitemark & Lady Barron*****Lady Barron**

- All tide port
- Improve recreational facility (eg. marina)
- Livestock holding facility
- Fuel / fertilizer handling
- Beauty

Whitemark

- Most freight goes to Whitemark
- Closer to sale yards
- Central for island
- Closer to Victorian ports
- Straight freight / livestock port only

Discussion Topic 2 – What role should each port play over the next 15 years**Lady Barron**

- Tourism / recreational
- Marina

Whitemark

- Freight only
- Commercial centre

Discussion Topic 3 – Additional Infrastructure

- Mobile crane
- Storage facility
- Lighting
- Separate recreational / commercial access
- Improve livestock facilities
- Marina
- Double ramp (two boats at once)
- Dredging of Whitemark

Discussion Topic 4 – new commercial and recreational opportunities

- Marina
 - boat maintenance
 - marina manager
 - slip
- small local business included in port
- aquaculture
- forestry
- tourism
 - fishing charters

Discussion Topic 5 – Land use and management needs for future growth

- more land area
- redesign existing area and facilities
 - moving sheds and yards
- develop area for marina access
- security
- non-invasive access to Whitemark port

Group 4***Discussion Topic 1 – Prioritise strengths / opportunities for Whitemark & Lady Barron*****Lady Barron**

- close to fuel depot
- port culture
- deep water port
- tourism potential
- more potential for expansion

Whitemark

- close to retailers
- closer to Victoria and Tasmania
- more central to the rest of the island
- room to move Whitemark port to south of golf club

Discussion Topic 2 – What role should each port play over the next 15 years**Whitemark**

- to be commercial port at new golf course site
- If Whitemark is to be commercial, operators are to come out of now tidal port in Tas

Lady Barron

- to be recreational, charter boat and fishing port

Discussion Topic 3 – Additional Infrastructure

- decent stock handling facilities
- undercover storage for general cargo (fertilizer – seed)
- office areas for paper work
- capacity for stock handling facilities
- passenger facilities
- toilet and laundry facilities for visiting vessels
- water, electricity and lighting facilities
- horse facilities (better bull boxes)
- chiller facilities to come and go on same boat
- containerized facilities – movement handling and storage
- dust free working areas
- access to ports not through towns

Discussion Topic 4 – new commercial and recreational opportunities

- visiting vessels and yachts
- increased tourism through charter operators
- potential for other agricultural production with regular scheduled reliable shipping
- island based shipping service

Discussion Topic 5 – Land use and management needs for future growth

- large Greenfield site (Whitemark area)
- maintenance conditions inherent in contract
- review period for vision report

