



## **Port Environment Plan Port Chalmers 2016**

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## Port Environment Plan

### Document Revision History

Since its development and ratification in 1999, the document has been updated on an annual basis. The revision history included here only includes the past 5 years' history of revisions, documents dated 2014 and earlier contained full revision histories.

<b>Port Environment Plan</b> – adopted for further 12 months	October 2011
<b>Port Environment Plan</b> – adopted for further 12 months including the addition of a new Cruise Ship Section	October 2012
<b>Port Environment Plan</b> – adopted for further 12 months	September 2013
<b>Port Environment Plan</b> – adopted for further 12 months	September 2014
<b>Port Environment Plan</b> – adopted for further 12 months	September 2015
<b>Port Environment Plan</b> – adopted for further 12 months	October 2016

# Port Environment Plan Port Chalmers

## 2016

### I. **Introduction**

This plan has been developed to ensure a long-term commitment by Port Otago Limited to the environment in which the port operates. The plan is to be supported by the following:

- A clear statement of commitment to the development of an environmental plan which will be included in the port's Statement of Corporate Intent.
- A Liaison Committee including members of the local community to ensure that the various issues which have been identified can be discussed and worked through.
- The port using every opportunity to demonstrate good neighbourliness to the Port Chalmers community.
- The identification of specific items which may be put forward for inclusion in the annual budget, to address environmental issues identified by the plan and the Liaison Committee.

### II. **Objective of the Plan**

The objective of this plan is to establish an ongoing framework for Port Otago's management team to work with the community and the city to resolve issues of environmental concern in the Port Chalmers area.

### III. **Terms of Reference, Mission and Structure**

#### **Terms of Reference**

The Port Environment Liaison Committee is made up of representatives of both the community affected by port activities at Port Chalmers and Port Otago Limited.

#### **Mission**

The committee is set up to work through environmental issues associated with the operation of the port, minimising where practicable the effects of these on the immediate community without impinging on the efficient operation of the port.

#### **Structure**

The Committee will act in an advisory capacity to Port Otago with individual members reporting to the community groups represented.

The Committee is to annually review the Port Environment Plan, which provides the framework for the activities of the Port Environment Liaison Committee.

The Committee will report to the Port Chalmers community on progress against the Port Environment Plan objectives.

An open meeting of the Port Environment Liaison Committee is to be held annually for the Committee to report on projects.

All activities of the Committee must comply with provisions of existing District Schemes and any Statutory requirements.

The Committee is to meet at least six times per year.

Port Otago Limited is to provide meeting facilities and clerical support and reporting functions to the Committee.

### **Committee Membership**

The membership of the committee, including number and spread of representatives will be as follows:

- 1 Member of the Board of Directors of Port Otago
- 2 Members of the Port Otago management (including the Noise Officer)
- 3 Representatives of port users and cargo owners appointed by Port Otago
- 2 Representatives of residents who must reside in the Flagstaff Hill/Port Peninsula area appointed by the West Harbour Community Board but such representatives shall not be members of the West Harbour Community Board
- 2 Representatives of the residents from the Careys Bay area appointed by the Careys Bay Association Inc
- 1 Representative from the central Port Chalmers area appointed by the Chalmers Business Community
- 3 Representatives of users of recreational facilities at Port Chalmers (one appointed by the Port Chalmers Yacht Club, one by the Port Chalmers Recreational Sports Fishing Club and one by the Port Chalmers Rowing Club)
- 1 Representative of the West Harbour Community Board.
- 1 Representative from the Otago Regional Council
- 2 Representatives from the Dunedin City Council

This membership may be altered subsequently by the Committee by way of amendment to Section III of the Port Environment Plan.

## **IV Implementation**

It is the intention that the committee will take responsibility for the successful implementation of this plan.

This will involve the following tasks, amongst others:

- Arrange for an annual meeting of the committee which will review the activities of the past year, raise issues of concern and set targets and priorities for the year ahead. This meeting is to be an open meeting which may be attended by residents of the local area and all the committee representatives.
- Schedule and hold other meetings during the year as the committee sees fit to deal with specific subjects.
- Elect/select a chairman of the committee and determine if and when the chairmanship should be rotated.
- Arrange site visits from time to time so that members of the committee and the general public can see and hear about the committee's activities.
- The time for the meetings is to be in the middle of the day or in the early evening.

The committee's inaugural meeting was held in December 1998. Meetings have been held on a regular basis since this time.

## V **Background**

### **Physical Area of Concern**

The areas which this plan covers are:

- All land being used for port related activities in Port Chalmers.
- All land on Flagstaff Hill which is undeveloped and presently owned by Port Otago.
- All the residential, commercial and public areas of the Port Chalmers area which are affected by the port's facilities to a greater or lesser extent.
- Each of these areas will involve different aspects of the environment plan.

A drawing showing the current layout of the port, its location with adjacent communities is included as Appendix A.

### **Port Otago's activities and position in the community**

The port is essentially an industrial site and a transportation hub. Port operations include ships at berth and manoeuvring within the coastal marine area, and various activities on wharves and on land. These activities include berthing, departure and movement of ships, storage areas and cargo handling, handling of goods, and all activities associated with the movement, storage and handling of cargo within the port area. Transport to and from the area is handled by road and rail.

Port Otago is also a landlord with property holdings in the Flagstaff Hill area of Port Chalmers, some of which is developed as residential and a

large portion of which is maintained in an undeveloped "green area" or buffer area.

Port Otago serves as direct employer of approximately 310 people in the greater Dunedin area and is the only commercial port directly serving the Otago region. It provides facilities for the storing, cleaning, washing and repairing of refrigerated containers that are crucial for agricultural exports. Log storage facilities also ensure that the forestry industry is well serviced.

The cargo passing through the port is handled by Port Otago as well as other stevedores and cargo handlers, each utilising his own plant and equipment, and controlling his own operations. The hours of operation in the port are dictated by the schedules and requirements of the international shipping lines.

Port Otago remains a critical facility to the wellbeing of the region's communities.

### **Other businesses/organisations closely allied to this Plan and its aims/objectives**

Various businesses and organisations have a very close connection with port operations and these include (an attempt has been made to estimate the number of each category and the approximate numbers are shown in brackets):

Shipping lines (8), Cargo owners (100), Stevedores (3), Log marshallers (2), Ship builders/repairers (4), Dunedin City Council departments, Chamber of Commerce and Industry, Otago Regional Council, Service suppliers (50), Retailers and wholesalers (100), Transport contractors (20).

### **Local residential communities affected by the Port's activities and their interrelationship with the Port**

Port Chalmers and the adjacent residential communities have evolved with a strong connection with the harbourside. Most families in the district are involved with the harbour in one way or another. For many, particularly in the past, it has been a source of employment both on the wharves and in the fishing industry. For many more the harbour is a source of recreation and pleasure, encouraged by the easy access and proximity of the harbour. In addition to the area being used by individuals and their families, various clubs and societies have been formed over the years for rowing, sailing and sea cadets. For others their enjoyment has been more passive in nature - fishing, walking, picnicking, swimming or just enjoying the view from their homes.

### **Other individuals affected by the port operations**

In addition to those living at Port Chalmers, many other people also use the port area as their access to the harbour. Careys Bay provides a mooring and servicing area for inshore fishing and pleasure craft, and for the shipbuilding and repair industries.

From Dunedin to Port Chalmers there are few places offering easy access to the water and there are no launching facilities. For a large number of

Dunedin boat-owners the Back Beach and Careys Bay ramps are in big demand as are parking and rigging areas.

## VI **Environmental Issues**

The following environmental issues have been identified to improve the interface between the port and the local community.

**Landscaping of port development** - Trying to create a softer interface between the industrial nature of the port and the adjoining recreational, residential and commercial areas.

**Modes of transport** - Ensuring that road and rail links with the port are accommodated in a safe and effective manner.

**Water quality** - Working with the regulatory authorities to put structures and procedures in place to ensure that the waters of Otago Harbour are not adversely affected by discharges from the port activities.

**Air quality** - limiting the impact from dust and fumes.

**Noise** - Management of noise issues are in accordance with the Port Noise Management Plan and the Port Noise Mitigation Plan.

**Visual characteristics** - Ensuring that the port's buildings, structures, equipment and facilities blend in with the character of the area, avoiding unnecessary clashing of styles, colours, glare etc wherever possible.

**Lighting** - Providing lighting in a way that avoids glare and light spill to adjoining areas while providing a secure and safe working area for the port and its personnel.

**Public access to the harbour** - Where possible, and where it does not conflict with the operation of the facilities, take the necessary steps to ensure that any members of the public who have reason to enter the port, can do so in selected areas in a safe manner.

**Buffer zones** - Where possible, buffer zones should be established to ensure that the local communities and the port can be suitably separated from each other.

**Cruise Vessels** - Port Otago and the Port Chalmers Community provide the best visitor experience available to visiting cruise ship passengers.

## VII **Identifying Projects and Assigning Priorities**

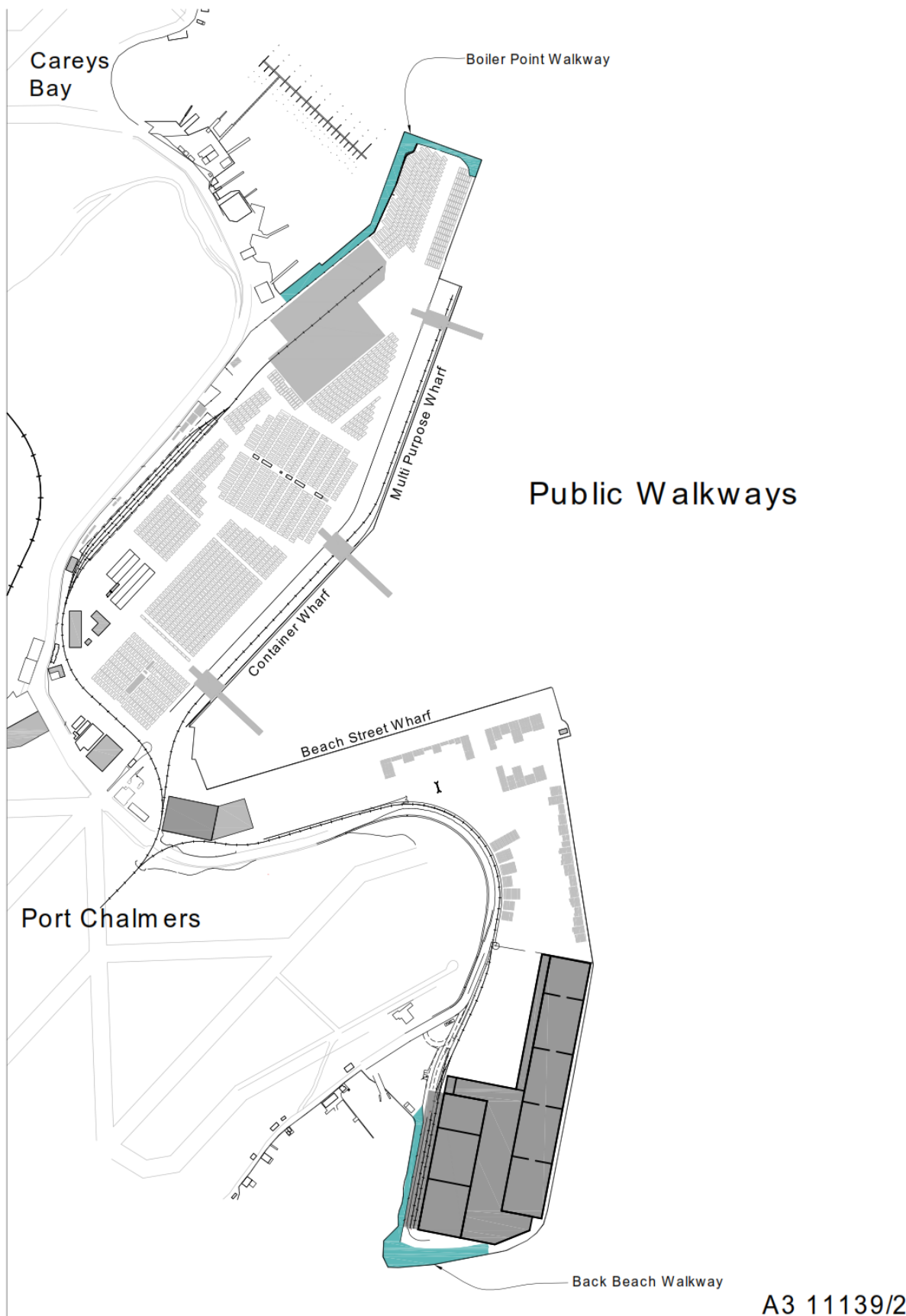
The Port Otago management team, in consultation with the Port Environment / Noise Liaison Committee, will consider all the issues named above and will identify matters which require attention, assigning priorities to these projects wherever possible.

This will be an ongoing process which will require regular review.

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# Appendix A

## Current Port Layout and Community Location





## **Public Access to the Harbour**

**In order to comply with the Maritime Transport Act and the International Port Security Code, Port Otago is unable to provide public access to port areas. Limited access is available in Dunedin, around shipping and wharf operational requirements.**

**To offset, as much as possible, this loss of direct port access Port Otago has created and extended the public walkways around the Battery Point and Boiler Point reclamations.**

### **1. Identification of issues**

Activities requiring consideration

- a) Fishing
- b) Sightseeing
- c) Walking

### **2. Consideration of the various options which are available**

- a) Ongoing review of various options, none available at this point in time.

### **3. Achievements thus far**

- a) Notice to anglers (updated at regular intervals, giving details of do's and don'ts, etc).
- b) Demarcation of permissible fishing area.
- c) Erection of public viewpoints near Scott Memorial and the Flagstaff Hill.
- d) Press notices.
- e) Extending walkway access and fishing areas at Battery and Boiler Points.
- f) Final access policy confirmed.
- g) Plans drawn showing the exact areas which may be used by the public.
- h) Demarcation of the areas where access is permitted.
- i) Educated the community on reasons for access restrictions and where safe access can be gained.

- j) Vantage points established outside the port for use by sightseers.
- k) Placement of sand on the beach at Careys Bay
- l) Extension of Boiler Point walkway to provide fishing access. The development included seating and placement of ship's anchor. (Note: in high winds access may be restricted for public safety reasons).
- m) Financial contribution towards the development of the walking track from the Boat Harbour to Ravensbourne in conjunction with the Otago Regional Council.
- n) Preliminary design work complete and consent obtained for construction of fishing platform at end of Boiler Point reclamation.

#### 4. **Targets**

- a) Construction of a fishing platform on the outer corner of Boiler Point Walkway in conjunction with proposed construction of an extension to the Multipurpose Wharf. Timing is likely to be late 2017 or 2018.
- b) Organise where possible open days at the Port in conjunction with community events, eg support of the 14 October 2017 Seafood Festival.
- c) Continue to support the Te Rauone Beach renourishment project.

#### 5. **Monitoring methods**

Progress reports through Port Environment Noise Liaison Committee.

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## Landscaping of Port Development

**The port is an industrial activity which over the years has impacted on the natural character of the area. Recent expansion has further modified the natural landforms and harbour area to an extent that efforts should be made to soften the visual impact by appropriate landscaping.**

### 1. **Identification of the issues**

- a) Critical areas – edge of Back Beach reclamation, the Back Beach car park area.
- b) Flagstaff Hill including the cliff face, main entrance, along Beach Street.
- c) Macandrew Road, edge of Boiler Point reclamation.

### 2. **Consideration of the various options which are available**

- a) Maintain the status quo. (ie. complete the construction/development work in a neat and tidy manner but take no additional steps to beautify the finished product beyond those which have already been taken to date.)
- b) Attempt to create a pleasant landscaped form along the edge of the development which interfaces with the general public.

### 3. **Achievements thus far**

- a) Landscaping of Flagstaff Hill, including walkways, plantings, a site for various artworks and an observation deck.
- b) Landscaping of the Battery Point (Back Beach) reclamation, including extensive planting and the construction of a walkway and raised promontory at the end of the reclamation. Recently (2002) extension of landscaping and walkway along southern edge of reclamation.
- c) Landscaping and planting on both north and south faces of Roseneath cutting.
- d) Landscaping and planting of the Boiler Point reclamation works, including a walkway and public viewpoint.
- e) Completed planting of shrubs Flagstaff Hill areas.
- f) Completed planting of shrubs on vacant sections in Constitution Street and Island Terrace.
- g) Planted rhododendrons along Beach Street and by Back Beach picnic area.

- h) Hydroseeding of Flagstaff Hill lower slopes.
- i) Extension of Boiler Point Walkway with fence / fishing areas, plus seating and placing of ship's anchor, garden borders and kiosk.
- j) Landscaping completed in Dunedin around Harbourcold.
- k) The landscaping of 4 Aurora Terrace and the display of Ralph Hotere's artworks.
- l) Protection of existing areas and replacement of plants affected by construction of the Environmental Canopy over rail at D Shed, Back Beach.
- m) 2008/2009 year
  - Major clean-up to landscape borders of Flagstaff Hill lookout to improve views and general tidiness.
  - Clearing and tidy up of Wiseman's Point.
  - Removal of fast-growing exotics from Back Beach landscape area and replacement with native trees.
  - Removal of large beech trees in front of office building and replaced with mature native lancewoods and ground cover plants
  - Major tidy up of Flagstaff Hill areas, with continued replenishment of plantings in the areas.
- n) 2009/2010 year
  - Continued tidy up of areas on Flagstaff Hill, with removal of unwanted exotics and replenishment with native plantings.
  - Continued maintenance of all landscaped areas in Port Chalmers and Dunedin.
  - Possum control on Flagstaff Hill area.
  - Major tidy up and landscaping at Wiseman's Point.
- o) 2010/2011 year
  - Completion of additional gravelled walking track from Island Tce to Constitution St.
  - Major tidy-up of water-tables and drainage, as well as addition of additional gravel surface on existing tracks.
  - Installation of "direction signs" for Flagstaff Hill tracks.
  - General and ongoing tidy up of flagstaff hill and lookout areas including removing some exotics and broom, clearing overhanging vegetation from paths and some replanting with preferred native species.
  - Continued maintenance of all other landscaped areas:- Boiler Point, Back Beach and Careys Bay.

- p) 2011/2012 year
- Planting of low growing plants behind container terminal tyre store where previous trees had been removed to allow for roof maintenance.
  - High shrubs at Flagstaff lookout thinned and trimmed to allow viewing of the lower Portobello Bay/Harwood area. The area around the microwave bunker was cleared and low growing plants added.
  - Water tables and box drains were installed at specific wet points on the Flagstaff hill tracks. There was also clearance work and planting immediately to the sides the newest track.
  - Extra plants were placed in various gaps in various areas over Flagstaff Hill.
  - The area identified as having fruit trees was cleared and some new fruit trees have been planted.
  - New planter boxes with shrubs and trees installed adjacent to the walkway behind A Shed where cruise ship passengers walk from the wharf to the main street.
- q) 2012/13 year
- Protection of some existing established planting as well as new landscaping of the site perimeter at the old Sawyers Bay tannery site development.
  - Planting of Kowhai trees along Beach St to complement the planter boxes from the previous year.
  - Continuation of the annual maintenance to walkways and garden areas:- Back Beach, Flagstaff Hill, Beach Street and Boiler Point.
- r) 2013/14 year
- Ongoing and general maintenance associated with tracks, paths and gardens, in accordance with the annual maintenance plan.
- s) 2014/15 year – main works in addition to normal maintenance plan
- Major tidy of overgrown and overhanging flaxes around Beach St and the foot of the hill with natives re-planted.
  - Removal of flaxes and careful trimming back of native vegetation at Flagstaff lookout which was obstructing views.
  - Felling and removal of old and large pine tree from Flagstaff Hill area which was potentially dangerous given its state and location.
- t) 2015/16 year
- Major tidy of Flagstaff Hill track down to Back Beach in front of no's 24 and 26 Island Terrace.
  - Planting of mature screening plants (native) on the southern creek boundary at Sawyers Bay warehouse site as visual and noise mitigation for residents in Noyna Road
  - Ongoing and general maintenance associated with tracks, paths and gardens, in accordance with the annual maintenance plan.

## 4. Targets

### a) Port Otago Landscaping Plan 2016/17

This programme is based on continuing the maintenance of existing areas that fall under the Port Otago landscaping footprint discussions with Brian Corson, John Perry and David Blair.

#### *Boiler Point and Back Beach walkways*

- Trim up plants overhanging pathways and off fence lines.
- Remove any weeds, including gorse and broom, and any abundance of cabbage tree leaves.
- Keep these areas nice and tidy as they are the main areas walked by the public.

#### *Container Terminal Boundary (along Macandrew Road) & Flagstaff Hill Lookout*

- Remove any weeds, including gorse and broom, and any abundance of cabbage tree leaves.
- Keep areas tidy of rubbish.

#### *Flagstaff Hill and tracks*

- Keep water tables and install box drains at locations on track installed last year.
- Plant a small number of plants at various locations to fill gaps.
- Plant additional plants in section marked as "Possible Future Track", but keeping clear of the track route.
- Place additional plants in area directly below 44 Constitution St.
- Continue to remove remaining dead or new sycamore trees.
- Clear broom and gorse from areas visible from the tracks, except along the top of the cut face. Also remove any young macrocarpa or pine trees from area.
- Trim plants overhanging the tracks, and carry out weed clearance around all plants on the hill three times over the year.
- Clear scrub and undesirable plants from around the fruit trees on the Kaio Lane side of the sections.
- Refer to preferred planting lists supplied by David Blair (Jan 09) but ensure we include more colourful varieties including Rata, Kowhai, Fuchsias etc.

#### *Careys Bay area*

- Trim plants overhanging roadways and keep weeds and plants under control.

#### *Sawyers Bay Warehouse area*

- Maintain plantings completed during site development including replacement of dead plants and trees. Replanting to be in accordance with approved landscaping plan
- Removal of weeds and noxious plants within Cleminson Creek on southern boundary and plantings in general
- Investigate removal of silver birch trees on northwest boundary due to pest problem (possum) with new planting to replicate native landscaping.

See attached plan showing existing Flagstaff Hill walking tracks as at August 2013 (unchanged in 2016).

**5. Monitoring methods**

- a) Progress reports at Environment Committee meetings.

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Amended 5/02/2011 BFC  
Amended 28/02/2013 BFC

Flagstaff Hill - Tracks  
(August, 2013)

Scale 1:1000

A3 11202B



## Lighting

**Lighting structures and systems are necessary for the safe operation of the port. These systems can sometimes result in glare and light spill on surrounding areas outside the port.**

### 1. Identification of the issues

The following issues have been identified:

- a) The possible effect on road traffic.
- b) A potential loss of amenity (darkness and views).
- c) Sleep disturbance.

### 2. Consideration of the various options which are available

- a) Maintain the status quo. (ie. keep all the lighting structures and systems as they are now.)
- b) Identify possible areas where the lighting structures and/or systems can be modified or improved so that they become less of a nuisance to the general public, without compromising the safety of the workers in the port.
- c) In assessment and design of lighting alterations or additions, low energy use options and alternatives to be preferred where possible.

### 3. Achievements thus far

Improvements have been made generally centering around the orientation of lights which were a nuisance to residents and/or road users.

- a) New lights placed (06/07) on three existing light towers at Beach Street wharf to improve lighting for 24 hour log loading and reduce light spill.
- b) New light tower constructed (07/08) adjacent to the log yard to improve lighting for 24 hour log loading.
- c) Staged replacement program for new energy efficient/low spill lights for the entire container terminal determined.
- d) Implement first stage of energy efficient/low spill light replacement program (C-Block).
- e) Review of Code of Practice undertaken (May 2011).
- f) Presentation to the committee on lighting strategies and proactive management and energy efficiency initiatives (March 2011).
- g) Completed second stage energy efficient/low spill light replacement programme (A-Block and Maintenance area light tower 11) - Oct 2010.

- h) Completed third stage energy efficient/low spill light replacement programme (K/G blocks) – Aug 2011.
- i) Adjustments and improvements to shed lights at Back Beach warehouses to reduce glare.
- j) Installation of an 8.65m light tower in the northern end of the Boiler Point area, oriented to provide improved lighting in the roadway / aisle between container stacks for improved operational safety.
- k) Automated control installed for all towers except for Beach Street and Back Beach, centralised at the Shift Managers' office which allows improved control for switching on/off.
- l) Completed fourth stage energy efficient/low spill light replacement programme (central container terminal area). 2012 Year.
- m) Consenting and construction of Back Beach light tower at dairy warehouse completed. This improves operational safety for container and log loading operations.
- n) Fifth and final stage energy efficient/low spill light replacement programme completed (single tower - southern terminal area). Oct 2013.
- o) A new light tower erected at Leith Wharf Dunedin to improve lighting during vessel loading.
- p) Consenting and construction of new light tower at PCCT entrance using contemporary LED fittings and controls to reduce energy consumption and restrict light spill.
- q) Progressive replacement of existing light fittings to LED as they fail to reduce energy consumption and minimise light spill, areas completed in 2015/16:
  - Macandrew Road PTI lights on boundary
  - Washpad lighting (33% complete to date)
  - Yard lighting tower 17 LED fittings (4 out of 6)
  - Crane walkway lighting
  - Office lighting (Yard control, Planning)
  - Staff carpark (Scott Base)
  - Floodlight on A shed South
- r) New buildings (Sheds at Back Beach, Sawyers Bay and A Shed extension) are fitted with LED highbay lights with integrated lighting controls for occupancy and light level.

#### 4. **Targets**

- a) Annual review (April/May) of lighting and report to Committee.

- b) Add Beach Street and Back Beach lights to the currently automated system.
- c) Complete design and consenting work (where required) for new towers near the Gatehouse Entrance and North End of the Railpad, and potentially the northern end of Boiler Point, including in this consideration of LED technology.
- d) Install new light poles on Leith causeway (Dunedin) to assist in safe walkway for ship's crew and contractors using Leith wharf.
- e) New light tower 18 on Beach Street to replace lights on woodchip gantry.
- f) Progressive replacement of existing crane light fittings to LED as they fail.

## 5. **Monitoring methods**

- a) Annual reviews and reports from members of the public.

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## **Water Quality**

**Stormwater runoffs result in discharges into the harbour from the hardstanding surfaces in the port area. These discharges can potentially include debris and pollutants. Resource consents from the Otago Regional Council control these discharges.**

**In addition, discharges in the Coastal Marine Area may include ballast water, bilgewater and sewage from small craft in the Carey's Bay fisherman's jetty area of the port. (Discharges from the large commercial vessels are controlled by national legislation which is administered by the Ministry of Fisheries.)**

1.     **Identification of the issues**
  - a)    Control of stormwater from all paved areas.
  - b)    Sewage from the fishing boats and yachts moored at the Careys Bay fishing wharf area.
  
2.     **Consideration of the various options which are available**
  - a)    Ensure that all stormwater discharges are controlled by the ORC's Coastal Plan and permits.
  - b)    As sewage collection facilities are required for all new marinas, the possibility and/or practicality of providing such services to existing facilities (eg Carey's Bay fishing wharf) needs to be investigated.
  
3.     **Achievements thus far**
  - a)    All new stormwater connections since 1996 have been fitted with discharge controls.
  - b)    Information is being gathered about the details of all the older facilities to determine how they can be upgraded.
  - c)    Survey of existing discharge points completed.
  - d)    Alteration to survey and discharge points plan as a result of completing J Block pavement works.
  - e)    Completion of upgrade of stormwater treatment and control as part of the straddle maintenance garage project.
  
4.     **Targets**
  
5.     **Monitoring methods**
  - a)    Compliance with statutes and consent conditions.
  - b)    Regular surveys of network / discharge points to assess condition, compliance and upgrade works necessary.
  - c)    Regular review of spill response policies and procedures.

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**APPENDIX B, issue 5****Visual Characteristics / Aesthetics**

**Port Chalmers has a distinctive townscape with a theme of retained historical buildings. It is desirable that new industrial and commercial buildings and structures should be designed in sympathy with this character. Existing historical buildings should be retained where practically possible.**

**1. Identification of the issues**

- a) All building developments in the port area must be cognisant of the historical nature of the Port Chalmers townscape.
- b) Any demolitions/alterations of older buildings should be handled as sympathetically as possible in an effort to retain the original character of the buildings wherever practical.

**2. Consideration of the various options which are available**

- a) Retain and maintain buildings of historical importance.
- b) Use landscaping and plantings to soften industrial buildings and structures eg fences.
- c) Use appropriate colour schemes.

**3. Achievements thus far**

- a) Some of the historical stone buildings have been retained (eg. the pumphouse).
- b) Bluestone blocks from the port area have been re-used in landscaping works around the port and Carey's Bay.
- c) Attention to species in planting on the new reclamations and Flagstaff Hill to promote native plants.
- d) Completion of raising the forklift maintenance building, keeping in style and colour with existing buildings. (04/05).
- e) Completion of extension to spares shed building adjacent to Macandrew Road. Deliberately in keeping style, shape and colour with existing buildings and retaining existing trees and shrubs. (05/06).
- f) Completed construction of environmental canopy over Back Beach warehouse rail sidings with cladding colour for roof and west facing wall constructed in Forest Green to blend with surroundings.
- g) Completed construction of the straddle maintenance building, keeping it in the style and colour with existing buildings.

- h) Completed construction of Back Beach warehouse expansion. This construction infilled between D and E sheds and created a new marshalling area to minimise the amount of marshalling works completed in the open.
- i) Completed construction of the second warehouse at the Sawyers Bay site.
- j) Construction almost complete on the A Shed extension, this extension is to be utilised by cruise passengers during the season. This development included:
  - Relocation of C3 workshop
  - Removal of Beach Street substation (relocated transformer)
  - Progressing removal of woodchip gantry.
- k) Demolition of engineering workshop at 16 Beach Street following substantial damage from a slip in May 2015. This included the removal of a large area of asbestos roofing.

#### 4. **Targets**

- a) Regular inspection of boundaries and C3 workshop to ensure they are maintained in a tidy condition.

#### 5. **Monitoring methods**

- a) Liaison with Community Board and Dunedin City Council officials.

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## Air Quality

**Operations at the port can result in dust. Sources include wind-blown dust and fertilizer (Ravensbourne). These can create a nuisance in some weather conditions.**

**1. Identification of the issues**

- a) Dust from log berth

**2. Consideration of the various options which are available**

- a) Suppression of dust and fumes eg water to control dust in the log storage area.
- b) Proper management of the facility eg development of operations management plans by/for operators.

**3. Achievements thus far**

- a) Development of an environment plan by the log handling operator, C3 (to cover both noise and pollution issues).
- b) Removal of woodchip operation from the Port Chalmers footprint.

**4. Targets (2016/17)**

- a) Complete removal of woodchip gantry from site.
- b) Replacement of concrete panel perimeter fence from around the old woodchip area.

**5. Monitoring methods**

Progress reports through Port Environment Noise Liaison Committee.

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## Transport Links

**Transport of goods to and from the port can result in adverse effects on the adjacent land and road uses. Whilst Port Otago cannot materially affect what happens beyond its boundaries, it needs to ensure that road and rail traffic is efficiently and safely accommodated when it reaches the port.**

### 1. **Identification of the issues**

- a) Issues which may arise include noise, debris on roadways and congestion (a safety issue particularly in the Port Chalmers shopping precinct.) Debris falling from empty trucks when they leave the port is a particular problem.

### 2. **Consideration of the various options which are available**

- a) Encourage use of the rail link – less congestion, safer, less noise, no debris on roads, fuel saving, less emissions to atmosphere.
- b) Use the Victoria Channel where practicable – ditto above but limitations recognised.
- c) Support proposed roading improvements – eg tunnel bypass to Port Chalmers main street.
- d) Encourage cleaning of logging trucks at forests.
- e) Education and communication with transport operators.

### 3. **Achievements thus far**

- a) Provision of additional rail sidings to encourage use of rail network.
- b) Assist Dunedin City's Traffic Engineers with investigations into improved road access to and through Port Chalmers.
- c) Completion of additional rail siding at Back Beach to support increase in dairy products transported by rail.
- d) Completed construction of environmental canopy over Back Beach warehouse rail sidings.
- e) Input into Dunedin City Council transport strategy with the proposed realignment of SH88 cyclist/pedestrian separation being included within that strategy.
- f) Contribution towards the development of the walking track from the Boat Harbour to Ravensbourne in conjunction with the Otago Regional Council. (also noted in Public Access to the Harbour p9).



- g) Cleanup and additional slip management works at the base of Flagstaff Hill slip following further events. Commencement of initial design work and options for medium / long term strategy (07/ 08).
- h) Report commissioned by Port Otago Ltd from Traffic Design Group Ltd to ascertain existing capacity, level of service and transport related community amenity and safety aspects of SH88. Copies of the report provided to Chalmers Community Board, DCC, ORC and NZTA. (07/08).
- i) Design works and engineering specification completed for the remedial works to remove the remaining rock material from Flagstaff Hill. (10/11).
- j) Completion of construction works for the right-turn slip-lane on SH88 at the Sawyers Bay warehouse site, resulting in significantly improved safety for all road users.
- k) Received consent for the construction works associated with rock removal from Flagstaff Hill.

#### 4. **Targets**

- a) Complete construction planning including identification of a suitable disposal location for the material removed from Flagstaff Hill.

#### 5. **Monitoring methods**

- a) Maintain records of balance between road and rail deliveries.

\* \* \* \* \*

## Noise

**The port is an industrial activity which generates noise. Adjacent areas are subjected to noise, especially those in close proximity to the port and this has led to conflict between the adjoining land uses in some instances.**

### 1. Identification of the issues

- a) This is probably the single most important and high profile issue affecting the port and its relationship with the local community.
- b) It has been the subject of very detailed representations by Port Otago Ltd to the Dunedin City Proposed District Plan.
- c) This section is brief in terms of detail, with attention being drawn to the specific responsibilities of the Port Noise Liaison Committee, and the documents, the Port Noise Management Plan and the Port Noise Mitigation Plan.

### 2. Consideration of the various options which are available

- a) Carry out the minimum work necessary to meet the statutory requirements of the Dunedin City District Plan.
- b) Maintain and continuously develop the Port Noise Management Plan in association with the Port Noise Liaison Committee, the DCC and the community.
- c) Set in place practices and procedures to reduce noise output from port operations at all times, especially at night.

### 3. Achievements thus far

- a) Final Environment Court Decision in regards the rules for the Dunedin City District Plan. (April 2004).
- b) Commencement of the Port Noise Liaison Committee (PNLC) whose functions are undertaken by the Port Environment Liaison Committee.
- c) PNLC Ratification of the Port Noise Management Plan and the Port Noise Mitigation Plan (Oct 2004).
- d) Noise contour profile developed which clearly identifies the affected properties (red, blue and yellow zones).
- e) Purchased 9 Scotia Street for use as trial acoustic treatment property to enable Port Otago Ltd to refine and perfect treatment techniques. (Jan 2006). Purchase 9 Scotia \$278,866. Acoustic Treatment costs 2004/2005 - \$81,380.

- f) 2005/2006 year
- i) Noise Contours & Monitoring
    - Contours remain unchanged
  - ii) Acoustic treatment - \$ 39,779
    - Progress on 9 Scotia St
  - iii) Property purchase – \$451,114
    - Purchase of 3 Port Chalmers properties (in 9 Scotia St).
    - 2 houses demolished.
  - iv) Equipment - \$40,000
    - Purchase 2 new hush straddles (fleet to 7/14)
- g) 2006/2007 year
- i) Noise Contours & Monitoring
    - Noise contours reviewed and updated November 2006 and signed off by Port Environment Liaison Committee in February 2007.
    - Continuous and spot check monitoring undertaken resulted in no exceedances of the “predicted” levels.
  - ii) Acoustic Treatment - \$113,538
    - 2 Scotia Street completed (blue)
    - work commenced - 1 property
    - design and assessment underway - 17 properties
  - iii) Property Purchase – \$115,198
    - Purchase of 1 Port Chalmers property subsequently demolished.
- h) 2007/2008 year
- i) Noise Contours & Monitoring
    - Continuous and spot check monitoring undertaken resulted in no exceedances of the “predicted” levels.
    - Noise contours remain unchanged since 06/07
  - ii) Acoustic Treatment - \$ 119,665
    - completed and certified -2 properties.
    - completed awaiting certification - 3 properties.
    - work nearing completion - 1 properties
    - design and assessment underway - 17 properties
    - initial contact made, registering interest – 10 properties
  - iii) Property purchase – 215,000
    - Purchase of 1 Port Chalmers properties, subsequently demolished.
    - A number of redevelopment options were investigated and considered for the port side of Constitution Street, but were not advanced as the project could not be completed at a break-even point.
    - Completed sale process of 9 Scotia St and one section.
  - iv) Equipment - \$40,000
    - Purchase 2 new hush straddles (fleet to 9/14) - \$40,000
- i) 2008/2009 year
- i) Noise Contours & Monitoring
    - Continuous and spot check monitoring undertaken resulted in no exceedances of the “predicted” levels.
    - Noise contours reviewed.
    - Very slight reduction in predicted level for Port Chalmers affecting 19 properties. 2008 Line and zones to remain

unchanged so as not to disadvantage owners, some of whom Port Otago are actively working with.

- Very slight increase for Carey's Bay. 1 residence changed from Yellow zone to blue, and 2 residences included into the Yellow zone.
- ii) Acoustic Treatment - \$ 402,085
- Awaiting Certification from 07/08 - 3 properties
  - Completed, awaiting certification - 3 properties
  - Work nearing completion - 1 property
  - Design and assessment underway - 26 properties
  - Initial contact made, registered interest - 6 properties
- iii) No properties purchased or sold.
- j) 2009/2010 year
- i) Noise Contours & Monitoring
- Continuous and spot check monitoring undertaken resulted in no exceedances of the "predicted" levels
  - Installed Careys Bay Noise Monitor - \$ 43,000
  - Noise contours reviewed.
  - No change from the 2008/2009 contours. Refer i) above noting that the lines were not moved in towards the port in the 2008/2009 update even though a slight reduction in noise was predicted.
  - Independent Peer Review of noise contours completed and adopted by committee.
- ii) Acoustic treatment - \$ 218,637
- Completed and Certified - 1 property
  - Awaiting Certification (previous years) - 5 properties
  - Completed, awaiting certification - 4 properties
  - Work nearing completion - 2 property
  - Design and assessment underway - 23 properties
  - Initial contact made, registered interest - 6 properties
- iii) Property purchase - \$ N/A
- No properties purchased.
  - Completed sale process of 2 existing Port Otago sections on the Port side of Constitution Street and Scotia Street.
- iv) Equipment - \$47,000
- Purchase 2 new hush straddles (fleet to 11/15) - \$40,000
  - Purchase 2 new hush sideloaders (fleet to 3/5) - \$7,000
- k) 2010/2011 year
- i) Noise Contours & Monitoring
- Continuous and spot check monitoring undertaken and resulted in one exceedance of "predicted" levels. This followed exceptional circumstances of vessel accident and subsequent extended long stay in port for repairs.
  - Continuous monitoring from 2 locations at Scotia St and Careys Bay cemetery.
  - Upgrades and development of software and hardware replacements for 2 monitoring sites \$9,700.
  - No change in contours from the 2009/2010 year based on monitoring. Refer i) above noting that the lines were not moved in towards the port in the 2008/2009 update even though a slight reduction in noise was predicted.

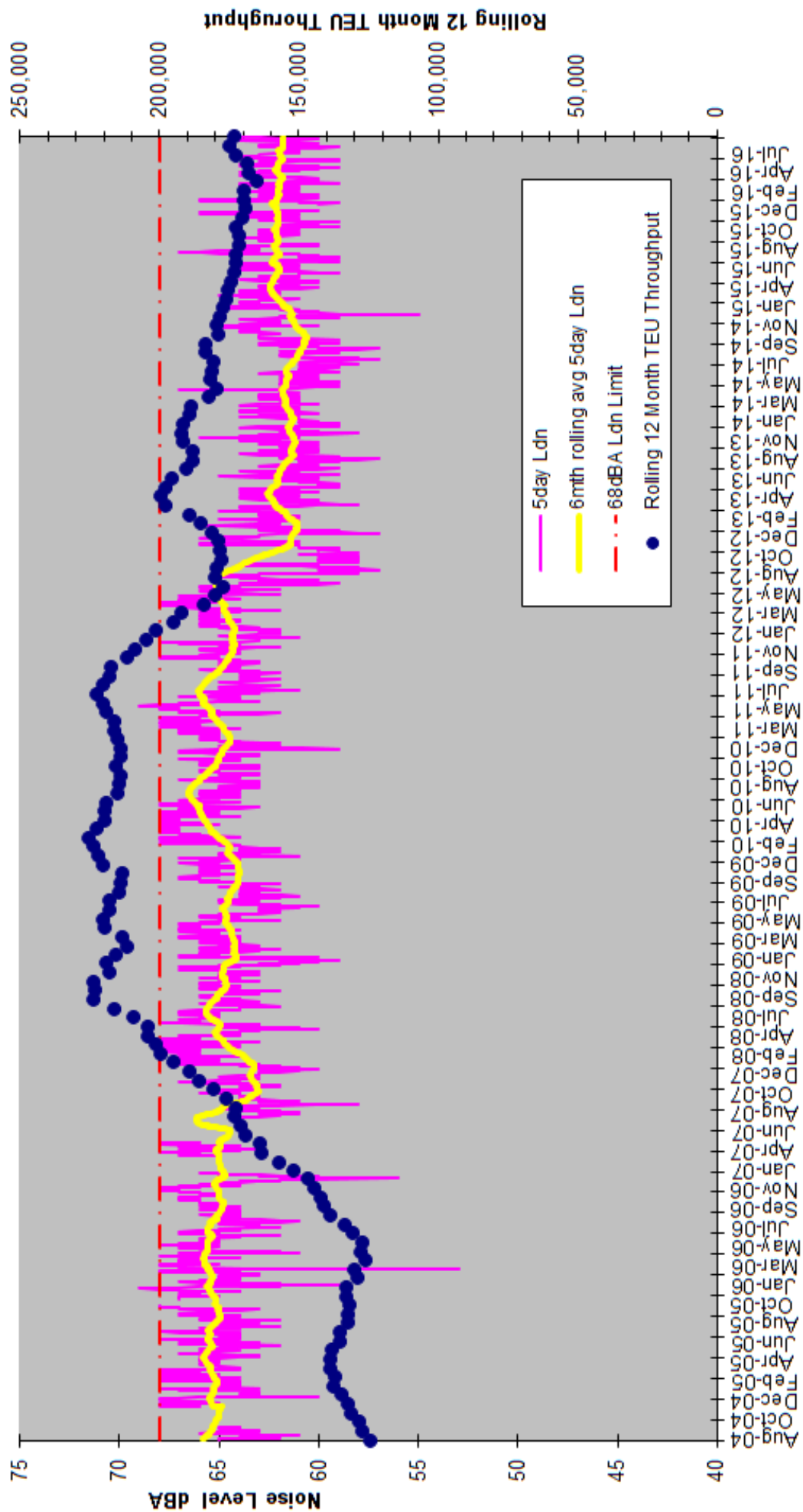
- ii) Acoustic treatment - \$ 101,978
    - Completed and Certified – 10 properties
    - Awaiting Certification (previous years) – 1 property
    - Completed, awaiting certification - 1 property
    - Work approved or underway - 4 properties
    - Design and assessment underway - 21 properties
    - Initial contact made, registered interest - 10 properties
  - iii) Property purchase - \$ N/A
    - No properties purchased.
  - iv) Equipment - \$N/A
    - No new equipment purchased.
- l) 2011/2012 year
- i) Noise Contours & Monitoring
    - Continuous and spot check monitoring undertaken resulted in no exceedances of the “predicted” levels
    - Continuous monitoring from 2 locations at Scotia St and Careys Bay cemetery.
    - Field monitoring exercise completed confirming the noise model for the Port Chalmers sector of the port, and identifying further field monitoring and noise modelling work for the Careys Bay sector.
    - Contour update work being advanced with finalisation of field monitoring work.
    - Ongoing maintenance of software and hardware for the 2 monitoring sites \$4,537.
  - ii) Acoustic treatment - \$ 103,065.
    - Completed and Certified – 14 properties
    - Completed, awaiting certification - 6 properties
    - Work approved or underway – 2 properties
    - Design and assessment underway - 13 properties
    - Initial contact made, registered interest - 10 properties
  - iii) Property purchase - \$ N/A
    - No properties purchased.
  - iv) Equipment - \$ minimal
    - No new equipment purchased.
    - Modifications to reversing alarms (beepers) on Straddles 11 and 12 to be consistent with the rest of the fleet. Cost <\$1,000.
- m) 2012/2013 year
- i) Noise Contours & Monitoring – Total from below \$48,481
    - Continuous monitoring showed no exceedance of the “predicted” levels.
    - Field monitoring completed in the Careys Bay sector confirmed the noise model is over-predicting for that sector. - \$18,537
    - Review and update of the noise model by Marshall Day Ltd and Port Otago Ltd, resulting in the 2013 Noise Contours and the Noise Zones.
    - 2013 Noise Contours adopted by Committee at February meeting.
    - Upgrade of Scotia St permanent monitor - \$21,799.
    - Ongoing maintenance of software and hardware for the 2 monitoring sites \$8,145.

- ii) Acoustic treatment - \$42,091
- n) 2013/14 year
  - i) Noise Contours & Monitoring
    - Continuous monitoring showed no exceedance of the "predicted" levels.
    - Monitoring shows noise levels measuring the same or less, no change to noise contours.
    - Software maintenance and support and modem upgrade for Careys Bay site \$8,796.
  - ii) Acoustic treatment - \$6,997
  - iii) Equipment - \$40,000
    - Purchase of two modern technology "diesel electric" straddles with factory hush-kits. \$40,000
- o) 2014/15 year
  - i) Noise Contours and Monitoring
    - According to the readings the "predicted" five-day maximum levels have not been exceeded.
    - Monitoring shows noise levels measuring the same or less, no change to noise contours.
    - Software maintenance and technical support all sites \$5,681.
  - ii) Acoustic treatment - \$26,653
- p) 2015/16 year
  - i) Noise Contours and Monitoring
    - Continuous monitoring showed no exceedances of the "Predicted" five-day maximum levels.
    - Software maintenance and technical support all sites - \$9,961
  - ii) Acoustic Treatment - \$22,856

#### 4. Summary of Progress & Current Status

- a) The following graph highlights the long term trend in continuously measured noise at Port Chalmers as well as the container volume throughput. The success of the noise mitigation measures are reflected in the fact that although the container throughput at Port Chalmers has risen from approximately 125,000 TEU per annum in the 2004 year to the highest levels of approximately 220,000 TEU per annum there has been no appreciable change in the monitored 5 day Ldn noise measurement over that period.

### Port Otago Continuous Noise Monitoring Results & Rolling 12 Month TEU Throughput (Aug 2016)



- b) The reduction in throughput containers and hence port activity in the 12 month period Jul 2011 to Aug 2012 also corresponded to a reduction in the 5 day Ldn.
- c) 2016 container volumes were 173,000 TEU, almost exactly the same volume as 2015. Log exports decreased by 3.2% from last year's record tonnage to an annual tonnage of 813,000 tonnes (Port Chalmers 549,000 tonnes, Dunedin 264,000 tonnes) In the context of similar levels of container volumes and lower log cargo tonnage at Port Chalmers, noise levels continue to be below 2004-2011 levels and slightly decreased from 2015.
- d) Port Otago's investment in Mitigation in the 10 years since mid-2004 can be categorised into 4 distinct areas being acoustic treatment, purchase of property, investment in hush-equipment and also monitoring. The total amounts spent since 2004 in each of these categories is as follows:-

Year	Acoustic Treatment	Property Purchase	Hush Equipment	Monitoring	Total	Cum. Total
04/05	81,380				81,380	81,380
05/06	39,779	451,114	40,000		530,893	612,273
06/07	113,538	115,198			228,736	841,009
07/08	119,665	215,000	40,000		374,665	1,215,674
08/09	402,058				402,058	1,617,732
09/10	218,637		47,000	43,000	308,637	1,926,369
10/11	101,978			9,700	111,678	2,038,047
11/12	103,065			4,537	107,602	2,145,649
12/13	42,091			48,481	90,572	2,236,221
13/14	6,997		40,000	8,796	55,793	2,292,014
14/15	26,653			5,618	32,271	2,324,285
15/16	22,856	226,182	20,000	9,961	278,999	2,603,284
	<b>1,278,697</b>	<b>1,007,494</b>	<b>187,000</b>	<b>130,093</b>	<b>2,603,284</b>	

- e) The current status of the acoustic treatment process as at 1st September 2016 is outlined in the following table. In the Red Zone, the acoustic treatment process (or purchase) has been completed with 23 of the 24 properties, the exception being the one property where the owner is yet to make contact. The Red Zone is therefore for all intents and purposes complete. The work focus is now focussed on the properties in the Blue Zone, in which steady progress is being made with 8 complete and 5 underway.

STAGE OF PROCESS	Red	Blue	Yellow
Property Purchased	6	-	-
Acoustic Process Complete (No Action)	3	9	5
Acoustic Certificate Issued (Complete)	14	8	-
Acoustic Certificate Pending	0	2	-
Approved For Construction/Underway	0	2	-
Assessment Underway	-	3	5
Initial Contact Made (Blue & Yellow Only)	-	3	4
Awaiting Contact (Red Only)	1	-	-



## 5. Targets

- a) Continue to implement the requirements of the Dunedin City District Plan, in particular fulfilment of the obligations of the Port Noise Management Plan and the Port Noise Mitigation Plan,
- b) Update the noise contour profile plan on an annual basis, and continue more monitoring to ensure compliance.
- c) There are 4 properties with acoustic treatments under way or to commence very soon. Target to complete all these projects and to progress others and any new enquiries in conjunction with the owners and Committee.
- d) Continue to keep awareness of noise matters across operational areas by including discussion of noise matters at shift change-overs and staff meetings or briefings.
- e)

## 6. Monitoring methods

- a) Compliance with the Dunedin City District Plan.
- b) Continue to investigate all complaints received by both Port Otago Ltd and the Dunedin City Council and instigate corrective action, where possible.
- c) Continuous monitoring of noise at the Scotia Street and Careys Bay monitor sites.
- d) Reporting requirements to the Port Environment Noise Liaison Committee

\* \* \* \* \*

## Buffer Zones

**The proximity of the port to the residential and commercial activities in the neighbouring community is not an ideal situation. These activities should be separated where possible.**

### 1. Identification of the issues

Issues which need to be considered if the concept of buffer zones is to be promoted include:

- a) How big/wide the buffer zones could or should be.
- b) How much residential and commercial areas would be lost.
- c) Could physical barriers be used
- d) Possible use of vegetation, etc to control glare.
- e) Permissible uses within the buffer zones – recreational and/or residential and/or commercial?
- f) Effect on adjacent property use and values.
- g) Methods for establishment of the buffer zone.

### 2. Consideration of the various options which are available

- a) Maintain the status quo ie no further buffer areas.
- b) Removal of some of the residential zone to create buffer zones in certain areas – property purchase, demolition.
- c) Restrictions on residential zone use or modifications to facilities eg provision of acoustic insulation.
- d) Investigation into effectiveness of buffer zones.
- e) Compensation for loss for residents, recreational users, community.
- f) Acoustic treatment (at appropriately designed levels) for properties being built within the buffer zone.

### 3. Achievements thus far

- a) Buffer zone has been partially created on the southern side of Flagstaff Hill by the Port Company's purchase and demolition of a number of dwellings, followed by the re-vegetation of the area.

### 4. Targets

- a) Maintain landscaping of buffer zone areas.

### 5. Monitoring methods

\* \* \* \* \*

## **Community Participation and Cruise Ships**

Port Otago is actively involved and committed to supporting organisations, teams and individuals within our local harbour community. For the financial year 2016 Port Otago has contributed a total of \$32,000.

Below are some of the organisations, events and projects we have proudly sponsored:

- Annual donations to schools in the harbour area
- Port Chalmers Golf Club
- West Harbour Pony Club
- Port Chalmers Lions
- Port Chalmers Museum
- Port Chalmers Swim Club Inc
- Special Rigs for Special Kids
- Port Chalmers Bowling Club
- Port Chalmers Yacht Club
- Port Chalmers Historical Society Inc
- Otago Yachting Association
- NZ Salmon Anglers Assn
- Ravensbourne Boating Club
- Harbourside Football Club
- Fire on Ice Outrigger Canoe Club

Cruise ships and their passengers continue to play an important role and have significant positive impact for the Port Chalmers community and wider city. It is an area where both Port Otago and the community share a responsibility in influencing the quality of the experience visitors have in Port Chalmers. A specific focus on improving the visitor experience in the future will reap wider benefits for the whole community.

1. **Identification of the issues**
  - a) How do Port Otago and the Port Chalmers Community provide the best visitor experience available to visiting cruise ship passengers?
2. **Consideration of the various options which are available**
  - a) The look and feel of the port and township.
  - b) The reception that visitors get from our people.
  - c) The breadth and quality of the services that are available.
3. **Achievements thus far**
  - a) Refer page 19 in regard to visual characteristics projects.
  - b) Refer page 11 in regards to relevant landscaping projects.
  - c) 2011 provided dedicated access through A shed to provide greater protection and comfort for passengers embarking/disembarking.

- d) Plantings: Construction of planter boxes beside A shed and passenger access way, and on Beach Street beside the tunnel.
- e) Public toilet facilities improved by installing four new toilets, including a facility for the disabled at A shed. "Plan" for business owners and others prepared and distributed, showing the availability of public toilet facilities in the township. (2012).
- f) Upgraded Beach Street wharf surface to improve safety.
- g) Completion of A Shed extension in time for cruise season, to be used as a cruise passenger reception area and Wifi zone.
- h) In conjunction with A Shed extension a revised traffic management plan (TMP) for buses and tour operators in and around the extension.

#### 4. **Targets**

- a) Enhancing the cruise passenger experience of Port Chalmers and Dunedin by incrementally improving facilities and traffic flow.
- b) Continue to support our local community groups, where appropriate.

#### 5. **Monitoring methods**

- a) Feedback from passengers, members of the public and local business community.

\* \* \* \* \*

## **APPENDIX C**

### **Plan amendments**

**Log Handling Code of Practice**

**Lighting/Glare Code of Practice**

## Code of Practice

### Log Handling

In general terms the operation may be described as:

- a) Trucks arrive at the port via SH88, before entering the log storage area via the main security gate on Beach Street.
- b) The trucks stop to remove their securing chains opposite the gantry.
- c) The trucks travel through the log yard to unload the logs.
- d) The log loader unloads the truck and stockpiles the logs.
- e) The truck goes to the log trailer gantry where the truck driver dislodges any loose bark and soil from trailer, before the trailer is lifted onto the truck.
- f) The truck leaves the log yard via the main security gate on Beach Street.
- g) When the ship arrives and is berthed, the cradles are positioned alongside the vessel on the wharveside, and hydraulic excavators are lifted aboard the ship to aid with stowing.
- h) The log loaders marshal the logs to the wharveside, placing them in the cradles.
- i) The butting tractors align the ends of the logs to facilitate stowing.
- j) The ship's cranes lower the wires, which are then secured about the load by the stevedores.
- k) The logs are lifted aboard where they are stowed with the aid of the hydraulic excavators.

The log marshalling and stevedoring companies should be aware at all times that the marshalling and loading of logs have the potential to cause considerable environmental noise and dust - they should therefore make every endeavour to keep noise and dust to a minimum. They are to also encourage the transport operators to play their part in minimising the noise and dust emanating from the operations.

The existing log loaders are to be continually reviewed/re-evaluated to find practical methods of alleviating engine noise, at a cost that is commercially viable to the operation.

1. Log loaders are to be properly maintained to manufacturers' specifications to ensure that noise nuisance is minimised.
2. If any of the vehicles/machines are to be replaced, the operating companies should ensure that noise output levels are considered within the commercial decision of purchasing new plant.
3. The use of horns on log loaders is to be kept to a minimum (eg. emergencies), especially after dark, and noise output is to be minimised wherever practicable.
4. All vehicle lights are to be adjusted so that the nuisance to nearby residents is minimised.
5. Truck drivers must take care when lowering bolsters to keep impact noise to a minimum. Truck drivers are also responsible for ensuring that the truck and trailer are clear of bark and soil that could fall onto the roadway.
6. Impact absorbers must be fitted to reduce the noise when the bolsters are lowered.
7. Trucks travelling through the log storage area must be aware of possible dust nuisance and adjust their speed accordingly. The maximum speed in the area is 20 kilometres per hour.
8. No sweeping of the area is to be carried out when the dust could carry towards the residential areas.
9. If windy weather causes dust to become a nuisance, use is to be made of the Port Company's water trailer to spray water onto the roadway areas. The log marshalling operator should contact the Shift Manager on duty or the personnel at the Gatehouse to arrange for the deployment of the trailer.
10. All drainage sumps are to be checked regularly and cleared of all debris.
11. Logs are to be carefully placed into the cradles on the wharfside to minimise any noise.
12. Butting tractors should always approach the cradle with care to ensure the logs are pushed, not rammed
13. When the stevedoring crews sling the loads, every effort must be made to minimise the noise from the chains.
14. Immediate steps must be taken to retrieve any logs or lumber that fall into the harbour.
15. Stowing of the logs in the ship's holds is to be done carefully to avoid banging the logs against the hull of the vessel.

16. After the loading of the vessel is completed the wharf area is to be swept, all bark being stockpiled prior to removal. Care is to be taken to ensure that no bark or log waste falls into the harbour.
17. Area lighting in the log storage area must be switched off when not required.
18. To ensure safe working conditions throughout the area, it is essential that high visibility apparel is worn at all times.
19. All light motor vehicles moving within the area are to have revolving orange lights.
20. Chain-sawing of logs is only permitted, away from residential housing, in the designated area. The Port Company is to be notified whenever chain-sawing operations are undertaken.

In the case of **emergency**, the following are the contact persons:

**C3 (Complete Cargo Care)** (log marshallers):

Mark Henderson	021 815 028
Desiree Hollister	021 815 494

**NFA Holdings** (log marshallers):

Sam Stanley	0275 862 549, or
Phil Caulton	027 494 5246

**Port Otago Ltd**

Gatehouse	472 7890 or 472 9849
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## Code of Practice

### Lighting / Glare

Lighting structures and systems are necessary for the safe operation of the port. These systems can sometimes result in glare and light spill on surrounding areas outside the port.

This code of practice is developed in an effort to limit the adverse effects while promoting safe and environmentally friendly lighting systems within the port area.

1. High mast lights are only to be switched on when their particular area is being worked, ie cargo-working operations are taking place within the area of influence. Of particular importance are:
  - a) The high mast light on Boiler Point (J/K Block) which must be switched off by the Yard Control Office if the area is not to be worked for one hour or more.
  - b) The lights on Beach Street wharf must not be left on when there is no ship working at that wharf or during operations in the container stacking area.
2. The size, height and location of any new light towers must be determined by a specialist designer to ensure maximum effect is achieved for the power consumed and that light spill beyond the required area is minimised.
3. All high mast light assemblies must be checked, altered, repaired or replaced (where appropriate) at least 6 monthly. These checks are to be undertaken visually from the ground with lights on and using a light meter.
4. At least once every five years all lights must be checked to ensure that their alignment still complies with the design requirements. These checks will involve close inspection by staff, of the light fitting and tower assembly from the basket of a crane.
5. Regular evaluations of new products and equipment must take place to determine their efficiency and cost-effectiveness.
6. Office, Workshop and Shed lights are to be switched off when not required after hours.
7. Lights on the perimeter of the container yard along Macandrew Road are to be checked and adjusted so they do not create a nuisance to road users. (The benefits of some light spill onto the pathway is acknowledged.) (Shields are to be provided where possible).
8. Vehicles with flashing/revolving lights should not be left stationary for long periods near the boundary of the terminal in areas where they can cause a nuisance to members of the general public.

In the event of lights malfunctioning, causing a nuisance or being left on after the completion of cargo-working operations, the matters should be reported to:

**After hours:** The "Gatehouse" 472 7890

**Office hours:** 472 7890 extn 9865