[H] LANDSCAPE AND VISUAL EFFECTS ASSESSMENT REPORT

LAKES MARINA PROJECT

LANDSCAPE EFFECTS ASSESSMENT REPORT

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TABLE OF CONTENTS

INTRODUCTION

1 This report relates to a resource consent application made by Lakes Marina Projects Limited (the applicant) to build and operate a commercial marina in the Frankton Arm of Lake Wakatipu. This report sets out the findings of an assessment of the landscape and amenity related effects of the proposed activities.

2 The details of the proposed activities are set out in documents that accompany the resource consent application. I will not repeat those details here other than to note the following points that are particularly relevant to the assessment of landscape effects:

- The site of the proposed activities is immediately adjacent to the formed road of Sugar Lane. Currently in this location a small inlet exists where an unnamed creek that begins near the summit of Queenstown Hill enters Lake Wakatipu. Also in this location there are informal gravel parking areas and a public toilet.
- A formalised area of car-parking is proposed between Sugar Lane and the lake edge.
- The lake edge itself is proposed to be modified in the relevant area to take the form of a built edge. The small existing inlet, which I understand is man-made, is to be reclaimed and some areas of outreaching landform are to be excavated.
- A wave attenuator is proposed to extend out into Lake Wakatipu in order to contain the area of the marina itself. The attenuator is to float and will be anchored to the lake bed or to piles in shallower water.
- The marina itself is proposed to take the form of anchored floating structures inside the area of the attenuator. The marina is proposed to consist of five jetties to accommodate up to 194 berths.
- A row of up to 26 small floating buildings is proposed along the line of the modified lake edge. In addition, 5 buildings are proposed on land.
- It is proposed that the public are able to access the area of the proposed activities that are on the landward side of the modified lake edge. The proposal involves forming a new stretch of walking and cycling track through the area of the proposed activities to become part of the Frankton Arm Walkway. Currently the formed road of Sugar Lane

is used informally as part of the walkway as it circumnavigates the Frankton Arm. Upgrading and formalisation of outdoor public spaces is also proposed including planting and hard landscaping. It is proposed that the public will be able to walk out on the gangway structure that accesses the floating buildings but the marina jetties themselves will only be accessible to those who lease a berth.

ANALYSIS AND DESCRIPTION OF THE SITE AND ITS LANDSCAPE CONTEXT

The site of the proposed activities and its immediate context

3 The site of the proposed activities and its immediate context can be seen on Appendices 1 and 2 of this report.

4 To the west of the location of the proposed activities the existing boat ramp, Fisherman's Pier, the Scout Den, and Boat Shed café (in the historic ticket office building) are served by a large gravel car-park that accommodates parking for boat trailers. The lake edge to the south this car-park is lined with willows and rough grass. The Frankton Arm Walkway is a well formed pedestrian and cycle track that approaches this area from the west. A junction to the immediate west of the car-park allows trail users to either continue east via the footpath on Frankton Road or through the Sugar Lane area. The formation of the Frankton Arm Walkway ceases at the gravel car-park adjacent to the café building and then commences again to the east of the junction of Sugar Lane and Frankton Road, adjacent to the Mantra Marina Apartments. Consequently, walkway users that pass through the site of the proposed activities currently use Sugar Lane itself and the associated informal parking areas as their route.

5 Fisherman's Pier and the boat ramp are well used and an open gravel area to the immediate north provides for the manoeuvring of vehicles and boat trailers. To the east of the boat ramp, the small inlet provides for boat mooring, although the area is relatively unkempt. Rough willows and grass cover the small headland that separate the inlet from the main body of the lake. The formation of Sugar Lane passes immediately to the north of the inlet.

6 A large area of informal gravel car-parking space lies east of the inlet. This area accommodates vehicles, trailers, boats and some general outdoor storage. The area also accommodates a small public toilet building.

7 The northern side of Sugar Lane is lined with commercial offices and workshops, however, the two westernmost properties are used for residential purposes (the Warrington properties). Apart from this row of private properties, the entire Sugar Lane and foreshore area is public land in the form of Frankton Marina Local Purpose Reserve and other parcels of land owned by the Queenstown Lakes District Council (QLDC).

8 In a general sense, the Sugar Lane public area and adjacent foreshore is only roughly formed and maintained. The existing commercial offices and workshops dominate Sugar Lane itself and much of the open areas of public land are used as parking and storage areas associated with these businesses. The public spaces are currently not particularly attractive or inviting and apart from the boat ramp and café, there is little in the way of a pleasant or recreationally useful interface between the land and water.

The broader landscape context of the site

9 The Frankton Arm of Lake Wakatipu is a part of the lake that is relatively isolated from the rest and is surrounded by residential population. It is separated from Queenstown Bay by the Queenstown Gardens peninsula. The Kawarau River drains from the eastern end of the Frankton Arm and flows to Lake Dunstan.

10 The Frankton Arm is overlooked largely by residential land use and is surrounded by public land that is made up of walkways and reserves that are well used. The visual amenity that the Arm provides is an important part of the enjoyment of the environment that is had by visitors and Queenstown residents. The Frankton Arm is relatively busy in terms of boating activity in the form of commercial jet boats, charter boats and a high degree of private recreational use including kayaking, sailing, fishing and wind-surfing.

11 The public land that immediately surrounds the Frankton Arm is zoned Rural General Zone in the Queenstown Lakes District Plan (the Plan). Beyond this small strip, the area that overlooks the arm is generally zoned Low Density Residential Zone. This zoned land that overlooks the arm is not yet developed to capacity, in fact it is less than half developed in terms of subdividable or useable area.

District Plan considerations and zoning

12 The zoning of the site is shown on Appendix 2 of this report. The area that will be occupied by the proposed activities is zoned Rural General Zone, although a small area of proposed car-parking space extends into the Low Density Residential Zone. The water of the Frankton Arm is zoned Rural General Zone. The resource consent application documents set out all District Plan considerations that are relevant to the application.

13 All of the on-land activities are within District Plan designation area 165 - Frankton Marina Local Purpose Reserve. The District Plan Maps that cover the area of the Frankton Arm have notations following the shore of the arm that relate to the status of jetties, moorings and structures on the shore. In the location of the proposed activities, the notation "Frankton Marina" appears.

14 I understand that the proposed activities require non-complying activity resource consent. I also understand that due to the presence of the Frankton Marina Local Purpose Reserve, the designation in the District Plan that relates to this reserve and the notation on Map 33 (all of which have effectively been in the District Plan since 1989), it must be considered that the District Plan and the community anticipate a marina in this location and have done so since at least 1989.

Existing resource consent

15 Resource consent RM070542 was granted consent in June 2008 and was then subject to an appeal that was settled by way of Environment Court Consent Order in September 2009. This existing resource consent is held by the QLDC (being the landowners of the site) and provides for a 240 berth marina and four two-storied buildings to accommodate marine related activities. Car-parking, hardstand areas and landscaped areas also form part of the consented activities. I will not set out the details of the consented activities in this report but I attach a plan showing the consented situation as Appendix 3 to this report. The consented activities are provided for in the same location as the currently proposed activities. Effectively, the current proposal seeks to replace the currently consented design with the proposed design.

16 Resource consent RM93/402 was granted in 1993 and provided for a 100 berth marina in the same location as the currently proposed activities. This consent was implemented in part

in that some of the marina was constructed. The constructed marina suffered from structural problems and was eventually dismantled in 2004.

17 I understand that in the absence of the current proposal, the existing resource consent (RM070542) could be actioned, actioned in part, or varied to provide for some amended design.

Summary regarding the site and its landscape context

18 The site of the proposed activities and its immediate context is a roughly formed and maintained utilitarian area that is used by the public but is dominated in terms of character by activities associated with the commercial offices and workshops of Sugar Lane.

19 The Frankton Arm is a particularly busy part of Lake Wakatipu in terms of boating activity and use of the foreshore areas. It is surrounded and overlooked by suburban development.

20 In relation to the way the community and District Plan regard the site of the proposed activities, a marina has been anticipated here since at least 1989. Two separate marina developments have been granted resource consent in this location, with one resource consent being current.

21 In relation to what the receiving environment includes, it appears that in the absence of the current proposal it is very likely that a marina of some type will be built on this site in the future, whether via the existing resource consent, a new resource consent, or via the existing designation by the QLDC as a requiring authority.

CATEGORISATION OF THE RELEVANT LANDSCAPE

22 As discussed, practically the entire site of the proposed activities falls within the Rural General Zone. Section 5.4.2.1 of the District Plan discusses the landscape categorisation of land within the Rural General Zone. The issue of the appropriate landscape category of the Frankton Arm generally and the site of the proposed activities specifically has been traversed at length in Environment Court decision C180/1999[1] and the QLDC Commissioners' decision regarding resource consent RM070524.

[1] Environment Court decision C180/1999, Wakatipu Environmental Society vs. Q.L.D.C.

23 Environment Court decision C180/1999 examined the landscape categorisation of the Wakatipu Basin and the surrounding land. In relation to the Frankton Arm, this decision is confusing. It states that "*Lake Wakatipu, all its islands, and the surrounding mountains are an outstanding natural landscape*"[2]. However, the decision's description of the area of the Wakatipu Basin that is not an outstanding natural landscape includes the Frankton Arm and this is reinforced by Appendix II of the decision[3].

24 If the Frankton Arm is not part of an outstanding natural landscape, it falls to either be within a visual amenity landscape or an other rural landscape, in the terms of the District Plan. The description of visual amenity landscapes found in Section 4.2.4 of the District Plan makes it clear that these landscapes are poetically pastoral or Arcadian landscapes. The Frankton Arm and its immediate surroundings do not sit well with this definition and hence the relevant landscape may most correctly be categorised as an other rural landscape.

25 The issue of landscape categorisation was the subject of extensive expert evidence at the time of the Commissioners' hearing of RM070524. Section 11.3 of the Commissioner's decision fully reports on the evidence that was presented in relation to this issue. I will not set out the findings of that section of the Commissioners' decision in this report but I append the decision as Appendix 4. Ultimately, the Commissioners concluded that they did not need to make a finding regarding landscape category since they found that the effects of the proposed marina development were appropriate even if the category of outstanding natural landscape was applied. The Commissioners took a cautious approach and considered the effects of the proposal as if the correct landscape category was outstanding natural landscape[4]. I have adopted the same approach and will report on the effects of the proposal in relation to the landscape in subsequent sections of this report.

THE PROPOSED ACTIVITIES

26 Further to the brief description of the proposal in my paragraph 2 above, I attach a plan of the proposed activities to this report as Appendix 5. Fully detailed plans are contained within the application. Some more detailed description is useful to understand how the proposal will affect landscape and amenity issues.

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[2] Ibid, paragraph 107.
[3] *Ibid*, paragraph 111 and Appendix II.
[4] Decision of Commissioners N Marquet, J Lumsden and A Henderson regarding RM070524, 24 June 2008, paragraph 11.3.61.

The proposed design

27 The proposed marina structure extends approximately 240 metres out from the lake foreshore. The wave attenuator arm is a gentle arc curving from the existing boat ramp around to the east. The entry/exit point into the marina is located at the eastern end. All berths are enclosed within the wave attenuator and vessels must pass through the entry/exit point to access the open waters of the Frankton Arm and Lake Wakatipu. The jetties and the wave attenuator are floating structures that rise and fall with the water level. They extend no more than 0.5 to 0.8 metres above water level. In deeper water these structures are anchored to the lake bed while in shallower water they are anchored to upright piles.

28 The small existing inlet will be reclaimed, significantly increasing the space available for activities. This available space is to be developed to contain car-parking, commercial buildings, planting and public open spaces as set out on the plan of Appendix 5.

29 A definitive lake edge will be created in the form of a wall that retains an esplanade and open space area. The esplanade is 6 metres wide and will allow pedestrians to walk the length of the marina's interface with the land. The esplanade also forms a link section of the Frankton Arm Walkway and adjoins a large strip of open lawn space, enclosed by hedging and accommodating shade trees, for informal recreation and seating. In addition to the esplanade itself, walkways allow pedestrian circumnavigation of the car-park area. A more direct east-west link section of the Frankton Arm Walkway is also provided between Sugar Lane and the proposed car-park.

30 A public foreshore area to the northeast of the marina itself is proposed to allow interaction with the lake surface via an informal stepped boulder retaining wall and steps that descend to the lake surface, in an area separated from boating activity. The lake edge areas to the east and west of the marina location are not within the development area and will not be modified by the current proposal.

31 The landscape treatment that is proposed for the landward area associated with the marina consists of the esplanade and associated lawn areas, the boulder steps public area, the public access walkway adjacent to Sugar Lane and a pedestrian space at the southwestern end of the car-park that is separated from the vehicle/boat-ramp area and that allows access onto the marina itself. In relation to planting, maintained evergreen hedges are proposed for

shelter and enclosure. Raised shrub beds will provide the same in addition to colour and interest. Tree species have been chosen to provide a canopy for shelter, visual softening and amenity, while allowing maximum movement through the site.

32 26 floating shed buildings are proposed between the esplanade wall and the marina itself. 6 of the floating sheds are to be joined in duplex form, while the rest will be individual units. These sheds are proposed to accommodate small scale commercial activities that would complement marina activities. The form of these sheds is shown in detail on plans and elevations that are included in the application. In summary, the buildings have a gable form and are finished to be reminiscent of traditional boatsheds. To an observer standing on the esplanade, at mean lake level, the shoulders of the gables of these buildings will be at a slightly lower level (approximately 20cm lower) than eye level. The peaks of the gables will then rise above this height.

33 5 on-land buildings are also proposed towards the northeastern end of the site. These consist of two adjoined 72m^2 buildings for commercial lease purposes, two individual 36m^2 buildings for storage, administration or commercial lease purposes, and a toilet building. I understand that operations that may lease these buildings are envisaged to be operations that would complement marina activities. Again, gable forms are used and exterior treatment is reminiscent of boatshed or marine buildings.

34 In an overall sense, the design of the site is simple with a large area necessarily dedicated to car-parking. The car-park will be well segregated from pedestrian flow with pleasant, improved pedestrian spaces providing amenity and easy access through the site in relation to the Frankton Arm Walkway. A broad esplanade with associated informal recreation and seating areas will allow views of marina and lake activity, while public interaction with the lake itself will be improved. Canopy trees will visually soften the car-park area and will provide shelter, interest and shade.

The consented activities

35 Existing resource consent RM070542 is discussed above and is shown on Appendix 3 of this report. The proposal seeks to replace this consented design with the proposed design.

36 The principal differences between the consented design and the proposed design are:

- The consented design includes a large underground car-park, while the proposed design involves car-parking at grade. This obviously entails a very significant cost saving but means that much of the landward space adjacent to the marina will be occupied by car-parking.

- The consented design includes significant built form of up to nine metres in height over much of the area that is now proposed to be used for car-parking. These buildings were to be used for commercial and residential activities. The proposed design includes significantly less built form and of a lower height.

- The consented design involves car-parking along the length of Sugar Lane. The proposed design has one specific vehicle entry/exit for the car-parking area and presents a vegetated and pedestrianized edge to Sugar Lane.

- The consented design includes large areas of public open space facilitated by the use of underground car-parking. These areas take the form of a series of park-like spaces. The proposed design involves similar spaces but of less area.

- The consented design includes a floating marina of 240 berths that would occupy approximately 4.5 hectares of lake surface. The marina is configured in an offset rectangular shape such that it extends approximately 260 metres out from the shore. The proposed design includes a floating marina of 194 berths that would occupy approximately 3 hectares of lake surface. The marina is of a roughly rectangular layout, aligned with the shoreline such that it extends approximately 220 metres out from the shore.

- Due to the offset rectangular layout, the consented design allowed open water space between the marina and the shore which enabled a more interactive foreshore design with public access to the water's edge. The proposed design involves a retained lake wall with the marina aligned with the shore. Consequently an esplanade lake frontage is proposed that is raised above lake level.

37 I understand that for reasons associated with economic viability the consented design has been unworkable to date and is undesirable for the consent holders. The proposed design is generally less elaborate and more functional while still providing high public amenity.

THE LANDSCAPE AND AMENITY RELATED EFFECTS OF THE PROPOSED ACTIVITIES

Visibility of the changes to the landscape

38 The proposed marina and associated structures and activities will be new elements in the landscape over and above the existing activities in the Sugar Lane area. These new elements will be apparent within a certain visual catchment or zone of visual influence.

39 The visual catchment from which the new elements will potentially be visible is shown on the plan that I attach to this report as Appendix 6. It should be noted that this plan has been prepared from topographic information and observations in the field. It does not take account of smaller topographic elements such as small landforms, trees and buildings, which can screen visibility. As such, it is intended to be a guide and to aid assessment, rather than to be definitive. It also must be noted that in more distant views, such as those from 2 kilometres away and more, although there may be visibility of parts of the new activities, they will amount to small elements in a very broad and visually complex vista and therefore their relative influence on the characteristics of the particular view will be reduced.

40 With reference to Appendix 6, the marina complex will be potentially visible, at least in part, from:

- The entire surface of the Frankton Arm although distances sometimes mean that visibility is difficult.
- Much of the foreshore area surrounding Frankton Arm although waterside vegetation means that actual visibility is intermittent and is mostly available from the southern shore of the arm.
- A small part of the Kelvin Heights Golf Course peninsula although distances and vegetation in this area mean that, in practice, visibility is very limited.
- Much of the suburban area adjacent to Peninsula Road although vegetation, buildings and other topographical elements mean that visibility is often screened or intermittent.
- The north facing slopes of Peninsula Hill.

- The west facing slopes of the part of suburban Frankton that lies to the west of State Highway 6 (SH6) although again, vegetation, buildings and other topographical elements mean that visibility is often screened or intermittent.

- Parts of the suburban area adjacent to Frankton Road, however, given the viewing angles in relation to topography and the intervening effect of vegetation and buildings, actual visibility is often screened.

- Parts of the south facing slopes of Queenstown Hill.

- Parts of the west facing slopes of the Remarkables at long distances.

- At a finer scale, the marina facility and associated activities will be plainly visible from the Sugar Lane area including the properties on the northern side of Sugar Lane.

41 The marina facility provided for by existing resource consent RM070524 is visible from an identical visual catchment to that described above.

42 Regarding visibility, it must be noted that the visibility of an element in the landscape does not constitute an adverse effect in itself. The visibility of an element can lead to adverse effects in terms of amenity and landscape appreciation if the visible element detracts from the qualities that would otherwise be experienced; if it changes our perception of what we would otherwise see. For example, an element in the landscape that clashes with surrounding landscape character will often degrade the landscape experience or alter an observer's perception of natural and/or scenic qualities, while a visible element in the landscape that harmonises with surrounding landscape character will not have this adverse effect.

Potentially affected observers

43 For the purposes of assessment, observers that will potentially have their amenity or landscape appreciation affected can be categorised as follows:

- Distant terrestrial observers

- Nearby terrestrial observers

- Users of Frankton Arm

44 With reference to paragraphs 12 to 21 of this report above, the immediate existing environment within which the proposed activities are to occur is zoned Rural General. However, it also includes the District Plan designation area 165 - Frankton Marina Local Purpose Reserve, as well as the "Frankton Marina" annotation on District Plan Map 33 and the existing resource consent RM070542. I therefore understand that this location differs from locations in the Rural General Zone generally; it cannot realistically be considered as an unoccupied part of a rural landscape into which development is proposed since the existing designation provides for marina activity. This must be borne in mind when considering effects on potential observers; the District Plan does not anticipate rural character for this specific location.

Effects in relation to distant terrestrial observers

45 With reference to the visual catchment described above and with reference to Appendix 6, distant terrestrial observers that have the potential to be affected by the proposal in terms of amenity and landscape appreciation can be categorised as follows:

- Users of the public foreshore and trails of Frankton Arm including in the Kelvin Heights area.
- Users of the suburban area of Kelvin Peninsula including roads and residential land.
- Users of the upper north facing slopes of Peninsula Hill (S F Mee Development Co Ltd land).
- Users of the part of suburban Frankton west of SH6 including roads and residential land.
- Users of the part of the suburban area adjacent to and above Frankton Road including roads and residential land.
- Users of some upper parts of Queenstown Hill (Middleton land).
- Users of some of the west facing slopes of the Remarkables including parts of the Ski Area access road.

Users of the public foreshore and trails of the Frankton Arm

46 Realistically, the landscape and amenity experience of using the public foreshore areas of Frankton Arm is only potentially affected for users on the southern and eastern sides of the arm between the marina location itself and approximately the Queenstown Yacht Club. From these areas parts of the proposed activities will be visible. For observers on the northern side of the arm that are to the west of the marina location, the activities will generally be screened from view by topography and vegetation, however the southern parts of the floating marina structure itself will be intermittently visible.

47 The landscape and amenity experience that users of these public spaces currently have changes as one moves around the foreshore of the arm. These public spaces are variously open, enclosed by vegetation, natural and wild, surrounded by residential activity or park-like. In general, users of these spaces have a clear view of the surface of Frankton Arm itself. This is the visual and amenity focus of these public places. The Frankton Arm has a relatively busy character in terms of boat use. Many jetties and moored vessels are apparent. Also, private and commercial boating activity is frequent and clearly visually evident from these foreshore public areas.

48 Given the existing character of Frankton Arm, I make the general finding that a marina per se is not fundamentally contrary to this existing character. The arm is a busy body of water within a tourist and holiday oriented town. Given the immediately visually apparent boat use of this arm, a marina in general will not appear incongruous or unusual.

49 More specifically, I consider that users of the southern and eastern parts of the Frankton Arm foreshore take in a broad scene that is dominated by the arm itself. The Sugar Lane area constitutes a small part of this scene. Currently the boat ramp and Fisherman's Pier can be seen from some distance. The proposed marina structure and associated buildings and trees will be visually apparent elements that increase the relative significance of the Sugar Lane area within the broader scene. The repeated gable form of the proposed floating buildings will be evident and, in this location, will be reminiscent of lakeside boatsheds. Future moored vessels will perhaps be the most visible elements associated with the proposal. Views from these relevant public places are often from distances of a kilometre or more.

50 An indicative photograph from the public area of Frankton Beach is included as Photograph 7A of Appendix 7 of this report and one from the public area of Kelvin Grove is included as Photograph 7D.

51 In relation to the current amenity experience of the users of these foreshore areas, I do not consider that the visual presence of the proposed marina activities can be said to constitute an adverse effect on amenity or landscape appreciation. It will appear as an element that is obviously associated with boating activity within a water body that is already characterised by this sort of activity. It will not be dominated by large structures or buildings; the proposed buildings are of a modest scale and traditional form. It will also provide attractive visual interest in the context of the arm, particularly when filled with boats. Additionally, the marina will potentially prevent or discourage ongoing accumulation of additional jetties and moorings around the Frankton Arm foreshore, thereby helping to maintain the existing character of these foreshore areas.

52 In comparison to other marina facilities that may occur in the relevant location in the absence of the current proposal, and particularly in comparison to the marina provided for by existing resource consent RM070542, the proposed facility will appear as a functional, traditional marina when seen form the relevant foreshore areas. It will not be dominated by large buildings or commercial/residential activity and will not be contrary to existing landscape character.

Users of the suburban area of Kelvin Peninsula

53 Much of the residential area of Kelvin Peninsula will gain clear views to the proposed marina location. The views from individual dwellings vary, and in some instances trees, neighbouring buildings or topography will screen the marina location, however in general, the residentially zoned land has clear views to the relevant location. It must be noted that, with reference to District Plan Maps 33 and 37, only approximately half of the residentially zoned area of the Kelvin Peninsula has currently been developed.

54 Most residences of the Kelvin Peninsula area are oriented to the north, with views across Frankton Arm to Queenstown Hill. The northern foreshore of the arm makes up part of these views. The continuous broad horizontal band of built development that follows Frankton Road and the foreshore itself is clearly evident. The buildings, structures and activity of

Sugar Lane currently form part of this band. Again, the relatively busy commercial and private boating activity of the arm itself is visually apparent.

55 Certainly, the outlook from this residential area is a high-amenity one with, the lake surface and Queenstown Hill being the dominant elements. However, the character of these views is far from a highly natural or undeveloped character. The proposed facilities will be visible as being part of the existing band of development that follows the northern foreshore. The marina itself, moored vessels, floating buildings and proposed trees will be evident. The proposal will increase the relative prominence of the Sugar Lane area within the overall scene. The proposed marina facility will be a recognisable and conspicuous part of the view, although it will not be a dominating element.

56 Indicative photographs from Willow Place and Loop Road are included as Photographs 7B and 7C of this report.

57 As discussed in relation to public foreshore areas above, in the context of the Frankton Arm as seen from the residential area of Kelvin Peninsula, while the visual presence of the proposed marina activities will be a change to the existing situation, I do not consider that the inclusion of the proposed activities in these views can be said to constitute an adverse effect on amenity or landscape appreciation. The marina will not be out of character with the arm in general and it will provide a point of visual interest. While buildings will be evident, the car-parking area largely will not and moored vessels will generally be the most visually dominant part of the facility.

58 Again, in comparison to other marina facilities that may occur in the relevant location in the absence of the current proposal, and in comparison to the marina provided for by existing resource consent RM070542, the proposed facility will be visually modest.

Users of the upper north facing slopes of Peninsula Hill

59 The upper north facing slopes of Peninsula Hill are privately owned by the S F Mee Development Co Ltd. No dwellings are located on the land and I understand that it is currently grazed. The land gains clear views over the Frankton Arm that are similar to views that can be had from the upper part of the residential area of Kelvin Peninsula. The proposed marina facility will be a visible element within the overall scene. Given that the upper

Peninsula Hill land is essentially unoccupied, I do not consider that the proposal will have any significant effects in relation to it.

Users of the part of suburban Frankton west of SH6

60 The suburban area of Frankton that lies west of SH6 generally slopes downward towards the lake. Many dwellings gain a long view west up the Frankton Arm. In the instances of individual dwellings, the location of the proposed activities will sometimes be screened by intervening vegetation, buildings etc, but often it will be visible.

61 Further to the discussion above in relation to the residential area of Kelvin Peninsula, the view from this part of suburban Frankton is a high-amenity view but is certainly not a view that is devoid of human modification and development. A band of built form is evident all along the northern foreshore of the arm and the surface of the arm is relatively busy.

62 Indicative photographs from McBride Street and Lake Avenue are included as Photographs 7E and 7F of this report.

63 In views that are available from this part of Frankton, the landward parts of the proposed activities will largely be hidden from view. When visible, they will be seen in the location of existing built development. The proposed marina structure itself will be potentially visible extending out onto the lake surface. However, the structural elements will only rise between 0.5 and 0.8 metres above the water's surface and hence it is likely to be moored vessels that actually constitute the visual change to the existing scene. The area covered by moored vessels will potentially extend some 200 metres out from the foreshore and this will become a visual element on the right-hand side of the lake surface in the relevant views. In almost all views from the relevant part of Frankton, these moored vessels and the marina structure will be backed by the landform and development adjacent to Frankton Road and the lower parts of Queenstown Hill, with views to the narrows still available.

64 I consider that an area of moored vessels spreading out from the northern foreshore into the visible lake surface as seen from the relevant area of suburban will be a change to the current scene but will not be a degradation. While it will create another visual instance of human modification to the landscape, this will take the form of an instance of marine activity in a part of the lake that is already characterised by this sort of activity. While the landscape will appear more used and occupied, it will not appear significantly more built. I do not

consider that a significant adverse effect in relation to amenity or landscape appreciation will occur.

Users of the part of the suburban area adjacent to and above Frankton Road

65 Parts of the residentially zoned land above Frankton Road gain views to the area of the proposed marina. This residential land is generally steep. The lower parts of the zoned land have been developed and built and also accommodate relatively dense mature trees. Consequentially, visibility to the proposed activities will actually be quite limited and intermittent. The outer part of the marina structure and vessels moored adjacent to it will be the most visible elements.

66 Views from the residential dwellings that make up this area are generally oriented to the south across the Frankton Arm to Peninsula Hill, and also to the southeast to the Remarkables and the southwest to Cecil Peak. The surface of the Frankton Arm is an important part of these views but generally the northern foreshore and the adjacent part of the water's surface are hidden from view or are not prominent. It is the southern foreshore that figures more importantly in the composition of views. Therefore, the proposed activities will be relatively inconspicuous.

67 Indicative photographs from Marina Drive and Goldrush Way are included as Photographs 7G and 7H of this report.

68 When seen from the residential areas above Frankton Road, I consider that the relevant parts of the proposed activities will be peripheral to the central focus of views and visual amenity. Again, I consider that a visible area of moored boats and associated structural elements will not be discordant with the character of the Frankton Arm. While the new elements will be changes to the current visual scene, they will not devalue it.

Users of some upper parts of Queenstown Hill

69 From some upper parts of Queenstown Hill, visibility is potentially available to the proposed activities. This land is generally privately owned (by the Middleton family) and unoccupied. As with the upper parts of Peninsula Hill, I do not consider that the proposal will have any significant effects in relation to this land.

70 There is some potential visibility to the proposed marina from a very short stretch of the Queenstown Hill public walking track and from adjacent public land. These views are at distances of over 3 kilometres and I consider that the proposed activities will form a small element within a very broad and complex landscape scene. Consequently, I consider that they will have little, if any, effect.

Users of some of the west facing slopes of the Remarkables

71 As can be seen on Appendix 6, a large area of the west facing slopes of the Remarkables gain views over the whole of the Frankton Arm and the surrounding parts of the Wakatipu Basin and hence give the ability to see the area of the proposed activities. The relevant part of the Remarkables includes public land managed by the Department of Conservation and the road that accesses the Remarkables Ski Area.

72 Views from this part of the Remarkables are extremely broad. The location of the proposed activities is at least 3.5 kilometres from an observer. I consider that a new marina as proposed will have no significant effect on amenity or landscape appreciation.

Summary regarding effects on distant terrestrial observers

73 The topographic bowl that accommodates the Frankton Arm is a well-used and developed area containing considerable suburban development and the surface of the arm itself which accommodates relatively busy boating activity, both commercial and private. As has been discussed, although the water's surface and the immediate foreshore are zoned Rural General, this existing environment includes an expectation that a marina of some form will appear in the subject location.

74 The specific marina that is currently proposed will form a perceivable part of the landscape for many observers in the broader landscape. Depending upon viewing distances, the marina may be a relatively significant element in an observer's landscape experience, or it may be a minor part of a broad scene. Given the design of the proposed marina development (that includes relatively small, gabled roof buildings and a well treed landward area) and given the character of the environment that it will sit within (as described above), I consider that the proposed marina will not degrade or detract from the amenity and landscape experience that these observers currently enjoy. It will not create adverse effects in this regard.

Effects in relation to nearby terrestrial observers

75 In this section I discuss the landscape and amenity effects of the proposal on users of the immediate vicinity of Sugar Lane and the adjoining public areas. These users include:

- Owners, occupiers and customers of the private properties and buildings that are accessed from Sugar Lane including the residential, commercial and visitor accommodation buildings.
- Owners, occupiers and customers of the facilities that are situated on the public land of the Sugar Lane vicinity including the Boat Shed Café, the Scout Den, the boat ramp and Fisherman's Pier and associated buildings.
- Users of the Frankton Arm Walkway and adjoining reserve spaces.

Owners and occupiers of private properties

76 I understand that consultation between the applicant and the owners of the various private properties of Sugar Lane has been ongoing for many months. As with occupants of the broader landscape, the existing environment that the occupants of the Sugar Lane area are part of includes the District Plan designation area 165 - Frankton Marina Local Purpose Reserve (as well as the "Frankton Marina" annotation on District Plan Map 33 and the existing resource consent RM070542).

77 The Sugar Lane area is described in my paragraphs 3 to 8 above. Despite being zoned Low Density Residential Zone, it is largely occupied by commercial operators. Some of these businesses are marine related and some are not. As is described, the Sugar Lane public area is currently only roughly formed and maintained. The road formation is sealed and has kerb and channel on one side. The areas on the south side of the road are of gravel formation.

78 With reference to Appendix 5, the proposal will change the immediate environment of Sugar Lane considerably. The area on the southern side of the road formation that currently accommodates the inlet and gravel areas will provide a formalised car-park, separated from Sugar Lane by a footpath and strip of landscaping including canopy trees. Beyond the car-park area will be the landscaped esplanade forming the lake edge.

79 In relation to the amenity that is experienced by the commercial operators of Sugar Lane and their customers, I consider that the proposed situation will represent an improvement. Sugar Lane itself will become more treed and perhaps more enclosed. Pedestrian routes and areas will be more formalised and legible. The nearby esplanade area will provide pleasant outdoor spaces that can be used for lunch breaks, informal recreation, etc. The more formalised and legible pedestrian routes will provide links into the Frankton Arm Walkway that are more segregated from vehicles. Views out from these commercial properties will change markedly but I do not consider that there will be any significant adverse amenity or landscape related effects for the relevant commercial operators and/or their customers.

80 The Mantra Marina Apartments at the northeastern end of Sugar Lane are a commercial visitor accommodation facility. The western end of these apartments is adjacent to the northeastern end of the proposed car-park area. These westernmost apartments currently gain views across the Frankton Arm towards the Remarkables and Peninsula Hill. Part of the foreground of these views is the roughly formed gravel car-park area that lies to their immediate southwest. This roughly formed space will be replaced by part of the more formal car-park under the proposed situation. The northeastern end of the esplanade space with its trees and lake edge steps will also form part of the relevant view-shaft from the apartments. The northeasternmost proposed building (Building S30) is considerably southwest of the apartments in the vicinity of the existing toilet building and will not impede views to the lake and mountains beyond. Vessels moored in the northeastern part of the marina itself will form a part of these views, sitting on the lake surface, with open water beyond.

81 In summary in relation to users of the Manta Marina Apartments, I consider that the foreground of some views will change and become more formal but the composition of the views (most importantly visual access to the lake) will not be adversely affected. As mentioned in relation to the users of the Sugar Lane Commercial properties, users of the Mantra Marina Apartments will benefit from the improved public recreation and amenity spaces and better connectivity, legibility and segregation of pedestrian routes.

82 The two residential properties at the southwestern end of Sugar Lane are owned by the Warrington Family (819 and 823 Frankton Road). A residential dwelling is located on each of these properties. The eastern boundary of these properties (i.e. the frontage onto Sugar

Lane) is well treed, hence the residences are relatively private with limited visual access to the Sugar Lane area itself. Notwithstanding this, views are available:

- in an easterly direction across the small inlet, through willows to the lake surface and the Remarkables,
- in a south-southeasterly direction across the Fisherman's Pier area to the lake surface and Peninsula Hill and Cecil Peak.

83 Indicative photographs from 823 and 819 Frankton Road are included as Photographs 7I and 7J of this report.

84 The south-southeasterly view outlined above that is available from the two Warrington properties will largely be unaffected by the proposal itself. No new elements will appear in this view. The easterly view will be affected in that the proposed treed car-park area will be in the immediate foreground. The upper parts of the gables of the proposed floating buildings will be visible and beyond them the moored vessels within the marina will be a prominent part of the lake surface that will be backed by Frankton and the Remarkables. The foreground will be more busy and formal than under the existing situation. As discussed above, pedestrians and vehicles will be more segregated. More designed seating and informal recreation areas will be created and connectivity to the Frankton Arm Walkway will be improved.

85 In relation to the amenity and landscape experience that is enjoyed by users of the Warrington properties, I consider that the proposal will change the character of the public realm of the Sugar Lane area considerably, as has been described. Obviously, this public area is at the doorstep of the Warrington properties. They will be adjacent to a more formal, more designed and busier public area. They will gain the benefits of the public spaces and connectivity as has been described for other users. Overall, while change will be considerable, I do not consider that this change can be described as adverse in terms of amenity, particularly given the aspects of the receiving environment such as District Plan designation area 165 - Frankton Marina Local Purpose Reserve and the existing resource consent RM070542. The owners and occupiers of these properties cannot realistically expect the Sugar Lane area to remain unchanged in the future.

Operators and users of facilities on public land

86 The Boat Shed Café, the Scout Den, the boat ramp and Fisherman's Pier and associated buildings are situated on public land but are used by commercial operators or specific groups within the community. These facilities all lie to the southwest of the area of the proposed activities.

87 In relation to landscape and amenity matters, the general increased busyness of the Sugar Lane area will have some effect on users of these facilities however, the immediate surroundings of these facilities and the amenity that is currently enjoyed from them will not be affected.

Users of the Frankton Arm Walkway and adjoining reserve spaces

88 As discussed in paragraph 4, the Frankton Arm Walkway that circumnavigates the Frankton Arm adjoins the Sugar Lane area to the northeast and southwest. However, the formation of the Frankton Arm Walkway ceases at the gravel car-park adjacent to the Boat Shed Café and then commences again adjacent to the Mantra Marina Apartments. Consequently, walkway users that pass through the site of the proposed activities currently use Sugar Lane itself and the associated informal parking areas as their route.

89 The proposed situation will provide two formal routes for walkway users through the Sugar Lane area. Moving from southwest to northeast, a walkway user will cross Sugar Lane to its northwestern side adjacent to the Boat Shed Café and will continue along this side until reaching a point adjacent to the northeastern end of the Warrington property (823 Frankton Road). At this point a walkway user will cross Sugar Lane and then continue northeast via either the 3 metre wide formed footpath separated from Sugar Lane by a landscaped strip and canopy trees, or via the waterfront esplanade area. The former is a more direct route while the latter involves seating and amenity areas and visual interaction with the lake. In relation to either of these routes, pedestrian traffic will be separated from vehicle areas.

90 I consider that the amenity of users of the walkway network and associated public spaces will be improved by the proposal. The more direct route will provide increased legibility and safety as a thoroughfare. The esplanade area and associated spaces will provide open, pleasant, green, multi-use public spaces that allow visual interaction with the lake and with the moored vessels of the marina. The public are also able to access the floating marina

structure that follows the front of the floating buildings. In addition the lake edge steps and informal boulder area allow physical interaction with the lake. These spaces are likely to provide interesting stop-off spaces for walkway users, users of the marina berths and associated activities and users of nearby businesses. They are also likely to be destinations in their own right for picnicking etc. The public amenity asset of the Frankton Arm walkway will be increased in value in the Sugar Lane area by the proposal.

Effects in relation to users of Frankton Arm

91 As has been discussed, Frankton Arm is a relatively busy body of water in relation to both private and commercial use. Powered boating activity takes the form of fishing, recreation, water skiing, jet skiing, water taxi services, cruises and jet boat thrill rides. In addition to powered boating the arm is also used for kayaking, paddle-boarding and wind surfing. Depending upon the time of day and year, the experience of being on the Frankton Arm can be tranquil or particularly busy and, at times, noisy.

92 Obviously boating activity on Lake Wakatipu is not limited to Frankton Arm. Boat users that seek a remote, wild or quiet type of experience are likely to do so in other parts of the lake.

93 The boat ramp at Fisherman's Pier is the most used boat launching area in the arm, although there are others. Many moorings and jetties exist around the arm's perimeter. Smaller craft can be launched from a number of locations.

94 With reference to Appendix 6, the proposed marina facility will be visible from practically any point on the surface of the Frankton Arm. For lake users, the marina will generally be viewed horizontally, i.e. the viewer is at lake level. Consequently, the floating marina structure itself and the moored vessels will be the most visible aspects of the proposed activities, although the floating structures only rise 0.5 to 0.8 metres above water level and therefore will be relatively inconspicuous. The floating buildings will also be visible behind the moored vessels. Overall, the marina area will be visually appear as a cluster of boating activity.

95 I consider that in a visual and experiential sense, the proposed marina will increase the degree of human modification of the arm and will increase general busyness and visual complexity. However, as has been discussed these changes to the landscape will be located in an area that already is characterised by considerable boating activity. As such, I consider that the proposal will amount to an intensification of boating character rather than an

alteration of existing character. I consider that to most users of Frankton Arm this will not be perceived as an adverse effect.

96 Again, it is relevant to note that accommodating future growth of boating activity and associated moorings at a centralised marina facility is likely to reduce the potential for ongoing accumulation of jetties and moorings around the Frankton Arm in an ad-hoc way.

CONCLUSIONS

97 The site of the proposed activities is the Sugar Lane foreshore area. This area is currently roughly formed and maintained and is dominated by parking and storage associated with the adjacent commercial land uses. The broader context of the proposed activities, being the Frankton Arm, is a busy water body that is overlooked by suburban areas. Despite the public foreshore land being zoned Rural General, a designation and notation in the District Plan anticipate marina activities in the relevant location.

98 Further to the above, existing resource consent RM070542 provides for a larger marina than is proposed and includes considerable built form and associated commercial and residential activity. In comparison, the currently proposed design is more modest and functional.

99 The proposed marina and associated activities will be potentially visible from a considerable visual catchment that takes in the Frankton Arm and some surrounding land. The consented marina would be visible from an identical catchment. The landscape and amenity related effects of the proposed activities can be summarised as follows:

- In relation to **distant terrestrial observers**, the specific marina that is proposed will form a perceivable part of the landscape for many observers in the broader landscape. Depending upon viewing distances, the marina may be a relatively significant element in an observer's landscape experience, or it may be a minor part of a broad scene. Given the design of the proposed marina development and given the character of the environment that it will sit within (including activities anticipated by the Plan), I consider that while the proposal will bring change, it will not degrade or detract from the amenity and landscape experience that these observers currently enjoy.

- In relation to **nearby terrestrial observers**, the immediate environment of the Sugar Lane vicinity will change considerably. It will become more treed and somewhat more enclosed. Pedestrian routes and areas will be more formalised and legible and the nearby esplanade area will provide pleasant outdoor spaces. The improved pedestrian routes will provide links into the Frankton Arm Walkway that are more segregated from vehicles. Despite the considerable change, I do not consider that there will be any significant adverse amenity or landscape related effects for the relevant commercial operators and/or their customers; the proposal is likely to improve amenity. The same can be said in relation to the two nearby residential properties (the Warrington properties); the proposal will change their immediate environment and will increase busyness, however views from the dwellings will not be significantly impeded and nearby public spaces and trails will improve. I do not consider that the proposed situation represents a degradation of amenity when compared to the existing environment.

- In relation to **users of Frankton Arm**, the proposed marina will increase the degree of human modification of the arm and will increase general busyness and visual complexity. However, these changes to the landscape will be located in an area that already is characterised by considerable boating activity. As such, I consider that the proposal will amount to an intensification of boating character rather than an alteration of existing character. I consider that to most users of Frankton Arm this will not be perceived as an adverse effect.

100 In an overall sense, I consider that the landscape and amenity effects of the proposal accord with what is expected by the District Plan. A marina will appear in a location that has been notated for this activity since at least 1989. The proposed design provides for attractive buildings, significant tree planting and other landscaping and will provide improved public spaces in the relevant area that will enhance public amenity in relation to the existing situation.

Ben Espie

31 January 2014

ATTACHED APPENDICES:

APPENDIX 1: DISTRICT PLAN ZONING MAP

APPENDIX 2: CONTEXT PLAN SHOWING ZONING

APPENDIX 3: THE CONSENTED MARINA AS PER RM070542

APPENDIX 4: RESOURCE CONSENT DECISION RM070542

APPENDIX 5: LANDSCAPE LAYOUT PLAN SHOWING PROPOSED ACTIVITIES

APPENDIX 6: VISUAL CATCHMENT AREA

APPENDIX 7: PHOTOGRAPHS

APPENDIX 1: DISTRICT ZONING PLAN
Source: Queenstown Lakes District Plan, District Plan Map 33.

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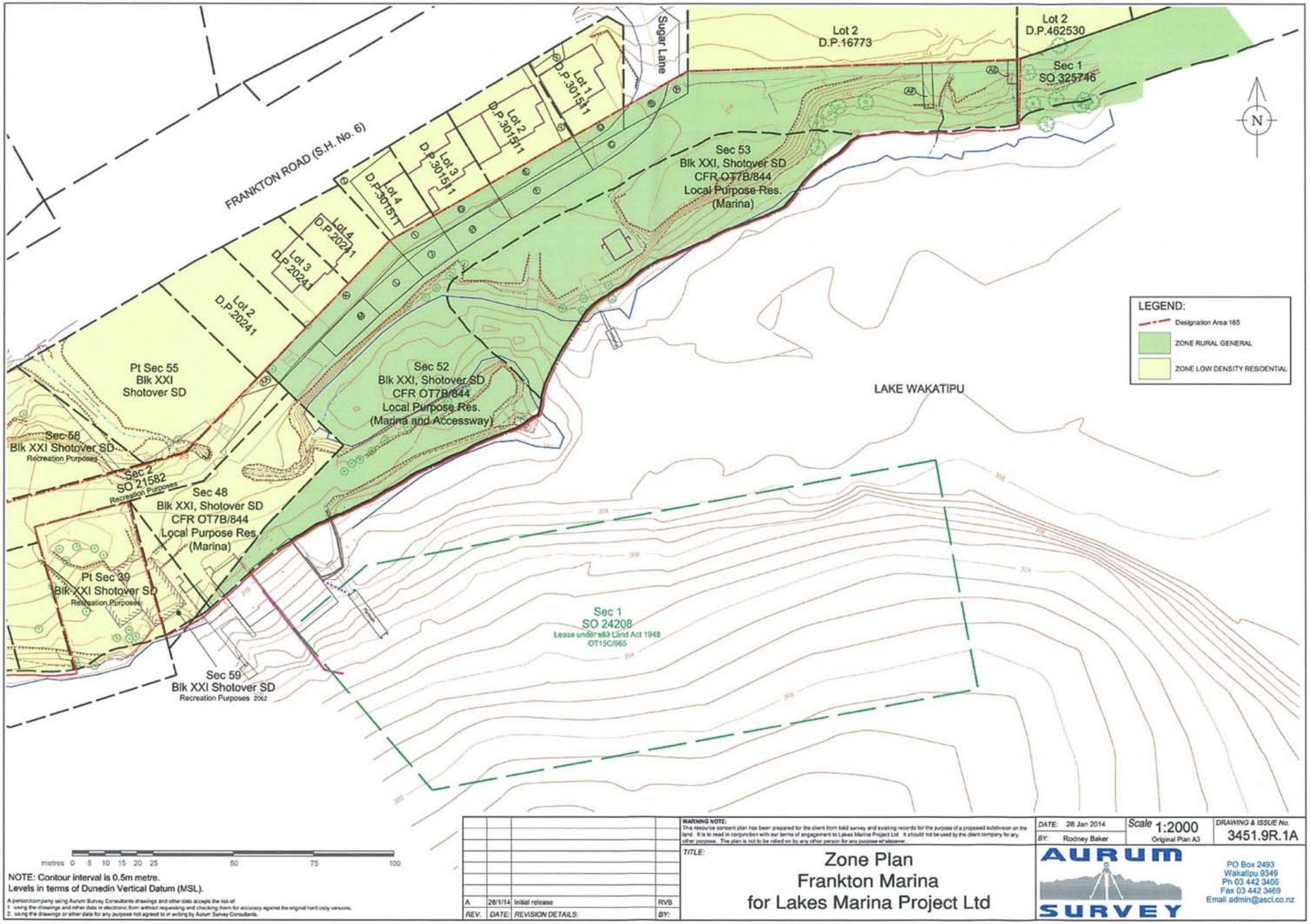
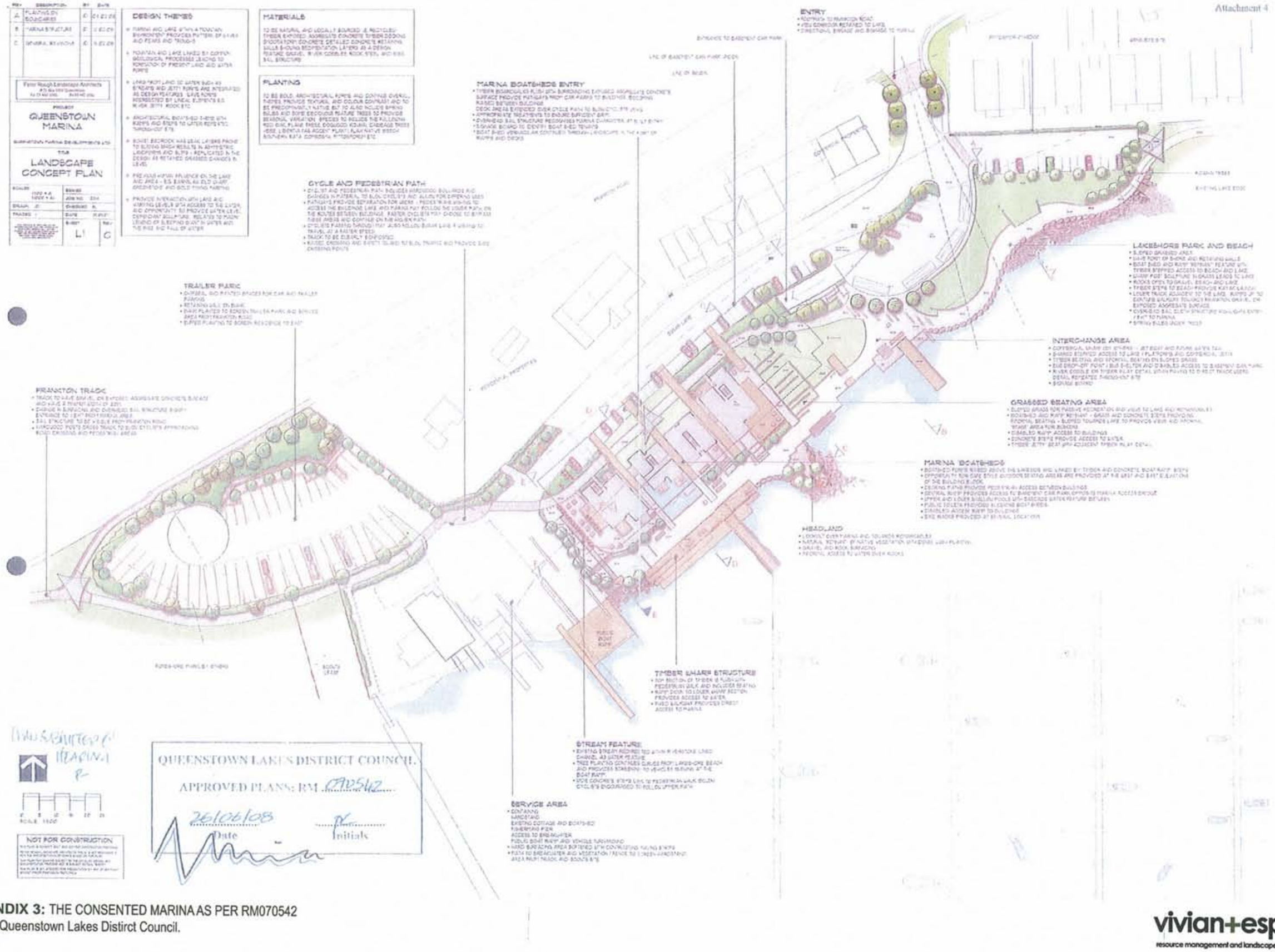


APPENDIX 2: CONTEXT PLAN SHOWING ZONING
Source: Aurum Survey Ltd Plan



APPENDIX 3: THE CONSENTED MARINA AS PER RM070542
Source: Queenstown Lakes Distirct Council.

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LEGEND

- Feature trees along the esplanade
  - *Liquidamber styraciflua*
- Feature trees along Sugar Lane.
  - *Liriodendron tulipifera*
- Amenity trees within the center of the car park.
  - *Sorbus aria*
- Amenity trees on the lawn adjacent to the rock retaining.
  - *Ulmus procea* 'Louis Van Houtte'
- Amenity trees dotted along the esplanade.
  - *Platanus x acerifolia*

- Formal hedges to stand 1.5m tall and enhance shelter from the wind.
  - *Photinia x fraseri* 'Robusta'
- Raised garden beds to include low to medium shrub species to be planted in mass sweeps and to include:
  - *Choysia ternata*
  - *Viburnum species*
  - *Prunus lucitanica*
  - *Berberis species*
  - *Cornus species*
- Formal lawn areas.

- Stairs enabling public access to the waters edge.
- Informal rock retaining, designed to enable a tactile experience for public use which intertwines with the stairs and allows informal seating and access to the lake edge.
- Large boulders to enable informal seating throughout the site.
- Formal seating to be located along the northern edge of the esplanade.

- Buildings associated with the marina.
- Marina structure.
- Crosswalks enabling easy access through the car park.
- Formal crosswalks to comply with Council standards.

N

REF: FMP-SLP-001
DATE: 24.01.2014
SCALE: 1:500 @ A3

LAKES MARINA PROJECTS LTD
PROPOSED LANDSCAPE LAYOUT PLAN

Lakes Marina Projects Ltd
C/- The Business Advisory Group Limited
Level 13, 34 Shortland Street, Auckland,
1010 New Zealand
Contact: Alun Kilver
+64 (0) 441 3336 +64 027 434 5555

APPENDIX 5: MARINA - LANDSCAPE LAYOUT PLAN

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APPENDIX 6: BROAD SCALE VISUAL CATCHMENT OF THE MARINA LOCATION
Viewpoint locations represent the photographs that are shown on Appendix 7.

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The location of the proposed marina.

APPENDIX 7, PHOTOGRAPH 7A:
Panorama photograph has been taken from Frankton Beach, within the vicinity of the outdoor public BBQ area.

APPENDIX 7, PHOTOGRAPH 7B:
Panorama photograph has been taken from the grass verge within the vicinity of 22 Willow Place.

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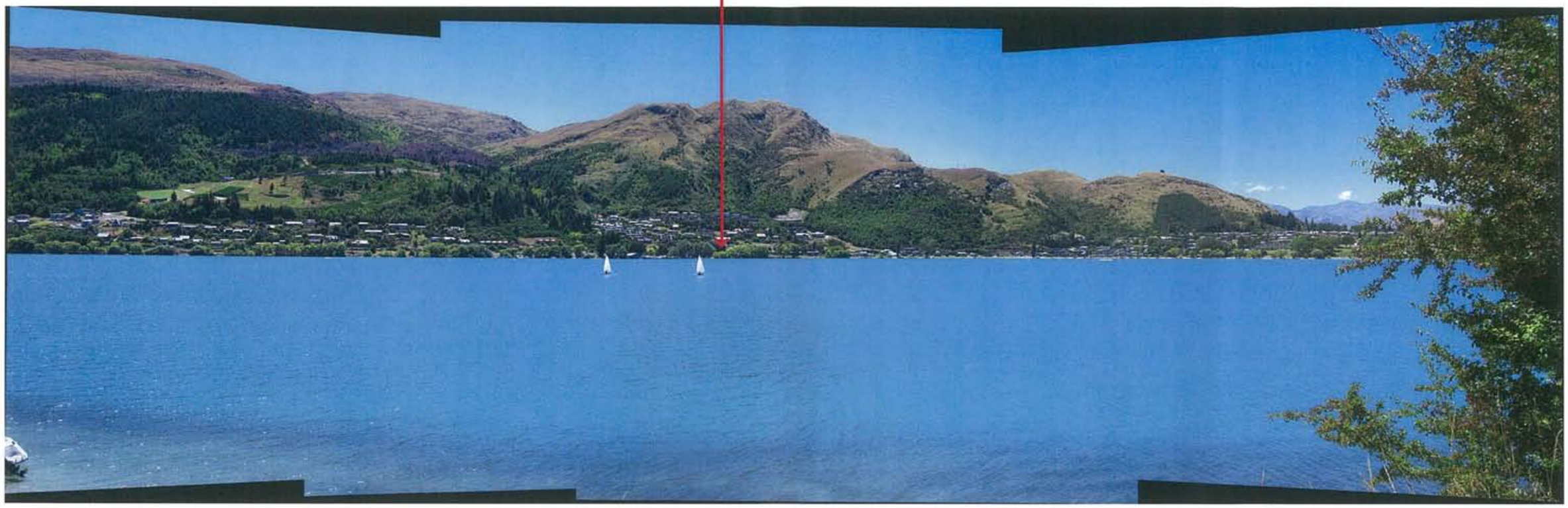
The location of the proposed marina.



APPENDIX 7, PHOTOGRAPH 7C:
Panorama photograph has been taken from the lakeside end of the Alex Taylor Access track accessed off Loop Road.

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The location of the proposed marina.

APPENDIX 7, PHOTOGRAPH 7D:
Panorama photograph has been taken from the beech at Kelvin Grove.

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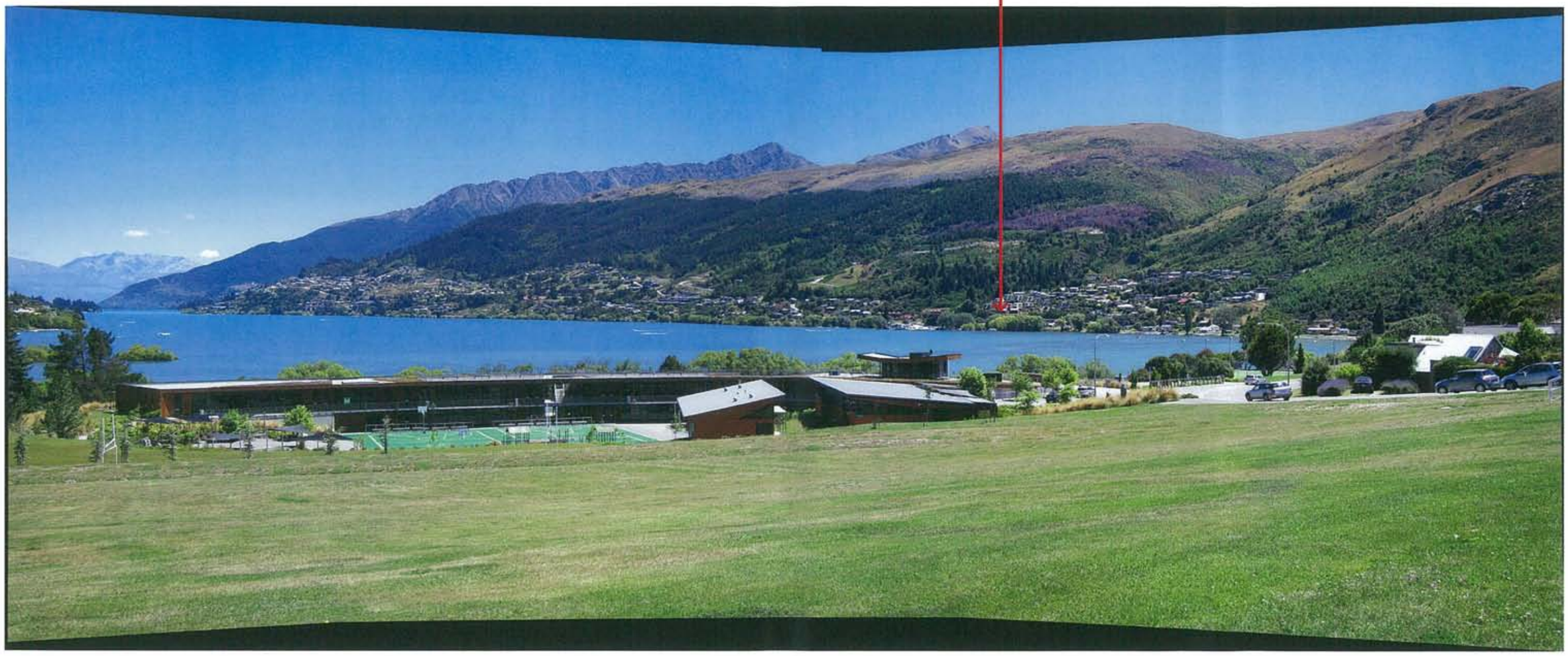
The location of the proposed marina.



APPENDIX 7, PHOTOGRAPH 7E:
Panorama photograph has been takenfrom the bus stop at the southern end of McBride Street.

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The location of the proposed marina.

APPENDIX 7, PHOTOGRAPH 7F:
Panorama photograph has been taken from the corner of Lake Ave and Allan Cresent.

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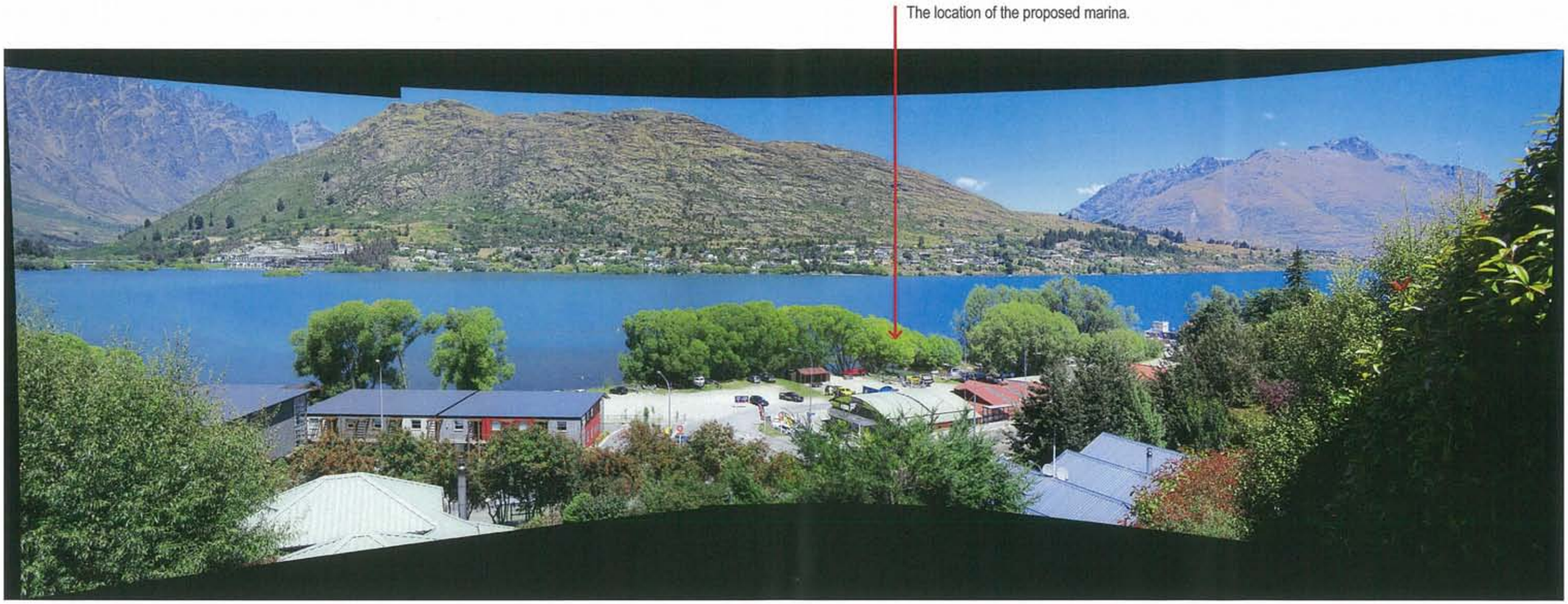

APPENDIX 7, PHOTOGRAPH 7G:
Panorama photograph has been taken from above 5 Marina Drive.

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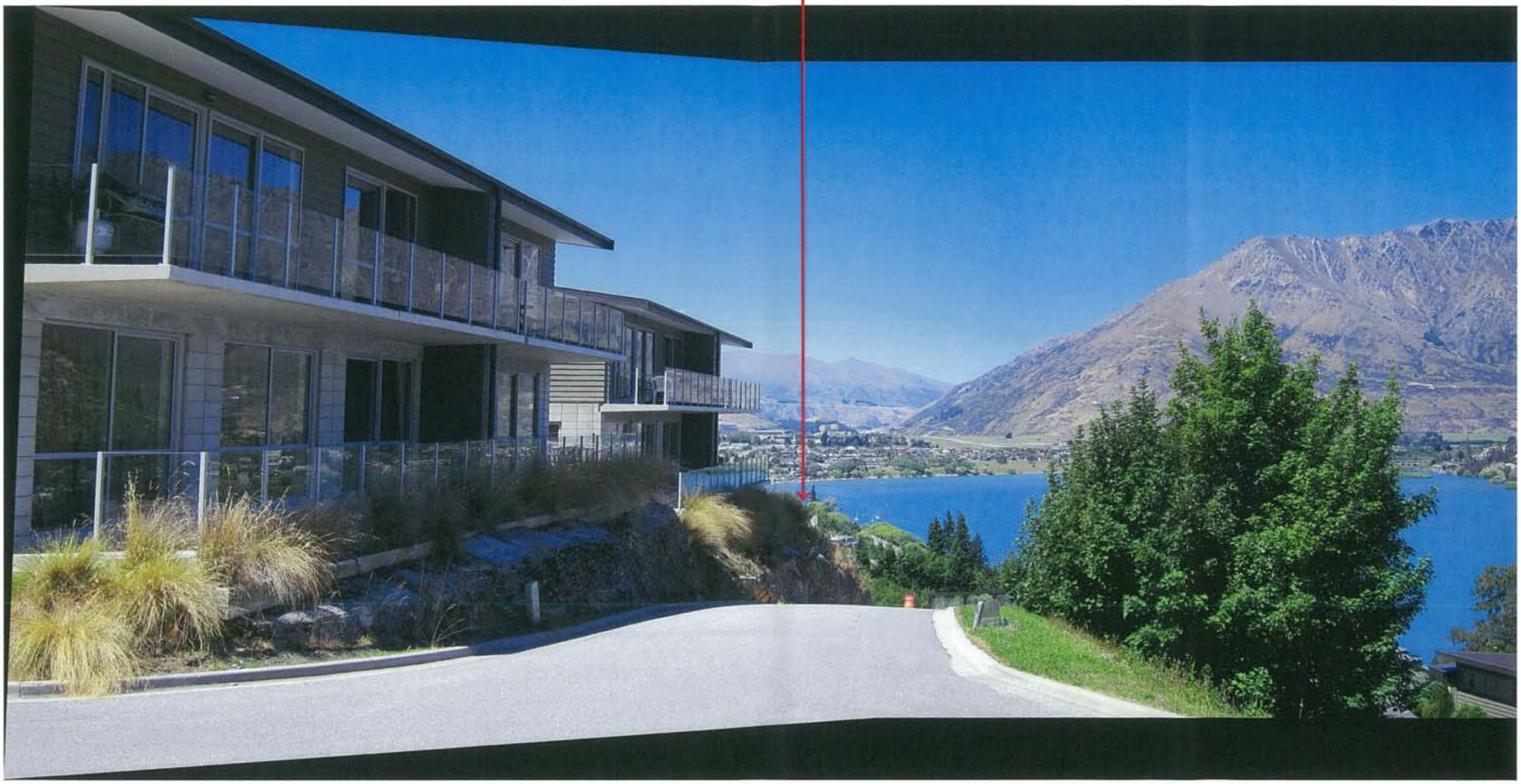
The location of the proposed marina.



APPENDIX 7, PHOTOGRAPH 7H:
Panorama photograph has been taken from the top of Goldrush Way.

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PHOTOGRAPH 7I:
Panorama photograph has been taken from Sugar Lane, within the vicinity of the driveway that accesses 823 Frankton Road.

APPENDIX 7; PHOTOGRAPH 7J:
Panorama photograph has been taken from Sugar Lane, within the vicinity of the driveway that accesses 819 Frankton Road.

BEFORE QUEENSTOWN LAKES DISTRICT COUNCIL AND THE OTAGO REGIONAL COUNCIL

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of an application for land use consent (RM070524) by **Queenstown Marina Developments Ltd** to establish and operate a 240 berth marina, associated buildings, car parking and public open space (the Marina) on the Frankton Marina Reserve and Lake Wakatipu, Sugar Lane, Queenstown **(the District Council)**
AND	
IN THE MATTER	of applications 2007.365-367 and 2007.272-282 by **Queenstown Marina Developments Limited** to construct a 240 berth marina and associated buildings, Queenstown **(the Regional Council)**

DECISION OF COMMISSIONERS
NEVILLE MARQUET (CHAIR), JOHN LUMSDEN
AND ANDREW HENDERSON
24 JUNE 2008

N S MARQUET
Consultant Solicitor
Dunedin

DECISION OF COMMISSIONERS
NEVILLE MARQUET, JOHN LUMSDEN AND ANDREW HENDERSON
24 JUNE 2008

1 APPOINTMENT

1.1 Neville Marquet (Chair) and Andrew Henderson were appointed by the Queenstown Lakes District Council and John Lumsden was appointed by the Otago Regional Council to hear and determine these applications.

1.2 The hearing was held at Queenstown on 18-21 February 2008 in Queenstown. The Commission apologises for the delay in the issue of this decision.

2 SUMMARY OF APPLICATIONS

2.1 Queenstown Lakes District Council

2.1.1 The application made to the Queenstown Lakes District Council was summarised for the Commission by Ms Paula Costello, a planner with Lakes Environmental Ltd, as follows:

Consent is sought for the establishment and operation of a 240 berth marina within Lake Wakatipu in the vicinity of the site described above, of which 200 berths will be privately owned, with the remaining 40 berths operated by QLDC for public use. The application states that the construction of these berths may be staged according to demand.

Associated with the Marina, onshore works comprising extensive hard and soft landscaping, a series of four two-storied buildings, car parking areas and a hardstand area are proposed along with a tractor and trailer boat lift, a commercial jetty and revetment works at the water interface.

The aspects of the proposal can be broken down as follow:

Marina

The marina will consist of floating reinforced concrete pontoons attached to the lakebed by a screw anchor bungy system. The pontoons will be approximately 4.8m wide and 1.8m deep. 1.5m of the pontoons will sit below the water. The two main parts of the Marina are the breakwater arm and the main berth area. The main berth area will be accessed via its connection to land directly in front of the proposed buildings on the subject site. A total of 290 screw anchors are proposed to be installed in the bed of the lake. The pontoons of the Marina will be attached to the screw anchors using a Seaflex bungy system. No overnight or permanent residential accommodation is proposed within the Marina.

Hardstand and Tractor and Trailer Boat Lift

A short stay hard stand area is provided and is situated between the historic boatshed on site and the proposed car park and trailer park. The hardstand is designed for minor maintenance works that require a short period. Non-trailerable boats will be removed from the lake with a tractor and trailer unit.

Above Ground Buildings & Underground Car park

Buildings associated with the Marina operation are proposed, being four two-storied gabled buildings between Sugar Lane and the Lake. Activities within the buildings are proposed to be restricted to Marina related activities such as offices for the Marina, Harbourmaster, a Restaurant/Café/Bar, Boat goods store, Marina related retail, Marine Rescue and Aquatic Clubs or groups. The application proposes that residential or visitor accommodation use will not be permitted.

The buildings will be founded at RL 313.8 to ensure that their floor levels are above the 100 year flood event return interval.

The materials of the building are to be a mix of corrugated metal with pre-weathered timber weatherboards. As above, the application sets out that the buildings have been designed with gable forms to emulate boatsheds.

Located directly below the buildings is an underground car park which will provide parking for 132 vehicles (berth owners, staff and public). Of these, 120 will be allocated for berth owners, with 12 for staff and the public. A ramp provides a direct connection from the underground car park to the Marina. The car park has a finished floor level of 310.6m and is designed to accept flood waters in the event of high lake levels.

Parking, Trailer Park & Traffic Circulation

At the western end of the site, the trailer park will provide temporary parking to the public using the boat ramp. The application proposes restrictions (as determined by Council) to ensure that there are no permanent parking of boats and trailers in this area.

The application submits that a key design consideration was to reduce conflicts between the users of the Frankton Track and vehicular traffic on the site. The layout has therefore been designed to minimise pedestrian-vehicle conflict and proposes one crossing point for the Frankton Track/vehicular circulation.

Bus parking and the ramp entry and exit are located towards the site entry to assist in traffic entry and exit to the site. The proposed vehicle routes are to enter the site from the State Highway and to either enter the underground basement car park, proceed down Sugar Lane to alternative parking, or proceed to the public boat ramp and trailer park.

Additional parking spaces are proposed along Sugar Lane and directly outside of the main entry to the Marina buildings. A total of 65 above ground parks are proposed, these are to be for public use, (potentially with some Council determined time restrictions), with bus parking for four buses at the eastern end of the site disembarking onto the footpath in the vicinity of the commercial wharf area.

The Frankton Track will be altered to provide either a direct route or an alternative path through the site around the buildings and lakefront. As above, at one point the track crosses Sugar Lane and the access to the trailer parking area. Measures in this location proposed are set out in the application as traffic signage, raised paving and a landing area.

Infrastructure

Water will be provided to the development from the existing Council reticulated main in Sugar Lane. A network of gravity pipes will collect wastewater from all buildings and deliver it to the required connection point to the existing Council reticulation. Stormwater flows will be controlled by a piped drainage system to collect, treat and drain water from the developed area which will ultimately be disposed of to Lake Wakatipu.

Earthworks & Landscaping

Earthworks are required for the renovation of the ground conditions within the existing inlet on the site, whereby the basement car park will be constructed in this location. Minor excavations are also required to extend the car park building platform beyond the inlet cavity (maximum cut of 3.5m for excavations and maximum height of 5m of fill) as well as for site preparation (roading, parking), the reshaping of the lake foreshore and for landscaping.

The basement car parking will require groundwater control measures to make way for the suitable ground conditions on which to construct the car park footprint, groundwater will be intercepted and dewatering necessary.

Extensive landscaping is proposed to provide public amenity areas, including streetscape planting along Sugar Lane, grassed areas and lakefront interaction associated with the Marina buildings. Works along the lake foreshore are proposed to facilitate recreational opportunities, with revetment works in a variety of forms from reinforced walls adjacent to the lake, access to the water via stairways, a lookout point and picnic areas.

The realignment of the current alignment of the unnamed creek traversing the site is required. This creek is proposed to be realigned to discharge directly into Lake Wakatipu via a new culvert. Two pedestrian bridges are proposed over the creek in the reserve area proposed downstream of the culvert.

The application notes that while not part of this application, space has been left and identified for a potential future commercial jetty/wharf in the vicinity of the Marina.

2.2 **Otago Regional Council**

2.2.1 The applications made to the Otago Regional Council were summarised for the Commission by Ms Kirstyn Lindsay, a resource officer with the Otago Regional Council, as follows:

- To place 290 screw anchors in the bed of the Lake
- To undertake foreshore reshaping and revetment works.
- To reclaim part of Lake Wakatipu/Whakatipu-wai-maori and an unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori.
- To take and discharge groundwater.
- To discharge stormwater.
- To discharge washdown water.
- To divert a watercourse, upgrade a culvert and place foot bridges over a watercourse.
- To discharge floodwaters.

3 THE HEARING

3.1 The Hearing took place at Queenstown from Monday 18 February 2008 until Thursday 21 February 2008, in the Crown Plaza Hotel.

3.2 The Applicant was represented by Mr John Hardie (Counsel) who called the following witnesses:

- Ms Bridget Allen (Planner, John Edmonds and Associates)
- Ms Rebecca Lucas (Landscape Architect, Peter Rough Landscape Architects)
- Ms Rebecca Skidmore (Urban Designer)
- Mr Glenn Davis (Ecological and Environmental Consultant)
- Ms Anna-Marie Chin (Architect, Crosson Clark Carnahan Chin Architects)
- Mr Gary Teear (Engineer, OCEL Consultants NZ Ltd)
- Mr Chris Hansen (Surveyor, Clark Fortune McDonald & Associates)
- Mr Peter White (Engineer, MWH NZ)
- Mr Andy Carr (Traffic Engineer, Traffic Design Group)
- Mr Ken Gousmett (Project Manager, Queenstown Marina Ltd)
- Mr Buzz March (March Construction)

3.3 Submitters in attendance who spoke to their submissions were:

- Michael Parker (Counsel) for the Warrington family and friends
- Dr Bruce Warrington
- Mr David Warrington
- Mr Anthony Warrington
- Mr Donald Warrington
- Cindy Robinson (Counsel, Duncan Cotterill) for Wensley Developments Ltd
- Mr Greg Wensley(Wensley Developments Ltd)
- Ms Julie Jack (Wensley Developments Ltd)
- Mr Timothy Vial and Ms Francie Diver (Kati Huirapa ki Puketeraki and Te Runaka o Otakou)
- Mr Aaron Moodie on behalf of Mr Ian Tulloch.

3.4 Officers in attendance were:

- Ms Rachel Beer (Process Manager, Lakes Environmental Ltd)

- Ms Paula Costello (Planner, Lakes Environmental)
- Ms Malika Rose (Engineer, Lakes Environmental)
- Mr Antony Rewcastle (Landscape Architect, Lakes Environmental)
- Mr Colin Walker (Otago Regional Council)
- Ms Kirstyn Lindsay (Resource Officer, Otago Regional Council)

4 SITE DESCRIPTION

4.1 The subject site includes land which is part of the Frankton Marina Reserve, accessed via Sugar Lane and State Highway 6A, Queenstown, along with Lake Wakatipu. The site and surrounds are succinctly described in the evidence of Ms Neal, the reporting Landscape Architect for Lakes Environmental Ltd. She states:

The development site is located towards the north-eastern end of the Frankton Arm portion of Lake Wakatipu on both a largely modified piece of land between SH6A and the Lake foreshore, as well as within the Lake itself. The site is located on the southern side of Sugar Lane; existing commercial properties and two residential properties are located on the opposite (northern) side of the Lane. Informal parking, commercial buildings and boat storage dominate the character of the site when viewed from the surrounding land-based area. However, when viewed from the shore of the Lake and public and private vantage points across the Lake to the south and south-east, existing Willows along the Lake foreshore screen much of the existing development on either side of Sugar Lane.

Little of the topography existing on the site today is unmodified. The north-western side of the Lane has been levelled for commercial and residential activities, the south-western part of the site has been excavated to form the inlet and public boat ramp area and the south-eastern side of the Lane exhibits areas of fill to form the piece of land which now comprises the informal parking area.

By comparison, apart from the existing mooring structures passing over the Lake Wakatipu foreshore/beach area it appears predominantly unmodified. The exception to this is the public boat ramp. Whilst the foreshore on the lake side of the inlet maintains a predominantly natural character in-line with the remainder of the foreshore within the vicinity of the development site, the point where the inlet dissects the Lake makes easily traversing the length of the beach along the foreshore impossible.

5 LANDSCAPE CLASSIFICATION

5.1 Landscape Architect for Lakes Environmental, Ms Neal, considered that the site fell within the Outstanding Natural Landscape (Wakatipu Basin). The Applicant considered that the site was not located within an Outstanding Natural Landscape. We return to this point later.

6 STATUS OF APPLICATIONS

6.1 QUEENSTOWN LAKES DISTRICT COUNCIL PARTIALLY OPERATIVE DISTRICT PLAN

6.1.1 Ms Costello's report set out the consents required under the Queenstown Lakes District Council Partially Operative District Plan. The site has a split zoning, with part Rural and Part Low Density Residential. The consents required as are follows:

Section 5 (Rural Areas)

- **A discretionary** activity consent pursuant to Rule 5.3.3.3(i)(a) in regard to the addition of a building and any physical activity associated with that building such as roading, landscaping and earthworks.

- **A discretionary** activity pursuant to Rule 5.3.3.3(iv) in regard to any structure or mooring which passes across or through the surface of any lake or river.
- **A restricted discretionary** activity consent pursuant to Rule 5.3.5.1(iii) in regard to the Scale and Nature of activities. The area of the buildings will exceed 100m² in area.
- **A restricted discretionary** activity consent pursuant to Rule 5.3.5.1(vi) in regard to the minimum setback of buildings. The buildings cross the zone boundary and therefore break the minimum 15m setback. In addition to this the buildings are not setback 14 metres from the lake boundary. The buildings meet the setback requirements from other boundaries.
- **A restricted discretionary** activity consent pursuant to Rule 5.3.5.1(viii)(1)(a), (b) & (c), (2)(c) and (3)(c) in regard to earthworks, specifically: the area, volume, excavation within 7m of a water body, maximum height of fill and exposure of an aquifer.
- **A non-complying** activity consent pursuant to Rule 5.3.3.4(a)(i) in regard to commercial activities.

Section 7 (Residential Areas)

- **A controlled** activity consent pursuant to Rule 7.5.3.2(iii) in regard to buildings for non-residential activities.
- **A discretionary** activity consent pursuant to Rule 7.5.3.4(iii) in regard to retail sales.
- **A restricted discretionary** activity consent pursuant to Rule 7.5.6.1(i)(b) in regard to the nature and scale of activities as the floor area is greater than 40m² in area.
- **A restricted discretionary** activity consent pursuant to Rule 7.5.6.1(a) in regard to the setback from internal boundaries.
- **A restricted discretionary** activity consent pursuant to Rule 7.5.6.1(xi)(1)(a), (b), (c) & (d)(i) &(ii) and (2)(b) & (c) in regard to earthworks, specifically: the volume, area, excavation within 7m of a water body, exposure of an aquifer, artificial drainage of an aquifer, and height of cut and fill.
- **A non-complying** activity consent pursuant to Rule 7.5.6.2(iii) in regard to maximum building height. The proposal exceeds the 8 metre maximum height limit.
- **A non-complying** activity consent pursuant to Rule 7.5.6.2(v)(a)&(b) in regard to the nature and scale of activities.
- **A non-complying** activity consent pursuant to Rule 7.5.6.2(vi) in regard to retail sales.

Section 14 (Transport)

- **A restricted discretionary** activity consent pursuant to Rule 14.2.4.1(iii) with regard to size of parking spaces and in particular the requirement that stall widths be increased by 0.3m where they abut obstructions.
- **A restricted discretionary** activity consent pursuant to Rule 14.2.4.2(i)(a) & (ii)(a) &(b) in regard to the length and design of the vehicle crossing onto the State Highway.

Section 18 (Signage)

- **A non-complying** activity consent pursuant to Rule 18.2.5 in regard to signage. The total area of signage proposed is greater than that provided for business signs operating in reserves.

6.1.2 Overall the activity requires resource consent for a **non-complying** activity under the Partially Operative District Plan.

6.2 OTAGO REGIONAL COUNCIL

6.2.1 Ms Lindsay's report set out the consents required under the Regional Plan: Water (RPW), as follows:

- The taking of groundwater from an unnamed aquifer is a ***discretionary*** activity under Rule 12.2.4.1 of the RPW.
- The placement of a culvert or bridge in, on, under or over the bed of any river is a ***restricted discretionary*** activity under Rule 13.2.2.1 of the RPW. The Otago Regional Council (ORC) will restrict the exercise of its discretion to the following matters:

(a) *Any adverse effects of the activity on:*

(i) *Any natural and human use value identified in Schedule 1 for any affected water body;*

(ii) *The natural character of any affected water body;*

(iii) *Any amenity value supported by any affected water body; and*

(iv) *Any heritage value associated with any affected water body; and*

(b) *Flow and sediment processes; and*

(c) *Any adverse effect on a defence against water; and*

(d) *Any adverse effect on existing public access; and*

(e) *Fish passage; and*

(f) *The method of construction; and*

(g) *The duration of the resource consent; and*

(h) *The information and monitoring requirements; and*

(i) *Any existing lawful activity associated with any affected water body; and*

(j) *Any bond; and*

(k) *The review of conditions of the resource consent.*

- The placement of any other structure in, on, under or over the bed of any river is a ***discretionary*** activity under Rule 13.2.3.1 of the RPW.
- The disturbance of the bed of any lake or river is a ***discretionary*** activity under Rule 13.5.3.1 of the RPW.
- The diversion of water is a ***discretionary*** activity under Rule 12.3.4.1 of the RPW.
- The reclamation of the bed of any lake or river is an unclassified activity pursuant to Section 14 of the Act and, therefore, is considered as a ***discretionary*** activity.
- The associated discharge of contaminants to water as a result of in-stream works is a ***discretionary*** activity under Rule 12.13.1.1 of the RPW.
- The discharge of stormwater is ***restricted discretionary*** activity pursuant to Rule 12.4.2.1 of the RPW. In considering any resource consent for the discharge of stormwater in terms of this rule, the Council will restrict the exercise of its discretion to the following:

(a) *Any adverse effects of the discharge on:*

(i) *Any natural and human use value identified in Schedule 1 for any affected water body;*

(ii) *The natural character of any affected water body;*

(iii) *Any amenity value supported by any affected water body; and*

(iv) *Any heritage value associated with any affected water body; and*

(b) *Any adverse effect on a significant wetland value identified in Schedule 9; and*

(c) *Any financial contribution for Type B wetland values that are adversely affected; and*

(d) *The volume, rate and method of the discharge; and*

(e) *The nature of the discharge; and*

(f) *Treatment options; and*

(g) *The location of the discharge point or area, and alternative receiving environments; and*

(h) *The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge of stormwater; and*

(i) *The potential for soil contamination; and*

(j) *The duration of the resource consent; and*

(k) *The information and monitoring requirements; and*

(l) *Any bond; and*

(m) *Any existing lawful activity associated with any affected water body; and*

(n) *The review of conditions of the resource consent.*

- The discharge of washdown water, floodwater and groundwater is a ***discretionary*** activity pursuant to Rule 12.13.1.1 of the RPW

6.2.2 Overall the proposal is a **discretionary activity** under the Regional Plan: Water.

7 STATUTORY CONSIDERATIONS

7.1 One of the sections of the Resource Management Act 1991 guiding the Commission's decision in this matter is **section 104D** of the Resource Management Act 1991, which states that a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either:

(a) *the adverse effect of the activity on the environment (other than any effect to which section 104(3)(b) applies) will be minor, or*

(b) *the application is for an activity that will not be contrary to the objectives and policies of ..*

(i) *the relevant plan, if there is a plan but no proposed plan in respect to the activity; or*

(ii) *the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or*

(iii) *both the relevant plan and the relevant proposed plan if there is both a plan and a proposed plan in respect of the activity.*

7.2 This section of the Act is commonly referred to as the gateway section.

7.3 Section **104B** provides that:

After considering an application for a resource consent for a discretionary or non-complying activity, a Consent Authority:

(a) *May grant or refuse the application; and*
(b) *If it grants the application, may impose conditions under section 108.*

7.4 This section gives a consent authority full discretion to grant or refuse consent even if the application passes the gateway test.

8 THE APPLICANT'S CASE

8.1 The following evidence summarises the key conclusions of each expert. The evidence presented was detailed and it is not necessary to set it out in detail. All evidence presented forms part of the record of the hearing, and has been read and considered in formulating this decision. Key points are drawn out where necessary in appropriate places in the text.

8.2 **Mr John Hardie** (Counsel) presented legal submissions, noting that the site was not in his submission located within an Outstanding Natural Landscape, and that the adverse effects of the proposal were appropriately addressed in the evidence of the various witnesses the applicant was to call. His principal legal submission which is referred to below was that the site was not an outstanding natural landscape and he asserted that the decision C180/99 (the first landscape decision) did not classify the subject site as such.

8.3 **Ms Bridget Allen**, a Resource Management consultant and Director of John Edmonds and Associates, presented resource management evidence. She stated that marina and associated buildings are proposed to be staged in accordance with the demand for berths and the matters set out in the Memorandum of Understanding signed with the Queenstown Lakes District Council (QLDC). Stage I will include the construction of 100 private berths, 20 public berths, all the buildings necessary to service the berths together with the underground parking, all car and trailer parks necessary to support Stage I works, the paths, walkways, hard and soft landscaping and associated works. All areas not built on in Stage I will be fully landscaped to Council's requirements. Stage II would simply be the completion of any remainder of the works in accordance with the demand for berths.

8.4 Ms Allen set out amendments that had been made to the design of the marina following the notification of the application, as follows:

- The entrance to the marina has been widened to provide additional manoeuvring space for the larger boats to enter and exit the marina.
- Three berths with 4-point moorings for larger craft have been included at the south eastern corner of the breakwater.
- Consent is sought for up to 320 anchors rather than 290 as originally applied for in accordance with the recommendation from Duffill Watts & King. Ms Allen noted that Duffill Watts & King considered there would be no practical difference in the extent of the disturbance to the lake bed.
- One water sewerage disposal connection will be located on the southern end of the eastern breakwater, to provide for the best access for larger boats.

8.5 Ms Allen confirmed that the total numbers of berths, the footprint of the marina and the arrangement of the breakwaters has not changed. However the plans allow for varying configurations depending on the size of boats.

8.6 Ms Allen also set out the changes to the land based components of the application, as follows:

- Removal of five parking spaces adjoining the front boundary of the most south western Warrington property.
- Additional landscaping along the Sugar Lane boundary of the most south western Warrington property and along the front boundary of the Wensley Development Limited property. The trees proposed along the edge of the car parking area adjacent to the Wensley property will be a smaller species than those originally proposed.
- An alternative entrance design is proposed in accordance with Transit's recommendation.

8.7 Ms Allen confirmed she relied upon the Assessment of Effects prepared as part of the application and concluded that the proposal would have a minor effect on the environment. She stated that the applicant had responded to the only concern raised in the planner's report regarding the effect on neighbours by removing the car parking along the boundary of the Warrington property. She also confirmed that the Historic Places Trust advised that they are satisfied that there are no adverse effects on heritage. With respect to traffic effects, Ms Allen relied upon the evidence of Mr Carr, which confirmed that there would be no adverse effects as a result of vehicle movements or parking. Ms Allen agreed with Ms Costello that any effects in terms of construction, marina structure, and earthworks can be avoided, remedied or mitigated by way of appropriate conditions of consent.

8.8 With respect to the relevant objectives and policies of the District Plan, Ms Allen considered that the proposal is not contrary to the Objectives and Policies in regard to the District Wide Issues, Rural Areas, Residential Areas, Transport, and Signage section of the Partially Operative District Plan.

8.9 Ms Allen concluded by having regard to section 104 of the Act, stating that overall the proposal will have only minor adverse effect on the environment, and is not contrary to the objectives and policies of the Partially Operative District Plan. She also considered that the proposal advances relevant matters in sections 6, 7 and 8, as well as the Act's purpose of sustainable management.

8.10 **Ms Anna-Marie Chin**, an Architect with 16 years experience, provided evidence on the design concept of the proposed buildings. She stated that the siting and design of the buildings is the result of a careful consideration of the needs and requirements of a working, active public reserve and a functional marina. This consideration has recognized that the provision of buildings has an impact, and the design process has been sensitively carried out to ensure this impact is not only minimized, but is also enhancing to the existing surroundings. The building design has been clearly thought out in response to location, use and historic context. The buildings are to be detailed interest with variations between colour and finishes and detailing to provide a rich texture and fabric to the 'sheds' that will enhance the development as whole.

8.11 **Mr Buzz March** is a director of March Construction, who in 2004 incorporated Queenstown Marina Developments Ltd (QMDL) which was confirmed the preferred developer for the Marina project.

8.12 Mr March stated that the on-going management of the marina will be shared between the marina company and the Council. The Council will be responsible for the upkeep of the above ground car parking areas and open spaces, while the marina company will have responsibility for the buildings and underground car park and for the outdoor areas immediately associated with the buildings. He noted that the precise details of this will be further negotiated with the Council, most likely in conjunction with a formal lease of the area.

8.13 Mr March confirmed that the public will have full access to the floating perimeter but entry to the fingers against which boats are moored will be restricted for security reasons. In QMDL's view the provision of some onshore facilities like a café bar and a chandlery where boat owners and members of the public can get some lunch, or purchase boating gear are essential elements to a fully functioning marina and boating centre.

8.14 **Mr Chris Hansen** is a Registered Professional Surveyor and a Member of the New Zealand Institute of Surveyors and the Consulting Surveyors of New Zealand. He confirmed that the method used by the applicant to determine the original ground level at the site using old survey plans and mean lake levels was the best method available compared with the age and relative accuracy of other methods.

8.15 **Mr Glenn Davis**, an Ecological and Environmental Consultant, provided evidence addressing the Otago Regional Council consents required. He presented a detailed review of the potential environmental effects associated with the required Otago Regional Council consents, and concluded that all potential adverse effects associated with the construction and operation of the marina can be mitigated. Overall he considered that the environmental effects of the proposed marina development will be no more than minor.

8.16 **Mr Ken Gousmett** is the Project Manager for the Queenstown Lakes District Council for the Frankton Marina project. He set out for the Commission the background to the process, and stated that the Council recognised the need for marina berths through public consultation and submissions on a proposed amendment to the Frankton Marina Recreation Reserve Management Plan in 2004. The preference expressed by submitters was for a commercially operated marina. The Council subsequently sought expressions of interest for a commercial marina in 2004 and selected Queenstown Marina Developments Ltd (QMDL) as the "preferred developer".

8.17 In late 2006 Council and QMDL entered into a **Memorandum of Understanding** (MOU) regarding a commercial marina at Frankton. The MOU required QMDL to undertake specified activities and to gain necessary consents, including the land use consents currently being considered. Mr Gousmett provided a copy of the Memorandum with his evidence.

8.18 The Memorandum of Understanding and the current consent process have evolved from a process undertaken by Council with the objective of providing improved facilities and of improving the visual appearance of the marina from SH6A, which is the front door to Queenstown. In particular, it was considered necessary to provide improved facilities for boats at the marina. Furthermore, the Council has determined, through consultation, that there is a demand for private marina facilities. While the Council is prepared to facilitate the appropriate development it does not believe that it is the appropriate body to provide private berths for boats using community resources. The off-shore marina and shore based support facilities are therefore to be provided by private commercial interests who can offer both a commercial facility to boat owners and offer the community positive benefits for the site. This is the intent of the process undertaken by the Council. Mr Gousmett noted that should the current proposal not proceed for any reason it is very likely that the Council will develop the reserve under the existing designation.

8.19 **Mr Peter White**, an engineer with Duffill Watts and King, gave evidence about the proposed servicing of the development. Development of the proposed Marina will require new infrastructure to be established within the site, particularly for water supply and for wastewater collection and disposal. Some alteration will also be needed to existing services crossing the site, and to stormwater drainage systems. Servicing is proposed as follows:

- Water supply from the existing QLDC network
- Wastewater disposal to the QLDC network which is to be upgraded by QLDC
- Stormwater disposal to Lake Wakatipu, with treatment of runoff from sealed vehicle areas.

8.20 He concluded that the proposed development is located in an established urban area, and that there is existing infrastructure adjacent to the site that is available to service the development, with suitable extension.

8.21 **Ms Rebecca Lucas**, a landscape architect, provided detailed evidence. In essence, her evidence was that the subject site is presently unattractive and underutilized as a public reserve. It has more of a private character than a public character. The proposed marina development will enhance the character of the site and create an attractive public amenity.

8.22 Ms Lucas considered that the landscape character of the Frankton Arm is modified and less natural than the more remote areas of the remainder of Lake Wakatipu. She considered that the Frankton Arm and therefore the subject site have been classified as ORL and not ONL with regard to Environment Court decision C180/99 and the surrounding context and land use of the Arm.

8.23 Ms Lucas's evidence was that no significant adverse effects will result from the marina development with regard to naturalness, visibility and cumulative effects. Positive effects will include the creation of a public amenity and an opportunity to access the more natural and remote areas of the lake. She also considered that the proposal will not influence the surrounding mountains and remainder of the lake, as it is located within the enclosed landscape of the Frankton Arm.

8.24 **Ms Rebecca Skidmore** presented urban design evidence. She considered that a distinctive focal point for commercial and recreational activity associated with Lake Wakatipu exists around Sugar Lane between Frankton Road and the Lake. Since the removal of the previous small marina the area has evolved in a somewhat shambolic fashion.

8.25 Ms Skidmore expressed the opinion that the establishment of a new marina presents the opportunity to enhance the existing facilities and improve the amenity of the public open space

corridor. She concluded that, overall, the proposal has effectively balanced a range of technical requirements to achieve a configuration that respects its context and creates a distinctive nautical activity node in Queenstown. Detailed design features will contribute to the creation of a distinct sense of place, will improve the comfort and amenity of the area and will better enable the general public to access and engage with the Lake. Overall, in her view, the proposal has responded to the tensions between different transport modes and the ability to accommodate parking and vehicle manoeuvring in a manner that does not compromise the amenity of the open space environment.

9 EVIDENCE OF SUBMITTERS

9.1 As with the evidence for the Applicant, the following is a summary only of the matters covered given the detail provided in the evidence. All of the evidence presented forms part of the record of the hearing.

9.2 **Ms Cindy Robinson** provided legal submissions on behalf of **Wensley Developments** - The Marina Ltd (WDTM). Wensley is generally supportive of the development of a marina in this location as an appropriate use on the site, but expressed concerns that the intensity of development on the site has resulted in a higher number of car parks that will detract from the amenity enjoyed by residents of the Marina apartment complex.

9.3 Ms Robinson addressed the permitted baseline, noting that the applicant had not undertaken a comparative analysis with the scale of activity that could be undertaken as of right, and has instead limited the assessment to the physical dimensions of the proposed buildings. She drew the Commission's attention to the relevant rules for the reserve, noting particularly that there are constraints on impervious surfaces and car parking. With respect to car parking, Ms Robinson considered that the effects of the proposed car parks on the Wensley boundary are not anticipated by the Rural zone. She then traversed the assessment matters and other matters in the Plan relating to commercial activities, and submitted that the development has focussed on 'shoe horning' the maximum development potential on the site with no regard to the amenity of adjoining neighbours.

9.4 Overall Ms Robinson submitted that notwithstanding that the marina is an appropriate use of the area, the scale of the proposal far exceeds that anticipated by the Reserve designation or the underlying zones. Wensley seek a condition preventing car parking in front of the Marina Bach development.

9.5 **Mr Greg Wensley** showed the Commission a scale model of the Marina Bach development. **Ms Julie Jack**, the Managing Director of WDTM, then addressed the Commission on behalf of the Wensley Developments. She stated that the Marina apartments had been designed to afford occupants an uninterrupted view of Lake Wakatipu. This outlook would be obstructed by the car parks. Ms Jack considered that occupants of the apartments will be disturbed by noise associated with all-hours use of the car park, and by glare from headlights and security lighting, and suggested that the plans be amended so that the land immediately adjoining the residential zone is not used for car parking but for lawn and low level landscaping. Wensley Developments would also like to be consulted over replacement vegetation for the willow trees currently lining the foreshore, as they would like the Bach development to have unobstructed views.

9.6 **Mr Michael Parker** presented legal submissions on behalf of a number of submitters who are either members or friends of the Warrington family who own the two residential properties at the end of Sugar Lane abutting the development site.

9.7 Mr Parker stated that the Frankton Arm is part of Lake Wakatipu and therefore is part of an Outstanding Natural Landscape as described in ***Wakatipu Environmental Society Inc & Others v Queenstown Lakes District Council C180/99***. He further considered given the nationally important character of lakes and their margins, and access to them under section 6 of the Act, that the Plan provisions relating to Outstanding Natural Landscapes should be considered.

9.8 Mr Parker expressed concern that the Warrington family's concerns had been implicitly characterised as wishing to only preserve views from their own properties. However, their submissions were based upon their enjoyment of not only their property but its surroundings and appreciation of the amenity of the public reserve. Mr Parker submitted that the issue of size and scale has been by-passed in the Applicant's case. Nothing has been put forward to substantiate a marina of the size projected, nor why the buildings have to be the scale proposed, given they are supposed to be ancillary to the marine activities.

9.9 Mr Parker drew the Commission's attention to the Frankton Marina Recreation Reserve Management Plan and its provisions relating to commercial activities. He stated the only reference to the number of berths was a suggested 2003 amendment to the Plan to cater for approximately 75 berths, and he submitted that there is no justification for the size of the marina or associated buildings.

9.10 As the application had been amended since the application was notified, particularly with respect to the Staging of the marina, the 15 year duration requested, and other changes including the new access proposal, Mr Parker considered that the application had been substantially changed and should be re-notified. With respect to the permitted baseline, Mr Parker noted that there is no statutory or judicial authority to the effect that what a local authority can do under a designation provides a permitted baseline for a resource consent application by any other party.

9.11 Mr Parker concluded his submissions by stating that it would be artificial to deny that the proposal would have anything but greater than minor adverse effects, and that the proposal is contrary to the provisions of the District Plan.

9.12 **Mr Anthony John Warrington** is one of the joint owners of the two freehold properties at the western end of Sugar Lane, referred to as the "Warrington properties". Mr Warrington stated that the family was not opposed to the improvement of the reserve land. They were opposed to the proposed buildings in terms of the need for them, the impact on the Warrington properties and their nature and appropriateness to the area. He also considered there to be a lack of justification for the marina and associated buildings. Mr Warrington also considered that there would be a significant increase in vehicles on Sugar Lane with associated congestion and parking problems.

9.13 **Dr Richard Bruce Warrington** stated that his principal objection is to the commercial buildings rather than to the development of the marina itself or to improvements to the open reserve area. He considered that the Council and community's desire for a marina did not require associated commercial development. The fact that the commercial activities are located on land should require that the applicant explain why they are necessary.

9.14 Dr Warrington also considered that the proposed buildings are inconsistent with the reserve designation. That notwithstanding, the buildings exceed the height limit for buildings in recreation reserves, and occupy a greater area than the permitted baseline would allow. The application does not explain why the excess dimensions are necessary.

9.15 Dr Warrington noted that no confirmed details are available regarding future tenants. He stated that this creates uncertainty about key issues such as parking demand and service requirements. With respect to traffic and parking requirements, Mr Warrington considered that traffic associated with the commercial developments would act as an impediment to the primary function of the reserve, being outdoor recreation. He accepted that the increase in traffic into and out of Sugar Lane associated with the commercial development was a small proportion of the total traffic through the Frankton Road – Sugar lane intersection. However, he considered that an increase in traffic between Sugar Lane and the State highway has a greater impact on through traffic on the Highway, by increasing the risk of collision, risk taking and driver frustration.

9.16 With respect to parking, Dr Warrington considered that the applicant's estimates were optimistic, and considered that the Urban Design panel's comments highlighted the inadequacy of the proposed car parking arrangements.

9.17 Dr Warrington concluded by noting that there was no intrinsic or fundamental need for the proposed buildings, and did not agree with the applicant that the proposal would enhance the visual amenity of the reserve. The fundamental effect of the buildings is to replace a natural view with a constructed one. His objection relates to the effect of the buildings in the reserve area – he considered that they will always get in the way.

9.18 **Mr Donald Warrington** stated that he supported general improvements to the area, such as landscaping, parking and toilets, and expressed qualified support for the marina. He was completely opposed to the proposed buildings on the reserve. He considered that the buildings were contrary to the purpose of the recreation reserve, and were also inconsistent with the Frankton Marina Recreation Reserve management Plan. He noted that the commercial buildings are not necessary, citing other examples of marinas within New Zealand that did not have associated commercial activity. Mr Warrington considered that alternatives to that proposed could include buildings on a greatly reduced scale, or providing for the commercial activities in the existing commercial strip between Sugar lane and the State Highway.

9.19 **Mr David Gray Warrington** stated that he is the only permanent resident at the Warrington family properties. He considered that commercial development is not appropriate in the Frankton Marina recreation reserve. Mr Warrington considered that there was still uncertainty regarding the adequacy of the design of the marina, particularly given past failures of other marinas. He also raised concerns with respect to the safety of the Sugar Lane – State Highway intersection until the roundabout is built some time in the future. Mr Warrington referred to the photographs provided by the applicant and considered that they demonstrated the extent of the adverse effects of the proposal, not only on his amenity, but on the whole nature of the area.

9.20 **Mr Aaron Moodie** spoke on behalf of **Mr Ian Tulloch**. Mr Tulloch is a purchaser of one of the Wensley apartments, and is concerned about the views from the car park and the outlook and privacy of the apartment.

9.21 **Mr Timothy Vial** presented evidence on behalf of **Kati Huirapa ki Puketeraki** and **Te Runaka o Otakou**. He stated that the Runaka opposed the application and was of the opinion that the marina was of such a scale as to adversely impose on and affect the cultural values associated with Lake Wakatipu/Whakatipu-wai-Maori. He stated that the proposal would impose a predominantly privately owned structure on a natural and publicly owned resource of high cultural significance to Kai Tahu. Mr Vial considered that the cumulative effect of the marina and associated on-shore buildings would be to alienate tangata whenua from the Lake.

9.22 Mr Vial noted that the Lake is listed as a Statutory Acknowledgement in the Ngai Tahu Claims Settlement Act 1998, which documents the value of the Lake to tangata whenua. He considered that a privately owned marina of the scale proposed will have adverse effects on the character and amenity values of the lake that would be more than minor. He stated that the provision of access to the foreshore and the surface of the lake for tangata whenua and the public is a pivotal issue. Mr Vial considered that the proposal prevents free public access to the surface of the Lake for tangata whenua and the public. Public access would be limited to the periphery of the marina structure. This does not maintain or enhance public access to the surface of the Lake.

9.23 Mr Vial considered that section 5(2) of the Act imposes a duty to avoid, remedy or mitigate adverse effects of the proposal on the Runaka. He considered that the proposal will impact upon the relationship that Kai Tahu have with the Lake. The protection of the lake from inappropriate use and development is a matter of national importance.

9.24 Mr Vial next referred to the Kai Tahu ki Otago Natural Resource Management Plan, and highlighted some relevant provisions to which the Commission should have regard. He also noted that there is a duty to actively protect the relationship that the Runaka have with the Lake.

9.25 Mr Vial concluded that the adverse effects on the Runaka are more than minor and that these effects cannot be mitigated by conditions. He considered the proposal did not satisfy the threshold test of section 104D of the Act and should therefore be declined.

10 PLANNING REPORTS

10.1 Planning reports in respect of the Queenstown Lakes applications were received from Paula Costello, Planner (reviewed by Tim Williams, Planner), Keren Neal, Landscape Architect (reviewed by Dr Marion Read, Team Leader Landscape Architecture), Malika Rose, Manager Engineering and Environments (reviewed by Annemarie Robinson, Principal Engineering).

10.2 Reports in respect of the Otago Regional Council Consents were obtained from Kirstyn Lindsay, Resource Officer and Colin Walker, Senior Resource Officer. This report with draft permits and appendices is 119 pages in length. It details the status of the activity which is discretionary and cites all the relevant rules from the Regional Plan: Water and assesses each application with particularity. All of the relevant policies are identified and the assessment of effects is precise. The report is issued under the hand of Mr Selva Selvaragah, Director Resource Management for ORC. The Commission has accepted this report in its entirety.

10.3 All of these consents were very comprehensive and were pre-circulated to the Commission and the parties prior to the hearing. The Commission has paid particular regard to each of them in coming to its decision. All reports were read at least twice. Some of them were lengthy and it is not proposed to attempt a summary.

10.4 Brief comments thereon:

10.4.1 **Paula Costello's** report followed the standard form containing an introductory summary and recommendation subject to new or additional evidence that the application should be refused. Ms Costello's report detailed all of the relevant policies, objectives and rules relating to the whole spectrum of activities and as well discussed the application of Part 2 of the RMA. In her opinion consent was able to be granted under section 104D RMA but when considering Part 2 concluded that because there were outstanding traffic issues at that time consent should not be granted. It may be noted that this opinion was reversed at the conclusion of the hearing at which time the submission of Transit in opposition was alive in part only.

10.4.2 **Keren Neil's** report was contained in a document having some 140 paragraphs. She considered what is known as the Pigeon Bay criteria, the District Wide policies in the plan and concluded that the development site formed part of an outstanding natural landscape (ONL) District Wide.

10.4.3 **Malika Rose** dealt with all engineering issues and none were disenabling. She made a number of recommendations as to conditions.

11 ISSUES AND EFFECTS

11.1 INTRODUCTION

11.1.1 This section provides an outline and our assessment of the various issues relevant to this application. Because of the effects-based nature of the Resource Management Act 1991 (RMA), we shall review the effects of the works in total on a range of relevant matters, largely as identified in the Fourth Schedule of the RMA. This approach is consistent with s 104 of the RMA.

11.1.2 In carrying out our assessment, we have reviewed the evidence concerning each of the principal issues and the effects on the environment that were brought to our attention. While we have not repeated everything we heard we have endeavoured to record here the relevant aspects of the evidence presented on behalf of the applicant and from submitters, as well as from the council officers from ORC and QLDC and their consultants. At the conclusion of our discussion of each matter we discuss our findings with respect to that issue. This, in due course, provides the basis for our decision and, in terms of our duties under the RMA, this section is consistent with s 113(1)(ac) and s 113(1)(ae).

11.1.3 The principal issues in contention are:

(i) Whether the proposed activities and use constitute inappropriate use and development [see s6 RMA (a), (b), (d), (e), (f)];

(ii) Whether the site is an outstanding natural feature or landscape;

(iii) Whether the adverse affects of the activity on the environment will be minor;

(iv) Whether the activity will not be contrary to the objectives and policies of the relevant plans;

(v) Whether the proposal is too great in scale and effect, particularly the marina.

11.2 TANGATA WHENUA

11.2.1 The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga are recognised in the RMA as matters of national importance that we are required "to recognise and provide for" (RMA s 6(e)). Furthermore, kaitiakitanga is a matter to which we are required to "have particular regard" (s 7(a)), and we are also required to take into account the principles of the Treaty of Waitangi, Te Tiriti o Waitangi (s 8).

11.2.2 The original application was largely silent on how iwi might be affected by this proposal. We do note, however, that a Cultural Impact Assessment (CIA) was commissioned by the applicant, Queenstown Marina Developments Ltd (QMDL), and a report by Kai Tahu Otago Limited (KTKO) was submitted amongst further information provided by the applicant after submissions had closed. This assessment was prepared on behalf of Kati Huirapa Runanga and Te Runanga o Otakau.

11.2.3 The CIA, among other things, outlined the statutory and planning framework with particular reference to the Ngai Tahu Settlement Act (1998). Schedule 75 of the Settlement Act explains the association that Ngai Tahu has with Lake Wakatipu (Lake Whakatipu-wai-maori). The CIA also emphasized the relevant matters in Part 2 of the RMA, the Otago Policy Statement, and the Queenstown Lakes District Plan.

11.2.4 Lake Wakatipu has significant cultural value to Kai Tahu ki Otago. While there are no known settlements at the proposed site, there are known nohoaka along the banks of Lake Wakatipu and on the edges of Frankton Arm. According to the CIA, given the size of the proposed marina, it would have a significant effect on cultural values associated with the lake and further consideration should be given to providing land-based facilities for boat storage. Other matters, including the maintenance of access to *mahika kai*, management of pest species, and effects on water quality, are considered to be of less concern, providing any effects are properly managed.

11.2.5 **Ms Bridget Allen**, who presented planning evidence on behalf of the applicant, referred to iwi concerns with respect to the effects of the proposal on landscape, public access and water quality, matters about which we shall have more to say later. Ms Allen is a resource management consultant with four and a half years experience working as a planner in Queenstown and is a director of John Edmonds and Associates. She told us that, through the consultation process, Kai Tahu are now satisfied with the measures proposed to mitigate any adverse effects on water quality. Ms Allen also referred to the following statement from the CIA:

"It places a private structure on a natural resource of cultural significance, removing public access through that area of the lake, and imposing structures into an otherwise natural environment."

She said the proposal allows for both public as well as private use and the marina will increase public access through the area and onto the marina. She disagreed that the proposed site is a *"natural environment"* as the surrounding area has been highly modified by a wide range of activities.

11.2.6 **Mr Timothy Vial** who is a resource management planner with the Kai Tahu ki Otago Runaka Consultancy (KTKO Ltd), presented the submissions opposing the application from Kati Huirapa ki Puketeraki and Te Runaka o Otakou. He was accompanied by **Ms Francie Diver**, who also spoke to us. Mr Vial told us the *runaka* remains against the proposal because the marina, as described in the application, is of such a scale as to adversely impose on, and affect, cultural values associated with Lake Wakatipu. Contrary to what we heard from Ms Allen (para 11.2.5) he said that the proposal imposes a predominantly privately owned structure on a natural and publicly owned resource of high cultural significance to Kai Tahu, and will also effectively restrict access to the foreshore and the surface of Lake Wakatipu. He considered the cumulative effect of the proposal (the marina including the associated on-shore buildings) would be to compromise the relationship *iwi* have with Lake Wakatipu (see Vial submissions para 28).

11.2.7 The ORC s 42A Planning Report, which was prepared by Ms Kirstyn Lindsay and Mr Colin Walker, referred to statutory considerations, canvassing the cultural matters covered in Part 2 of the RMA, the Otago Regional Policy Statement, and the Otago Regional Plan. The Planning Report concluded that, subject to the consent conditions recommended in the report, the proposal was not inconsistent with the various clauses relevant to tangata whenua.

11.2.8 The ORC Planning Report also considered in some detail the requirements, relevant to the application, contained in the Kai Tahu ki Otago Natural Resource Management Plan. Again the report noted that, providing the recommended conditions of consent are complied with, the proposed activities are consistent with the policies in the management plan. The proposed conditions provide for accidental discovery of any evidence of cultural (or historic) interest.

11.2.9 The QLDC s 42A Planning Report prepared by Ms Paula Costello also referred to the two iwi submissions and the CIA. With respect to concerns regarding public access and the scale of the proposal, Ms Costello, in her report, did not consider that the size of the marina was such that it would dominate the landscape, and she considered that access to the foreshore would be enhanced by the proposal. The report concluded that iwi concerns can be addressed by appropriate conditions, particularly with respect to water quality during construction and operation of the marina.

11.2.10 We acknowledge the opinion expressed by Mr Vial to the effect that the scale of the proposed marina is inappropriate at this site and that tangata whenua values will be adversely affected. Mr Hardie, in his reply on behalf of the applicant, offered us no opposing view on this matter. However, we note that the site of the proposed marina is of special value to iwi but there are no known nohoaka sites likely to be disturbed and the area is not especially valued for mahika kai. The planning officers from ORC and QLDC concluded that the proposal was not contrary to the objectives and policies in the various plans and that iwi concerns could be addressed by appropriate conditions. We agree.

11.2.11 We have paid particular regard to the full submissions of Mr Hardie. On balance we are of the view that both access and egress to and from the lake will be enhanced by the proposal. There will be better access to and along the shoreline. There will be access to all external breakwaters. The waters of the lake will move freely through the mooring structures. We do not see Ngai Tahu as being excluded from taking up berthing rights should it so wish. The exclusivity of use created by the marina structure is very minimal in scale when set against the area of the lake.

11.2.12 The issue concerning restricted access to that part of the surface of the lake that would be covered by the marina remains, but the area so restricted must be considered in relation to the overall area of the lake and the fact that the marina would provide new opportunities for (pedestrian) access to the lake on the marina structure. Having considered the evidence put before us we have formed the view that the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga would not be significantly affected by the proposal and certainly not to an extent that would prevent us granting consent if we are of a mind to do so.

11.3 LANDSCAPE AND VISUAL AMENITY

11.3.1 This section reviews in some detail the issues concerning the potential effects of the proposal on landscape and visual amenity. These are matters about which there can be differences of opinion among both experts and lay people.

11.3.2 The need to recognise and provide for (as matters of national importance) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development is stated in s 6(a), RMA. Section 6(b) further provides for the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development. The requirement to have regard to visual amenity is directed through s 7(c) relating to the maintenance and enhancement of amenity values, and we shall refer to this in a more general sense in paragraph 11.4, below. We have included visual amenity here together with natural character because they are frequently treated as indivisible parts of a common issue.

11.3.3 Mr Hardie, in his opening submissions on behalf of the applicant, noted the difference of opinion among the landscape architects as to the appropriate classification for Frankton Arm. He tabled for us a copy of a decision (C180/99) from the Environment Court: ***Wakatipu Environmental Society Inc. and Others v Queenstown Lakes District Council***, which, he said, showed that Frankton Arm cannot be considered an Outstanding Natural Landscape (ONL). Otherwise, apart from noting in his opening submissions that the applicant considers the size of the marina, and its scale within the overall landscape, to be appropriate, Mr Hardie left most of the detailed evidence on landscape effects to the applicant's expert witness, Ms Rebecca Lucas. We also heard evidence on behalf of the applicant concerning these matters from Ms Bridget Allen, Ms Rebecca Skidmore and Ms Anna-Marie Chin.

11.3.4 Ms Bridget Allen, as we have noted above (para 11.2.5) is a resource management consultant and a director of John Edmonds and Associates, Queenstown. She introduced several photomontages including views of how the proposed marina will look from various viewpoints around Frankton Arm, and also comparative views from the two residential properties (Warrington's) adjacent to the site.

11.3.5 Ms Rebecca Lucas is a consultant landscape architect with 15 years experience and is a principal in the Queenstown office of Peter Rough Landscape Architects. She told us that particular attention has been given to the design and content of public space within the development as its location adjacent to and on the lake has important amenity values.

11.3.6 Ms Lucas went on to say that Frankton Arm has significant visual and amenity values to both residents and visitors to the area. It does, however, have a different character to the rest of Lake Wakatipu, which has much less development around the lake edge and, thus, has a much higher natural character as it contains little built form (with the exception of Queenstown Bay), is less modified, and includes areas of indigenous vegetation.

11.3.7 A visual assessment (prepared by Peter Rough Landscape Architects ~ June 2007) was completed as a part of the resource consent application and this was included as Attachment 5 of Ms Lucas's evidence. The assessment showed that the marina and its associated on-shore development will be visible from viewpoints within Frankton Arm but will not generally be visible away from Frankton Arm, except at higher elevations. When viewed from the northern side of Frankton Arm the development will have a backdrop of water and will be visible, particularly from nearby. However, when viewed from the southern side of Frankton Arm the development will have a more diverse backdrop made up of built form, vegetation and topography, and will be more difficult to see. Ms Lucas also said the surrounding landscape character is modified and includes residential and commercial use. Frankton Arm is also popular for boating and various other water-based activities, and there are many moorings and jetty structures around the lake edge. She said a marina in the proposed location is, therefore, not an unexpected use within Frankton Arm. We note that a structured access to and from the lake (a jetty and sheds) have been in place at this site at least

before 1898 and boats and their berthing has been an accepted part of the landscape for very many years.

11.3.8 According to Ms Lucas, views across the lake and up to the surrounding mountains and hills, including The Remarkables and Peninsula Hill (both Outstanding Natural Features), are possible from the proposed site. In her opinion, views of these Outstanding Natural Features will not be compromised by the presence of boats and the landscaped reserve in the foreground, particularly when compared to the foreground provided by the existing site.

11.3.9 Ms Lucas then turned to the views of the proposal from the Warrington properties, as shown in the photographic simulations. These properties include two houses situated on land adjacent to the reserve and opposite the existing boat ramp. From these properties the buildings associated with the proposed marina development will be particularly visible along the lakefront. We shall refer later to the Warringtons' submissions on this aspect of the proposal.

11.3.10 Ms Lucas said the buildings associated with the proposed marina would obscure the eastern portion of the lake from the view that is possible from the Warrington properties (Attachment 5 in her evidence). The Remarkables, however, will remain visible and, with the removal of the foreshore willow trees, will be more visible in summer. She said the most significant difference in the view from these properties will be the change in the character of the site, from an informal roadway/boat ramp and willow trees with a more private character, to a more formalised public use including buildings. We were told that the permitted baseline for the site allows for buildings to be located in the position proposed. She said the applicant could have maximised the height of the buildings within the permitted envelope and used a flat roof. However, she did not consider flat-roofed buildings to be appropriate at this site and preferred the gabled roof form that has been proposed because it relates well to the lakefront situation and mimics the boat shed form commonly found around Frankton Arm.

11.3.11 Ms Lucas maintained that both the Warrington properties would retain views that include a portion of the lake and significant areas of mountain. Although these views will be changed by the addition of the proposed marina buildings and the marina structure itself, she considered these elements to be not unattractive or inappropriate within the surrounding context of Frankton Arm and, in particular, the lakeside reserve status of the adjoining land.

11.3.12 An important matter for us to consider in our decision, when reflecting on the effects of the proposal on natural character and visual amenity, is what level of protection, if any, is attached to the site and the surrounding landscape in the district plan. We note that during the hearing there was some divergence of opinion on this matter and Ms Lucas spent some time giving us her views. Because of its relevance we shall repeat here much of what she told us in her determination of the appropriate landscape category by which to assess the visual effects of the proposal.

11.3.13 Ms Lucas said that the site and the surrounding landscape has been analysed as required by Section 5 of the QLDC Proposed Operative District Plan (PODP). Based on this, the determination of landscape category must be decided and the relevant assessment matters applied to the proposed development. Lake Wakatipu is zoned Rural General (RG) so the options for classification are Outstanding Natural Landscape (ONL), Outstanding Natural Feature (ONF), Visual Amenity Landscape (VAL) or Other Rural Landscape (ORL).

11.3.14 In ***Wakatipu Environmental Society Incorporated*** (WESI) ***and Others v Queenstown Lakes District Council*** (QLDC), C180/99, Lake Wakatipu was included as ONL and the Wakatipu Basin was left uncategorised but excluded from ONL. According to Ms Lucas, Frankton Arm was also excluded from ONL and included in the uncategorised Wakatipu Basin area by a line being drawn inside the entry to the Frankton Arm from Kelvin Grove due north to the northern side of the Frankton Arm. A map (Map 1) showing these details, which was last updated in September 2007, was included in Attachment 9 of Ms Lucas's evidence. Ms Lucas agrees with the decision in WESI and Others v QLDC to exclude the Frankton Arm from the remainder of Lake Wakatipu, which is categorised as ONL (District Wide). She gave a number of reasons and cited a further

decision from the Environment Court (C73/2002, ***Wakatipu Environmental Society Incorporated*** (WESI), ***Lakes District Landowners Incorporated*** (LDLI) ***v QLDC***) as to why Frankton Arm may be considered as being its own landscape.

11.3.15 Ms Lucas went on to say that the Frankton Arm landscape must now be categorised as either VAL or ORL since it cannot be categorised as ONL because the Environment Court had excluded it as it has a very different character compared to the remainder of the lake. Although Frankton Arm has important visual amenity and landscape values it is not pastoral or Arcadian and it is, therefore, difficult to categorise as VAL. The level of development, including residential and commercial surrounding the lake within Frankton Arm, is also too high for it to be considered a VAL. The lake within the Frankton Arm does provide a foreground to views of The Remarkables (ONL) but according to Ms Lucas the foreshore surrounding the lake is not typical of a VAL and does not have significant value. We note that this evidence is credible in particular with regard to the subject site.

11.3.16 Ms Lucas said that the only remaining category option available, according to the PODP, is ORL. Although she did not consider it particularly appropriate for Frankton Arm to be described as this category either as it does not have rural characteristics, she said the remainder of the definition for other rural landscapes does seem applicable. She referred to the definition in Part 4.2.4 of the Proposed District Plan for Other Rural Landscapes, which says:

"The other rural landscapes are those landscapes with lesser landscape values (but not necessarily insignificant ones), which do not qualify as outstanding natural landscapes, or visual amenity landscapes."

As we have noted, Ms Lucas considered that Frankton Arm has important and significant landscape values including visual amenity values and landscape values but it is not an ONL or a VAL. On this point she disagreed with the Lakes Environmental landscape architect's conclusion (QLDC s 42A Report) that Frankton Arm should be classified as ONL.

11.3.17 Ms Lucas referred us again to *WESI and Others v QLDC* (para. 99) where, in discussion about identification of Outstanding Natural Landscapes, the decision stated the following:

"... ascertaining an area of outstanding natural landscape should not (normally) require experts. Usually an outstanding natural landscape should be so obvious (in general terms) that there is no need for expert analysis. The question of what is appropriate development is another issue, and one which might require an expert opinion. Just because an area is or contains an outstanding natural landscape does not mean that development is automatically inappropriate."

11.3.18 Ms Lucas said that the marina is an appropriate development to locate within Frankton Arm given that it has a more modified character than the rest of the lake and it is already a popular location for recreational boating. In her opinion, the integrity of the surrounding ONL such as The Remarkables, Peninsula Hill and the remainder of the lake will not be compromised by development of the marina proposal.

11.3.19 We have already noted above (para 11.3.16) the contrary views of the Lakes Environmental landscape architect with respect to landscape assessment. Ms Lucas, in her evidence went on to discuss these views in some detail and we shall return to this later in our consideration of the planning reports.

11.3.20 Given Ms Lucas's opinion that the only appropriate category for Frankton Arm is ORL, she went on to discuss the various ORL assessment matters in relation to the proposed marina development. We shall not repeat all that she said here as much of it comments on the visual assessment to which we have referred above (para 11.3.7 et seq) and/or otherwise discusses aspects of the design, such as earthworks, planting and building design, intended to mitigate the visual and landscape effects of the proposal.

11.3.21 Ms Lucas repeated her assertion that the proposal is an appropriate development for the site due to the existing modified nature of the surrounding landscape and the existing use of Frankton Arm. In

her view, the marina development will not detract from the natural character of the lake or from the surrounding mountains. Overall, Ms Lucas considered that the visual effects of the marina will be limited and, when compared to the existing neglected state of the site, visual effects may be considered positive. We accept this latter assessment.

11.3.22 We note at this point that other sub-sections of section 6 are more pertinent and relevant than section (b). We find that subsection (a) applies and subsections (d) and (e) are pertinent. We accept that this is an area where matters of importance under section 6 apply.

11.3.23 Ms Rebecca Skidmore is an urban designer and landscape architect. She presented evidence to us on behalf of the applicant on urban design and also mentioned the impact of the proposal on views to the lake and the surrounding mountains. She told us that the overall site layout has evolved with careful consideration of the opportunities to maintain and enhance visual connections between the lakeshore and the wider landscape setting. Ms Skidmore said the building elements within the site have been broken into a number of discrete elements so as to maintain clear view shafts from Sugar Lane to the lake and the mountains beyond.

11.3.24 Ms Anna-Marie Chin, in her evidence on behalf of the applicant, referred to the visualizations introduced to us earlier by Ms Allen (para 11.3.4) and described the design and layout of the buildings. These are relevant matters in our consideration of the effect of the buildings on visual amenity. Ms Chin is an architect and is a principal in Crosson Clarke Carnachan Chin Architects based in Arrowtown. She told us that the proposed buildings had been located towards the west end of the reserve, next to the existing boat ramp, so that the reserve remains the main focus when entering the site from the state highway, and also from the Frankton end of the public walkway. She noted that the proposed siting of the buildings would place them in front of the two residential buildings on the other side of Sugar Lane and, to show the effects on these dwellings, computer-generated visualizations have been prepared showing how the views from the two residential sites will be affected. As we have noted, these were attached to Ms Allen's evidence.

11.3.25 Ms Chin said the buildings have been located to provide as much effective and useful open space as possible. There are a series of eight buildings or sheds, grouped together in twos. The building forms have been derived from the vernacular boatsheds prevalent on this side of Lake Wakatipu and she described the process that had led to the final design. She told us that the building heights had been carefully considered and were governed by the need to provide useful commercial space above the underground car park. She said the visualizations provided by the applicant show the buildings in base form only and the actual buildings would have a variety of finishes and interior cut-outs such as windows and openings.

THE SUBMITTERS

11.3.26 We shall turn now to the submitters, a number of whom raised significant concerns relating to natural character and, particularly, visual amenity. We have previously referred to *iwi* views expressed in the CIA (para 11.2.4) and presented to us by Mr Vial (para 11.2.6) concerning the size of the proposed marina and its scale within the landscape of Frankton Arm, and we have noted the *iwi* view that *tangata whenua* values will be compromised to some degree.

11.3.27 Mr Michael Parker appeared before us as counsel representing a number of parties including, substantially, the Warrington family and friends, many of whom also made individual submissions generally opposing the application. Some of these people also presented evidence to us and we shall refer to their submissions later in relation to the various issues we are considering.

11.3.28 In his opening legal submissions, Mr Parker reminded us of the relevant provisions in Part 2 of the RMA and also in the Partially Operative District Plan (PODP). He also referred us to ***WESI and Others v QLDC*** (C180/99), which was also quoted by both Mr Hardie and Ms Lucas, and which at paragraph 107(2) said:

"We find as facts that:

(2) Lake Wakatipu, all its islands, and the surrounding mountains are an outstanding natural landscape."

Mr Parker maintained that this was a clear statement and as Frankton Arm is part of Lake Wakatipu it is also part of that ONL. He did not consider the A71/2004 decision referred to on Map 1, included in Ms Lucas's evidence as Attachment 9, was relevant since it is a decision on the Queenstown Gardens and makes no finding regarding the classification of Frankton Arm.

11.3.29 Mr Parker also referred to us, for our consideration, Part 4.2.4(1) of the PODP:

The landscape provides both a backdrop to development as well as an economic base for much activity ... ... it is necessary to ensure that ... ... development and associated activities are managed to avoid remedy or mitigate any adverse effects resulting from the pattern of development and the location, siting and appearance of buildings... ... The hill and mountain slopes surrounding the lakes assume greater importance because of their role in providing a setting for the lakes...

He said the key issue for ONL is stated to be protection from inappropriate subdivision, use and development where the activity may threaten the openness and naturalness of the landscape.

We have already observed above that whether the proposed development is "inappropriate" is a, and indeed is the, principal issue.

11.3.30 Mr Parker said his clients' opposition to elements of the proposal (in particular the buildings) has been implicitly characterized as wishing only to preserve the views from their properties. He said questions relating to the scale of the buildings have to be questioned, both as to their size as well as the need to locate them where they will seriously detract from the views that are presently available at the proposed site. He considers that size and scale, with respect to the need for a marina of the size proposed and the associated buildings, are issues that have not been properly addressed by the applicant. He said this is not to say that an appropriately scaled marina and limited building development that did not obscure views out over the lake could not be accepted.

11.3.31 Mr Anthony John Warrington is one of the joint owners of the two properties that are side-by-side, and immediately adjacent to and overlooking the reserve land and the boat ramp. The Warrington properties front Frankton Road and what is known as Sugar Lane. Both properties have rights of way to enable access from the rear. He told us that his family has a 51-year association with the area. Much of Mr Warrington's submission referred to the loss of amenity values imposed by the proposal but he made it quite clear to us that the size and location of the buildings associated with the proposed marina development, and the effect this would have on the views from the family properties, was his greatest concern. He felt there had been insufficient consideration of other options or alternative sites.

11.3.32 We then heard from Dr Richard Bruce Warrington who told us he was part of the third generation of his family to have enjoyed the special character of the reserve. His principal objection to the proposal relates to the commercial buildings. Despite a desire among the community and QLDC for a marina, he said it does not immediately follow that such a facility (in his words) *"requires co-located but quite separate commercial development for successful operation. The provision of improved amenities such as parking, public space and landscaping also in no way requires commercial development."*

11.3.33 Dr Warrington said his objection does not hinge on whether or not the visual impact is ameliorated by setbacks, view corridors and gabled roofs, and nor is it measured by how much of the view is obscured. He simply does not accept that the view will somehow be greater if he can see more of the mountains with corrugated iron (buildings) in place of willow trees. While he strongly objects to the impact on the view from the family houses, he is more concerned about the impact of the buildings on the reserve itself. Again, in his words: *"... the buildings will always get in the way".*

11.3.34 Mr Donald Warrington then spoke to us in a similar vein. His main concern is the proposal to construct four two-storeyed commercial buildings on a public recreation reserve. In his submission he said that these buildings would lie directly in the line of the view from the two Warrington properties, across Frankton Arm to The Remarkables. He considered that the photomontages provided by the applicant failed to properly show the effect on the views from their properties. Because of this, the family had taken the trouble to prepare their own photomontages.

11.3.35 The last member of the Warrington family to appear before us was Mr David Gray Warrington who is the only permanent resident in the area, having lived there for nearly 27 years. He lives at 823 Frankton Road (Lot 2 DP20241). In his own words he told us how *"the magnificent vista of lake and mountains"* from his house would be lost and replaced with two-storey buildings. He also referred to the photomontages prepared by the Warrington family, which he considered reveal the real impact the buildings will have on the views from their properties. Copies were provided for us.

11.3.36 We also heard submissions from Wensley Developments The Marina Limited (WDTM). This company is currently building a 27-apartment complex at 875 Frankton Lane, which is located off Sugar Lane near the entrance from the Frankton – Queenstown State Highway. Firstly, Ms Cindy Robinson, a solicitor (Duncan Cotterill, Christchurch) presented legal submissions on behalf of WDTM. She said WDTM is generally supportive of the proposal but has concerns about the increased number of car parks associated with the development and the effect this will have on residents in The Marina apartment complex. While this impacts on various amenity values, which we consider later in paragraph 11.4, there are also visual effects to consider.

11.3.37 Ms Robinson submitted that the scale of the marina proposal greatly exceeds that which could occur as of right under the Reserve B zone although she acknowledged that marina activity is appropriate for the area. She indicated that the proposal to locate car parks in front of the lakeside units would affect the views from those units, among other things. She sought a condition that would prevent car parking in front of the WDTM apartment development.

11.3.38 Ms Julie Jack also appeared on behalf of WDTM and she is the managing director of the company. She told us that the apartment complex has been designed to take advantage of the spectacular views of Lake Wakatipu and the surrounding landscapes. Placing a car park in front of the development will cause significant adverse visual effects and generally limit the views available, particularly to occupants of the lower floors. She did not consider that the provision of a hedge, as proposed by the applicant, would remedy her concerns as no details have been provided. She did acknowledge that the area in front of the apartments is for public use.

11.3.39 The visual effects of the proposal were given considerable attention in the QLDC s 42A Planning Report. In order to assist us in forming our own views on these matters, we shall first turn to the advice provided by the two Lakes Environmental landscape architects.

LAKES ENVIRONMENTAL LANDSCAPE REPORTS

11.3.40 Ms Keren Neal prepared a landscape report for the QLDC s 42A Planning Report. Ms Neal, who is a landscape architect employed by Lakes Environmental (a service contractor to QLDC), did not appear before us and we were, thus, unable to ask her questions. Her report, however, discussed landscape issues at some length. We do not propose to repeat everything she said but, since her report offered us a different perspective (to that of Ms Lucas) on landscape assessment relative to the proposed site, we shall refer to some of 0her important points.

11.3.41 Ms Neal's report drew our attention to Section 4.6.1 in the Partially Operative District Plan (PODP), which states:

"The lakes and rivers of the Queenstown-Lakes District all flow into the Clutha River. The three major lake catchments of Wakatipu, Wanaka and Hawea feed the Clutha River, joined by the Cardrona River and other smaller streams before the Clutha leaves the District. With the District's excellent climate, the lakes and rivers are also outstanding natural features, with high

natural and scenic values, providing habitats for a range of indigenous and acclimatised bird and fish species."

Her report went on to say that the PODP maps (Map 1, Appendix 8a, Dec 05) indicate that the Frankton Arm portion of Lake Wakatipu lies within a Visual Amenity Landscape (VAL) although the line delineating it as such is understood to be indicative only and, thus, the area is open to further landscape analysis. We note that this classification is not readily apparent to us on the September 2007 version of Map 1, which was included in the appendices to Ms Lucas's evidence.

11.3.42 In paragraph 23 of Ms Neal's report she maintained that, under the scale of individual landscape unit criteria set out in the C73/2002 Environment Court decision (also referred to in Ms Lucas's evidence, see paragraph 11.3.14 above), the shape and size characteristics of Frankton Arm would not render it as a separate landscape but a portion of the wider Lake Wakatipu feature. In this respect she disagreed with Ms Lucas. Furthermore, according to Ms Neal, the geomorphological and natural values of Frankton Arm render it consistent with the remainder of Lake Wakatipu. Later, in a summary of landscape assessment criteria, Ms Neal notes that historic use of the land on the lower slopes surrounding Frankton Arm has heavily influenced the aesthetics of this portion of the wider landscape that exists today, although overall a natural, wild and unkempt aesthetic pattern reigns. For this reason, she considers that the subject site is both visually and physically part of the wider Lake Wakatipu landscape, dominated by the vast lake surface and the near and distant mountain backdrop. Given this, she considers that the site forms part of an Outstanding Natural Landscape – District Wide (ONL) and she used this as the basis for her assessment.

11.3.43 The policies in the PODP (Part 4.2.5(2)) for Outstanding Natural Landscapes (District Wide/Greater Wakatipu) are as follows:

(a) *To maintain the openness of those outstanding natural landscapes and features which have an open character at present.*

(b) *To avoid subdivision and development in those parts of the outstanding natural landscapes with little or no capacity to absorb change.*

(c) *To allow limited subdivision and development in those areas with higher potential to absorb change.*

(d) *To recognise and provide for the importance of protecting the naturalness and enhancing amenity values of views from public roads.*

11.3.44 In her landscape assessment (para 41) Ms Neal said it is also important to look at the context of the existing environment and what is permitted to occur within each of the zones. She noted that the terrestrial portion of the site is highly modified with commercial and residential activity, as well as informal areas where vehicles and trailers park, sometimes for long periods of time. The aquatic portion of the site is, by comparison, principally unmodified, the exception being jetties launching ramp and moorings close to the lake edge itself. These matters also relate to general amenity values and we shall have more to say about this later (para 11.4).

11.3.45 In paragraph 74, Ms Neal reminded us of section 4.2.4(2) of the PODP, which she said states the issue with regards to ONL:

"The outstanding natural landscapes are the romantic landscape - the mountains and the lakes – landscapes to which section 6 of the Act applies. The key resource management issues within outstanding natural landscapes are their protection from inappropriate subdivision, use and development, particularly where activity may threaten the landscapes openness and naturalness."

Whilst she considered that the proposed landscape treatment will protect the openness of the ONL, given its location along the very edge of Lake Wakatipu, she did not feel that it will protect the naturalness that the foreshore beach area currently exhibits, which is predominantly consistent with the foreshore around the remainder of the lake. The proposed series of constructed and built elements will, in Ms Neal's opinion, result in a landscape character that is more akin to the

commercial precinct of the Central Queenstown wharf area than it is to the naturalness of the remainder of the lake edge.

11.3.46 Ms Neal then went on to assess the marina (lake) part of the proposal. After discussing the effects on general amenity and recreation, which we shall consider later, she said in paragraph 93 that the scale of the proposed marina will undoubtedly render it adversely visually dominant and obtrusive in the presently predominantly open and unobscured Frankton Arm portion of the lake, when viewed from various surrounding public and private vantage points. In her opinion the proposed marina will not be compatible with the scenic and amenity values of this portion of the ONL. She went on in her report to say that the proposal will introduce built form into a currently larger un-modified (by built form) portion of the lake and this extends to the landscape treatment along the foreshore, which will significantly alter the character of this part of the lakeshore.

11.3.47 Ms Neal considers that, generally, the entire development will result in a modified landscape character, with little regard given to preserving the existing beach and lake edge and, should consent be granted, the perception of the portion of the site zoned Rural General, being part of an ONL, will be degraded. She concluded that the proposal does not give particular regard to the amenity of the adjacent residential properties or to the issues, objectives and policies of both the Low Density Residential and Rural General zoning, and nor does it protect the existing open space or natural character values of the lake or its surrounding ONL. She stopped short, however, of suggesting that the application should be declined and recommended a number of conditions in the event that consent is granted. Her dissertation overlooks the reality of the designation number 165 for "Frankton Marina Recreation Reserve". That recreation reserve exists in law and in fact.

11.3.48 We turn now to Mr Antony Rewcastle, who is also a landscape architect employed by Lakes Environmental. He appeared before us in lieu of Ms Neal and told us he was in general agreement with Ms Neal's report. He supported Ms Neal's view that the whole of Lake Wakatipu, including Frankton Arm is an ONL. In this respect, Mr Rewcastle cited Environment Court decision C90/2005 (***WESI v QLDC***), which he said makes it mandatory, when assessing resource consent applications in a rural zone, to determine the landscape category (classification). The decision states:

*"The High Court in **Queenstown Lakes District Council v Trident International Limited** has held that it is an error of law not to assign land zoned Rural-General to one of these three categories of landscape even if the site could be regarded as part of a peri-urban landscape."*

11.3.49 Mr Rewcastle agreed with Ms Neal's contention that the landscape effects of the proposal will be significant and the buildings in particular, given their scale, may be perceived as being of an industrial/commercial nature and will detract from the wider views presently available at the site.

11.3.50 Mr Rewcastle suggested that the views could be improved if the buildings were spaced wider apart or, perhaps, if half the second building could be eliminated from the proposal. This, he said, would increase the amount of public space available and also provide a view shaft through to the lake and mountains from the Warrington properties. Mr Rewcastle does not accept the argument that replacing trees with buildings is acceptable, as put to us by the applicant. He did, however, acknowledge that some of the positive effects, including increased recreational opportunities and upgrading public space, could go some way towards balancing the negative effects.

11.3.51 Finally we need to consider what Ms Paula Costello, who prepared the QLDC s 42A Planning Report, made of the various opinions concerning landscape effects on natural character and visual amenity. Ms Costello is a planner employed by Lakes Environmental. She confirmed that the site is zoned Rural General and Low Density Residential under the PODP and that both areas are subject to an overlying designation (No. 165) — the Queenstown Marina Recreation Reserve. Later on in her report she refers to this designation as the Frankton Marina Recreation Reserve (which is correct). Whatever the designation is called is less important than the fact that it is apparent that marina development is contemplated at the site and we accept her contention that the rules in the PODP allow the requiring authority (QLDC), if it so wished, to establish multiple buildings associated with marina use on the reserve land.

11.3.52 Ms Costello, in the s 42A Report, referred to the present character of the reserve and the land around the site. She noted that many of the surrounding sites operate as commercial premises with a focus on water-based businesses, and other marina-related facilities such as the existing inlet in which boats are moored, and the existing boat ramp and Fisherman's Pier. The general appearance of the area around the proposed site, in her view, is dominated by commercial buildings, boat storage and informal parking, and is generally not in keeping with the character traditionally associated with either the Low Density Residential or Rural General zones. In these respects, she considered that the proposed uses of the site will not have any significant adverse effect in terms of the character of this area and that the design of the buildings would generally be in keeping with the marine-based character of the reserve and its connections to the lake.

11.3.53 Ms Costello, in noting the two conflicting opinions with respect to the landscape classification for Frankton Arm among the three landscape architects (Ms Lucas for the applicant, and Ms Neal and Mr Rewcastle for QLDC) and her own lack of specialist knowledge in this area, chose to discuss in general terms her opinion of the effects of the proposed marina structure situated on the lake rather than focusing on the matters that specifically relate to each landscape category. Having canvassed the opinions of both Ms Lucas and Ms Neal, she formed the view that the proposed marina structure on the surface of the lake and associated tethered craft, while visible on the lake in this location, will not have a significant adverse effect in terms of the landscape, character and amenity of Frankton Arm.

11.3.54 In considering landscape and visual amenity in terms of the objectives and policies of the PODP, Ms Costello said in the Planning Report that the proposal is not entirely consistent with these policies given that the nature of the marina development will result in structures that are not necessarily 'in harmony' with the form of the landscape (being of a more natural line and form), and whereby colours will not be complementary with the dominant colours of the landscape. She did note, however, that the on-land built form proposed will utilise natural materials in construction, and that structures will not be located on the skyline, ridges, or prominent slopes or hilltops. In light of this she concluded that the proposal is not contrary to the objectives and policies and will not significantly disrupt the visual coherence of the location.

11.3.55 With reference to Part 2 of the RMA (s.6), Ms Costello reported that, while the natural character of the lake is recognised as a matter of national importance, in the context of this application there is not considered to be any significant risk of any loss of natural character of Lake Wakatipu, given the existing character of the area.

11.3.56 In his reply, on behalf of the applicant, Mr Hardie disagreed with the view expressed by the Lakes Environmental landscape architects that Frankton Arm is part of Lake Wakatipu and is therefore part of that ONL. He also took issue with Mr Parker's similar view based on paragraph 10(2) of ***WESI and Others v QLDC*** (C180/99) (see para 11.3.28 above), and he referred us again to paragraphs 107(4), 108 and 111 of the same decision, plus Appendix II and also Plan Map Appendix 8A and its legend, and said the Wakatipu Basin was clearly excluded.

11.3.57 Mr Hardie also reminded us that we must take account of what the PODP presently permits.

11.3.58 It will be readily apparent that the effects of a proposal such as this on natural character and visual amenity are subjective. Furthermore, to the extent that these effects are considered adverse, they are not easily avoided, remedied, or mitigated. The Warrington family and their supporters, quite clearly, consider the visual effects of the proposed buildings to be unacceptable and, understandably, have expressed their opposition to the proposal as it presently stands. Ms Lucas, on the other hand, who provided us with expert evidence on landscaping on behalf of the applicant, concluded, as we have noted above (para 11.3.21), that the marina development will not detract from the natural character of the lake or from the surrounding mountains and that the visual effects of the marina will be limited. In her opinion, when compared to the existing neglected state of the site, visual effects may be considered positive. We are mindful that Ms Costello, in the QLDC s 42A Planning Report, generally came to a similar conclusion.

11.3.59 We are left with having to draw our own conclusions in light of differing opinions as to the extent to which the proposed marina development will adversely impact on the natural character of the area and its related visual amenity values. As will be apparent, the conflicting evidence from the landscape architects largely related to the choice of an appropriate landscape classification for Frankton Arm and its foreshore. We were presented with a great deal of evidence, particularly from Ms Lucas, on behalf of the applicant, and also in the landscape report prepared by Ms Neal for the QLDC s 42A Planning Report, as to what they each thought was the appropriate classification by which to assess the landscape aspects of the proposal.

11.3.60 Ms Lucas presented us with a lengthy argument as to why assessment as an Outstanding Natural Landscape (ONL) was not necessary and, it seemed to us by a process of elimination, she deduced that the proper category was Other Rural Landscape (ORL). Ms Neal, on the other hand, supported by Mr Rewcastle, was of the view that Frankton Arm was part of Lake Wakatipu and, thus, should be considered as an ONL, and that this was the appropriate classification by which to assess the landscape effects of the proposal.

11.3.61 We found Ms Lucas's evidence in respect of these matters reasonably compelling and we could, arguably, if we were of a mind to do so, consider the landscape effects of the proposal on the basis that Frankton Arm is an ORL. However, given the importance of this matter in this decision, and not wishing to disregard the views presented by Ms Neal in her landscape report, and Mr Rewcastle at the hearing, we prefer to take the more conservative approach and consider the landscape effects of the proposal as if Frankton Arm was categorized as an ONL, this being the more severe test. Ms Lucas, in Attachment 10 of her evidence, provided us with her assessment of the effects of the proposal based on ONL classification. Generally, we agree with her assessment.

11.3.62 We have also been guided by the reference in Ms Lucas's evidence (para 11.3.14) to ***WESI and Others v QLDC*** (C180/99), which states, as we have already noted (para 11.3.17), among other things:

"... Just because an area is or contains an outstanding natural landscape does not mean that development is automatically inappropriate".

11.3.63 And as already stated we are of the opinion that s 6(a) clearly applies and we are bound to recognize and provide accordingly.

11.3.64 Mr Parker's statement, in referring to Part 4.2.4(1) of the PODP, and which we have also noted above (para 11.3.29), is also relevant:

"The key issue for ONL is stated to be protection from inappropriate subdivision, use and development where the activity may threaten the openness and naturalness of the landscape."

11.3.65 Ms Neal, in her report, helpfully drew our attention to the policies in the PODP for landscapes categorized as ONL and we have previously noted these in paragraph 11.3.43 above. While we acknowledge that the marina will be visible from various places around Frankton Arm, and Ms Neal's reservations, based on the evidence before us we do not consider that any of the four policies contained in the PODP will be significantly compromised by the proposed development.

11.3.66 Furthermore, we consider that the proposed marina cannot be viewed in isolation but must be considered in the company of the range of other developments and activities around the lakeshore, both of a commercial as well as a residential nature, and we heard no evidence to convince us that the imposition of the proposed marina on this landscape will detract from the general grandeur of Frankton Arm and the surrounding mountains.

11.3.67 In this decision we must be mindful of our responsibilities in terms of s 6(a) of the RMA to recognise and provide for the protection of the lake and its margins, and also any outstanding natural features and landscape, from inappropriate subdivision, use and development. As was pointed out to us by Mr Parker (para 11.3.64), this theme is also repeated in the PODP in reference to ONL. The key word in the Act is the word "inappropriate" and whether or not we consider the marina proposal is an inappropriate activity at this site, from the point of view of landscape and

natural character. On the basis of the evidence before us, and given the extensive level of development that already exists around the lakeshore and at this site, we do not think that a marina catering for small boats can be considered an inappropriate activity at this location, whether or not ONL is the correct landscape category.

11.3.68 In this decision we must also consider the local effects of the proposed development. This is a matter that relates rather more to visual amenity than it does to natural character and is less concerned about whether or not the landscape category of Frankton Arm is ONL or ORL. In this case it is about how the development fits in to its immediate environment and how it affects the views of those who frequent the area or live nearby. It is a matter, as we have already noted in paragraph 11.3.2 above, to which we are required to have particular regard (s 7(c) of the RMA).

11.3.69 It was clear to us that the location and size of the proposed buildings will have a significant impact on the views across the lake presently enjoyed by the Warrington family. Other submitters supported the Warringtons and expressed similar sentiments. In examining this aspect, there are two important matters that we consider relevant:

i) It is contemplated in the PODP that a marina will be built in this area and the overlying designation of the land at the proposed site is Marina Recreation Reserve. A marina development in this location is, thus, not an unexpected activity.

ii) Subject to certain restrictions in terms of floor area and overall dimensions, buildings that provide for marina-related activities can be constructed on the reserve land, under certain conditions, as a permitted activity.

11.3.70 As we have noted (para 11.3.10), Ms Lucas, in her evidence on behalf of the applicant, told us that since buildings able to be constructed on the proposed site, subject to certain restrictions with respect to building area and height, the applicant could have largely avoided resource consent issues by providing for flat-roofed buildings up to the maximum permitted height. Although the proposed building heights with the gabled roofs exceed that which is permitted, Ms Lucas maintained that the buildings will relate better to the lakefront situation and mimic the boat shed form commonly found around Frankton Arm. We agree and consider the benefits derived from a more pleasing shape outweigh the relatively small loss of visual amenity resulting from the additional building height.

11.3.71 We have also taken note of Mr Rewcastle's suggestion that the adverse effect on the views from the Warrington properties could be mitigated if the buildings were to be spaced further apart, or if the western part of building 2 was removed. However, in light of the evidence before us, we did not consider it appropriate for us to make such a judgement. While the idea may have merit, the applicant went to some trouble (Ms Chin and others) to explain to us that the building layout had been chosen with care and appropriate consideration of the surroundings, in light of the permitted baseline. Furthermore, the removal of a building may impact on other matters such as the basement parking design about which we have received no evidence. The Commission was unanimous that no building should be deleted. The package should be seen as a whole.

11.3.72 With respect to the concerns about car parking expressed by Wensley Developments, we accept Ms Allen's contention that it is unreasonable to expect uninterrupted views from the ground floor apartments across the reserve land. We agree with Ms Costello's conclusion that the revised car parking layout and the proposed landscaping is appropriate.

11.3.73 We have felt it necessary to canvass in some detail the issues surrounding the effect of the proposal on visual amenity. In coming to a conclusion on this matter for the purposes of this decision, we realise that, should we be of a mind to grant consent, there will be unavoidable changes to the views presently enjoyed by some people, and the Warrington family in particular. We have also taken account of the predominantly commercial nature of the activities that presently take place along the road (Sugar Lane) to the site of the proposed marina and the two Warrington properties, as well as the somewhat neglected state of parts of the reserve land and the haphazard nature of the car parking and boat storage along its edge. Overall, in light of the permitted baseline and what is

able to be built on the reserve land, we do not consider the adverse effects of the proposed buildings on visual amenity to be of sufficient magnitude as to be fatal to this decision. Any such effects must, therefore, be judged in conjunction with a range of other impacts, both positive and negative.

11.4 AMENITY VALUES

11.4.1 The need to have particular regard to those qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes, is covered in several ways in the RMA but, in particular, in s 7(c): the maintenance and enhancement of amenity values. The principal reference here is to "amenity values" but, as we have discussed in some detail in paragraph 11.3 above, it also includes visual amenity aspects.

11.4.2 Ms Rebecca Lucas to whom we have already referred (para 11.3.5 et seq), and who spoke to us at length on behalf of the applicant on matters concerning landscape and visual amenity, also provided evidence concerning other aspects relating to amenity values. In her opening remarks she told us that particular attention has been allocated to the design of public space within the development as its location adjacent to and on the lake has important amenity values. She said acknowledgement has also been made of the reserve status of the land, and the Frankton walkway that passes through the site, as the public open space component of the design is also very important to QLDC.

11.4.3 From what Ms Lucas told us and, indeed, from our own observations during our visits to the proposed site, it is apparent that the foreshore and reserve area is presently not well maintained and nor is it well-used. The site is generally dominated by the overflow use (informal storage of materials, car and boat parking) of the commercial businesses that are located along Sugar Lane. Sugar Lane, itself, is poorly defined and maintained. The Frankton walkway does not have a continuous path through the site at present and users are forced to follow Sugar Lane, which has no footpath. Furthermore, the lakeshore has only a small area of gravel beach and, there is little in the way of ready access to the lake for the general public other than via the present boat ramp and jetty.

11.4.4 Ms Lucas said that the proposed marina development includes berthing facilities for up to 240 boats, a boat ramp and trailer park, a basement car park located beneath eight small connected buildings, a commercial jetty, a bus drop-off area allowing for future growth in public transport, and a large area of public reserve space containing a mixture of hard and soft landscape, promenade seating and informal passive grassed areas. Vehicular access to the marina will be via Sugar Lane and the Frankton walkway will continue through the site and include several different routes for cyclists and pedestrians. To provide maximum open space, the required car parking for the development has been located in a basement beneath the buildings. Access to the water will be created from the buildings using a floating pontoon, fixed jetties and steps.

11.4.5 Ms Lucas said the development of the reserve adjacent to the marina would improve amenity values and encourage use of the site for passive recreation. The proposed paths and promenade through the site would be a significant improvement upon the existing track in this area. Users of the track would also enjoy the views of the lake to a greater degree as it would be more visible after removal of willow trees.

11.4.6 Marina lighting can be a significant issue if not properly designed. Ms Lucas told us that the QLDC Lighting Strategy titled "Southern Light" was adopted on 15 December 2006. This document identifies the lighting required within the subdivision as P4. A P4 category has an average horizontal illuminance (lux) of 0.85 and complies with the New Zealand standards for local roads and pathways. We understand that the Strategy aims to reduce upward light spill, increase the quality of light and reduce the quantity of light, and provide greater protection of amenity values. Lighting is also required to be sufficient to deter crime and vandalism, and be energy efficient. Ms Lucas described the lighting for the proposed marina and said it would be designed to comply with QLDC standards for lighting of public streets, pathways and parks.

11.4.7 According to Ms Lucas, the proposed marina development will transform a presently under-used reserve area into an attractive, functional public open space incorporating the Frankton walkway in much safer and legible form. The proposal will also enhance public access to the lake in the form of steps, beaches, floating jetties and the marina structure. The proposed marina will also allow greater access to the more remote and natural areas of the lake by providing safe and secure storage and boat access facilities. The location of the marina at the proposed site will also result in positive effects by enhancing the amenity values of the site and providing a possible future public transport access point for a water ferry service.

11.4.8 Submitters had a range of concerns about the impact of the proposal on amenity values. These ranged from noise, dust and heavy traffic during construction to lack of sufficient parking. Some submitters also recognized the general improvement in amenity values that a new marina would bring to the area.

11.4.9 Mr Michael Parker, in his submissions on behalf of the Warrington family and a number of other submitters, spoke to us at some length about amenity values but this was mainly concerned with visual amenity and landscape, matters that we have canvassed at some length in our discussion in paragraph 11.3 above.

11.4.10 Mr Anthony Warrington expressed alarm at the prospect of *"eight thousand truck movements"* during the construction phase, followed by a *"major increase in vehicle movements along Sugar Lane and a substantive increase in congestion, thoroughfare, and parking problems"*.

11.4.11 Dr Bruce Warrington expressed similar concerns although his principal objection related to the need for commercial buildings to be associated with the marina development. In his view the applicant had not demonstrated that commercial development was necessary on reserve land to complement improved amenities such as parking, public space and landscaping. He said the uses to which the proposed buildings might be put were uncertain and this has potential impacts on key infrastructure such as parking, traffic and water supply.

11.4.12 As we have already noted, Ms Cindy Robinson, counsel for Wensley Developments (WDTM) addressed us on matters of concern to her client. This was principally about the intensity of the proposed marina development, which, she said, appears to have substantially increased the number of car parks on the site to such an extent that they will detract from the amenity enjoyed by residents of the Marina apartment complex, presently under construction by WDTM.

11.4.13 Ms Robinson also submitted that the proposed development on the reserve land would be required to comply with the relevant zone rules in relation to noise, glare, hours of operation and the area of land that could be covered with impervious surfaces. She said that the area of land adjacent to the WDTM development had an underlying rural zone and any marina-related commercial use in that area would require resource consent as a non-complying activity. In this respect, she maintained that the amenity effects generated by the proposed car parks along the WDTM boundary are not anticipated in the rural zone.

11.4.14 Ms Robinson reminded us of Policy 5.4 in the QLDC Proposed Operative District Plan (PODP) concerning the assessment of activities in a rural zone and submitted that the proposal is not consistent with the PODP and her client will be subject to adverse effects on residential amenity, which the PODP expressly endeavours to control. She acknowledged that the applicant has revised the car parking so that the cars would not park towards the WDTM development and that a low hedge would be planted to screen the cars from people in the ground floor units. However, she sought a condition preventing car parking in front of the WDTM apartments. Ms Julie Jack, who also spoke to us on behalf of WDTM, reiterated that the amenity to be enjoyed by the ground floor occupants, in the way of access to open space and the Frankton walkway, would be adversely affected by the presence of the proposed car park. She said the prospect of noise and glare at night will also impact on their enjoyment of the property.

11.4.15 Some guidance concerning the effects of the proposal on amenity values was provided for us by Ms Costello in the QLDC s 42A Report. In her consideration of the actual and potential effects of

the proposal on the environment she said that the proposed built form and on-shore works associated with the marina facility on the water will provide a positive improvement for this area in terms of public amenity, connections, services, and interaction with the lakeshore.

11.4.16 In acknowledging the concern expressed by the Warrington family, Ms Costello agreed that the proposal would have an effect in terms of relative privacy. However, the houses owned by the family are located in an area where boating activity is undertaken, commercial businesses operate in the vicinity, and the Frankton walkway brings the public through the area. She noted that the QLDC Landscape Architect had said that the car parking proposed on the site adjacent to the Warrington's property boundary could have adverse effects in terms of vehicle lighting, noise and privacy. However, we understand from the evidence of Ms Allen that this parking has been moved.

11.4.17 Ms Costello noted that another matter of concern to submitters related to cyclist /pedestrian safety through the proposed site. She said there is currently no formal alignment of the Frankton walkway through the site, and people presently using Sugar Lane are faced with a number of points of conflict relating to the public boat ramp, the trailer park and commercial uses of the area. The proposal allows for this situation to be formalised and improved, and the cycle/pedestrian way will pass through the site, separated from Sugar Lane after the crossing point near the trailer park. She noted that amenity values would be further improved by the provision of an alternative pedestrian route along the lakeshore.

11.4.18 In her consideration of (RMA) Part 2 matters and, in particular, s.7(c), and also s.7(f), Ms Costello said the proposed marina development will provide for the enhancement of amenity values in this location. In her view, the proposal will enhance the amenity of the lakefront area at the site by providing attractive areas for public use, pedestrian linkages, and will include high quality built form and landscaping. She did not consider the amenity values of adjoining residential properties to be significantly affected although matters associated with landscaping and car parking may require further consideration to minimize potential adverse effects.

11.4.19 Overall, Ms Costello concluded that the creation of a marina and associated works in the form proposed would have significant benefits in terms of improved public amenity and that any potential adverse effects, including noise and lighting, could be addressed by appropriate conditions of consent. Having had regard to the evidence before us, we agree with Ms Costello's assessment.

11.5 ECOLOGY

11.5.1 This section considers the effects of the proposal on the ecology of the area, a matter that is enshrined in Part 2 of the RMA. In particular, s.6(c) requires us to recognize and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna as a matter of national importance. Also s.7(d) requires us to have particular regard to the intrinsic value of ecosystems.

11.5.2 Evidence concerning the effects of the proposal on the ecology of the area was presented to us by Mr Glenn Davis, for the applicant. Mr Davis is Principal Environmental Scientist with Davis Environmental Services Ltd. He has 12 years post-graduate experience in ecological assessments and environmental management. He prepared the resource consent application to ORC and compiled the accompanying AEE, prepared in conjunction with an engineering design team.

11.5.3 In his review of site-specific ecological values, Mr Davis referred to the freshwater ecological assessment carried by Ryder Consulting Ltd., and the subsequent report that was attached to the application. While Dr Ryder did not appear before us, Mr Davis provided us with a summary of the results. Ryder Consulting found that benthic macro invertebrates at the proposed marina site were typical of the type commonly found in soft-sediment lakebeds throughout South Island.

11.5.4 Mr Davis told us that a literature review of the New Zealand Freshwater Fish Database and other available reports had shown that three freshwater fish species inhabit the Frankton area including

the native longfin eel, koaro and introduced brown trout. During the investigation Ryder Consulting caught two longfin eels, nine common bullies and one unidentified galaxiid larvae (most likely the native koaro). Ryder Consulting also investigated lakebed vegetation. The survey revealed that charophytes dominated the area with some relatively dense patches of elodea, isoetes and potamogeton also present. Mr Davis said that Ryder Consulting concluded that the freshwater ecological values in the vicinity of the marina are as expected for those of a clean, high country, oligotrophic lake.

11.5.5 It is expected that some habitat will be lost through the reclamation activities. However, the Ryder Consulting report indicated that freshwater ecological values are similar to the shallower areas of Lake Wakatipu and the proposed reclamation is not expected to result in the loss of significant rare habitat. In response to a concern expressed by ORC, Mr Davis recommended a condition, should we be of a mind to grant consent, to ensure fish do not become stranded. Conditions have also been offered to mitigate the risk of machinery used in the reclamation works introducing pest species to the lake. Given that the scale of the reclamation is minor, and no rare or uncommon freshwater ecological habitats will be removed, Mr Davis concluded that the environmental effects of the reclamation activities would be no more than minor.

11.5.6 Mr Davis noted that a submitter, Mr Neil Thompson, who did not appear before us, was concerned about the potential spreading of lagarosiphon given the location of an infested area adjacent to the marina. Mr Davis agreed there is a risk of disturbing lagarosiphon (and therefore spreading the weed to other areas of Lake Wakatipu) during the installation of screw anchors. However, based on ORC monitoring and the freshwater ecology survey, there is no visual sign that lagarosiphon exists on the lakebed beneath the marina. He considered the matter should be monitored during construction.

11.5.7 Mr Davis told us that the proposal requires the diversion of a small un-named creek to allow for the construction of the underground car park. Because this creek provides habitat for koaro, common bully and juvenile trout, the realigned creek has been designed to provide for ongoing fish passage. ORC have requested that a suitable substrate is utilised on the bed of the realigned creek to provide for fish habitat and have recommended conditions of consent to ensure fish passage is protected at all times, and that the banks of the new channel are stabilized as quickly as possible. In light of this, Mr Davis considered that any ecological effects resulting from the creek diversion would be no more than minor.

11.5.8 The risk of introducing pest species was raised as a matter of concern in the submission from Te Rununga o Otakou Inc. However, no evidence was produced at the hearing to support their view. The matter was also raised by Mr Patrick Cody, who did not appear before us, in his submission on behalf of the Cody Family Trust. Mr Cody opined that the waterfront area adjacent to the site contains a well-established breeding environment for fish, ducks and eels and that this would be adversely affected by the proposed marina development. We have already mentioned the submission from Mr Thompson (para 11.5.6). Otherwise, the effect of the proposal on the ecology of the area did not receive much attention from submitters.

11.5.9 The ORC s 42A Planning Report, prepared by Ms Kirstyn Lindsay and Mr Colin Walker, reported on the ecological assessment undertaken by the applicant. Their report noted that the ORC Resource Science Unit observed that the applicant had not provided any information on how the applicant proposed to prevent fish becoming trapped in the existing inlet as it is reclaimed. Although it is expected that mobile species, such as trout, will leave the affected area once construction begins, less mobile species such as longfin eels may need to be removed. Some mortality of common bullies is expected but this is not considered to be a significant effect. A condition of consent requiring the consent holder to ensure that no fish become stranded during the reclamation works was recommended.

11.5.10 A further matter of concern to ORC is the potential for machinery and other equipment to transport pest plant species onto the site and contaminate the lake. ORC recommend that all machinery should be water-blasted prior to being brought on-site and following completion of the work, to

reduce the potential for pest species being introduced to or taken from Lake Wakatipu. All machinery and equipment that has worked within the lake should, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand recommendations, as stated on its May 2006 fact sheet titled "Don't Spread Didymo". The applicant will also need to ensure that any wash water does not directly discharge into the lake or any other surface water body.

11.5.11 The ORC report also noted that the proposed development would involve modification of the existing shoreline to incorporate the proposed marina. This modification will result in short term increases in sediment deposition, which may result in the partial smothering of macrophyte beds and macroinvertebrates with fine silt, and movement of fish out of the area. However, it is expected that these communities will quickly recover after completion of the works.

11.5.12 Having heard the evidence of Mr Davis, and noted the relevant discussion concerning ecology in the ORC s 42A Planning Report, we have formed the view that there are no areas of significant indigenous vegetation or significant habitats of indigenous fauna about which we need to be concerned, and such adverse ecological effects that do occur will either be less than minor or conditions can be attached to any consent to ensure that this would be the case.

11.6 WATER QUALITY

11.6.1 The issues relating to water quality are mainly concerned with the discharge of stormwater and washdown water, and disturbance during construction. The applicant provided evidence in relation to these matters from Mr Peter White and also from Mr Glenn Davis, to whom we have already referred in our consideration of the effects of the proposal on ecology (para 11.5).

11.6.2 Mr White is a civil engineer with MWH Ltd, and has 25 years experience, primarily in the area of infrastructure services for urban development, with experience in planning, design and implementation. Since joining MWH Ltd, he has been responsible for the design and establishment of engineering infrastructure (including roading, water services, stormwater drainage and foul sewer drainage) for a variety of sites. In his evidence he addressed the engineering issues concerning water supply to the site, wastewater collection treatment and disposal, surface water run-off, and flood risk.

11.6.3 Mr White described the water supply to the proposed marina and the management of wastewater. Facilities will be provided to allow boats in the marina to connect and pump from on-board wastewater tanks; all sewage from the site would be pumped into the QLDC trunk sewer. He told us that stormwater run-off from the development would be collected and discharged in separate zones of the development, according to the source and the anticipated risk of contaminants in the run-off. Surface run-off from low risk areas such as lawns would be to the lake. Drainage from other open areas would be to sediment traps with appropriate separation before discharge to the lake.

11.6.4 We note that the discharge from the boat washdown area adjacent to the boat ramp is a matter of concern to ORC. Mr White told us that this area has a moderate risk of contamination and, thus, the washdown water would be collected and drained to sumps prior to discharge to Lake Wakatipu after treatment using a proprietary filter chamber. He considered the risk of the washdown water introducing new contaminants to Lake Wakatipu to be low and he did not consider discharge to the sewer, as suggested by ORC, to be necessary.

11.6.5 Stormwater treatment systems will be provided for the drainage from the sealed vehicle areas, prior to discharge to Lake Wakatipu. Design of the treatment systems will generally be consistent with Auckland Regional Council guidelines to remove a minimum of 75% of total sediments. The proposed treatment systems will remove gross pollutants such as silt, floatables, oils and greases, prior to discharge to Lake Wakatipu.

11.6.6 Mr Davis referred to the freshwater ecological assessment carried out by Ryder Consulting Ltd, which noted that measurements taken at the lake edge had indicated that the water quality is typical of a clean, high country, oligotrophic (low nutrient status) lake. Although only a one-off survey

was undertaken, Ryder Consulting considered the results would not be expected to change widely throughout the year.

11.6.7 Mr Davis went on to say that the AEE has assessed the impact of the various discharges to the lake during construction and has found the effects to be acceptable. ORC has reviewed the application and agrees that the effects will be localized and habitat will restore rapidly on completion of the project. Maintenance of water quality once the marina is operational is an individual boat owner issue. However, the applicant proposes to prepare a Marina Environmental Management Plan that will address issues such as bilge water disposal, boat maintenance, rubbish, pest species management and spill emergency response.

11.6.8 Mr Davis also discussed the effects of lowering groundwater levels in order to construct the underground car park. We note that ORC have recommended a variety of conditions to ensure that the effects of groundwater extraction are no more than minor. Mr Davis indicated that the applicant has agreed to such conditions being attached, should we grant consent.

11.6.9 Mr Davis described the various proposals for stormwater treatment, as outlined in work done by MWH Ltd., to which we have already referred above (10.6.3 et seq). He considered that the level of stormwater treatment proposed, and the provision of a monitoring and maintenance plan by the applicant, would ensure that any stormwater discharge to the lake would cause no more than minor effects.

11.6.10 Mr Davis said the realignment of the unnamed creek is a potential source of suspended sediment and, to mitigate potential effects, silt fencing would be installed at the existing tributary outlet to allow for the filtering of sediment before entering the lake. Prior to the release of water into the new alignment silt fencing will be installed at the new outlet. He thus considered the potential for any adverse effect on water quality from diversion of the creek to be low.

11.6.11 Although some submitters expressed concern that insufficient information had been provided concerning the effects of the proposal on water quality, washdown water aside, we were not presented with any specific evidence that gives us cause for concern.

11.6.12 The ORC s 42A Planning Report, prepared by Ms Kirstyn Lindsay and Mr Colin Walker, made several references to water quality. Much of this repeated the information provided by the applicant, the relevant parts of which we have already referred to above (Mr White's evidence in para 11.6.2 et seq). Generally, ORC was satisfied that the effects on water quality were either minor or conditions could be attached to any consent to ensure that this would be the case. In some instances, notably in connection with the take and discharge of groundwater, ORC recommended that a detailed site management plan be submitted to ORC before the works commence, and that the monitoring of groundwater levels should be included as a condition of any consent. Similarly, ORC recommend a condition requiring a comprehensive stormwater management plan to be submitted to ORC before any discharge occurs.

11.6.13 As we have already noted (para 11.6.4), the discharge of washdown water from the proposed boat and equipment washing facility, adjacent to the boat ramp, is a matter of concern to ORC. According to ORC, likely contaminants in this water include: sediments, detergents, antifouling agents, hydrocarbons and vegetative matter. ORC considers that the untreated discharge into the lake of any chemicals used for washing boats should be avoided and, because the applicant had failed in the application to provide any certainty that contaminants would be removed from the washdown water before discharge, consent for this part of the application should be declined. The alternative, according to ORC, is to discharge the washdown water directly into the QLDC sewer. As we have noted above (para 11.6.4), Mr White told us at the hearing that the washdown water would be collected and treated prior to discharge. If we are of a mind to grant this permit, we believe a condition can be attached to provide for monitoring of the discharge to ensure that it meets the water quality standards expected by ORC.

11.6.14 ORC have also asked for conditions to be attached, should consent be granted, requiring the consent holder to include in an overall site sediment management plan, to be submitted to ORC, the

measures to be put in place during reclamation of the existing inlet, realignment of the unnamed creek, reclamation of the foreshore, control of stormwater run-off during earthworks, and the discharge of flood waters. ORC also requires a management plan, which addresses the contaminant risks posed by the long-term use of the marina, to be submitted.

11.6.15 Having heard the evidence on water quality provided by the applicant, and taken note of the detailed analysis of the proposal provided by Ms Lindsay and Mr Walker in the s 42A Planning Report, and their various recommendations, we have concluded that conditions can be attached to any consent to ensure that the effects on water quality will be no more than minor.

11.7 SHORELINE PROCESSES AND HAZARDS

11.7.1 As was pointed out in the ORC s 42A Planning Report, the placement of a large structure on the surface of the lake has the potential to alter wave patterns and cause erosion of the shoreline. Shoreline processes in the context of this decision is, thus, concerned with understanding what effects the proposed marina and the associated shoreline works, may have on the lakebed and the adjacent shoreline, including whether or not the proposal may result in additional erosion or accretion.

11.7.2 The impact of the marina structure on the adjacent shoreline received scant attention in the application and we were not presented with any specific information concerning this matter during the hearing. Neither the evidence presented to us by the marina consultant, Mr Gary Teear, nor the report by consultant, Mr Maurice Davis, who was engaged by QLDC to review the marina design, mentioned the effect of the structure on the lake shoreline. We note, however, that the applicant intends to significantly landscape the shoreline. In the original application it was stated that, in conjunction with the proposed reclamation along the shoreline adjacent to the marina, revetment works in the form of an armoured rock lining of the embankment and retaining walls were proposed as a means of preventing wind and waves eroding the shoreline. The application took the view that these activities would have no adverse effects and, thus, mitigation was not required.

11.7.3 We note that, of the submitters, representatives of the Warrington family and Mr Cody, on behalf of the Cody Family Trust, were both concerned that the proposal could exacerbate erosion and sedimentation hazards although no definitive evidence was produced.

11.7.4 The ORC s 42A Planning Report did discuss the reshaping of the lakeshore and the revetment proposal in some detail. The report stated that the applicant proposes to reshape the foreshore of the lake surrounding the proposed marina. The reshaping will involve reclamation of the lakebed to extend a section of foreshore on the north-eastern portion of the site to allow for landscaped public use areas and increase access to the lake for the public. A similar process to that involved with the reclamation of the inlet is expected to take place along the lake front directly in front of the buildings to settle the soils for the construction of the revetment works and retaining walls. The report went on to discuss the various types of revetment proposed by the designers (Tonkin and Taylor Ltd) whom we accept have recognised expertise in this area and we shall not repeat that evidence here.

11.7.5 The ORC Planning Report also noted that the application has been assessed by the Council's Natural Hazards and Engineering Unit (NHEU) and they have no concerns with those parts of the proposal within ORC's jurisdiction. The NHEU requested a flood hazard map, showing the potential areas of inundation once the works are complete, be required as a recommended condition of any consent granted. The report also stated that the proposed works were not expected to have any significant effect on lake processes.

11.7.6 We agree with the views expressed in the ORC Planning Report and consider that, in the event that we grant consent, conditions can be attached, as recommended by ORC, to ensure that the works, once completed, do not cause any flooding, erosion, scouring, land instability or property damage, and that the consent holder would be required to remedy any such damage.

11.8 PUBLIC ACCESS AND RECREATIONAL ACTIVITIES

11.8.1 The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers is recognised in s 6(d) of the RMA, as a matter of national importance that we are required to recognise and provide for. Recreation in the context of this application is largely a function of public access. It is also related to some aspects of amenity values (i.e. boating facilities) and we have canvassed this in some detail in paragraph 11.4 above.

11.8.2 Ms Bridget Allen, to whom we have already referred (para 11.2.5, 11.3.4), told us that the proposal will enhance public access on land by providing attractive public parks through the development and by upgrading the Frankton walkway, and also by providing public access out over the water along the breakwaters.

11.8.3 Ms Rebecca Lucas, who spoke to us at some length on landscape matters (para 11.3.5 et seq), said the developers, as well as QLDC, required that the designers place significant importance on public amenity and improved access to the lake. She said the proposal, thus, provides for connection of the land to the lake and access to the water at a number of locations throughout the development such as, the timber wharf structure at the entry to the marina, the rocky headland, the concrete steps, the commercial jetty, and access steps to the gravel beach.

11.8.4 Ms Lucas went on to say that, apart from the proposed buildings and the marina, which would be of a commercial nature, a large area of public reserve will be created for passive recreation, and there will be significant improvements to the Frankton walkway. Also, the improvements to boating facilities will provide further opportunities for recreation and better access to the lake. She said the present site is unattractive and very under-utilised as a public reserve. The development will greatly enhance opportunities in the area for public use and recreation and access to and from the lake.

11.8.5 Ms Rebecca Skidmore, who provided an urban design assessment report for the applicant and to whom we have also referred above (para 11.3.23), said in her evidence at the hearing that the proposal would introduce a series of different spaces along the lake edge in a manner that will facilitate a range of experiences as one moves through the corridor. Various opportunities would be provided for the public to gather. More relaxed and informal spaces are also planned, particularly at the north-eastern end of the site. A range of opportunities would be provided for accessing the lake including the small gravel beach, the wharfs, the headland lookout and the marina itself. In Ms Skidmore's opinion, the ability to launch boats safely, enjoy the lake environment from a café or restaurant, use facilities such as public toilets, and to wait in comfort for buses, are all positive aspects of the proposal.

11.8.6 As we have already noted (para 11.2.6), Mr Timothy Vial considered that iwi would be affected by restricted access to the foreshore and Lake Wakatipu. In our summing up of the effect of the proposal on tangata whenua we concluded that the area of the lake covered by the marina was small in terms of the overall area available and that the presence of the marina would provide new opportunities for lake access by tangata whenua and local residents and visitors alike.

11.8.7 A number of submitters, including representatives of the Warrington family in particular, were opposed to buildings on the reserve land as they considered the open space should be preserved. Among the concerns expressed was that the proposed works on land would restrict public access to the lake. Many submitters, however, viewed the proposed marina development in a positive light and considered that access and recreational opportunities would be enhanced.

11.8.8 We note that Ms Neal, in her landscape report prepared for QLDC, had reservations about the effects of the proposal on the recreational experience for some people namely: water-skiers, wake-boarders and people fishing in Frankton Arm, because of the area of the lake occupied by the marina. She did observe, however, that these same groups could also benefit from its presence through the provision of boat moorings and ready access to the lake.

11.8.9 Ms Costello, when considering the objectives and policies in the PODP, in the QLDC s 42A report, said the proposal would contribute to the effective use of open space and functioning of recreational areas (including Lake Wakatipu) in the district. She added that the proposal would provide for multiple uses of the space, including passive recreation and boating, without undue adverse effects.

11.8.10 Later, in summing up, Ms Costello expressed the view that positive effects would result from the creation of a facility where public access to the lake is enhanced. Having considered the evidence presented to us, we agree and conclude that, from the point of view of public access and recreation, the effects are mostly positive and, should consent be granted, any adverse effects can be addressed by way of conditions.

11.9 HERITAGE VALUES

11.9.1 The protection of historic heritage from inappropriate subdivision, use and development is also recognised in the RMA, in s 6(f), as a matter of national importance that we are required to recognise and provide for.

11.9.2 The effect of the proposal on heritage values received little attention in the application.

11.9.3 At the hearing, Ms Bridget Allen, in her evidence on behalf of the applicant, noted that two submissions had been received concerning this matter. One was from the Historic Places Trust concerning the need for an archaeological assessment of the site, and other was from J Cassells who had concerns about the boatshed, slipway, ticket office restoration project and historic issues on the site. Ms Allen told us that consultation had occurred with both parties separately and she understood that confirmation as to the extent of the proposed works had satisfied their concerns. Consequently, she considered that the proposal would not result in any adverse effects on historic or cultural heritage.

11.9.4 Ms Costello, in the QLDC s 42A Planning Report, also referred to this matter. In reference to the submission from J Cassells, she confirmed that the site of the proposed marina lies to the east of the restoration project.

11.9.5 Ms Costello also referred to an archaeological assessment of the site, carried out in March 2004 by P. G. Petchey, for QLDC. A copy of this report was included in the additional information provided by Ms Allen after submissions had closed. She noted that there were no registered historical features on the proposed site.

11.9.6 In the event, while the evidence put before us did not raise any particular matters related to heritage values about which we should be concerned, we consider there has been sufficient historical activity along the Frankton Arm shoreline, and in the general area of the site, to require an accidental discovery protocol to be included as a condition where appropriate, should we grant consent.

11.10 TRAFFIC

11.10.1 Several issues concerning traffic were brought to our attention. First, it is generally acknowledged that traffic generated during the construction of projects such as this has the potential to create adverse environmental effects in terms of dust, noise and inconvenience to other road users. There may also be safety issues. Another matter concerns the intersection of Sugar Lane with the Queenstown-Frankton state highway (SH6A), and the problems that are expected to arise from the increased traffic coming to and from the marina. There is also the issue of parking to which we have already referred in our discussion of amenity values in paragraph 11.4 above.

11.10.2 The importance the applicant attached to traffic issues was reflected in the detailed evidence we heard on transport-related issues from Mr Andrew Carr, who is an associate of Traffic Design Group Ltd. While we will not repeat here all that Mr Carr told us, since it is a matter of record, there are some aspects of his evidence that are relevant to our decision.

11.10.3 After describing the existing transport infrastructure that may be affected by the proposed marina development, Mr Carr went on to consider present traffic flows and patterns. We were told that the state highway carries some 16,600 vehicles per day (2006) and that records suggest the rate of growth in traffic volumes is slowing. During peak hour in November 2007 most of the traffic went straight through the intersection with Sugar Lane (47 vehicles out of 2,060 used Sugar Lane). Given the number of vehicles using the highway, the accident record in the vicinity of the intersection is relatively light (6 accidents from 2002 – 2006 inclusive).

11.10.4 Mr Carr told us that all vehicular access to the site would be via Sugar Lane. A total of 59 car parking spaces are to be provided at ground level and there will be a further 132 spaces provided in the underground car park. Provision is also to be made for short-term parking adjacent to the boat ramp for cars and trailers. In addition, there will be parking for four coaches towards the east end of the site. Cycle parking will also be provided.

11.10.5 Mr Carr discussed the additional traffic likely to be generated by the proposed marina development. He considered that during normal weekday morning peak hour traffic some 21 to 25 vehicle movements (two way) can be expected. In the weekday evening peak 41 vehicle movements (two way) can be expected. On Saturdays, he said the proposed development would generate 64 to 84 vehicle movements during the mid-day peak hour and on Sundays 59 to 78 vehicle movements can be expected. We understand that the busiest times for traffic from the marina (weekends) would not coincide with peak hour traffic on the state highway (weekday evenings) and that the increase in this peak flow would be small (at most 1.8%). Nevertheless, Mr Carr considered that in order for the proposed marina to function effectively in traffic engineering terms (particularly during the weekday evening peak) improvements may be required at the Frankton Rd (SH6)/Sugar Lane/Marine Drive intersection.

11.10.6 Mr Carr then went on to discuss the provisions for marina-related parking. He said that, overall, 191 car parking spaces are proposed within the site, plus 24 spaces suitable for cars plus trailers, and 14 spaces suitable for trailers only. He considered this would be sufficient to accommodate the 90th percentile demand for parking at the site, which means there would be some shortfall during the busiest periods. He considers that the amount of car parking proposed is appropriate for normal operations of the proposed marina although a review of parking requirements may be necessary once commercial uses of the site have been finalized. He considered that provision of a traffic management plan should be a condition of any consent.

11.10.7 From a traffic perspective, Mr Carr considered that the proposal generally meets the objectives and policies of the PODP. He said issues concerning construction traffic should be included in a construction management plan. Mr Carr also referred, in some detail, to concerns raised by submitters.

11.10.8 A number of submitters were concerned about the increased traffic, both locally as well as on the state highway, likely to be generated by the proposed development, and also secondary effects such as parking difficulties and safety issues. Mr Anthony Warrington encapsulated the views of many submitters on these matters when he told us at the hearing of his concern about the likely truck movements during construction and, subsequently, the major increase in traffic along Sugar Lane that will arise after the project is finished, as well as a worsening of the present congestion at the highway junction and parking problems.

11.10.9 Transit New Zealand lodged a submission opposing the marina development although it did not present evidence at the hearing. The essence of Transit's opposition was that the commercial complex associated with the marina would make a significant contribution to vehicle movements onto and off the State Highway beyond that which might normally be associated with marina activities. In the event, we were told by Mr Carr that an agreement in principle had been reached between the applicant and Transit New Zealand regarding the upgrading of the intersection of Sugar Lane with the State Highway. However, the Submission remained alive in part.

11.10.10 Ms Costello, in the QLDC s 42A Planning Report, referred to the Traffic Assessment prepared by Traffic Design Group (TDG), the company for whom Mr Carr works, and the review of the TDG assessment by GHD Ltd, on behalf of QLDC. She said the primary issue raised by GHD in their review was the impact of the development on the Sugar Lane/SH6A intersection. As we have noted above, we understand that this matter has been resolved and, thus, there is no need for us to consider it further.

11.10.11 In light of the concern raised by submitters, and also in the GHD review, the matter of the number of car parks to be provided was given some prominence by Ms Costello. She said this generally relates to the required number of parks associated with the marina buildings and GHD had concluded that a further 12 parking spaces should be provided. We think that the number of car parks to be provided within the development will need to reflect the actual usage of the site should we grant consent.

11.10.12 We agree with Ms Costello's view that the formalised alignment of the Frankton cycle/walkway through the proposed site will provide positive safety benefits for users, along with the improved amenity of an alternative pedestrian route, which would also be provided along the lakeshore.

11.10.13 We further agree with Ms Costello that, in the event that we grant consent, a site traffic management should be required, and that any other conflicts or concerns about traffic and its related effects can be avoided or mitigated through this process. The traffic management plan should cover all traffic related matters during construction and thereafter.

11.11 COMMERCIAL ACTIVITIES

11.11.1 We are aware that there are existing commercial premises along Sugar Lane and that a number of submissions were received from this source. These were mainly concerned with potential traffic and/or parking issues, which we have canvassed in paragraph 11.10 above. Some also raised the possibility of changing the zoning along Sugar Lane from Low Density Residential to Commercial but this is a matter that lies beyond the ambit of this decision and this hearing. No other relevant matters of concern regarding the effects of the proposal on commercial activities, other than those we have already considered above, were brought to our attention.

11.12 **OTHER MATTERS**

Climate Change

11.12.1 The 2005 amendments to the RMA include the requirement in s 7(i) that we have particular regard to *the effects of climate change*. In this case, we did not receive any evidence to indicate that we should be concerned about the effects of climate change on the proposal *per se* and nor were we given any reason to believe that the presence of the marina development at the proposed location would impact on climate change.

Marina Construction

11.12.2 Several submitters expressed concern about the integrity of the marina structure and its ability to withstand storms. The failure of previous attempts to establish a marina was the not unreasonable basis for some of these concerns. It became apparent to us during the hearing that the applicant was anxious to dispel any concerns that submitters may have about this matter.

11.12.3 Mr Gary Teear appeared before us and presented detailed evidence, on behalf of the applicant, concerning the engineering design and construction of the proposed marina. Mr Teear is a director of OCEL Consultants Ltd., an engineering consultancy that specializes in the marine field. He has some 35 years experience in offshore, subsea, coastal and port engineering. We do not propose to repeat everything that Mr Teear told us since it is not our role to sanction the marina design per se. However, we were interested in hearing about those features of the design that would ensure its future integrity should it proceed to construction.

11.12.4 Mr Teear told us how the investigations carried out by his company (OCEL) had led it to recommend a floating marina (berths and breakwaters) that would be anchored to the lakebed in the sand layer beneath the silt, using screwed in anchors. Tests carried out at the proposed site had, according to Mr Teear, demonstrated that the use of screw anchors was a viable solution. A reinforced rubber hawser (a well-proven Swedish SEAFLEX system) would be used to moor the floating marina components to the anchor system on the lakebed.

11.12.5 Mr Kenneth Gousmett also presented evidence to us. Mr Gousmett is a Registered Engineering Associate with lengthy experience in infrastructure and building construction in the Queenstown District. In his evidence, he described the background to the process that led to this application, from QLDC recognizing the need for marina berths through to the council entering into a Memorandum of Understanding with QMDL. As part of this process, QLDC commissioned a marine specialist, Mr Maurice Davis, of Duffill Watts Consulting Group, to review the marina design proposed by OCEL. Mr Davis was satisfied that QMDL had investigated all practical options for the marina and concluded that the OCEL concept and the processes adopted for the preliminary design are soundly based. We are satisfied that sufficient preliminary work has been undertaken to demonstrate that the proposal is technically viable.

11.12.6 We were also heard evidence from Mr Edwin George Perry (Buzz) March. Mr March is a director of March Construction, a company he established some 30 years ago, and was involved in establishing QMDL. He said the marina, if consented, would be developed in stages with the likely first stage including the on-shore buildings, 100 private berths, and 20 public berths to be operated by QLDC. He also told us that the public would have full access to the floating perimeter breakwater. He considered the proposed on-shore facilities to be essential elements in a fully functioning marina and boating centre.

Engineering Matters

11.12.7 During presentation of the QLDC s 42A Planning Report, we were addressed by Ms Malika Rose who had reported to Ms Costello on various technical aspects of the application including transport, earthworks, water supply, effluent disposal, stormwater, power, telecommunications, and the integrity of the marina structure. Ms Rose is the Manager: Engineering and Environments, with Lakes Environmental. In her report Ms Rose suggested three matters that need to be resolved before our decision is released. These are:

i) Address the outstanding issues raised by QLDC's roading advisors, GHD.

ii) Supply evidence of an agreement with Transit NZ relating to access and egress onto SH6.

iii) Provide evidence, including a peer review that the marina concept is sound and suitable for its purpose and location.

The advice of Ms Rose was helpful and contained a number of matters, including those raised by GHD. Generally we are satisfied that those matters that lie within the ambit of this decision have been resolved or can be dealt with through appropriate management plans.

12 FINAL EVALUATION

12.1 RESUME

12.1.1 Section 11 above sets out a resume of all matters contemplated under s 104 RMA. It includes the Commission's summary of all of the evidence and its analysis thereof and findings with respect thereto. It includes the submissions of the parties and their counsel Mr John Hardie for applicant and Mr Michael Parker for the Warrington family and friends Miss Cindy Robinson for Wensley Developments and Mr Timothy Vial for the Runaka. Each of those parties called evidence which is summarized. The acceptance or otherwise of the evidence is as respectively stated. We accept the sincerity and assistance of all parties who appeared before it.

12.1.2 **Mr Parker**

By way of recapitulation we note that the Commission has accepted the submission of Mr Parker that the Commission should implement section 6(a) of the Act but rejected his submission that subsection (b) was applicable, because the Commission has found that the land is not as a matter of fact an outstanding natural feature or landscape. We note the relevance of subsection (d) mentioned by Mr Parker as well as subsection (e). We also note and apply the sections of the plan identified by Mr Parker in paragraphs 8, 9, 10 (especially, section 4.2.4), 12 and 14. We are cognisant of Rule 4.2.5.1 Future Development.

The submission of Mr Parker requesting re-notification because of changes is not accepted. While some of these changes may be material nevertheless there is no added burden and the appearance or right to appear at the hearing ensures there was no prejudice.

12.1.3 As already noted we are not able to support the claim of a right to unimpeded view of the lake. A condition relating to the height of buildings is included in this consent.

12.1.4 **Mr Vial**

The importance of free public access to the lake and its margins is acknowledged. In this case we are not able to accept the submission that the cumulative effect of the marina and associated onshore buildings will be to alienate tangata whenua from the lake. An issue for Mr Vial was the scale of the proposal. Giving full weight to these concerns we are nevertheless of the view that in the total context of the lake and particularly the Frankton arm the effect on access to all parts of the water and use of the surface is minimal. This is particularly so in the context of over a hundred years of jetty and launching use and boat berthing at the site. In our opinion, the kaitiakitanga of the tangatu whenua will continue unimpeded.

12.1.5 **The Warringtons**

The evidence from the Warringtons is well traversed in the preceding sections of this decision. That their view of the lake and mountains will be affected in part is undeniable. However any development permitted under the designation may have a reasonably like effect. Immediate parking in their vicinity will be precluded and there will be no loss of sun or overshadowing. The photo montage produced showing a view from gate 823 Frankton Road was put in evidence. However the Commission also viewed that perspective from immediately in front of the existing house which showed a considerable portion of the upper Remarkable's Range remaining in view. Then perhaps a more pertinent perspective is had in the applicant's photo-montage from View Point No.09 13/PD-900 Sugar Lane. Taking into account the perspective which might be had under the designation and recreation reserve as enshrined in the plan, the adverse effect from 823 Frankton Road is minor. The same applies but even more so with respect to the outlook from number 819 Frankton Road.

12.1.6 **Mr John Hardie for Applicants**

In his reply Mr John Hardie reaffirmed his initial submission that decision C180/99 was not a final determination of the landscape category of the site as being an outstanding natural feature or landscape. We do not have to answer that question so it is left open. This does not adversely affect the case of the applicant. This is because we accept that subsection (a) and the other sections of section 6 noted above are sufficient to invoke a national importance criterion. Mr Hardie responded to the submissions of Mr Parker under three heads: permitted base line, traffic (connection to State Highway and parking shortfall) and the Wensley submission. In this respect changes to the parking layout had been made to reduce the effects on Wensley. He also responded to Mr Parker's opposition to the request to extend the statutory timeframe for completion. In the main we are receptive to his submissions as being a sufficient response to the criticisms made. He also discussed the permitted baseline and this is dealt with separately. In concluding he propounded the question of size and scale – *"is it too much?"*- and his response was predictable enough, stating that *"the issues haven't changed since I opened"*. We agree.

12.2 THE PERMITTED BASELINE

12.2.1 Section 104(2) institutes the permitted baseline. It reads:

"When forming an opinion for the purposes of subsection (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if the plan permits an activity with that effect."

Mr Hardie invoked this subsection saying that the Applicant's argument was simple. He said that if the plan permits development on the land that meets the requirements of the designation and those effects are not fanciful and that should not be disregarded. Resort to that subsection is within the discretion of the Commission: in this case we are not minded to rely on that principle. *The point is the development must be permitted by the plan.* Here the designation is a part of the operative plan; it went through the statutory processes required by the Reserves Act and the Resource Management Act. We are also of the opinion that the overarching nature of a designation is such that the activity would qualify if undertaken by the Council itself or through a licensee as to some other person. The activity is permitted to the exclusion of any other if the Council so determines. This is regarded as being a highly persuasive factor. We are of the view that the present proposal is well within the ambit of the designation. We note that Miss Costello is probably right when she said that there is no relevant permitted baseline with respect to the lake.

12.3 IS THE SCALE OF THE PROPOSAL TOO GREAT?

12.3.1 We have already responded to this question particularly in reply to Mr Parker and Mr Vial. Our view is that it is not. The scale of the development is a matter of judgment. Here there are no material breaches of the relevant Rules. Open space abounds. The utility of staging the development in the first instance for the marina by building 120 berths in the initial stage enables the applicant to pause and respond to the demand or lack of it at the time. We would see it as appropriate that the consent for the first stage should lapse 10 years (not 15 years) from the date of commencement of this consent.

12.4 SECTION 104D RMA – GATE-WAY PROVISION

12.4.1 This section deals with particular restrictions for non-complying activities and in this case the applications to the Queenstown Lakes District Council are such. The section reads:

"Despite any decision made for the purpose of section 93 in relation to minor effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either –

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(b) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of ...

(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; ..."

12.4.2 Mr Parker said *"it would be artificial to deny that this proposal would have anything but greater than minor adverse effects on amenity in a general sense as referred to above or in relation to visual amenity for people recreating in and through the reserve."* We cannot accept that submission. The land activity is of long standing. In the context of the Frankton Marina Recreation Reserve we determine that the proposal is not adverse and certainly any adverse effects on the environment are less than minor.

12.4.3 With respect to objectives and policies we also have no hesitation in finding that the activity will not be contrary to the objectives and policies of the plan. Note also section 176(2) RMA which reads:

"The provisions of a [district] plan [or proposed district plan] shall apply in relation to any land that is subject to a designation only to the extent that the land is used for a purpose other than the designated purpose."

Any submissions to the contrary are rejected. We have considered every provision of the Plan referred to us by the officers and parties.

12.4.4 Further we have adopted in part a number of submissions. Except to that extent all other submissions are refused.

12.5 FINAL SUMMATION

The Issues (see para 11.1.3 above)

(i) ***Whether the proposed activities and use constitute inappropriate use and development [see s6 RMA (a)];***

Answer: **No.** Weighing all the submissions and evidence it is the opinion of the Commission that this is the only proper answer.

(ii) ***Whether the site is an outstanding natural feature or landscape;***

Answer: **No.** There is no downside in this response because other provisions in section 6 as noted compel the Commission to recognize and provide for the matters of national importance identified.

(iii) ***Whether the adverse affects of the activity on the environment will be minor;***

Answer: **Yes.** This is the unequivocal value judgment of each member of the Commission.

(iv) ***Whether the activity will not be contrary to the objectives and policies of the relevant plans;***

Answer: **Yes – it will not be contrary.** The effect of the designation is overarching and the proposal falls within the express purpose authorized by that status.

(v) ***Whether the proposal is too great in scale and effect particularly the marina.***

Answer: **No.** Both the proposed buildings and the marina as contemplated are in the public interest and the use of the site resource for these purposes will enhance the interaction between land and lake.

12.5.2 To conclude it is apt to cite the final oral summary given to the Commission by Miss Costello. She said that overall, considering the information provided at the hearing, she was of the opinion that consent is able to, and should be granted subject to detailed conditions, including those she had identified and those recommended by the ORC reporting officers.

Ms Costello said that in answer to Mr Warrington's question about who speaks for future generations, that the RMA is designed to consider this question, and seeks development which enables people and communities to provide for their wellbeing while sustaining resources to meet the reasonably foreseeable needs of future generations. Ms Costello considered that the proposal, particularly its ability to stage development, will achieve this. She also stated that she was of the opinion that the proposal would positively provide for the matter of national importance of public access to lakes and their margins, and without resulting in inappropriate development.

We endorse this expression of opinion.

13 OTAGO REGIONAL COUNCIL

13.1 The principal contest in this case related to the applications before the Queenstown Lakes District Council. No expert evidence or indeed any evidence at all was called in opposition to the terms of the draft permits submitted by the Otago Regional Council. We have already accepted the report of its officers and consent will be given as amended by this Commission.

14 FORMAL CONSENT CLAUSE

Under section 104B RMA a consent authority may grant or refuse consent and in its discretion impose conditions. The Commission having determined to grant consent now does so. Consent will be granted to the applications as amended by this decision and on the conditions appended.

15 ACKNOWLEDGEMENTS

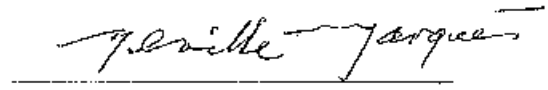
It will be self evident that the completion of this decision has demanded considerable time and talent from each Commissioner. As Chair I wish to express my sincere appreciation on behalf of myself and the parties to each of them. At the hearing I acknowledged the contribution made by all parties and witnesses and officers to the determination of the application which I now reiterate.

16 THE CONDITIONS

16.1 Considerable time has been spent by Commissioner Lumsden in particular and the Commission in general in considering the form and content of conditions drafted to ensure performance by the consent holder of the terms of this decision. In the end it is the faithful implementation of the consent by the consent holder that will ensure the success of the proposal and the sustainable management of the Frankton Marina Recreation Reserve.

16.2 The conditions with respect to the QLDC consent are set out in Appendix A and the conditions with respect to ORC are in Appendix B.

DATED this 24th day of June 2008



Neville Marquet

Signed for and on behalf of
the Commission

APPENDIX A – QLDC CONDITIONS

DECISION NO 1:

QUEENSTOWN LAKES DISTRICT COUNCIL: RM070542

Date of commencement: As provided in s.116 of the Resource Management Act 1991.

Term of consent: Unlimited.

Date of lapsing of consent (if not given effect to): Ten (10) years for Stage One of the development and fifteen (15) years for any remaining stages, as provided in s.125 of the Resource Management Act 1991.

Purpose of consent: To establish and operate a 240-berth marina, associated buildings, car parking and public open space (the Marina) at the Frankton Marina Reserve and Lake Wakatipu, Sugar Lane, Queenstown.

Legal Description of the Land: The relevant parts of the land are described in Schedule A (below), or otherwise as more specifically described in this permit and in the various plans and other information submitted by the applicant.

Schedule A:

	Location	Legal Description
1	Adjacent to Frankton Road (State Highway 6A), approximately 90 metres south of the intersection of Sugar Lane and Frankton Road (State Highway 6A), Frankton, Queenstown. Mid-point Grid Reference: NZMS 260: F41:724-678	Secs 48, 52, 53, 58, 59 and 60 Blk XXI Shotover SD Pt Sec 39 Blk XXI Shotover SD Sec 1 SO 21582 Sec 1 SO 24208

STANDARD CONDITIONS OF CONSENT:

1. The consent holder shall undertake all activities authorised by this consent in general accordance with the plans and information submitted with the resource consent application received by Queenstown Lakes District Council (QLDC) on 21 June 2007 and any other documentation relevant to the application including requests for further information, except where inconsistent with these conditions. Any change or cancellation must be made in accordance with s.127 of the Resource Management Act 1991 (RMA).

2. The consent holder shall notify the Planning and Environment Manager, Queenstown Lakes District Council (the consent authority), at least five (5) working days in advance of the date of the commencement of works associated with this consent unless otherwise required in the special conditions attached to this consent.

3. Unless it is otherwise specified in the special conditions of this consent, compliance with any monitoring requirement imposed by these conditions shall be at the consent holder's expense.

4. Prior to any work that relates to this consent commencing on-site, the consent holder shall submit to the consent authority, a plan (or plans) including a timetable that details the progress of all activities covered by this consent. Any variation to the plan(s) shall be submitted to the consent authority within 14 days of the change being made.

5. The consent holder shall supply any agent or contractor working under this consent with a copy of the consent conditions, which shall be available on-site for presentation to an officer of the consent authority upon request.

6. Any works carried out during the life of the marina and its on-site facilities, whether operation, maintenance, decommissioning, or otherwise, shall be consistent with the conditions attached to this consent.

7. The consent holder shall pay to the consent authority all required administration costs and charges fixed by the consent authority pursuant to s.36 of the Act in relation to any:
   i) administration, monitoring and inspection relating to this consent; and
   ii) charges authorised by regulations.

8. In accordance with s.128 and s.129 of the RMA the consent authority may within ten days of each anniversary of the commencement of this consent, or upon receipt of information identifying non-compliance with the conditions of this consent, serve notice on the consent holder of its intention to review any of the conditions of this consent for any of the following purposes:
   i) To deal with any adverse effect on the environment that may arise from the exercise of this consent and which it is appropriate to deal with at a later stage.
   ii) To require the consent holder to adopt the best practicable option to avoid, mitigate or remedy any adverse effect on the environment.
   iii) To determine whether or not the conditions of this consent are adequate to deal with any adverse effect on the environment that may arise from the exercise of this consent, and which it is appropriate to deal with at a later stage.
   iv) To ensure the conditions of this consent are consistent with any National Environmental Standards.

9. The consent holder shall pay to Lakes Environmental Ltd., an initial fee of $240 for the costs associated with the monitoring of this resource consent in accordance with s.35 of the RMA.

10. Upon completion of the marina, or any of its stages, the consent holder shall advise the consent authority, in writing, that all conditions of this consent have been complied with and shall arrange an appropriate time for a final inspection.

11. The consent holder shall ensure that copies of any management plans required under these conditions are also supplied to Otago Regional Council.

SPECIAL CONDITIONS OF CONSENT:

Surveyor's Certificate

12. In order to ensure that the proposed buildings are located exactly as proposed in the application, and do not exceed the degree of infringement applied for, the consent holder shall employ a suitably qualified surveyor at its expense who shall;

    (a) certify to the consent authority in writing that the foundations have been set out in accordance with the approved consent in terms of levels and position; and
    (b) confirm to the consent authority in writing on completion of the buildings that they have been built in accordance with the approved plans, and do not exceed the maximum height control/degree of infringement applied for.

    Note: The consent holder is advised that they will require a suitably qualified surveyor to carry out a survey of the land, recording the ground levels, prior to any earth works being carried out on the site.

Landscaping

13. Final colours and materials for buildings, structures and hard landscaping surfaces shall be submitted to the consent authority prior to development commencing on the site. In this instance, the final colour scheme for all buildings, structures and landscaped surfaces shall appear appropriately recessive throughout all seasons of the year, and lie within the natural colour ranges of browns, greens and greys as indicated throughout the surrounding landscape. Materials shall be in accordance with those outlined in the application.

14. Prior to development commencing on the site, final landscaping treatment, planting plans and cross-sections shall be submitted to the consent authority. The plans shall specify the location, planting densities and species of all vegetation indicated on the plans. The final species of vegetation proposed should place emphasis on the use of native plants that are also indigenous to the Wakatipu area.

15. The maintenance of the landscaping/streetscape and parking areas shall be the responsibility of the consent holder excepting that maintenance obligations may be transferred to QLDC whereby such agreement for maintenance obligations are submitted to the consent authority. In that instance maintenance shall be in accordance with that agreed to and outlined in the lease agreement between QLDC and the consent holder.

16. Prior to development commencing on the site a qualified ecologist shall approve the final design of the unnamed creek, to ensure that the culvert will not restrict fish movement.

17. Any lighting associated with the commercial buildings and the marina shall be restricted to down-lights only. The consent holder shall submit a lighting plan prior to development commencing on site to show that all lighting on the site will be consistent with QLDC's Southern Light Strategy, and to ensure that lighting is designed to avoid excessive light spill while maintaining public safety.

18. The details of street furniture, including any structures to be provided on the site for the disposal and recycling of waste, and seating, shall be submitted to the consent

authority prior to development commencing. The design of street furniture shall be consistent with the provision of a cohesive 'public reserve' node.

Signage

19. Prior to the erection of the directory boards the final design and position of the directory boards shall be submitted to the consent authority. It is noted that, in accordance with the application, two directory boards of approximately $2m^2$ each are approved and are to be located as set out in the application.

20. Signage on the site over and above that permitted by Condition 19 above shall be restricted to the 'numbering' signage on each of the buildings in accordance with the plans and specifications set out in the application. No further signage shall be erected on the site.

Engineering

20. All engineering works shall be carried out in accordance with QLDC's policies and standards, being New Zealand Standard 4404:2004 with the amendments to that standard adopted on 5 October 2005, except where specified otherwise.

21. The consent holder shall provide a letter to the consent authority advising who their representative is for the design and execution of the engineering works and construction works required in association with this development, and shall confirm that these representatives will be responsible for all aspects of the works covered under Sections 1.4 and 1.5 of NZS4404:2004 "*Land Development and Subdivision Engineering*", in relation to this development.

22. Prior to the commencement of any works on the land being developed the consent holder shall provide to the consent authority, copies of all specifications, calculations and design plans as are considered necessary by consent authority, in accordance with Condition 20, to detail the following engineering works:

    a) The provision of a water supply to the development shall be in terms of QLDC's standards and connection policy. This shall include an approved valve and valve box on the property boundary that includes provision for the installation of a water meter at a later date. The costs of the connection shall be borne by the consent holder. A full water model is required to be submitted to confirm design requirements and capacity. Easements in Gross shall be placed over all mains to be vested in QLDC.

    b) The provision of a foul sewer connection to the development shall be in accordance with QLDC's standards and connection policy. A detailed effluent model describing the nature and scale of the discharges from the marina development shall be submitted to the consent authority before connection to ensure that effluent demands can be fully catered for. The costs of the connection shall be borne by the consent holder.

    c) To the extent that the existing 1.35m diameter trunk sewer main remains operative it shall be inspected and its condition established prior to works commencing on site. The condition of the sewer main shall be monitored during construction and inspected following completion of the works. Any maintenance that is required as a result of works on the site shall be at the

consent holder's cost. Design and timing of all activities described herein concerning the sewer main shall be undertaken in conjunction with QLDC's Asset Managers, and a copy of all correspondence shall be submitted to QLDC for retention on the Resource Consent file.

d) The 600mm redundant sewer main shall be removed where it conflicts with the development. This shall be undertaken in conjunction with QLDC's Asset Managers and a copy of all correspondence shall be submitted to QLDC for retention on the Resource Consent file.

e) Easements in Gross shall be placed over all sewer mains to be vested in QLDC.

f) Where washdown water is proposed to be discharged into QLDC sewer mains, the consent holder shall liaise with QLDC's Asset Managers as to the appropriate design requirements.

g) The provision of suitable reticulation and connections from all impervious areas in the development to Lake Wakatipu. The design shall be submitted to Otago Regional Council prior to submission to QLDC. The design shall include full details of collection methods, flood mitigation, water management and stormwater quality. The costs of the installation shall be borne by the consent holder.

h) The provision of fire hydrants with adequate pressure and flow to service the development with a Class W4 fire risk in accordance with the NZ Fire Service Code of Practice for Firefighting Water Supplies 2003. Adoption of any lesser risk will require the prior approval in writing from NZ Fire Service, Dunedin Office. The fire cells of the development shall be in accordance with a W4 design.

i) The construction of sealed vehicle manoeuvring and parking areas to QLDC standards for both car and trailer parking as per the application. Within six months of all commercial development at the site being occupied, a car parking survey shall be carried out at the consent holders expense. The survey shall be carried out over (at least) the course of one weekday, one Saturday and one Sunday, with the exact survey timings and dates to be agreed with Council.

j) Prior to the issue of any building consents, the consent holder shall deposit the sum of NZ$230,000 with Transit New Zealand in full monetary consideration of any roading improvements which Transit deems necessary at the intersection of Sugar Lane and SH6A.

k) A design shall be submitted to ensure that appropriate sight distances/visibility is achieved for drivers exiting the North Eastern car park in perpetuity. If the sight distances cross land outside the consent holder's control, a formal agreement with those parties must be obtained.

l) The stairwell at the 'blind bend' located at the western corner of the basement car park shall be designed to be "open" as opposed to being enclosed within walls, to provide inter-visibility between vehicles. Alternatively a mirror shall be provided to ensure the adequate inter-visibility.

m) The structure adjacent to the southern side of the foot of the access ramp to the basement car park shall be designed to be "open" to ensure inter-visibility between vehicles, and vehicles & pedestrians. Alternatively, a mirror shall be provided to ensure the adequate inter-visibility.

n) The submission of a specific site Traffic Management Plan to ensure that at times of peak demand at the marina, any traffic congestion within the site is controlled. No effects from traffic congestion should extend onto the adjacent state highway.

23. Prior to the occupation of each stage of the development, the consent holder shall complete the following:

a) The submission of 'as-built' plans in accordance with QLDC's 'as-built' standards, and information required to detail all engineering works completed in relation to or in association with this development.

b) The completion and implementation of all works detailed in Condition 22 above.

c) The consent holder shall provide suitably sized power connections to the development. The supply shall be underground from any existing reticulation and be in accordance with any requirements/standards of Aurora Energy/Delta.

d) The consent holder shall provide a suitable and usable telecommunications connection to the development. These connections shall be underground from any existing reticulation and in accordance with any requirements/standards of Telecom.

Earthworks

24. Prior to commencing any work on the site the consent holder shall:

a) Prepare a contingency plan and submit it to the consent authority. Such a contingency plan shall identify the monitoring regime that will be installed, the actions the contractor and developer will undertake if the monitoring regime indicates earth movement, and the timeframe within which the contractor and developer will act.

b) Prepare a photo survey of the neighbouring properties and buildings (subject to being permitted access to neighbouring properties for this purpose) to obtain a reliable set of benchmark readings, so that the total magnitude of movement, if any, due to earthworks can be clearly and accurately determined. A file copy of these benchmark records shall be submitted to the consent authority.

c) Provide to the consent authority the name and telephone number of the engineer who will be responsible for supervising all excavation and retention works on site and who will be responsible for the regular reading of the monitoring instrumentation. A contact telephone number shall also be given to the owners of adjacent properties.

d) A bond shall be entered into, in a form to be determined by the QLDC's solicitors, to secure performance of the works to be carried out as per the plans approved for this development. The cost of setting up the bond is to be borne by the applicant. The bond shall be guaranteed by a financial institution approved by QLDC's solicitors. This resource consent shall not be exercised until the applicant has provided evidence to QLDC that the bond has been established. The bond shall be for a sufficient amount to cover the cost of restoring the site to a level hardstand area, and stabilising the adjacent foreshore to its current state or better, should the works be abandoned for a period in excess of 90 days. The amount of such a bond shall be determined by

an estimate made by a suitably qualified engineer experienced in such works, using as a basis for their calculations engineered plans and specifications provided by the applicant. Such bond may be released upon the issuance of a Certificate of Compliance for the proposed works authorised by this consent.

25. Prior to commencing any works on site, the consent holder shall submit a Construction Traffic and Pedestrian Management Plan to QLDC. The Construction Traffic and Pedestrian Management Plan shall be prepared by a Site Traffic Management Supervisor (STMS) (certification gained by attending the STMS course and getting registration). All contractors obligated to implement temporary traffic management plans shall employ a qualified STMS on site. The STMS shall implement the Construction Traffic and Pedestrian Management Plan. The plan shall specifically detail the protection of other users of Sugar Lane, both vehicular and pedestrian, and show how Sugar Lane will continue to operate during the construction period.

26. Prior to commencing works, the consent holder shall, as a minimum, implement the measures described in the Outline of Proposed Site Management Measures submitted with the application, as well as any additional measures deemed necessary by Otago Regional Council. The measures shall remain in place for the duration of the project or until proven that they are no longer required.

27. The final designs of all earthworks and geotechnical work shall be peer reviewed by a suitably qualified and experienced independent third party engineer prior to the final designs being submitted with a copy of the peer review to the consent authority.

28. A suitably qualified professional as defined in Section 1.4 of NZS4404:2004 shall monitor and confirm that the ground conditions and cut depths encountered are as expected and designed for. Should the site conditions be found unsuitable for the proposed construction/retaining methods, then a suitably qualified and experienced engineer shall submit to the consent authority new designs/work methodologies for the excavation/retention systems prior to further work being undertaken with the exception of work to stabilise the site in the interim.

29. All necessary temporary retention systems or the final structure shall be installed as soon as practicable following excavation to avoid any possible erosion or instability.

30. The consent holder shall implement suitable measures to prevent deposition of any debris on surrounding roads/access ways by vehicles moving to and from the site. In the event that any material is deposited on any roads, the consent holder shall take immediate action, at its expense, to clean the roads. The loading and stockpiling of earth and other materials shall be confined to the subject site.

31. If at any time QLDC receive proof of effects from vibration sourced from the earthworks activities approved by this resource consent, the consent holder at the request of QLDC shall cease all earthworks activities that result in objectionable levels of vibration, and shall engage a suitably qualified professional who shall prepare a report that assesses the vibration caused by earthworks associated with this consent and what adverse effect (if any) these works are having on any other land and buildings beyond this site. Depending on the outcome of this report a peer review may be required to be undertaken by another suitably qualified professional at the consent holder's expense. This report must take into consideration the standard BS 5228:1992 or a similar internationally accepted standard. Both the report and peer review (if required) shall be submitted to the consent authority for acceptance and approval.

32. Prior to construction of any buildings on the site a Chartered Engineer experienced in soils investigations shall provide certification, as appropriate, in accordance with NZS 4431 for all areas of fill within the site on which buildings are to be supported (if any).

33. Within eight weeks of completing the earthworks the consent holder shall submit to QLDC an "as built" plan of the fill. This plan shall be in terms of the New Zealand Map grid and shall show the contours indicating the depth of fill. Any fill that has not been certified by a suitably qualified and experienced engineer in accordance with NZS 4431 shall be recorded on the "as built" plan as "uncertified fill".

34. At the completion of the earthworks all earth-worked areas shall be top-soiled and grassed or otherwise permanently stabilised within 4 weeks.

35. No earthworks, temporary or permanent, are to breach the boundaries of the site.

36. Upon completion of the earthworks, the consent holder shall:

a) remedy any damage to all existing road surfaces and berms that result from work carried out for this consent; and

b) provide an engineer's design certificate/producer statement with regards to any permanent retaining walls on site.

Construction Noise

37. A Construction Noise Management Plan shall be prepared and submitted to the consent authority prior to commencement of construction. This shall be generally in accordance with New Zealand Standard NZS6803:1999: *Acoustics – Construction Noise*, which details the types of construction and procedures that will be carried out to ensure compliance with the Standard. The Construction Noise Management Plan shall be prepared by appropriately qualified and experienced persons, prior to relevant construction stages commencing, and shall be submitted to the consent authority, prior to construction commencing.

Dust

38. The consent holder shall take all practicable steps, including the use of appropriate dust suppression measures, to minimise the creation of a dust nuisance during the construction stages of the development.

Archaeological

39. If *koiwi tangata* (human skeletal remains), *taonga*, artefact or any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:

(i) cease all work within a 50 m radius of the discovery and secure the area;
(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwi tangata* (skeletal remains), the New Zealand Police;
(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the

discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;

(iv) ensure that any *koiwi tangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and

(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwi tangata* (skeletal remains), the New Zealand Police.

Hours of Operation during the Construction Period

40. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

Marina Operations

41. Not less than one month prior to completion of Stage one of the development, and any subsequent stages, the consent holder shall submit to the consent authority for approval a Marina Operations Plan. The contents of this plan shall include but not necessarily be limited to the following matters:

(i) A full description of all activities that will take place at the marina development site, including any associated facilities and buildings.

(ii) The measures that will be put in place to control traffic and parking, including a parking allocation plan illustrating the on-site provision of the required number of car parks for each proposed activity/use within the Marina buildings in accordance with the parking ratios set out in Part 14 (Table 1) of the Partially Operative District Plan. These parks shall be provided from the 59 surface car parks identified in the application. No change in use is permitted without prior consent from Council.

(iii) The measures that will be put in place to control noise. Noise management shall be in place to ensure that activities (other than outdoor recreation) shall be conducted such that the following noise levels are not exceeded at the boundary of the site:

- during day time 50 dBA L10
- during night time 40 dBA L10

(iv) Details of the hours of operation of the marina and its associated facilities. Hours of operation for the activities within the Marina buildings shall not extend beyond 7am – Midnight.

(v) The measures that will be adopted in the event that there is any spillage or deposition of hazardous substances, including fuels and oils, into or on to any water body (Lake Wakatipu), watercourse, or the land.

Advice Notes

i) Council may elect to exercise its functions and duties through the employment of independent consultants

ii) *Local Government Act 2002: Development Contributions*

This proposal will generate a demand for network infrastructure and reserves and community facilities.

In granting this resource consent, pursuant to Part 8 Subpart 5 and Schedule 13 of the Local Government Act 2002 and the Council's Policy on Development Contributions contained in Long Term Council Community Plan (adopted by the Council on 25 June 2004) the Council has identified that a Development Contribution is required. A 'Development Contribution Notice' which includes details of how the contributions were calculated will be issued under separate cover.

An invoice will be generated by the Queenstown Lakes District Council. Payment will be due prior to commencement of the consent, except where a Building Consent is required. If a Building Consent is required, then payment shall be due prior to the issue of the code of compliance certificate or prior to the connection to Council services, whichever comes first.

DECISION NO 2:

OTAGO REGIONAL COUNCIL: CONSENTS 2006.365-368, 2007.372-382

In Decision No 2, for the purposes of attaching consent conditions, fifteen separate activities as identified in Schedule A below have been bundled together. The conditions that follow have been listed under two headings: Standard Conditions to which all fifteen consents apply, and Special Conditions that apply only to each particular consent.

Date of commencement: As provided in s.116 of the Resource Management Act 1991.

Term of consent: As specified in Schedule A below

Date of lapsing of consent (if not given effect to): Five (5) years as provided in s.125 of the Resource Management Act 1991.

Purpose of consent: The various activities covered by Decision No 2, and for which consents from Otago Regional Council have been granted, are as described below in Schedule A:

Schedule A:

Consent No	Type	Description	Consent Term
2007.365	Water Permit	To take groundwater for the purpose of dewatering around the basement car park building.	35 years
2007.366	Discharge Permit	To discharge groundwater to Lake Wakatipu/Whakatipu-wai-maori for the purpose of permanently dewatering around the basement car park building.	35 years
2007.367	Discharge Permit	To discharge stormwater to Lake Wakatipu/Whakatipu-wai-maori for the purpose of stormwater disposal from a commercial site.	35 years
2007.368	Land Use Consent	To disturb, deposit fill in and reclaim the bed of Lake Wakatipu/Whakatipu-wai-maorifor the purpose of constructing a basement car park.	15 years
2007.372	Land Use Consent	To place gabion baskets, concrete walls, fill, reno mattresses and stairs in and on the bed of Lake Wakatipu/Whakatipu-wai-maori for the purpose of reshaping the foreshore of Lake Wakatipu/Whakatipu-wai-maori.	15 years
2007.373	Land Use Consent	To disturb, deposit fill in and reclaim a section of foreshore of Lake Wakatipu/Whakatipu-wai-maori for the purpose of reshaping the foreshore of Lake Wakatipu/Whakatipu-wai-maori.	15 years
2007.374	Land Use Consent	To erect a structure and disturb the bed of Lake Wakatipu/Whakatipu-wai-maori for the purpose of constructing a jetty.	15 years
2007.375	Land Use Consent	To place screw anchors in and disturb the bed of LakeWakatipu/Whakatipu-wai-maorifor the purpose of constructing a marina.	15 years

2007.376	Discharge Permit	To discharge washdown water to Lake Wakatipu/Whakatipu-wai-maori for the purpose of operating a boat washdown area.	35 years
2007.377	Discharge Permit	To discharge contaminants to Lake Wakatipu/Whakatipu-wai-maori and an unnamed tributary of Lake Wakatipu/ Whakatipu-wai-maori for the purpose of constructing a marina and associated structures.	15 years
2007.378	Discharge Permit	To discharge floodwater to Lake Wakatipu/Whakatipu-wai-maorifor the purpose of draining the inside of a basement car park.	35 years
2007.379	Land Use Consent	To place a culvert in and disturb the bed of a watercourse for the purpose of upgrading the culvert in an unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori.	15 years
2007.380	Land Use Consent	To erect a bridge over and disturb the bed of a watercourse for the purpose of providing foot access over an unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori.	15 years
2007.381	Water Permit	To divert the flow of a watercoursefor the purpose of realigning an unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori.	15 years
2007.382	Land Use Consent	To disturb, deposit in and reclaim the bed of a watercourse for the purpose of realigning an unnamed tributary of Lake Wakatipu /Whakatipu-wai-maoriwater course.	15 years

Description of the Land: The relevant parts of the land are described in Schedule B (below), or otherwise as more specifically described in this permit and in the various plans and other information submitted by the applicant.

Schedule B:

	Location	**Legal Description**
1	Adjacent to Frankton Road (State Highway 6A), approximately 90 metres south of the intersection of Sugar Lane and Frankton Road (State Highway 6A), Frankton, Queenstown. Mid-point Grid Reference: NZMS 260: F41:724-678	Secs 48, 52, 53, 58, 59 and 60 Blk XXI Shotover SD Pt Sec 39 Blk XXI Shotover SD Sec 1 SO 21582 Sec 1 SO 24208

STANDARD CONDITIONS OF CONSENT:

1. The consent holder shall undertake all activities authorised by these consents in general accordance with the plans and information submitted with resource consent applications received by Otago Regional Council on 21 June 2007, and any other documentation relevant to the application including requests for further information, except where inconsistent with these conditions. Any change or cancellation must be made in accordance with s.127 of the Resource Management Act 1991 (RMA).

2. The consent holder shall notify the Otago Regional Council (the consent authority), at least five (5) working days in advance of the date of the commencement of works

associated with these consents unless otherwise required in the special conditions pertaining to each consent.

3. Unless it is otherwise specified in the special conditions of these consents, compliance with any monitoring requirement imposed by these conditions shall be at the consent holder's expense.

4. Prior to any work that relates to these consents commencing on-site, the consent holder shall submit to the consent authority, a plan (or plans) including a timetable that details the progress of all activities covered by these consents including the commencement of any discharges. Any variation to the plan(s) shall be submitted to the consent authority within 14 days of the change being made.

5. The consent holder shall supply any agent or contractor working under these consents with a copy of the consent conditions, which shall be available on-site for presentation to an officer of the consent authority upon request.

6. Any works carried out during the life of the marina and its on-site facilities, whether maintenance, decommissioning, or otherwise, shall be consistent with the conditions attached to these consents.

7. The consent holder shall pay to the consent authority all required administration costs and charges fixed by the consent authority pursuant to s.36 of the Act in relation to any:
   i) administration, monitoring and inspection relating to these consents; and
   ii) charges authorised by regulations.

8. In accordance with s.128 and s.129 of the RMA, the consent authority may within three months of each anniversary of the commencement of these consents, after giving not less than one month's notice in writing, serve notice on the consent holder of its intention to review any of the conditions of these consents for any of the following purposes:
   v) To deal with any adverse effect on the environment that may arise from the exercise of these consents and which it is appropriate to deal with at a later stage.
   vi) To require the consent holder to adopt the best practicable option to avoid, mitigate or remedy any adverse effect on the environment.
   vii) To determine whether or not the conditions of these consents are adequate to deal with any adverse effect on the environment that may arise from the exercise of these consents, and which it is appropriate to deal with at a later stage.
   viii) To ensure the conditions of these consents are consistent with any National Environmental Standards.

9. Upon completion of the marina, or any of its stages, the consent holder shall advise the consent authority, in writing, that all conditions of these consents have been complied with.

10. The consent holder shall ensure that copies of any management plans required under these conditions are also supplied the consent authority.

SPECIAL CONDITIONS OF CONSENT:

Water Permit – Basement Car Park Dewatering (Consent No. 2007.365)

11. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

12. The consent holder shall provide to the consent authority a plan showing the position of groundwater level monitoring sites before any groundwater is taken under this consent. A minimum of four groundwater level monitoring sites shall be provided. At least two groundwater level monitoring sites shall be up gradient of the area being dewatered.

13. The consent holder shall undertake daily groundwater level monitoring during the construction phase of the development. Once the construction phase of the site development is complete, the frequency of groundwater level monitoring shall be reduced to weekly for a period of three (3) months and then monthly thereafter. The monitoring shall be undertaken at each of the sites required under Condition 12 of this consent.

14. A record of the groundwater level in each of the monitored groundwater level sites shall be kept and a copy of that record shall be forwarded to the consent authority by 30 June each year, and upon request.

15. The consent holder shall establish by survey baseline ground levels or a fixed datum for all properties immediately adjacent to the consent holder's site before the exercise of this consent. A copy of this survey shall be provided to the consent authority within one month of the survey being completed.

16. The consent holder shall ensure that the groundwater abstraction, authorised by this permit, does not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this permit, the consent holder shall, if so required by the consent authority and at no cost to the consent authority, take all such action as the consent authority may require to remedy any such damage.

17. Should the consent holder encounter unpredicted groundwater conditions during the construction phase of the development, the consent holder shall cease work and advise the consent authority immediately. If any variations to current consents are required, these will be applied for and granted before works can continue. Prior to recommencing construction, appropriate methodologies shall be developed and implemented, and all required remediation work shall be undertaken. The consent holder shall ensure that the consent authority is provided with details of the methodologies used and details of all remedial work (including timeframes) prior to any further works being undertaken.

Discharge Permit – Basement Car Park Dewatering (Consent No. 2007.366)

18. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

19. This permit shall only be exercised in conjunction with Water Permit 2007.365.

20. All discharged water, authorised by this permit, must pass through an adequately sized settlement tank or similar device before discharging to Lake Wakatipu/Whakatipu-wai-maori.

21. Within one month of the completion of the basement dewatering system, the consent holder shall provide an Operations and Management Manual, which shall detail how the settlement tank or similar device and associated pipe network will be maintained to ensure ongoing optimum performance.

22. A record of all maintenance and repairs undertaken to the settlement tank or similar device and associated pipe network shall be kept and a copy of that record shall be forwarded to the consent authority by 30 June each year, and upon request.

23. The consent holder shall ensure that the discharge does not give rise to any significant adverse effect on aquatic life.

24. The consent holder shall ensure that the discharge, authorised by this permit, does not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this permit, the consent holder shall, if so required by the consent authority and at no cost to the consent authority, take all such action as the consent authority may require to remedy any such damage.

Discharge Permit – Stormwater Disposal (Consent No. 2007.367)

25. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

26. The consent holder shall provide a complete and detailed Stormwater Management Plan to the consent authority prior to any discharge occurring that is authorised by this permit.

27. The Operations and Maintenance Manual for the stormwater discharge network (see Condition 21) shall be provided to the consent authority within three months of the first discharge that is authorized by this permit

28. A record of all maintenance and repairs undertaken to the stormwater discharge network shall be kept and a copy of that record shall be forwarded to the consent authority by 30 June each year, and upon request.

29. The stormwater treatment system shall, at a minimum, provide for the removal of 75 % of suspended solids.

30. The consent holder shall take representative samples of the treated stormwater discharge from the site at the end of each outfall prior to discharging into the lake. The sampling shall occur on four occasions annually, with at least two of the samples collected between November and March each year. This sampling shall occur during the first 30 minutes of a rainfall event, following a dry period of at least 48 hours. The collected samples shall be analysed for the following parameters:
    (a) suspended solids;
    (b) Escherichia coli;
    (c) total nitrogen;
    (d) total zinc;
    (e) oil and grease; and
    (f) ionic and non-ionic surfactants.

31. The analysis of samples required by Condition 30 of this permit shall be undertaken by a laboratory IANZ accredited for all of the parameters stated in Condition 30 of this permit. Copies of that analysis shall be forwarded to the consent authority by 30 June each year, and upon request.

32. *Escherichia coli* levels in the sample of stormwater, analysed under Condition 31 of this permit, shall not exceed 260 *Escherichia coli* per 100 millilitres.

33. The consent holder shall ensure that the discharge does not give rise to any significant adverse effect on aquatic life. The Ryder Consulting report dated May 2007 and entitled *"Frankton Marina Development Lake Ecological Assessment"*, submitted with the application for consent lodged with the consent authority on 21 June 2007, shall form the baseline survey against which effects on aquatic life may be measured.

34. The consent holder shall ensure that the discharge, authorised by this permit, does not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this permit, the consent holder shall, if so required by the consent authority and at no cost to the consent authority, take all such action as the consent authority may require to remedy any such damage.

Land Use Consent – Basement Car Park Construction (Consent No. 2007.368)

35. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

36. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

37. The consent holder shall ensure that only clean fill, which complies with the definition of clean fill as stated in the Regional Plan: Water for Otago, is used for the reclamation of the lake bed.

38. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

    (a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape;

    (b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

    (c) inform the consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

39. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

40. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to

or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

41. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

42. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

43. The consent holder shall ensure that fish do not become stranded as a result of the works authorised by this consent.

44. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

45. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

46. Representative photographs shall be taken of the site:
    (a) before works commence; and
    (b) immediately after the completion of works and rehabilitation of the site.

    These photographs shall be provided to the consent authority within one month of the final photographs being taken.

47. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:
    (i) cease all work within a 50 m radius of the discovery and secure the area;
    (ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;
    (iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;
    (iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and
    (v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

    Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand

Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Land Use Consent – Foreshore Works (Consent No. 2007.372)

48. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

49. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

50. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

    (a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

    (b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

    (c) inform the Compliance Manager, the consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

51. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

52. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

53. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

54. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

55. The consent holder shall ensure that fish do not become stranded as a result of the reclamation.

56. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

57. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

58. Representative photographs shall be taken of the site:
    (a) before works commence; and
    (b) immediately after the completion of works and rehabilitation of the site.

    These photographs shall be provided to the consent authority within one month of the final photographs being taken.

59. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:
    (i) cease all work within a 50 m radius of the discovery and secure the area;
    (ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;
    (iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;
    (iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and
    (v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

    Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Land Use Consent – Foreshore Works (Consent No. 2007.373)

60. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

61. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

62. The consent holder shall ensure that only clean fill, which complies with the definition of clean fill as stated in the Regional Plan: Water for Otago, is used for the reclamation of the lake bed.

63. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) informthe consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

64. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

65. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

66. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

67. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

68. The consent holder shall ensure that fish do not become stranded as a result of the reclamation.

69. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

70. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

71. Representative photographs shall be taken of the site:

(a) before works commence; and

(b) immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the consent authority within one month of the final photographs being taken.

72. The area of land that has been reclaimed shall be set aside as recreation reserve. In accordance with s.245 of the RMA, the consent holder shall undertake a survey of the reclaimed area and shall submit a plan of the surveyto the consent authority for approval. Following approval of the survey plan, the consent holder shall take all the necessary steps to have the survey plan deposited.

73. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:

(i) cease all work within a 50 m radius of the discovery and secure the area;

(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;

(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;

(iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and

(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Land Use Consent – Jetty Construction (Consent No. 2007.374)

74. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

75. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

76. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) informthe consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

77. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

78. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that

has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

79. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

80. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

81. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

82. Representative photographs shall be taken of the site:
    (a) before works commence; and
    (b) immediately after the completion of works and rehabilitation of the site.

    These photographs shall be provided to the consent authority within one month of the final photographs being taken.

83. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:
    (i) cease all work within a 50 m radius of the discovery and secure the area;
    (ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;
    (iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;
    (iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and
    (v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

    Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Land use Consent – Marina Construction (Consent No. 2007.375)

84. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

85. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

86. The consent holder shall undertake a survey of the bed of Lake Wakatipu/ Whakatipu-wai-maori in the area of the marina to determine the presence of *Laragrosiphon* before the exercise of this consent. Should *Laragrosiphon* be located in the area of the marina, the consent holder will undertake all practicable measures necessary to remove all *Laragrosiphon* from the area before any works authorised by this consent are undertaken.

87. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) informthe consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

88. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

89. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

90. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

91. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

92. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

93. Representative photographs shall be taken of the site:

(a) before works commence; and

(b) immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the consent authority within one month of the final photographs being taken.

94. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:

(i) cease all work within a 50 m radius of the discovery and secure the area;

(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;

(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;

(iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and

(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Discharge Permit – Disposal of Boat Washdown Water (Consent No. 2007.376)

95. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

96. The consent holder shall provide a complete and detailed Washdown Water Management Plan to the consent authority prior to any discharge authorised by this permit. The plan shall include information on the treatment system to be installed and the expected levels of removal of contaminants and pests that may occur in the wash down area.

97. A record of all maintenance and repairs undertaken to the washdown water discharge network and treatment system shall be kept and a copy of that record shall be forwarded to the consent authority by 30 June each year, and upon request.

98. The washdown water treatment system shall, at a minimum, provide for the removal of 75 % of suspended solids.

99. The consent holder shall take representative samples of the treated washdown water discharge from the site at the end of the outfall prior to discharge to the lake. The sampling shall occur on four occasions annually, with at least two of the samples collected between November and March each year. The collected samples shall be analysed for the following parameters:

(a) suspended solids;

(b) *Escherichia coli*;

(c) total nitrogen;

(d) total zinc;

(e) oil and grease; and
(f) ionic and non-ionic surfactants.

100. The analysis of samples required by Condition 99 of this permit shall be undertaken by a laboratory that is IANZ accredited for all of the parameters stated in Condition 99 of this permit. Copies of the analysis shall be forwarded to the consent authority by 30 June each year, and upon request.

101. The consent holder shall take all practicable steps to ensure that the discharge does not give rise to any significant adverse effects on aquatic life.

102. The consent holder shall ensure that the discharge authorised by this consent does not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

Discharge Permit – Marina and Associated Structures Construction (Consent No. 2007.377)

103. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

104. This permit shall only be exercised in conjunction with Land Use Consents 2007.368, 2007.372, 2007.373, 2007.374, 2007.375, 2007.379, 2007.380 and 2007.382.

105. This permit authorises the discharge of silt and sediment resulting from in-stream works, and cement from structure construction, and stormwater run-off during the construction phase of the works, to be discharged into Lake Wakatipu/Whakatipu-wai-maori and an unnamed tributary of Lake Wakatipu/ Whakatipu-wai-maori.

106. Notwithstanding Condition 105, the consent holder shall take all practicable steps to minimise the release of sediment into water while undertaking the works authorised by the land use consents listed in Condition 104. This shall include the use of sediment barriers and silt curtains as stated in the application submitted to the consent authority dated 21 June 2007

107. The consent holder shall take all practicable steps to minimise the release of sediment into water from stormwater run-off during the construction phase of the development.

108. The consent holder shall ensure that all silt and sediment control measures will remain in place until all exposed earthworks areas are re-vegetated or otherwise stabilised.

109. Prior to any work being started on site that relates to this permit, the consent holder shall provide, in writing to the consent authority, a plan including a timetable that details the progress of the development (including when the discharge under this permit will commence). Any variation to the plan shall be submitted to the consent authority within 14 days of the change being made.

110. Before any discharge authorised by this permitoccurs, the consent holder shall provide to the consent authority, a Site Management Plan detailing the site management protocols and procedures to be implemented for the control of sediment, cement and cement products discharge into the lake during the term of this permit.

Any changes to the plan shall be provided to the consent authority within 14 working days.

111. The consent holder shall ensure that all practical measures are taken to prevent cement and cement products, from entering Lake Wakatipu/ Whakatipu-wai-maori and the unnamed tributary of Lake Wakatipu/ Whakatipu-wai-maori. This shall include:

(a) avoiding flowing water coming into contact with the cement and cement products until the cement and cement products is firmly set;

(b) using boxing or other similar devices to contain wet cement and cement products during the works authorised by the land use consents listed in condition 104; and

(c) ensuring that the handling of cement and cement products is undertaken in a manner that does not result in spillage into any watercourse.

If any cement or cement product is spilled beyond the boxing, pouring of cement and cement products shall stop immediately and all spilt cement and cement products shall be removed from the watercourse. No equipment used in the pouring of cement and cement products shall be washed out on site where it can discharge into water.

112. No lawful take of water is to be adversely affected as a result of any discharge.

113. The consent holder shall take all practicable steps to ensure that the discharge does not give rise to any significant adverse effects on aquatic life.

Discharge Permit – Basement Car Park Drainage (Consent No. 2007.378)

114. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

115. This permit authorises the discharge of floodwater, which may contain silt and sediment, to Lake Wakatipu/Whakatipu-wai-maori.

116. Floodwaters shall only be discharged without treatment to Lake Wakatipu/ Whakatipu-wai-maori, if the car park area has been adequately cleaned prior to inundation of the car park.

117. A record shall be kept of the date, method and chemicals used to clean the basement prior to any inundation occurring. The record shall be provided to the consent authority prior to the discharge without treatment of floodwaters to the lake, and upon request by the consent authority.

118. The consent holder shall take all practicable steps to ensure that the discharge does not give rise to any significant adverse effects on aquatic life.

Land Use Consent – Culvert Upgrade (Consent No. 2007.379)

119. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

120. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

121. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) inform the consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

122. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

123. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

124. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

125. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

126. The consent holder shall ensure that fish passage is provided for at all times.

127. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

128. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

129. Representative photographs shall be taken of the site:

(a) before works commence; and

(b) immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the consent authority within one month of the final photographs being taken.

130. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:

(i) cease all work within a 50 m radius of the discovery and secure the area;

(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;

(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;

(iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and

(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Land Use Consent – Access Bridge over Stream (Consent No. 2007.380)

131. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

132. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

133. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) informthe consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

134. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

135. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that

has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

136. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

137. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

138. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

139. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

140. Representative photographs shall be taken of the site:
(a) before works commence; and
(b) immediately after the completion of works and rehabilitation of the site.
These photographs shall be provided to the consent authority within one month of the final photographs being taken.

141. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:
(i) cease all work within a 50 m radius of the discovery and secure the area;
(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;
(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;
(iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and
(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.
Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

Water Permit – Stream Re-alignment (Consent No. 2007.381)

142. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

143. The diversion of water from the unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori shall only occur once the diversion channel has been fully constructed.

144. The consent holder shall ensure that existing fish passage is not impeded as a result of the diversion works.

145. When diverting water into the new diversion channel, all reasonable steps shall be taken to ensure that sediment and discolouration of water are kept to a minimum.

146. The consent holder shall ensure that the diversion is undertaken such that no fish become stranded.

147. The consent holder shall undertake all reasonable measures to ensure that the new channel banks are stabilized as rapidly as possible.

148. At the completion of the works there shall be no reduction in the surface flow of the unnamed tributary of Lake Wakatipu/Whakatipu-wai-maori as a result of the diversion.

149. No lawful take of water shall be adversely affected as a result of the diversion.

150. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

151. Representative photographs shall be taken of the site:
(a) before works commence; and
(b) immediately after the completion of works and rehabilitation of the site.
These photographs shall be provided to the consent authority within one month of the final photographs being taken.

Land Use Consent – Stream Re-alignment (Consent No. 2007.382)

152. The exercise of this consent is subject to the Standard Conditions as provided above in Decision No 2.

153. Hours of work under this consent shall be from 8.00 am to 7.00 pm, Monday to Friday. Works shall not be undertaken on Public holidays.

154. The consent holder shall ensure that only clean fill, which complies with the definition of clean fill as stated in the Regional Plan: Water for Otago, is used for the reclamation of the lake bed.

155. During the exercise of this consent, the consent holder shall ensure that no fuel, oil, cement or cement products, enter Lake Wakatipu/ Whakatipu-wai-maori. Any refuelling, lubrication or mechanical repairs shall be undertaken in such a manner so as to ensure that no spillages of hazardous substances occur onto the land surface or into water. If a fuel or oil spillage in excess of 10 litres occurs, the consent holder shall:

(a) immediately take such action or execute such work as may be necessary to stop and/or contain such escape; and

(b) take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(c) informthe consent authority, within 24 hours of its occurrence and the steps taken or being taken to clean up the spill, remedy any adverse effects, and prevent any recurrence of such escape.

156. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into Lake Wakatipu/ Whakatipu-wai-maori. No refuelling of machinery shall occur within Lake Wakatipu/ Whakatipu-wai-maori.

157. All machinery shall be water-blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from Lake Wakatipu/Whakatipu-wai-maori. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand requirements for any unwanted organism under the Biosecurity Act 1993. The consent holder shall ensure that wash water does not directly discharge into surface water.

158. All works shall, as far as practicable, be undertaken outside the wet bed of Lake Wakatipu/ Whakatipu-wai-maori.

159. The consent holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.

160. The consent holder shall ensure that fish do not become stranded as a result of the works authorised by this consent.

161. The consent holder shall ensure that, once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the consent authority, and at no cost to the consent authority, take any such action that the consent authority may require to remedy any such damage.

162. Prior to, or immediately following completion of the works authorised by this consent, the consent holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

163. Representative photographs shall be taken of the site:

(a) before works commence; and

(b) immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the consent authority within one month of the final photographs being taken.

164. If *koiwitangata* (human skeletal remains), *taonga*,artefactor any other evidence of archaeological or heritage interest is discovered during the exercise of this consent, the consent holder shall, without delay:

(i) cease all work within a 50 m radius of the discovery and secure the area;

(ii) notify the consent authority, the appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police;

(iii) enable a site inspection by the New Zealand Historic Places Trust and the appropriate *runanga*, and their advisors, who shall determine the nature of the discovery and any further action required, including whether or not an Archaeological Authority is required under the Historic Places Act 1993;

(iv) ensure that any *koiwitangata* or *taonga* is handled and removed by tribal elders responsible for the *tikanga* (custom) appropriate to its removal and preservation; and

(v) ensure that any further action identified in accordance in part (iii) of this condition is undertaken.

Upon completions of tasks (i) to (v) above, and provided all statutory permissions have been obtained, the consent holder may recommence work at the site following consultation with the consent authority, appropriate *runanga*, the New Zealand Historic Places Trust, and in the case of *koiwitangata* (skeletal remains), the New Zealand Police.

[i] EXAMPLES OF PROPOSED JETTY LIGHTING


Lady


200
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RIVIERA

[J] ENGINEERING REPORTS

emtech
Engineering & Marine Consultants

Lakes Marina Projects Ltd

FRANKTON MARINA
ENGINEERING REPORT

20 January 2014

emtech
Engineering & Marine Consultants

This Document has been prepared by the office of Emtech Ltd

6th Floor John Wickliffe House 265-269 Princes Street PO Box 681 Dunedin 9054 New Zealand

Issue Date	Revision No.	Author	Checked	Approved
4 Sept. 2013	A	Maurice Davis	Aidan Bird	Aidan Bird
30 Sept. 2013	B	Maurice Davis	Aidan Bird	Aidan Bird
20 Jan. 2014	C	Maurice Davis	Aidan Bird	Aidan Bird
29 Jan.2014	D	Maurice Davis	Aidan Bird	Aidan Bird

TABLE OF CONTENTS

1.0 INTRODUCTION

This document, prepared by Emtech Ltd, provides the technical and engineering input to the application for resource consents for the construction of a marina on the Frankton Arm of Lake Wakatipu, sponsored by Lakes Marina Development Ltd. (LMPL).

2.0 GENERAL DESCRIPTION OF PROJECT

It is the developer's intention to construct a marina which will be attractive, efficient in its functions, fully compatible with the natural and built environments and provide secure mooring for 200 boats of varying size and type together with facilities to support the requirements of the boating public and, where appropriate, tourists who patronize activities based in the marina complex.

The general arrangement of the marina is illustrated on Emtech Drawing No13039/01 and accompanying V+E renderings. The following general description refers to those drawings.

It is proposed to construct the marina in two stages. This document and the drawings relate to the completed complex, i.e. Stages One and Two.

The marina consists of a basin sheltered from prevailing winds by a floating breakwater on its southern and western sides.

The dimensions of the basin are approximately 200m in each direction, parallel to the shoreline and from the shore to the outside of the breakwater at the widest point.

There will be 5 finger piers in the basin. These range from 87m to 140m in length and provide access to finger berths which in turn range from 8.5 to 12.5m in length.

The total number of berths will be in the order of 190, of which approximately 85 will be in Stage One of the development,

The distribution of the various berth sizes has been determined by the likely demand from recreational boat owners with provision for a small number of commercial operators. The location of the larger berths has been determined largely by maximizing the use of existing water depths to minimize excavation of the lake bed in Stage Two.

The floating breakwater will connect to the shore at the location of the existing floating pontoon at the public boat ramp.

The existing timber piles, placed to protect the access bridge at the pontoon, will have additional piles installed to decrease its permeability and increase its effectiveness in reducing wave energy in the space between the shoreline and the main walkway to the marina.

This space will be partially occupied by small (9m x 6m) kiosks on floating pontoons with access from the main walkway.

A retaining wall consisting of precast concrete panels will be built on the shore line for the full length of the marina. This will retain fill to raise the level of the car park area and form an attractive esplanade on the lake front. The crest of this wall will be above the lake level at which flooding first occurs in Queenstown, The water depth at the wall when the lake is at the lowest level will be sufficient for the kiosks to remain floating.

The existing excavated boat basin will be filled and the ground level raised on its perimeter to provide the formation for the car park area. The existing creek will be diverted to a culvert to discharge into the lake adjacent to the access bridge to the breakwater.

Fuelling facilities will be provided on the breakwater at the north western end of Stage One with underground storage tanks at a position on the adjacent shore. The location of the tanks has been agreed in consultation with QLDC.

3.0 SITE

3.1 Location

The coordinates of the North Western corner (main pedestrian entrance) to the marina basin are:

45°	01'	08.5"	South
165°	42'	58.1"	East

3.2 History

The general location has been the site of several attempts to establish marina type facilities starting with a small basin excavated inland from the lake shore. This basin still exists. Its construction was not approved and it will be filled as part of the proposed LMRL development.

An offshore marina was constructed by Frankton Marina Construction Group (FMCG) in 1994 using a floating breakwater. This failed in a storm later that year, before construction was completed and was redesigned and rebuilt only to fail again in 2001 after which the project was abandoned.

In 1994 Queenstown Marina Ltd, applied for consents to construct a marina and floating restaurant westward of the FMCG site. This application was not granted.

In June 2008 land use consents were granted to Queenstown Marine Developments Ltd, for a 200 berth offshore marina using a proven system for the construction and mooring of the floating breakwater.

This project did not proceed beyond the consents stage and in August 2011, QLDC cancelled the development agreement with QMDL and in February, renewed their request for expressions of interest early in 2012. In October 2012, QLDC entered an agreement with LMPL The development proposed by LMPL is similar in concept and method of construction to that submitted by QMDL as a consequence of which, there is established precedent for the acceptance of a large offshore marina on this site.

3.3 Access to the Marina

The major part of the site, more than 60%, has water depths exceeding 2m at low lake level. There are no hazards in the approaches and navigational access to the site is excellent. There is good vehicle access to the site albeit via a road which intersects the main road into Queenstown.

3.4 Environmental Conditions

3.4.1 Wind:

Records for wind speed and direction at Queenstown Airport show that the strongest winds (in excess of 30km/hour) are from the south with lesser occurrence from the north east and south west. Winds exceeding 30knots from other directions are infrequent.

3.4.2 Waves

The site is sheltered from winds from the west through north to north east. It is exposed to winds from south west through south to east but fetch distances for winds from these directions are modest being 1.8km from the south east and 4km from the south west. Easterly winds have a fetch distance of 900m, most of which is over shallow water. As a consequence, of which, waves from this direction are not of sufficient height to require protection for the marina berths.

"Fetch Distance" is the length of clear water upwind of a site, over which the wind passes and creates the waves which reach the site.

Gale force winds from the southerly quarter create waves which are well in excess of the accepted limit for floating marina berths and craft moored at these berths. Breakwater protection from waves from these directions is therefore essential.

Although the fetch distances within Frankton Arm are modest, those in the main body of the lake are significant. The fetch distance for waves generated by south westerly winds at the entrance to Frankton Arm (The Narrows) is more than 16km.

The large waves thus generated are partially modified in their passage through The Narrows but waves of amplitude greater than those generated locally can penetrate the Arm as far as the marina site.

3.5 Geology and Geomorphology

Frankton Arm occupies what was formerly part of a glacier valley system. The schist rock floor of the valley and its overlying glacial deposits have been covered by sedimentary deposits which have resulted in the formation of a deep, relatively uniform bed of extremely weak silty material. The shore line, subjected to wave action over an historical range of lake levels has been eroded and the resultant materials sorted to form sand or gravel beaches which extend only a short distance below the low level shoreline.

The steep sided form of the glacial valley and the subsequent erosion and sedimentation processes have created a bed profile which is characterised by narrow margins of shallow water adjacent to the shore line with steep drop-offs to deeper water.

The shore line processes and the long shore and gravitational movement of eroded materials continue but there is evidence of only minor on going changes in the beaches adjacent to the marina site. There is no evidence of waves affecting the lake bed, this being consistent with the expected effect of short period waves in the Arm.

There is no evidence or experience of recent seismic activity but the presence of known faults and in particular, the proximity of the Alpine Fault, signal that the possibility of a major earthquake must be considered in the design of the marina and its amenities.

3.6 Geotechnical Conditions

A significant amount of geotechnical data has been acquired from the investigations for the on-land and off-shore components for previous marinas and proposals. Specifically, cone penetrometer tests were carried out on the site of the QMDL proposal which is effectively the same location as the current LMPL proposal.

The results of this investigation were consistent and showed that at a depth of 4m below the bed of the lake the average shear strength of the silts is 6 KPa which is very low. In fact, the first metre or so of the bed is almost fluid and will offer negligible resistance to the horizontal movement of conventional concrete block anchors. These anchors are therefore not suitable in this situation.

The geotechnical investigations recorded the existence of gravel layers within the silty sediments but these are at depth and vary to the extent that they can not be relied upon to provide adequate holding for conventional anchors.

Geotechnical investigations on the land bordering the marina site show significant depth of lake sediments overlying the schist basement rock. Their depths are typically in the order of 15 to 18m. There are also high water table levels.

4.0 EFFECTS OF SITE CONDITIONS ON MARINA DESIGN

4.1 Wave Climate

The marina requires an adequate area of water in which the wave climate is sufficiently mild to allow secure mooring of the floating structures and boats moored at them, so that neither will be damaged by wave-induced motion.

There is adequate area at the Frankton site but it is exposed to significant waves generated by strong winds from south east through south to west and it will be necessary to reduce the level of wave energy in the marina basin.

Wave energy can be reduced by solid structures (rock or concrete breakwaters), pile-supported structures or floating wave attenuators.
Except for the narrow margin close to the shore line, deep water and the soft nature of the lake bed rule out the use of rubble mound type breakwaters and any structure which requires piles.

The only practical means of reducing wave energy therefore is to provide a floating wave attenuator. A structure of this type was proposed for the QMDL Marina for which consents were granted.

A floating wave attenuator comprised of large concrete pontoons is proposed for the LMPL development.

To enable the breakwater to remain afloat and thus avoid damage when the lake is at low level, it will terminate a short distance from the shore where a rock abutment and a short row of closely spaced piles will provide wave protection.

4.2 Lake Bed Conditions

Deep water and weak bed materials rule out the use of piles for securing the floating structures except for the narrow margin of shallow water close to the shore.

Conventional high holding power anchors and concrete blocks (clump anchors) as frequently used for marinas and marine farms will not provide secure mooring in the extremely soft lake bed materials in the deeper water.

The only practical option is to use screw type anchors which consist of large steel discs which are pitched to enable them to penetrate to denser consolidate material below the surface of the lake bed when rotated.

Tests undertaken by OCEL Consultants Ltd, in 2007 demonstrated the ability of this type of anchor to provide adequate resistance on the Frankton Marina site.

A system of screw anchors will be used to moor the floating breakwater and the marina berthing structures. The main backbone of the berth structure running parallel to the shoreline in shallow water will be secured by concrete piles.

4.3 Shoreside Conditions

Weak sediments and high water table levels exist on the near shore areas.
At this stage, the only shore side developments directly associated with the marina are:

- Filling of the existing boat basin including the diversion and extension of the bed of Marina Creek with a culvert and outfall structure on the lake shore.
- Construction of an esplanade wall to retain the lake edge and form a functional shore line protected from erosion raising ground levels, provision of drainage and construction of vehicle parking, pedestrian walkways and lighting.
- Landscaping.
- Construction of a public toilet block in the car park area and administration/service buildings at the eastern end of the development.
- Installation of bulk fuel storage tanks.

None of the above works will require engineering processes not normally applied to works of this nature, however the construction of any large buildings or any structure likely to impose high or concentrated loading on the ground will require piling or equivalent means of increasing the bearing capacity of the site and provision for settlement of both newly placed fill and underlying sediments will be necessary.

4.4 Water Depths

The affect that deep water over the body of the marina basin has on the design has been addressed above. Shallow water at the lake edge and particularly at the north eastern corner of the site will require a small amount of excavation to provide a minimum of 0.75m depth at the face of the proposed promenade wall when the lake is at extreme low level.

Details of the excavation are presented in the Construction section of this report.

4.5 Flooding

Water levels in Lake Wakatipu vary over a range from extreme low of 309.28m above mean sea level to the highest recorded level of 312.78m. asl.

Normally accepted High Level for engineering purposes is 310.65m. The Otago Regional Council defines High Lake Level as 310.80m.

Flooding occurs in parts of Queenstown when the lake reaches 311.3m.

It is impractical to provide "dry feet" access to the marina berths and floating buildings in all flood conditions but it is necessary to ensure adequate security of the facilities in these conditions.

Provision of "dry feet" access up to a level slightly in excess of first flooding in Queenstown is desirable so that owners/operators can get to their boats for search and rescue or security purposes.

The occurrence of flood levels above the "first flood" level of 311.3 is 0.41% of time. Although this occurrence is low, it will be necessary to design the esplanade and carpark areas at and above this level to survive in higher floods. Some of the area likely to be flooded will be beyond the protection of the breakwater and these areas must also be designed to withstand moderate wave action.

5.0 CONSTRUCTION METHODS

5.1 Breakwater

The breakwater will be constructed with large concrete pontoons coupled together with flexible connections. The pontoons will be held in position with screw anchors using steel chain wraps incorporating Seaflex or similar elastic elements to dampen shock loading and maintain tension over the range of lake levels.

The screw anchors will be installed with specialized pontoon-mounted equipment which ensures that the penetration of the anchor plates into the lake bed is sufficient to develop the required load capacity.

There is a high probability that the concrete pontoons will be constructed on site, necessitating the establishment of a temporary yard with a launching facility, details of which will depend on the final design of the pontoons and the production methods adopted by the contractor.

It is expected that the breakwater pontoon units will be fully fabricated on shore, launched and towed to their positions and secured to the moorings which will be progressively installed in advance of the production of the pontoons

The additional timber piles required to improve the function of the existing wall at the public launching ramp will be driven by a vibrating hammer or drop hammer from a crane located on the shore.

5.2 Marina Berthing Structures

In a similar process to that adopted for production of the breakwater units, the floating structures for the marina berths will be fabricated on shore and launched at the marina site.

For the berths, it is probable that sections of the berth fingers and walkways will be pre-assembled before being towed to their final position in the marina. It is also possible that individual pontoons will be manufactured off site. Irrespective of the location of manufacture, their launching and assembly will be done by crane.

As for the breakwater pontoons, the berthing structures and their access walkways will be moored by screw anchors in the lakebed with Seaflex or similar tensioning units in the mooring lines installed ahead of the assembly process.

5.3 Reclamation of Existing Basin

Before the boat basin can be filled a culvert will be installed to carry the flow from Marina Creek which presently discharges into the basin, to a new outfall at the abutment of the breakwater access bridge.

The culvert will have the design capacity for a 20 year return period flood event. Flows in excess of this will discharge to the lake across the car park adjacent to the public boat ramp

Construction of the culvert will require excavation of a trench, a box culvert, back filling and compaction to finished car park formation level.

Prior to placing any fill material in the basin, vegetation and top soil will be removed.

The boat basin will be filled with selected material properly compacted and finished to car park formation level. Subject to confirmation of its suitability, gravel excavated from the lake bed adjacent to the new esplanade wall may provide some of the fill.

5.4 Esplanade Wall

Construction will require the driving of steel piles and placing precast concrete spandrel panels between these. An alternative sheet pile type wall may be considered.

Subject to design verification, it may be necessary to install ground anchors and tie-rods to part or all of the wall.

Excavation of the lake bed to provide the water depth for floating structures will be carried out with a small hydraulic back hoe type machine. The excavation for the base of the esplanade wall will have to be a half metre deeper to form a trench which will be back-filled filled with

selected graded aggregate to new bed level to provide a foundation for the lower of the concrete panels.

The top of the wall will be finished with a concrete beam which will also serve as a kerb.

5.5 Car Park

Provision will be made for surface water to be drained from the car park for which pipes will be laid prior to the earth works necessary to raise ground levels for paving.

Likewise, pipes will be laid through the car park area to connect the pump-out facility on the breakwater to the existing sewer and, if necessary, for fuel supply.

Fill material for car park construction will be imported.

Cabling for security lighting and power supply to the marina will be laid underground as will water reticulation for the marina, fire fighting services, water supply to shore outlets and fuel supply pipes.

It is proposed to defer the construction of kerbing and paving of the car park and pedestrian walk ways until all construction works for the marina are completed. By this means, adverse effects of heavy traffic involved in the marina work will be minimized and better compaction achieved by the passage of vehicles over longer time.

5.6 Floating Buildings

The marine layout makes provision for floating buildings for offices, shops, and marina support services to be located between the esplanade and the main walkway connecting the fingers and providing access to them.

The supporting pontoons will be comprised of units similar to the marina pontoons and will be assembled ashore and floated into position. The buildings will be to a standard basic design, prefabricated ashore and installed on the pontoons on side.

The pontoons will each be moored by two concrete piles and attached to the main backbone of the marina by a short access bridge.

6.0 ASSESSMENT OF EFFECTS

6.1 Construction Effects

6.1.1 Breakwater and Berths

The construction of the components will be carried out in controlled conditions on shore. There will be temporary effects associated with the delivery of materials (including concrete), construction processes and launching.
Noise will be regulated by existing legislation and discharges to waterways will be strictly controlled to avoid pollution. Any temporary works to provide a launching facility will be removed on completion and the shore line reinstated.

The installation of moorings will produce minor local disturbance of the lake bed. The diameter of the screw anchors can be up to 1.5m diameter and this will be the extent of any disturbance. The bed is at depths up to 16m below low lake level and the bed material is sufficiently dense to ensure that there will be no visible turbidity in the water.

Evidence from previous works in this area show that the lake bed is stable and the installation of the anchors will not have any adverse effects.

6.1.2 Lake Bed Excavation

The volumes of material to be removed to provide the required depth of water at the esplanade wall are modest: 3,000cu.m for Stage One and 2000 for Stage Two. The material contains a proportion of fine silt which will require a temporary silt curtain to be installed to prevent the sediment migrating into the lake.

Excavation will be done with a small hydraulic excavator. Suitable material with a high proportion of gravels will be disposed of as fill in the existing boat basin. Soft silty material will be disposed of offsite.

6.1.3 Esplanade Wall

Driving of piles and placing of the panels for the esplanade wall may result in minor disturbance of the lake bed and some fine silt may become suspended in the water close to the piles. The disturbance and turbidity will be minor and of brief duration. It is expected that conditions will return to normal within two hours of the work ceasing.

6.2 Breakwater and Marina Berths

6.2.1 General

Details of the design of the floating breakwater units have not been finalised but they will basically be concrete pontoons in the order of 2m deep and 4.8m wide with a draft of 1.5m giving a freeboard of 0.5m. The length of each pontoon is likely to be determined by factors relating to manufacture, transport and assembly but could be in the order of 6m.

Similarly, details of the berths and access piers have not been finalized but these will have less freeboard (0.4m) and vary in width between 1.2m and 3.6m and in length between 8.5m and 12.5m with the possibility of a small number of customized longer berths for commercial craft.

6.2.2 Visual Effects

With a modest freeboard of 0.5m, the breakwater which is the largest of the floating structures, will have low visibility from the northern and southern shores and from the lake to the west of the site.

From low levels, the breakwater will be largely masked by the marina berths and craft moored to them but from elevated view points, the breakwater, berths and craft in the marina will have a significant visual effect.

Acceptance or opposition to these effects will depend on "the eye of the beholder" and is likely to range from enthusiastic acceptance to absolute rejection

There are limits to the extent to which the visual effects of a marina can be mitigated but in recognition of the scenic values of the site, LMPL have planned a complex which is neat and tidy, to be built to high standards of quality and durability and be maintained to these standards.

Interference with lake views from the shore will be minimized by the use of single level, floating buildings.

Piles which would be exposed at low lake levels will be kept to a minimum and will only be used close to the shore.

Security lighting on the floating structures will be provided by fittings which minimize horizontal spread of light.

6.2.3 Navigation

Existing boating activities in the area to be occupied by the marina and adjacent waters are:

- boats moving to and from the public launching ramp.
- Hire charter boats operating from the adjacent commercial facility including the fuelling berth.
- Commercial jet boats based at their workshop and servicing facility at the marina site.
- Small recreational craft using the shallow water to the north east of the marina site.

Taken in the above order, the assessed effects of the marina will be as follows:

- Trailer boats generally use the main body of Frankton to the west of the marina site or go the open waters of the lake. The marina will have no practical effect on the activities of these craft.

- Hire and charter boat activities can continue to operate as at present so there will be no adverse effects on navigation as a result of the marina development.
- Commercial jet boats which are presently launched off the beach will no longer be able to do so. The beach will be enclosed by the marina and the esplanade. It is expected that the major operator, Kawarau Jet Ltd., will renew their interest in developing a new workshop and servicing facility, complete with a proper launching ramp, within the new marina basin. There is space for such a facility at the eastern end of Stage One.
- Small recreation craft will be able to continue their use of the marina with the added advantage of the shelter provided by the marina from prevailing westerly winds. There are several small privately owned jetties in the area east of the site. These will be unaffected.

The marina will not impede navigation in Frankton Arm. Kawarau Jet Ltd., do occasionally pass through what will be the south western corner of the marina on passage from their base to the Kawarau River but the presence of the marina will result in a deviation of less than a few metres from the direct route presently used.

The marina will result in water-bourne traffic converging in the approaches to the marina entrance, both in-bound and out-bound. There will be no physical restriction to navigation outside the marina and the normal navigation rules should provide adequate means to minimize the risk of collisions.

Inside the marina, navigation will be restricted particularly where there is likely to be most activity, i.e. at the entrance. The legally enforceable limit of 5 knots will be applied to all waters within the marina and within 200m of the entrance.

Anchor warps securing the breakwater and berth pontoons will be attached to the pontoons in a cross-over pattern which, coupled with the effect of the Seaflex tensioning units will ensure that the warps are at sufficient depth to avoid being an impediment to safe navigation.

Navigation marker lights to IALA requirements will be provided on the breakwater.

Wakes generated by craft approaching, leaving or navigating within the marina will either be so minor as to not affect shore line erosion or will be at such a distance from the shore that their effect will be negligible.

6.2.4 Maintenance

All components of the marina; pontoons, connections, anchors and warps will be subject to movement as the result of wave action and impact from berthed craft. There will be wear and tear and possibly some damage.

Regular scheduled inspections will be carried out and maintenance implemented to ensure continued structural integrity.

6.2.5 Littoral Processes

There is no evidence of any active littoral transport processes on the shore at the site of the proposed marina. The influence of the marina in this respect will be negligible as will its effect on the shoreline to the north east where its effect could be beneficial in reducing erosion.

6.2.6 Public Safety

The inshore end of the breakwater will be open to access by the public. Indeed, access to the fuel bowsers and F.S. pump-out facility is essential. It is expected that this access will remain open except in severe storm events.

Access to the breakwater beyond the fuel/pump-out facilities will be controlled by a barrier and be opened to the public in calm conditions. There will be no handrails on the breakwater and although more than 4m wide, there will be risks and a high probability of a dunking in strong wind conditions.

Access to the main stem (parallel to the shore) of the marina will be open to the public at all times except in storm conditions. Access to the finger piers will be controlled by a swipe card or key pad system to exclude non-berth holders during hours of darkness and storm events.

I attach in accordance with Section 88 and the Fourth Schedule to the Act an assessment of any effects that the proposed activity may have on the environment including:

Note: numbering corresponds to items as listed for Appendix 1, Page 6, Application for Resource Consent (Form 9) Additional Information

1.0 DETAILED DESCRIPTION OF THE PROPOSAL

The proposal is for a 190 (approximate) berth marina to be constructed in 2 stages (85 and 105 berths respectively) at the area known as Frankton Marina, the site of 2 previous attempts to establish a marina.

On completion of Stage Two, the marina will occupy an area approximately 200m x 200m enclosed by a floating breakwater on the west and south sides. There will be 5 stems (2 in Stage One, 3 in Stage Two) each with finger berths for craft ranging from 5 to 15m in length.

A retaining wall 130m long will be built on the shoreline of the Stage One development to provide an esplanade between the marina and public car parking areas. An area between the esplanade wall and the marina will be provided for small single level buildings each on a small (9m x 6m) floating pontoon.

A minor volume of material will have to be excavated from the lake bed to provide sufficient depth for the inshore berths and floating buildings at extreme low lake level. The excavated material can be used as fill behind the esplanade wall or in the existing "pond" which will be reclaimed as part of the car park area.

Marina Creek, presently discharging into the "pond" will be diverted via a culvert to a new outfall at the abutment of the floating breakwater.

To minimize lake bed excavation for Stage Two a small area of lake will be reclaimed close to the shore. The western and southern faces will be the same construction as the esplanade wall The eastern face will be retained by a pitched stone wall to preserve and enhance the beach at the adjacent apartment block.

The marina will be fully serviced with water, electric power, sewage pump-out and fuel dispensing facilities.

There will be approximately 156 car parks in areas controlled by barrier arms with additional loading zones adjacent the services/administration buildings. Additional bus parking is also available adjacent Suger Lane. There will be public toilets provided and the lakeside walking/cycle track will be substantially enhanced where it passes through the marina precinct.

2.0 ALTERNATIVES

The proposal is unlikely to have any significant adverse effects on the environment and indeed is likely to be beneficial in improving both appearance and amenity value of a section of lake shore which is somewhat untidy.

For reasons arising solely from possible adverse effects, description of alternative locations is unnecessary but it is worthy of comment that there is only one other location in the Queenstown area where a marina of this size is feasible. That location is Kelvin Heights.

Other locations are too exposed, do not have adequate length of foreshore or do not have satisfactory access.

Kelvin Heights has the advantage of sheltered water but the adjacent shore is a very popular beach and the area is used for water skiing. There would be strong opposition to any loss of these amenities and to the potential for adverse effects of the marina on the many residents close by.

Kelvin Heights has one other physical disadvantage – the distance from Queenstown by road.

3.0 ASSESSMENT OF EFFECTS ON THE ENVIROMENT

3.1 Physical Environment.

The marina as a floating structure anchored offshore and the boats moored therein will have no adverse effects on the physical environment, i.e. it will not adversely affect the wind or wave climates.

The height of waves in the lee of the breakwater will be reduced. There is no evidence of an active littoral transport regime on the shoreline east of the marina and any reduction in erosion from wave action will be beneficial.

There is no measurable current over the marina site other than surface flows induced by wind shear. The marina structures and boats will interfere with these flows but there will no effect on water quality as a consequence.

3.2 Visual Effects.

With a modest freeboard of 0.5m, the breakwater which is the largest of the floating structures, will have low visibility from the northern and southern shores and from the lake to the west of the site.

From low levels, the breakwater will be largely masked by the marina berths and craft moored to them but from elevated view points, the breakwater, berths and craft in the marina will have a significant visual effect.

The visual effect of the completed marina will be dominated by craft with high freeboard and yachts. The visual effect of the marina when fully occupied will be significant but the total area (approximately 200m square) is small relative to the expanse of water in Frankton Arm and the scale of the surrounding hills and mountains.

There are limits to the extent to which the visual effects of a marina can be mitigated but in recognition of the scenic values of the site, LMPL have planned a complex which is neat and tidy, to be built to high standards of quality and durability and will be maintained to these standards.

Interference with lake views from the shore will be minimized by the use of single level, floating buildings for the marina's supporting activities.

Piles which would be exposed at low lake levels will be kept to a minimum and will only be used on the inshore access way and at the floating buildings.

Security lighting on the floating structures will be provided by fittings which minimize horizontal spread of light.

3.3 Operational Effects.

The marina will be built in an area where there is already a concentration of commercial jet boating, hire craft and recreational activities.

The increase in activity generated by the marina will result in more frequent noise events but sound levels are unlikely to be higher than at present. QLDC's Waterways By-Laws should be effective in controlling excessive noise.

The increased number of boats and the anticipated arrival of larger craft will create more boat wakes than at present. There is little evidence of erosion from this source in the marina area. The breakwater will protect a significant length of the shore line from wakes generated offshore and the 5 knot speed restriction within the marina will ensure that wakes generated there will be minor.

The traditional hate attached to most marinas – flapping halyards could occur. Fortunately, Lake Wakatipu is not popular for keel yachts which remain afloat most of the time so the number of potential offenders will be low. It is however the intention of the marina management to minimize this nuisance by requesting owners to tension halyards and to do this for them if they neglect to cooperate.

3.4 Navigation

Existing boating activities in the area to be occupied by the marina and adjacent waters are:

- Boats moving to and from the public launching ramp.
- Hire charter boats operating from the adjacent commercial facility including the fuelling berth.
- Commercial jet boats based at their workshop and servicing facility at the marina site.
- Small recreational craft using the shallow water to the north east of the marina site.

Taken in the above order, the assessed effects of the marina will be as follows:

- Trailer boats generally use the main body of Frankton to the west of the marina site or go to the open waters of the lake. The marina will have no practical effect on the activities of these craft.
- Hire and charter boat activities can continue to operate as at present so there will be no adverse effects on navigation as a result of the marina development.
- Commercial jet boats which are presently launched off the beach will no longer be able to do so. The beach will be enclosed by the marina and the esplanade. These craft will be able to use the existing public ramp.
- Small recreation craft will be able to continue their use of the marina with the added advantage of the shelter provided by the marina from prevailing westerly winds. there are several small privately owned jetties in the area east of the site. These will be unaffected.

The marina will not impede navigation in Frankton Arm. Kawarau Jet Ltd., do occasionally pass through what will be the south western corner of the marina on passage from their base to the Kawarau River but the presence of the marina will result in a deviation of less than a few metres from the direct route presently used.

The marina will result in water-bourne traffic converging in the approaches to the marina entrance, both in-bound and out-bound. There will be no physical restriction to navigation outside the marina and the normal navigation rules should provide adequate means to minimize the risk of collisions. Inside the marina, navigation will be restricted particularly where there is likely to be most activity, i.e. at the entrance. The legally enforceable limit of 5 knots will be applied to all waters within the marina and within 200m of the entrance.

Navigation marker lights to IALA requirements will be provided on the breakwater.

3.5 Construction Effects

3.5.1 Earthworks

Activities most likely to create adverse effects will be associated with earthworks. These will include:

- Diverting Marina Creek.
- Filling the existing "pond".
- Formation and construction of road and carpark areas.
- Construction of the esplanade (wall and fill).
- Lake bed excavation.
- Excavation for drains and underground services.

All of these works will involve heavy machinery and will have the potential to create a dust nuisance in dry, windy weather and sediment laden run-off in wet weather

Heavy machinery and in particular compactors used to consolidate fill and pavement construction will create noise.

The effects will be mitigated to the extent that the contractors are bound to comply with QLDC restrictions as prescribed in the District Plan. Construction works will be restricted to the hours of 7am to 6pm Monday to Saturday.

As there is residential property within 50 to 100m of the location of the earthworks, the observance of these restrictions will be enforced.

The effects of dust will be mitigated as far as practical by wetting down excavated areas and dampening dusty materials while being handled.

Stormwater runoff from excavated and filled areas will be collected in a ponded area to allow settlement of sediments before discharge to the lake. Sediment fences will also be put in place where construction works are immediately adjacent or on the lake bed further reducing the change of suspended sediments spreading into the immediate lake area.

During construction of the road and car parks, there will be disruption to and possible diversion of traffic in the marina area. Owners/occupiers of properties affected will be informed and disruptions will be kept to a minimum through careful planning.

The diversion of Marina Creek and in particular, construction of the diversion culvert, will interfere with access to the public ramp and "Fishermans Wharf". Disruption will be minimised by planning and will be timed to avoid inconvenience at weekends.

3.5.2 Lake Bed Excavation

The volume of material to be removed is modest and within the capability of a small hydraulic excavator working from the shore. The materials are manly fine silts and with some silty sand and fine to medium gravels.

A silt fence (fine mesh) will be placed around the area of excavation to contain sediments disturbed by the operation. The materials will be used to backfill behind the esplanade wall, an area where low bearing capability is acceptable.

3.5.3 Pile Driving

The main accessway to the marina berths running parallel to the shore, and the floating buildings connected to it will be secured by steel or pvc piles. The small jetty at the launching/haul-out facility will be on steel piles.

These will be driven by a light vibro-hammer on a small crane or excavator. This will create a low level of noise at a moderate frequency. This may be annoying to some people but the duration for each pile is expected to be less than 20 minutes and, as for other works, will be restricted to 7am to 6pm, Monday to Saturday.

Similarly, the steel "soldiers" supporting the esplanade wall will be driven from the shore. Noise levels will be modest and of brief duration.

The precast concrete spandrel panels between the "soldiers" will be placed by crane and there will be no adverse effects.

3.5.4 Floating Structures

The individual pontoon units for the floating breakwater, marina berths and floating buildings will most likely be constructed off-site. The units will then be assembled on a temporary bed close to the shoreline, to form large sections (e.g. berth fingers) which will be launched and towed to their location on the lake and connected to the anchors previously installed.

The equipment used in the land based construction process will be road transport vehicles and mobile cranes. There will be some noise generated but this will be at levels below the limits prescribed in the district plan and working hours will be controlled.

Spillage or leakage of lubricants or hydraulic oil from machines will not be tolerated but any accidental spill will be treated to prevent entry into the lake.

Towage to the mooring locations and connection of anchor warps will involve the use of workboats. Noise levels will be low, wake generated will be negligible and the boats will be under survey to ensure compliance with MNZ Safety and Anti-Pollution Rules.

3.5.5 Anchors

Screw anchors for the breakwater and berths will be installed by a dedicated, barge mounted rig which has its own rigid leg anchoring system. It will be moved by a work boat as referred to above.

The machinery on the barge is designed and maintained to avoid any spillage or pollution from engine or hydraulic oils.

The installation of the anchors will create very minor disturbance of the lake bed, only a few centremeters more in diameter than the anchor plates which will be in the order of 1.5m.

This disturbance will settle soon after each anchor is placed. Based on previous experience with testing anchors there will be no visible turbidity of the lake waters.

The anchor warps with their tensioning units will be connected to the anchors when the pontoon sections are put in place.

3.5.6 Buildings

It is expected that the floating buildings will be completed "in the dry" and launched complete, ready for coupling to the marina stem and connection of services. It is possible that the superstructures will be prefabricated off-site but even if this work is done on site, the effects will be minor and similar to building works that have been carried out on this site in recent years without any adverse effects.

The service buildings will be single level, of light construction with slab-on-ground type foundations. There will be no adverse effects from construction.

3.5.7 Transportation

Apart from the effects of earthworks as described above, the more evident effects of construction are likely to arise from road transport operations involving the delivery to site of large precast concrete pontoons, aggregates for road and pavement construction, fill and building materials.

The effect of the increased traffic on the already busy Frankton Road will be minor but there is a high probability that there will be congestion in the access road and parking areas at the site with consequent inconvenience to the existing businesses. The close-by residents will not experience more than minor effects.

4.0 HAZARDOUS SUBSTANCES

There will be storage and dispensing facilities for petrol and diesel fuels. The storage tanks may be underground or more likely in approved concrete bunkers. The bowsers will be on the breakwater, close to the shore. Flexible sections of the supply line will connect the bowsers to the underground pipeline from the storage tanks.

There is extremely low risk of spillage resulting from mechanical failure of the tanks, pipelines or bowsers. Spillage is more likely to occur from inattention by boat owners when dispensing fuel.

The risk to the environment in the event of spillage of the light fuels is very low.

Petrol will evaporate quickly and is likely to have no adverse affects on the ecology of the area.

The storage and handling of fuels with low flash point incurs a fire risk which is widely recognized.

5.0 MITIGATION MEASURES

The risk of environmental damage will be reduced by minimizing the risk of a fuel spill.

This will be achieved by ensuring that the equipment – storage tanks, dispensing bowsers and connecting pipe lines are fully compliant with Dangerous Goods Regulations and are maintained so.

The flexible sections at the access bridge and on the breakwater will be inspected monthly and after any storm event.

The bowsers will have automatic shut off facility to prevent overfill.

The bowsers and delivery pipes will also be equipped for automatic shut off in the event of fire

Notices will provide guidance to consumers. Smoking and sources of ignition will be prohibited.

Fire extinguishers will be provided at the bowsers and there will be alarm activators and brigade call points at the bowsers and adjacent to the storage tanks.

Approved marine type absorbent materials will be held in store at the marina to be used in event of a spill of diesel fuel or oily bilge water.

7.0 MONITORING

It is expected that the marina structures and the associated activities will have negligible environmental effects but to confirm this, it is proposed to monitor the adjacent shore lines and lake bed for any induction of erosion or siltation.

Inspections at six monthly intervals for the first two years will provide the basis for the review of future monitoring.

The potential for mechanical failure of marina components and consequent effects will be minimized through the establishment of a system of scheduled inspections of all components and especially those where wear and tear can result from wave and wind induced motion.

It is proposed to make full inspections of all above-water components at monthly intervals and after every storm event for the first two years after which the interval may be extended but the data acquired from the inspections will be used to develop a preventative maintenance schedule for the repair or replacement of "moving parts".

The anchoring system will be inspected by divers after 6 months and at two yearly intervals thereafter. A preventative maintenance programme will be developed for the anchor wraps and tensioning units.

Above water monitoring will be done by the marina management and recorded in a formal log book.

The anchor systems will be inspected by experienced divers under direct supervision of marina management. Formal records will be kept of the divers' findings.

8.0 CONTAMINATED LAND

The majority of the proposed area nominated for the marina development would be regarded as natural and undeveloped. These areas would have had very little, if any, exposure to contaminates due to it being beach or shoreline, streambed or stream embankments and the remainder occupied by large willow trees and other plantings.

Small areas of land situated on the shore side of the existing roadway have been used for boat and vehicle parking and storage. There is a minor risk that a small amount of contaminants may have leaked from these vehicles. The small quantities normally associated with this would be regarded as having very little impact on the land and usually to a very shallow depth, much of which will be removed when vegetation is stripped during construction.

The area will be monitored during the initial stripping of vegetation and materials will be recorded if removed from site.

1.0 WASTE ASSESSMENT

1.1 Stormwater

1.1.1 Car Parks

Stormwater runoff from car park areas will be conducted to sumps fitted with oil traps from which clean water will be piped to outfalls some of which will be within the marina basin.

1.1.2 Buildings.

Runoff from the buildings will be directly into the lake.

1.2 Sewage.

1.2.1 Toilets.

Wastewater from the public toilets will discharge directly to the existing sewer which passes through the industrial area.

1.2.2 Floating Buildings.

Waste water from toilets and ablution facilities in the floating buildings will discharge to holding tanks in each of the pontoons from where a float controlled pump will transfer via a rising main to a central pumping station which in turn will connect to the main sewer. This is similar to the system installed at the existing sewage pump-out facility.

1.3 Boat Servicing and Maintenance.

There is provision in the marina plan for boat servicing facilities.

This will include a wash-down facility from which waste water will be collected and passed through settling tanks before discharging to the main sewer. Seperated solids will be collected and transported to landfill.

2.0 ECOLOGICAL

The lake shore at the area to be occupied by the marina has been extensively modified by previous marinas and boating related activities. Through these activities and investigations for previous marina proposals no significant eco-systems have been identified and no part of the marina as now proposed or any of the associated activities will have more ecological effect than currently exists.

On this basis, a detailed ecological report is not justified.

3.0 GEOTECHNICAL REPORT

3.1 General

Extensive and comprehensive data have been acquired from the investigations for previous marinas and proposals.

LMPL have obtained access to these data which have been reviewed in the context of the present proposal to determine if any further investigation is necessary. The conclusion is that no further investigation is required, the available data from Tonkin and Taylor Ltd being more than adequate for the design of the landside works now proposed, more especially as there is no requirement for high ground loadings from buildings nor for underground carparks.

Similarly, the offshore investigations and screw anchor tests conducted by OCEL Consultants NZ Ltd, provide adequate data for the design of the anchoring systems which will occupy the same area.

The data, in considerable detail, was presented to QLDC in the QMDL application. A summary of the critical conditions relative to the present proposal follows.

3.2 Geology/Geomorphology

Frankton Arm occupies what was formerly part of a glacier valley system. The schist rock floor of the valley and its overlying glacial deposits have been covered by sedimentary deposits which have resulted in the formation of a deep, relatively uniform bed of extremely weak silty material. The shore line, subjected to wave action over an historical range of lake levels has been eroded and the resultant materials sorted to form sand or gravel beaches which extend only a short distance below the low level shoreline.

The steep sided form of the glacial valley and the subsequent erosion and sedimentation processes have created a bed profile which is characterised by narrow margins of shallow water adjacent to the shore line with steep drop-offs to deeper water.

The shore line processes and the longshore and gravitational movement of eroded materials continue but there is evidence of only minor ongoing changes in the beaches adjacent to the marina site. There is no evidence of waves affecting the lake bed, this being consistent with the expected effect of short period waves in the Arm.

There is no evidence or experience of recent seismic activity but the presence of known faults and in particular, the proximity of the Alpine Fault, signal that the possibility of a major earthquake must be considered in the design of the marina and its amenities.

3.3 Geotechnical Investigations

3.3.1 Shoreside Conditions

Investigations made by Tonkin and Taylor Ltd for the QMDL proposal were reviewed by the company in the context of entirely different shoreside facilities and amenities. Data from the earlier tests were used for assessing the requirements for retaining and consolidating fill materials.

In the absence of any requirement for high loading from structures, the previous investigations are of greater benefit in providing confirmation of the conditions derived from the offshore investigations.

The on-shore testing by three boreholes and five cone penetrometer tests confirmed that materials below relatively thin and compacted surface layer are principally very fine, soft silts containing some sand and gravels of glacier origin.

Basement rock was encountered at only one location close to Frankton Road, at 18 metres below ground level. This is to be expected considering the general topography of the area.

3.3.2 Offshore (Lake bed) Conditions

Investigations of lakebed conditions were made using barge-mounted equipment for Cone Penetrometer testing at six locations. Shear vane tests of the upper sediment layers were made by divers.

All of the tests were located within the area that will be occupied by the LMPL marina.

All tests showed that the lake bed is composed of very fine, low strength silts, the upper layers of which have extremely low shear strengths.

Shear vane tests at 1 metre and 4 metre penetration at each location gave a maximum of 6 KPa at 4 metres. The upper layers of the bed are close to being fluid and therefore are unable to resist lateral loads such as would be applied to conventional or block anchors. In these conditions, screw anchors are the only practical alternative for anchoring a marina.

The penetrometer tests revealed gravel layers at reasonably consistent depths below the bed, generally in the range of 5.5 to 6.5 metres.

At some locations, the upper gravel layer was penetrated and a second layer encountered a few metres below the first. The upper (silt) layers of the bed showed a high degree of consistency and it is only in the shallow waters close to the shore, where wave action has produced bands of sand and gravel.

The critical factor in determining the ability of the soft, cohesive lake bed sediments to provide adequate resistance for screw anchors is its undrained shear strength. The cone penetrometer tests give a maximum strength of 8 KPa at a penetration of 5 meteres, indicating very low strength.

To achieve adequate holding power, the size and/or depth of the screw anchors can be increased but the latter option will allow the anchors to be located in the gravel layer and lessen the need to increase their size.

The critical factor in the design of anchors in non-cohesive soils is the angle of internal friction. The penetrometer tests show that for the gravels on the site, this angle is in the order of 30 degrees which is adequate for screw anchors as proposed.

[K] POWER AND TELECOM CONFIRMATION

Aurora

28 January 2014

Ms Charlene Kowalski
Vivien & Espie Ltd
P O Box 2514
QUEENSTOWN 9349

Dear Charlene

RE: ELECTRICITY SUPPLY FOR PROPOSED NEW DEVELOPMENT OF FRANKTON MARINA, QUEENSTOWN

Thank you for your letter and accompanying plans dated 16 December 2013, outlining the above proposed development.

Aurora can make an electricity supply available for this development, subject to the following conditions:

- Supply confirmation is limited to a single phase 15kVA supply per lot.
- Easements in gross, in favour of Aurora, must be granted over the placement of all new and existing Aurora plant associated with this development, unless installed in road reserve.
- Where the development involves further subdivision of a land parcel containing an existing serviced installation, the mains cables (overhead or underground) intended to supply each lot must be completely contained within the lot that it serves. In some cases this will require relocation of the cable serving the existing installation.
- All electrical installations must comply with Aurora's Network Connection Requirements and related standards and policies.
- The developer must comply with the Electricity Act, subordinate Regulations and associated Codes of Practice. Particular attention must be paid to the minimum distances between power lines and other structures defined in NZECP34:2011 "NZ Electrical Code of Practice for Electrical Safe Distances".
- No building shall be erected over any electricity easement without specific written authority from Delta's General Manager – Asset Management
- The developer is responsible for all resource consents and local authority approvals.
- The developer will be required to make capital contributions toward the costs of providing the power supply, in accordance with Aurora's Capital Contributions policy prevailing at the time the development, or each stage of development, proceeds.
- This approval will lapse within 12 months of the date of this letter, unless the developer enters into a formal supply agreement with Aurora for this development.

Aurora Energy Limited
10 Halsey Street • Dunedin • New Zealand
Email enquiries @auroraenergy.co.nz
Postal PO Box 1404
Phone 03-474-0322
Fax 03-477-5771

Please note that this letter is to confirm that a power supply can be made available and does not imply that a power supply is available now, or that Aurora will make power available at its cost.

Aurora's Network Connection Requirements and Capital Contributions policy are available from http://www.auroraenergy.co.nz/. Should you require further information or clarification, please contact the undersigned.

Yours sincerely

Alec Findlater
COMMERCIAL MANAGER (Delta)

for Aurora Energy Limited

DDI Phone (03) 479 6695
Mobile 027 222 2169
Fax (03) 477 5771
Email alec.findlater@thinkdelta.co.nz

The Subdivision Group
55 Shands Road, Hornby 8042
P O Box 1374, Christchurch 8140
Telephone: (03) 339 3402
Facsimile: (03) 338 0133
Email: tsg@chorus.co.nz

Chorus

Chorus Ref: WPU23233
Your Ref:

13 January 2014

Lakes Marina Project Ltd
C/- Vivian + Espie
PO Box 2514
Wakatipu
Queenstown 9349

Attention: **Charlene Kowalaki**

RE: Subdivision: WPU: Sugar Lane, Frankton - 31 Lot Subdivision (ABF)

(Subdivision Location: Sugar Lane Frankton)

Dear Sir / Madam

Thank you for your enquiry and scheme plan for the above subdivision. This letter is to confirm that Chorus will install Fibre to the Premises (FTTP) reticulation for the subdivision.

Fibre reticulation will enable the delivery of high bandwidth internet connections for new multi-media services, internet-based applications and phone services. This is why Chorus is currently laying thousands of kilometres of fibre optic cable to bring ultra-fast broadband to more than 800,000 homes and businesses across New Zealand.

Important information about premises wiring

It is important for you to know that the wiring requirements for premises in a subdivision connected by fibre are different from the requirements for connecting to the traditional copper network. Premises wiring is the responsibility of the homeowner. Any new homes built in the subdivision should be installed with telecommunications cabling that complies with the Telecommunications Carriers' Forum's Premises Wiring Code. Information about this code and wiring requirements is available on our website at chorus.co.nz/wiring

Failing to install telecommunications wiring that meets the standard in the Code may mean services will not function as expected within the home. It is therefore important that information about wiring requirements and service delivery is passed on to your electricians, builders and potential property owners for this subdivision.

If the developer wishes to reticulate the subdivision and install connection points on the boundaries prior to selling sections, they'll need to commit to a Chorus Subdivision Reticulation Agreement and pay the required subdivision fees. The charge for Chorus to provide reticulation for this subdivision of 31 lots/units is $0.00 (G.S.T inclusive). This quote is valid for three months from the date of this letter.

The charge is a contribution to Chorus' total costs to extend its network and infrastructure to the lots in the supplied plan. Chorus' costs include network design, supply of telecommunications specific materials and supervising installation.

The quote above also assumes that the Developer, or their nominated contractor, will supply and reinstate trenches, and install Chorus plant within the subdivided area and along the frontage of the subdivision if required.

Payment option

The subdivision charge can be split into two payments. The first payment will be a contribution to the cost of the network design, with the second payment covering the balance of the reticulation charges.

Please note that early payment of the Chorus network design fee payment will be required as the Chorus network design details need to be integrated with the overall civil engineering planning. The lead time for material ordering will be 12 weeks, after the total reticulation fee balance has been paid.

Easements
In any areas where Chorus Network is not installed in public road reserve vested to the Local Council, the subdivider

is to ensure that a legal easement is registered over the route and Network in favour of Chorus New Zealand Limited. The easement should provide for an "easement in gross for Telecommunications purposes". Chorus has standard forms for easements transfer where an easement is being granted to Chorus as part of the requirements associated with the depositing of a subdivisional plan

I hope that this information assists with your enquiry and look forward to hearing from you in due course if a Reticulation Agreement is required.

Yours faithfully

Louise Bolton

Sub Division Specialist

[L] CONTAMINATED SITE AND NATURAL HAZARDS INFORMATION

Charlene

From: Tracey Frame [Tracey.Frame@orc.govt.nz]
Sent: Friday, 13 December 2013 9:53 a.m.
To: Charlene
Subject: FW: Frankton Marina Contaminated Site Search
Attachments: Frankton Marina.pdf

Sorry I forgot to attach the map

From: Tracey Frame
Sent: Friday, 13 December 2013 9:52 a.m.
To: 'Charlene'
Subject: Frankton Marina Contaminated Site Search

Hi Charlene

Landuse and Site Contamination Status Request

A request was received from you by email on 11 December 2013 for information held by the Otago Regional Council regarding the contamination status of land detailed below:

Address	Legal Description
Frankton Marina	

Records held on the Otago Regional Council's "Database of Selected Landuses" show there are no identified land-uses associated with the above site.

The database identifies sites where activities have occurred that are known to have the potential to contaminate land. The record of a property in the database does not necessarily imply contamination. Similarly, the absence of available information does not necessarily mean that the property is uncontaminated; rather no information exists on the database.

Reference should be made to the Ministry for the Environment's Hazardous Activities and Industries List. If any of these activities have occurred on the above site, then it may be considered potentially contaminated.

This information reflects the council's current understanding of these sites. The Otago Regional Council accepts no liability for any inaccuracy in or omission from this information. Any member of the public, who wishes to make any commercial decision that involves an assessment of whether the site is contaminated, should make his/her own enquiries and decision. A Land Information Memorandum (LIM) should be obtained from the district council on these properties.

Thanks

Tracey Frame
Environmental Data Officer
Otago Regional Council
70 Stafford Street, Private Bag 1954, Dunedin
Phone: 03 474 0827 or 0800 474 082
Fax: 03 479 0015

Queenstown Lakes District Council

Webmaps your view of your information

Frankton Marina Natural Hazards

09 December 2013

0 40 80 120 160 Metres

N

Frankton Marina Natural Hazards

Otago Regional Council

Frankton Marina

Legend

- Contaminated
- Managed
- Remediated/...
- Remediated
- Not Contaminated
- Unknown

December 13, 2013
Printed by : Tracey Frame
Copyright :

1:5,416

0 0.01 0.03 0.06 0.09 0.12
Kilometers

[M] TRAFFIC ASSESSMENT REPORT

Bartlett consulting

Lakes Marina Projects Limited

Sugar Lane, Frankton

Transport Assessment

January 2014

Bartlett consulting

Contents

Appendices

PO Box 1383 | Queenstown | 9348
jason@bartlettconsulting.co.nz | 027 555 8824 | 03 442 3103

1 Introduction

1.1 Background

Lakes Marina Projects Limited propose a marina development to be created at the current Frankton Marina site accessed via Sugar Lane at Frankton. This proposal includes a 194 berth marina including a number of office/commercial buildings to support the ongoing operation of the marina. This new marina development would be developed in two stages.

A similar, although larger, development has already been granted planning approval with conditions under the resource consent and environmental court decision (RM070542) dated September 2009.

1.2 Purpose

The purpose of this report is to provide a transport assessment for the proposed marina to be developed by Lakes Marina Projects Limited. A portion of this is based on modelling previously undertaken for the Sugar Lane, Frankton Road and Marina Drive intersection.

Traffic Design Group (TDG) prepared a transportation assessment dated 15 June 2007 for the previously approved development. The modelling reported in this assessment has been referenced to identify the possible impacts on the adjacent road network, specifically the Sugar Lane, Frankton Road and Marina Drive intersection.

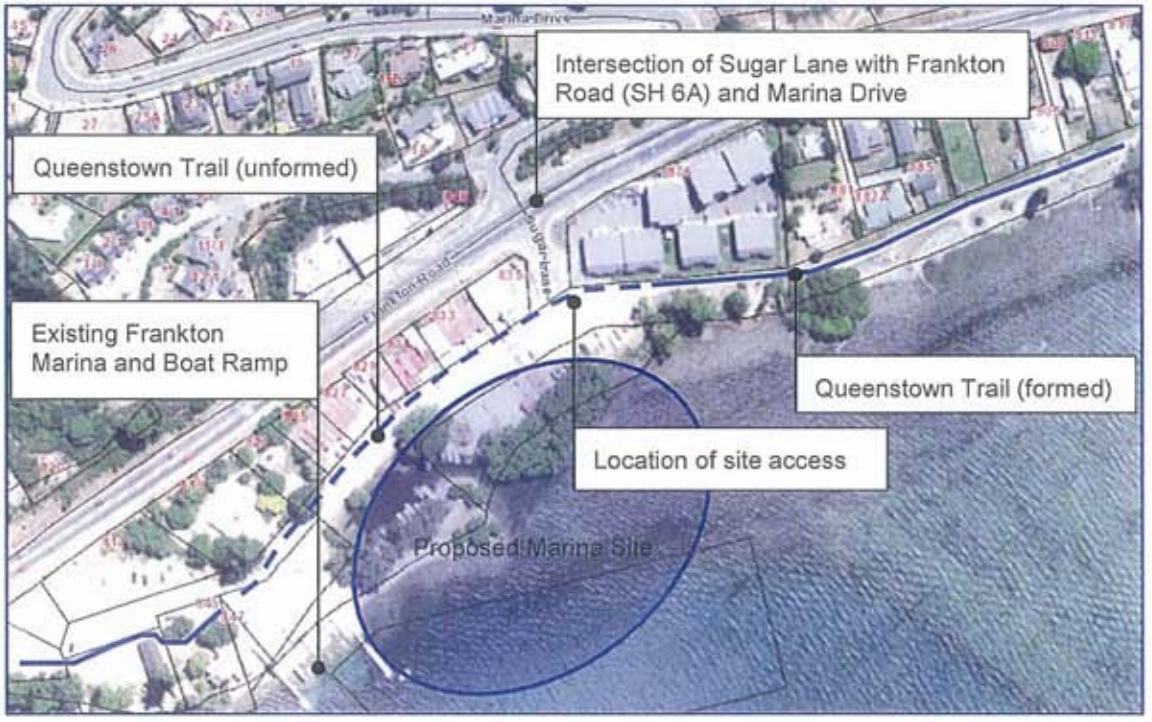
2 Site

2.1 Location

The site is located at Frankton Marina which is accessed via Sugar Lane. Sugar Lane is partially a Council maintained local road which extends 227m towards the existing Frankton Marina and boat ramp. Only the first 35m appears to be on legal road reserve, the remainder is formed over land owned by Queenstown Lakes District Council.

The Figure below shows the proposed marina site, the existing Frankton Marina and boat ramp and the Sugar Lane intersection with Frankton Road (SH 6A) and Marina Drive.

Figure - Frankton Marina Location Plan, image from QLDC maps



This Figure also shows the location of the Queenstown Trail, a walking and cycling trail between Queenstown and Frankton. This trail is formed to west (towards Frankton) and to the east (towards Queenstown). This walking and cycling trail is not formed adjacent to the proposed marina site and utilises the formed carriageway of Sugar Lane.

2.2 Existing Use

The site is currently used as a storage area for boats or parking for vehicles generally associated with nearby business located on the opposite side of Sugar Lane. Within the current site there is a small inlet connected to the lake, this is used for boat mooring and can typically cater for up to 15 boats. Some of these boats are associated with nearby charter or tourist boat operators.

The site consists of an unsealed area which is used for car parking and overnight storage of vehicles, boats on trailers and equipment. The development of this site would require nearby business to better manage their operation to within their property boundaries.

2.3 Existing Consent

A previous marina development has resource consent on this site. This development has not been constructed and is to be modified by this application to a similar, although smaller, marina. Consent for the previous development was granted by a consent order issued by the Environment Court issued on the 3rd September 2009. This allowed for the construction of a marina facility catering for 240 berths and associated commercial space of 1400m² Gross Floor Area (GFA) which is likely to include retail, boat sales/insurance and marine equipment, as well as refreshments, restaurants and bars. Within this facility there was proposed to be 197 car parks, four coach parks, 24 spaces provided for car and trailer combinations and 14 spaces suitable for parking trailers.

This Consent Order included a number of transport related conditions including:

- *'The construction of sealed vehicle manoeuvring and parking areas to QLDC standards for both car and trailer parking as per the application. Within six months of all commercial development at the site being occupied, a car parking survey shall be carried out at the consent holder's expense. The survey shall be carried out over (at least the course of one weekday, one Saturday and one Sunday, with the exact survey timings and dates to be agreed with Council.'*
- Improve areas onsite where there is insufficient visibility between vehicles.
- Provide a Traffic Management Plan prior to commencing any works on site. *'The plan shall specifically detail the protection of other users of Sugar Lane, both vehicular and pedestrian, and show how Sugar Lane will continue to operate during the construction period.'*
- *'Not less than one month prior to completion of stage one of the development and any subsequent stages, the consent holder shall submit to the consent authority for approval a Marina Operations Plan. The contents of this plan shall include but not be limited to the following matters:'*
    - *'A full description of all activities that will take place at the marina development site, including any associated facilities and buildings.'*
    - *'The measures that will be put in place to control traffic and parking, including a parking allocation plan illustrating the on-site provision of the required number of car parks for each proposed activity/use within the Marina buildings in accordance with the parking ratios set out in Part 14 (Table 1) of the Partially Operative District Plan. These parks shall be provided from the 59 surface parks identified in the application. No change is use is permitted without prior consent from Council.'*

The consent order also approved a condition requiring a financial contribution towards the upgrade of the Sugar lane, Frankton Road (SH 6A) and Marina Drive intersection which would be paid to NZTA.

2.4 Adjacent Land Use

The Queenstown Lakes District Plan provides information on the permitted use of the site and surrounding properties. The site and immediate surroundings are designated as *Frankton Marina Local Purpose Reserve* (Designation 165) and the surrounding land is zoned Low Density Residential. To the west is the *Boatshed, Slipway and original Old Ticket Office (as identified in the Heritage Register), Frankton Marina Recreation Reserve* (monument reference number 16).

There are a number of other properties accessed from Sugar lane. To the north of the site, on the opposite side of Sugar lane there are a number of commercial properties including

workshops for a number of marine or charter/tourist boat operators, additionally there are office and retail sales establishments. To the east is the newly constructed Mantra Apartments which consist of 29 visitor accommodation units. To the west of the site there is a newly opened café in the historic Ticket Office, a boat workshop in the historic Boatshed, the Frankton Marina and boat ramp.

The proposed marina site is situated amongst other commercial or marine related land uses. Although the adjoining zoning is residential there are only two private residential properties, both accessed from Sugar Lane.

2.4.1 Existing Boat Ramp

Adjacent to the proposed marina is the existing Frankton Marina and boat ramp. This facility and adjacent vehicle and trailer parking to the west will remain unchanged. This means that the existing boat ramp and the parking area will be available for public usage as it currently is. It is likely that boats moored in the proposed marina may also be launched, or retrieved, using the existing boat ramp.

2.5 Adjacent Road Network

The access to the proposed marina on Sugar Lane is unlikely to have a significant impact on this local road. It is likely that the greatest impact would be at the nearby intersection of Sugar Lane, Frankton Road (SH 6A) and Marina Drive. This is a cross intersection and traffic flows on Frankton Road restrict the operation of the side roads, especially the right turn during the peak periods. This intersection has previously been modelled in the TDG Transport Assessment dated 15 June 2007.

2.5.1 Traffic Flow Data

Existing traffic flow data is collated by the road controlling authority, NZTA collate traffic count data for Frankton Road (SH 6A) and QLDC collate data for Sugar Lane and Marina Drive, the following traffic count data can be found:

Table - Traffic Count Data (Daily Traffic)

Site	2005	2006	2007	2008	2009	2010	2011	2012
SH 6A – Millennium Hotel	14586	17634	15562	15379	14869	15284	14555	14819
SH 6A – Battery Hill	16410							
SH 6A – Frankton (site 90)					16658	16959	17023	17863
Marina Drive	552			1173				499
Sugar Lane	No Traffic Count Data							

The traffic Count Data for the Frankton Road (SH 6A) has been reported as the Annual Average Daily Traffic (AADT) whilst the Traffic Count data for Marina Drive is based Average Daily Traffic (ADT) for a single seven day count.

The continuing traffic count data for Frankton Road at Millennium Hotel shows that there has been a 1.5% increase in traffic flows over the last seven years or an annual traffic flow increase of 0.23% which is significantly below what would be expected in Queenstown. The SH 6A Frankton (site 90) traffic counter site is located approximately 700m towards Frankton from the Sugar Lane intersection, this traffic count of 17,863 AADT (2012) is the best approximation of the current Frankton Road traffic volume at the site.

The Marina Dive traffic counts are significantly more volatile and possibly influenced by the week, and position, where the count was undertaken. The earlier traffic count of 552 ADT has been adopted in previous modelling, however the latest traffic count is slightly lower at 499 ADT. It is possible that the AADT for this site would be greater than 500 vehicles per day, possibly in the region of 500 to 600 vehicles per day. Based on the Frankton Road growth rate it is likely that the Marina Drive Traffic Flows are similar to the 2008 assessment in TDG Transport Assessment which focused on the peak period traffic flows.

To assess the intersection efficiency the peak hour traffic count is used. The Frankton Road (SH 6A Frankton, Site 90) peak hour traffic count is 1,782 vehicles per hour, this is the Average Weekday Hourly Traffic measured between 17:00 and 18:00. This is similar the data collated within the previous TDG Transport Assessment which had an estimated 2008 weekday traffic volume for a Frankton Road at a similar location of approximately 1,775 vehicles.

The 2008 weekday traffic assessment undertaken reported in the TDG Transport Assessment dated 15 June 2007 is therefore a good assessment of current day traffic volumes.

2.5.2 Intersection Performance

The TDG Transport Assessment provided the model output for a base case intersection model. This assessment used 2008 traffic flows made up of know traffic counts and supplemented with traffic surveys undertaken on Sugar Lane during the peak periods being:

- Weekday evening, 4pm to 6pm Friday 19 January 2007,
- Saturday midday, 11am to 2pm Saturday 20 January 2007, and
- Sunday midday, 11am to 2pm Sunday 21 January 2007.

These surveys traffic flows were supplemented with anticipated traffic flows for the Mantra Apartments which had not been completed at the time of the survey. The only change since these surveys is that the Mantra Apartments have now opened and a café has also opened in the historic Ticket Office. Based on the current traffic flow data this model is likely to be a good representation of the current intersection performance. The full details of this model can be reviewed in the TDG Transport Assessment dated 15 June 2007 which formed part of the 2007 Resource Consent Application (RM070542).

To summarise the modelling output, delays on Frankton Road, the major road, were minimal as the minor roads traffic, Sugar Lane and Marina Drive, have priority controls. The maximum delays were seen on these minor approaches during the weekday peak (evening) period as a result of difficulties turning right. The Sugar Lane approach had average delays of 314 seconds (over 5 minutes) with a maximum queue length of 6.5 vehicles and is operating at capacity, ie. there is no spare capacity for this approach. The Marina Drive approach had average delays of 134 seconds (over 2 minutes) with a maximum queue length of 2.5 vehicles and operating at 60% capacity. These delays are significant and can be observed at the current intersection. The average delays during the weekend peak periods were less.

Alternative intersection arrangements were also considered for this intersection including traffic signals and a roundabout. Both had significantly beneficial effects on the minor roads as additional capacity is provided to these approaches. However, average delays of 6 seconds and 6.8 seconds (respectively) were imposed on through traffic on Frankton Road which would not be beneficial for Frankton Road traffic.

2.5.3 Crash History

The NZTA crash database (CAS) has been used to identify any reported crashes on Frankton Road (SH 6A) at the intersection with Sugar Lane and/or Marina Drive. During the last 5 years between 2008 and 2013 inclusive. There have been a total of seven reported crashes within 30m of the intersection. These are as follows:

- January and March 2009, both loss of control type crashes involving single northbound vehicles at the intersection, both were at night without injuries,
- March 2009, vehicle travelling westbound on SH 6A hit the rear of a car slowing to turn into the service station (20m west of the intersection). This crash resulted in a single injury,
- July 2009, vehicle travelling westbound on SH 6A hit a car turning right from Marina Drive. This crash occurred during the morning peak period (08:15). This crash happened in the wet and did not result in an injury,
- August 2009, vehicle travelling eastbound on SH 6A hit a right turning vehicle going into the service station (20m west of the intersection). No injuries,
- February 2013, vehicle travelling westbound on SH 6A hit a turning left from Sugar Lane. This crash happened during the summer mid-day weekend peak period (Sunday 11:50). No injuries, and
- March 2013, Vehicle travelling East on Marina Drive hit a car turning right onto Marina Drive. This crash was 20m north of SH 6A and resulted in a single injury.

Of these crashes two (July 2009 and February 2013) were a result of drivers emerging from the minor road approaches (Marina Drive and Sugar Lane) onto Frankton Road (SH 6A). These were both during a peak period and are typical of a driver not waiting for an appropriate gap to make the turn. These types of crashes are typical at priority controlled intersections which are operating at capacity. The output from the CAS database is provided in Appendix B.

3 Access

3.1 Vehicular – The Road Network

Vehicle access to the site is via a cul-de-sac, Sugar Lane. Sugar Lane is a local road which provides access to a number of commercial, residential and visitor accommodation properties. The Council road network lists Sugar Land as a 227m long sealed carriageway although only the first 30m is located on legal road reserve. The remainder of the sealed carriageway is on Council owned land providing access to a number of commercial properties. Beyond the sealed carriageway an unsealed area provides access to the existing Frankton Marina, boat launching ramp and parking area. Sugar Lane is primarily an access road providing access to neighbouring properties and provides parking along the southern edge opposite the commercial properties.

The proposed vehicle access to the site would be from Sugar Lane located approximately 40m from the intersection with Frankton Road (SH 6A). Frankton Road is a state highway and arterial road providing a major transportation route between Queenstown and Frankton. Sugar lane is a minor road approach to a cross intersection with Frankton Road with Marina Drive opposite, also a minor road approach. This intersection can be seen in the Figure above.

The intersection with Frankton Road has been widened to provide right turn lanes (centrally) and left turn lanes from Frankton Road to the minor roads of Sugar Lane and Marina Drive. The minor road approaches are controlled with Give Way priority controls. The intersection design is appropriate for a 70km/hr (posted speed limit) arterial road intersection.

3.2 Bus Services – Public Transport

The Queenstown Connectabus route between Queenstown and Frankton passes through the Frankton Road intersection. The nearest bus stops are located either side of this intersection. The westbound bus stop (towards Queenstown) is located to the west of the intersection, approximately 50m walk from the site access on Sugar Lane. The frequency of the Queenstown bound bus service is shown in the Table below.

Table – Queenstown Bound Bus Frequency, from Connectabus timetable November 2013

Period of Day	Bus Frequency(Monday to Sunday)
6:00am to 9:00am	Every 15minutes
9:00am to 3:00pm	Every 20minutes
3:00pm to 8:00pm	Every 15minutes
8:00pm to 11:00pm	Varies, average frequency 40minutes

From Queenstown there are connections to Fernhill and Arthurs Point.

The eastbound bus stop, towards Frankton, is located to the east of the intersection. There is a pedestrian refuge to the west of the intersection to assist pedestrian to cross Frankton Road, there are dropped kerbs only to cross Marina Drive. This bus stop is approximately 100m away from the site using the pedestrian refuge to cross Frankton Road. The frequency of the Frankton bound bus service is shown in the following Table.

Table – Frankton Bound Bus Frequency, from Connectabus timetable November 2013

Period of Day	Bus Frequency(Monday to Sunday)
6:30am to 9:30am	Every 15minutes
9:30am to 3:30pm	Every 20minutes
3:30pm to 8:00pm	Every 15minutes
8:00pm to 10:30pm	Varies, average frequency 40minutes

From Frankton there are connections to Kelvin Heights, the Events Centre, Quail Rise, Lake Hayes Estate and Arrowtown.

3.3 Walking and Cycling

Walking and cycling access is via either roadside facilities on Frankton Road or via the Queenstown Trail.

3.3.1 Queenstown Trail

The Queenstown Trail is a recreation and commuter route between Frankton and Queenstown. It is generally an off road route and is formed as an unsealed path of approximately 2m or more in width. The trail is suitable for pedestrians and a majority of cyclists (not suitable for road bikes). This trail forms part of the Wakatipu trails network linking to various local residential areas including Kelvin Heights and Jacks Point to the south and the greater Wakatipu area including Frankton and beyond to Quail Rise, Lake Hayes Estate, Lake Hayes, Arrowtown and the Gibbston Valley. Adjacent to the site the Queenstown Trail is not formally identified as it generally utilises the sealed carriageway of Sugar Lane. The trail leaves the Sugar Lane carriageway immediately to the north of proposed site entrance and adjacent to the newly developed Mantra Apartments.

The Queenstown Trail provides good off road access linking the site to Queenstown, Frankton and other areas in the greater Wakatipu area.

3.3.2 Frankton Road

There are both walking and cycling facilities provided on Frankton Road. There is a footpath provided on the southern side of Frankton Road which extends from opposite Perkins Road to the west to Frankton to the east. A short length of footpath to the east of sugar land will link to the site access. These footpaths are against the edge of the trafficked carriageway and are generally between 1.5m to 2m wide which is suitable for pedestrians to pass.

There is a pedestrian refuge to the west of the Frankton Road intersection with Sugar Lane and Marina Drive. This provides a crossing facility for pedestrians to access Marina Drive and the Frankton bound bus stop on the opposite side of Frankton Road.

Cycle facilities are provided on Frankton Road. There is an eastbound cycle lane from Queenstown to the Z-energy fuel station approximately 100m to the west of the site. This cycle lane does not extend through the Z-energy access or the Marina Drive intersection. Between Marina Drive and Frankton a sealed shoulder, approximately 1m wide, can be used by cyclists.

On the southern side of Frankton Road the footpath is shared with cyclists, this allows cyclists to follow the route of Frankton Road in either direction whilst being separated from vehicular traffic. This shared facility links to Frankton to the east and to opposite Perkins Road to the

west where it merges with the unsealed Queenstown Trail for onward travel towards Queenstown.

3.4 Water Taxi and Ferry Services

A number of resource consents have been approved that provide for ferry services to depart or land at the Frankton Marina location. The resource consents allow ferries to carry a limited number of passengers to destinations including Queenstown Bay (Queenstown Town Centre) and other destinations along the Frankton Arm. The number of ferry trips and passenger demand is likely to increase over time.

Currently Queenstown Water Taxis offer a scheduled service between The Hilton to the Queenstown town centre. This service can also stop at the Frankton Marina location en route. This service operates during the afternoon and evening with six to eight services between 12:00pm and 10:30pm depending on the season. Special or charter services are also available.

4 Proposed Development

4.1 Overview

It is proposed to establish a marina and supporting facilities to the south of Sugar Lane. This area is currently used as parking and storage of vehicles, boats and equipment for the commercial properties to the north of Sugar Lane.

The proposed marina would be developed in two stages and the completed development would consist of:

- 195 marina berths, 85 in Stage 1 and 110 in Stage 2,
- 1036m^{2}GFA commercial floor area, 712m^2 in Stage 1 and 324m^2 in Stage 2, and
- 152 car parks, four larger car parks for car and trailer combinations, three coach parks and a 30m loading zone.

This proposed development is smaller, 81% of the berths and 74% of the commercial area, than the previously consented development.

4.2 Staged Development

The proposed development would be staged in order to match the supply of marina berths to anticipated demand. It is expected that development would occur in two stages.

4.2.1 Stage 1

The first stage would include:

- Land based parking and buildings, and
- Marina and floating commercial buildings.

The land based activities would include parking for 152 cars (including fourteen for the mobility impaired), four parks capable of accommodating car and trailer combinations, three coach parks and a 30m loading zone. This stage would the construction of the coach parks on Sugar Lane and the diversion of the Queenstown trail onto a path running adjacent to the existing Sugar Lane, between the proposed car park area and the street. A secondary path would also be created, the scenic route, that would pass between the land based development and the marina or floating development.

The land based commercial buildings include four commercial buildings with a total building footprint of 216m^2 and public toilets with a building footprint of 48m^2.

The marina or floating development would consist of 85 marina berths that would be leased and sixteen small buildings on the floating marina structure which would be a mixture of commercial, support facilities or private storage. These buildings would have a total building footprint (excluding the deck area) of 576m^2.

4.2.2 Stage 2

The second stage would be developed as the demand for marina berths increases, this stage would enlarge the proposed marina and floating structure. The additional marina or floating structure would consist of a further 110 marina berths and ten small buildings with a total footprint (excluding the deck area) of 360m^2 of commercial development and support facilities for the greater marina size.

4.2.3 Commercial Floor Area

The full development includes a total building footprint of 1200m^2. This includes a toilet and communal facilities located in a single land based building (48m^2 building footprint). Additionally, other buildings within the development would be used for commercial, support facilities or private storage. The Gross Floor Area (GFA) available for these activities is approximately 1036m^2, based on 90% of the building footprint. This would be within four of the land based buildings and the 26 buildings on the marina or floating structure.

4.3 Parking Requirements

4.3.1 Marina Parking

The Queenstown Lakes District Plan does not provide data for the parking requirements for a marina. To assess the parking requirements for the marina element of this development data has been taken from the RTA, Guide to Traffic Generating Developments dated October 2002. This document is produced by the New South Wales (Australia) Roads and Traffic Authority and provides guidance on a number of matters related to the traffic impacts of land use developments, most notably on matters relating to traffic generation and parking.

The RTA guidance recommends a parking demand of 0.6 spaces per wet berth and 0.5 spaces per marina employee. Assuming 3 to 7 employees this suggests that a total number of 121 parking spaces would be sufficient to cater for the total number of marina berths. The RTA guide notes that parking for marina is highly seasonable with a substantial increase in usage over summer weekends. The parking requirement may also vary based on boat purpose and size.

4.3.2 Commercial Parking

There will be a total of 1036m^2 GFA which could be available for commercial activity. However, the exact nature of this activity is not decided at this stage. For instance there is likely to be mixture of specialist retail selling marine related merchandise, offices for marina management and sales of berths, storage for marine operators, booking offices for marina/tourist services and possibly a restaurant/café. Based on the QLDC District Plan these types of services would require between 2 and 4 parking spaces per 100m^2. The District Plan requirements for the different types of likely onsite commercial activities are shown in the Table below.

Table – District Plan Parking Requirements for Likely Activities, from QLDC District Plan, Section 14.2.4.1 Table 1

Activity	Parking Requirement		Per 100m²	For 1036m²
	Visitor	Staff		
Commercial (retail)	1 per 25m² GFA[1]	-	4	42
Offices	1 per 50m² GFA	-	2	21
Restaurant	1 per 25m²PFA[2]	1 per 100m² PFA (2 minimum)	4	42
Service Activities (marina services)	1 per 100m²	1 per 100m²	2	21

This shows that generally the commercial area is likely to require between 21 and 42 parking spaces depending on the actual usage of these areas.

4.3.3 Parking Provision

The proposed marina development will provide a total of 159 parking spaces, 152 car parking spaces including fourteen for the mobility impaired and four parks capable of accommodating car and trailer combinations. A 30m loading zone is included in the car park area which could cater for five cars. Additionally three coach parks provided on Sugar Lane to accommodate tourist activities such jet boat, charter boat or water taxi trips. These are located so that they could be used by existing operators or new operators that maybe established within the proposed marina.

The assessment of spaces required in the previous sections identified that there would be the following requirement:

- Marina activity, 121 spaces, and
- Commercial activities, 21 to 42 spaces.

This gives a total requirement of between 142 and 163 spaces for the completed development against the 159 parking spaces and 30m of loading zone (five cars) provided. The number of spaces provided will cater for the full development, stages 1 and 2.

Cycle stands are located in convenient locations within the development. Shower, changing and locker facilities are also included for staff within a communal area of the development to cater for those that wish to commute by walking or cycling. These facilities and the close proximity to bus stops will encourage these other modes of transport for staff and visitors reducing the impact on adjacent car parking.

[1]GFA = Gross Floor Area

[2] PFA = Public Floor Area – Assume 80% of GFA, the remainder is not public, ie. kitchen, food storage and offices

4.4 Trip Generation

The traffic generation for this proposed development would be made up from a number of components, being:

- The proposed marina berths,
- The commercial activities within the onsite buildings, and
- Increases in trips to the existing Frankton Marina and boat ramp as a result of the development.

These separate trip generation of these activities are discussed below.

4.4.1 Marina Trips

The marina activity is not considered within New Zealand traffic guidance documents. The New South Wales document RTA, Guide to Traffic Generating Developments dated October 2002 does provide a daily traffic generation rate for marina activities. This document does note that there is a substantial seasonal variation in marina usage and that the peak traffic generation occurring during weekends in the summer when water sports are more appealing. The rate given for a fixed berth is 2.7 vehicle trips per day. For the completed development (194 berths) this equates to peak daily traffic flow of 524 vehicles, these would all be new trips on the road network.

Work undertaken in the previous TDG traffic assessment suggested that the peak hourly traffic flow during the weekend peak period would equate to 5% of the peak daily traffic. This assumption appears reasonable and would represent a weekend peak hour traffic flow of 26 vehicles split as thirteen arrivals and thirteen departures and represents approximately 80% of the previous TDG marina trip generation. This peak period traffic is likely to occur during the weekend peak periods (midday). The assessed trip generation during the weekday morning or afternoon peaks is assessed as being zero.

4.4.2 Commercial Trips

The nature of the commercial floor area (1036m^2 GFA) is not decided at this stage. It is likely that the floor area will be leased to a number of businesses and would be made up of mixture marine related of specialist retail shops and offices and possibly the inclusion of a restaurant and/or café.

The previous Transport Assessment by TDG provided an average traffic generation based on the likely mix of commercial uses on the site. This approach is considered to be appropriate given the information known at this stage. The previous traffic assessment was based on 1400m^2 GFA of commercial floor area, this new development is assessed as 74% of the previous development. The Table below shows the hourly traffic flows for the 1036m^2 GFA of commercial development.

Table – Peak Hour Traffic Flow for 1036m² GFA Commercial Area, based on TDG Transport Assessment, June 2007[3]

Peak Hour	Estimated Traffic Generation of Commercial Activity		
	Into Site	Exiting Site	Total
Weekday morning	4	1	5
Weekday evening	39	33	72
Saturday	40	32	72
Sunday	33	24	57

This Table has been calculated from a number of likely traffic generation scenarios which are presented in greater detail in the TDG Transport Assessment which has been accepted under RM070542. This assessment also includes discount factors for different commercial activities to represent trips that may visit a number of other onsite activities.

4.4.3 Frankton Marina Boat Ramp – Additional Trips

The existing Frankton Marina boat ramp will remain unchanged. The historic Boatshed and Slipway adjacent to the boat ramp are the only facilities nearby for boat maintenance. It is therefore likely that as a result of the proposed marina that more boat maintenance would be undertaken at the historic Boatshed and Slipway. Hence, more trips as a result of the increased usage of the existing boat ramp and more trips as a result of additional boat maintenance at the historic Boatshed and Slipway. It should be noted that these vehicle trips may not enter the proposed development site although they are likely to be new vehicle trips to Sugar Lane. The TDG Transport Assessment allowed for three vehicle to enter via Sugar Lane during the weekday morning peak and three vehicles to exit via Sugar Lane during the afternoon peak period as a result of boat maintenance. Additionally, the previous assessment allowed for two entry and two exits via Sugar Lane as a result of additional the boat ramp usage during the weekend (Saturday and Sunday) peak hours. The previous assessment of additional trips to the boat ramp and the existing Frankton Marina by TDG appears to be appropriate given the proposed marina size.

4.4.4 Combined Trip Generation

The following table provides the calculated peak hour traffic flow during a number of different peak periods. This Table would typically represent a peak traffic flows during the summers season. During the winter period or poor weather it is likely that the traffic generation would be considerably lower.

[3]Factored from TDG Transport Assessment, 'Table 14: Mean traffic generation of commercial development' Dated June 2007

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Table – Peak Hour Traffic Flow for the Proposed Marina Development

Peak Hour Time period	Activity	Estimated Traffic Generation		
		Into Site	Exiting Site	Total
Weekday morning	Marina Berths	0	0	0
	Boat Maintenance	3	0	3
	Boat Ramp	0	0	0
	Commercial	4	1	5
	Total	**7**	**1**	**8**
Weekday evening	Marina Berths	0	0	0
	Boat Maintenance	0	3	3
	Boat Ramp	0	0	0
	Commercial	39	33	72
	Total	**39**	**36**	**75**
Saturday	Marina Berths	13	13	26
	Boat Maintenance	0	0	0
	Boat Ramp	2	2	4
	Commercial	40	32	72
	Total	**55**	**47**	**102**
Sunday	Marina Berths	13	13	26
	Boat Maintenance	0	0	0
	Boat Ramp	2	2	4
	Commercial	33	24	57
	Total	**48**	**39**	**87**

The proposed development generally has the highest peak hour traffic flow during the Saturday midday period in the summer. This peak period is approximately a 23% reduction in the predicted traffic flow of the previously approved marina development, RM070542.

5 Transport Effects

The transport effects of this proposal are likely to be either onsite, as a result of internal layout design, or off site as a result of increased demand for the local transport network. The following sections outline any transport effects of this development.

5.1 Onsite Transport Effects

Any onsite effects are generally managed through the Queenstown Lakes District Plan requirements for Transportation which are presented in Section 14 of the District Plan. The following Sections discuss the proposed development compliance with the District Plan Rules and Assessment Matters

5.1.1 District Plan Rules

The Table below provides an assessment of the proposed developments parking and access against the requirements of the District Plan site standards.

Table – District Plan Assessment

Rule	Requirement	Provided	Compliance
14.2.4.1 i	Minimum Parking Space Numbers, as per Table 1 The assessed requirement is between 142 and 163 spaces. Refer Section 4.3.	Provides 159 parking spaces and 30m of loading zone (five car spaces). The number of parking spaces include four parks capable of accommodating car and trailer combinations and three coach parks.	Yes
14.2.4.1 ii	Location and Availability of Parking Spaces.	Parking area has a circulating aisle so that all vehicles can enter turn and exit the car park area.	Yes
14.2.4.1 iii	Size of Parking Spaces, minimum parking space size provided in Appendix 7, Table 1 of the District Plan.	A number of parallel, angled (60°) and perpendicular spaces are provided. All meet the minimum requirements.	Yes
14.2.4.1 iv	Parking Area and Access Design, minimum access design widths.	Designed for vehicles anticipated. Accesses are designed to be used by large vehicles and/or car and trailer combinations that may enter. Access width at the entrance is 15m reducing to two directional traffic flow width of 9m or single direction width of 7m.	Yes
14.2.4.1 v	Gradient of Car Parks, maximum gradient no more than 1 in 20.	Car parking is on a generally flat area designed to minimum runoff gradients.	Yes

Rule	Requirement	Provided	Compliance
14.2.4.1 vi	Car Spaces for People with Disabilities, requires three spaces for people with disabilities all conveniently located.	Fourteen spaces for the mobility impaired are provided in convenient locations. The no-parking strip between spaces forms walkways within the car park towards the accesses to the floating marina structure.	Yes
14.2.4.1 vii	Reverse Manoeuvring, that a 90th percentile car is to able to manoeuvre into and out of any parking space with only one reverse manoeuvre.	All parking spaces are greater than the minimum requirement and aisle widths increased to help manoeuvring of larger vehicles and car and trailer combinations.	Yes
14.2.4.1 viii	Residential Parking Spaces.	No residential parking.	N/A
14.2.4.1 ix	Queuing, that sufficient queuing length is provided such that vehicles do not queue across the property access. For 151 parking spaces or greater 30m queuing is required.	24m queuing length is provided, however at the first car parking space the aisle width is approximately 23m wide and therefore wide enough to manoeuvre around the vehicle.	No, manoeuvring space is available to avoid conflict.
14.2.4.1 x	Set Down Areas, for education or health facilities.	No education of health facilities.	N/A
14.2.4.1 xi	Loading Areas, minimum size of loading space.	30m of loading zone is provided near to the central commercial area. This could be used as five car park spaces.	Yes
14.2.4.1 xii	Surface of Parking and Loading Areas.	All parking and loading areas will have a sealed surface.	Yes
14.2.4.1 xiii	Landscaping, provision of landscaping adjacent to vehicle parks.	Landscaped areas are the majority of the parking area. This includes the diverted Queenstown Trail.	Yes
14.2.4.1 xiv	Illumination, car park illumination during hours of operation.	It is possible that the car park will be used in the evening hours (4:30pm to 10:00pm) or used to store vehicles overnight. Lighting will be provided in compliance with this Rule.	Yes
14.2.4.2 i	Length of Vehicle Crossings, length of kerb crossing to be between 4m and 9m.	Kerb crossing, and crossing over the Queenstown Trail is 14m to accommodate larger turning vehicles.	No, access designed to accommodate larger vehicles.
14.2.4.2 ii	Design of Vehicle Crossings, access meets the centre line of the local road at an acceptable angle.	The access centreline meets the centreline of Sugar Lane at 90° giving good visibility sight distance in each direction.	Yes

Rule	Requirement	Provided	Compliance
14.2.4.2 iii	Maximum Gradient for Vehicle Access, access gradients to be less than 1 in 6.	Access gradients are essentially flat, graded for drainage only. Break over angles will be met.	Yes
14.2.4.2 iv	Minimum Sight Distances from Vehicle Access, that minimum visibility sight distances are met.	Position of proposed access maximises sight distances in each direction along Sugar Lane, greater than 80m to the east and to the intersection SH 6A to the north.	No, sight distance to the north limited to approx. 40m due to intersection.
14.2.4.2 v	Maximum Number of Vehicle Crossings.	Only single vehicle crossing.	Yes
14.2.4.2 vi	Distances of Vehicle Crossings from Intersections, frontage road is local and intersecting road Arterial, minimum separation 25m.	Access is located approximately 40m from the intersection of Sugar Lane and SH 6A.	Yes
14.2.4.2 vii	Service Stations, includes a fuel tank for refuelling boats, (g) requires that tankers drive in and out in a forward direction.	The fuel will be able to navigate to the refuelling position and exit the site without a reverse manoeuvre. The tanker will park within the aisle of the car park area. This will have minimal impact on manoeuvring and parking of vehicles within the parking area.	Yes
14.2.4.2 viii	Minimum distance between Vehicle Crossing onto State Highways.	No state highway accesses.	N/A
14.2.4.3	Three Parks Zone - Bicycle Parking Standards.	Not in Three Parks Zone.	N/A
14.3.2	Assessment Matters.	Refer Below.	N/A

This table identifies a number of non-compliances with the District Plan rules, the following Section discusses the assessment of these non-compliances.

5.1.2 District Plan Assessment Matters

The District Plan Provides a number of assessment matters that maybe considered when assessing the transportation elements of a development. The following provides discussion regarding the assessment of the non-compliances noted in the previous Table and where necessary provides possible conditions that could be applied to the development through the Resource Consent process.

14.3.2 i Controlled Activity - Parking Areas, Location and Method of Provision

The car parking provided is located close to the floating marina structure and commercial buildings. This layout provides good connectivity between the car park and the onsite activities. Within the car park area there are a number of pedestrian paths, these also form part of the parking spaces provided for mobility impaired users. These paths improve

pedestrian links within the parking area and to the pedestrian accesses onto the floating marina structure.

14.3.2 ii Controlled Activity and Site Standard – Landscaping

The car parking area will have landscaping area provided around the boundary. This landscaped area will include planting and pathways. The pathway provided to the north of the car park is provided as an off road route to provide for the continuation of the Queenstown Trail. This trail is proposed to be 4m wide to cater for pedestrian and cycle traffic.

There is also a landscaped area to the south of the car park area. This landscaping separates the car park form the floating marina structure and will also include pedestrian paths which will provide an alternative pedestrian route for the Queenstown Trail.

14.3.2 iii Parking and Loading Provision

The development is well serviced by alternative transportation modes such as the provision of nearby bus stops on Frankton Road. Additionally, the development is located adjacent to the Queenstown Trail, a walking and cycling trail between Queenstown and Frankton with links to the greater Wakatipu area. These modes of travel should be encouraged especially for staff located at the facilities within the development.

The proposed development provided 159 parking spaces including three coach parks and four larger spaces to accommodate car and trailer combinations. Additionally 30m of loading zone will be provide which could accommodate a further five car parks. The assessment of parking shows a car park requirements of between 142 to 163 spaces. This suggests that the parking provision will accommodate all building uses. The makeup of the parking provided is sufficient to cater for the likely vehicles types anticipated which includes three coach parks and four parks for car and trailer combinations.

The current businesses on Sugar Lane use a considerable amount of space for parking and storage of vehicles or equipment. This means that there is unlikely to be any available parking on-street as a result of the existing adjacent land uses. Coach parks have been provided on Sugar Lane which will cater for some of the existing marine based tourist activities such as jet boat operations.

The development includes cycle stands which are located in convenient locations within the development. Shower, changing and locker facilities are also included for staff within the development that wish to commute by walking or cycling. Additionally, local bus stops are located nearby which means that this development has a number of attributes which encourages the use of other modes of transport rather than the private car.

14.3.2 iv Parking and Loading Area and Entranceway Design

It is possible that the parking area will be used in the evening period, particularly if a restaurant is included in the commercial development. Lighting will be provided in the car park area, this would be designed in accordance with the QLDC District Plan and Southern Light, the QLDC Lighting Strategy.

Within the development there is a fuel tank. This is for a boat fuelling pump located on the floating wharf structure. It is anticipated that this tank will be refilled on a regular basis by fuel tankers. During refuelling the tanker would be parked in the car park aisle at the western end of car park. At this point there are no parking spaces against the aisle and the aisle is 9m wide with single direction traffic. If a parked fuel truck would take 3m against the edge of the aisle this leaves 6m for turning vehicles. Due to the relative short time that a fuel truck would be parked here it is unlikely to have any impact on vehicles manoeuvring within the car park.

14.3.2 v Access

The access has a crossing width of 15m, this is also the crossing width over the relocated Queenstown Trail. This is greater than the 9m maximum crossing width allowed within the District Plan. The wider crossing width has been designed to accommodate two directional flow for larger vehicles or car and trailer combinations that are likely to be associated with the proposed marina. It may be possible separate the entrance and exit although this would place two separate accesses crossing the Queenstown Trail and would be less desirable.

The visibility sight distance to the North of the access is restricted to approximately 40m as a result of the alignment of the Sugar Lane and the Frankton Road intersection. The approach speeds at the intersection are very slow, less than 20km/hr it is expected that although a non-compliance this would have an impact on the safety of the proposed access or the adjacent road network.

The proposed car park arrangement has insufficient queuing length when measured against the District Plan. For a car park between 101 and 150 spaces the queuing length required is 24m. For more than 150 spaces the required queuing length required is 30m. The measured queuing length is 24m for the 156 space off street car park. At the position of the first car park the aisle width is measured as 23m, this allows for sufficient space for an entering vehicle to pass a manoeuvring vehicle at the first car park. It is therefore unlikely that this non-compliance will have an impact on the safety of the car park or the adjacent road network.

The traffic generation for this development shows the greatest traffic generation is during the weekend peak period during the summer. However, the biggest impact is likely to be a result of the weekday evening peak due to the higher traffic flow on the adjacent road network, particularly Frankton Road at the intersection with Sugar Lane. This is discussed further in Section 5.2, Off Site Transport Effects.

14.3.2 vi Maximum Gradient for Vehicle Access

The proposed access and parking area is on generally flat ground, gradients will be minimised without compromising drainage and stormwater runoff. There will be no issues as a result of gradient.

14.3.2 vii Vehicle Orientated Commercial Activities Including Service Stations and Rural Selling Places

The marina development is generally not a vehicle orientated commercial activity although a number of vehicles that enter this development will have specific manoeuvring requirements. It is anticipated some larger vehicles will enter the development and particularly car and trailer combinations. To accommodate these vehicles the parking area has been designed to include a number of larger parking spaces, there are four parking spaces which are 2.7m wide by 9m long to accommodate larger vehicles. Additionally the aisle widths within the parking area have been increased to 7m in one way aisles and a minimum of 9m for two way aisles. The parking area is designed to accommodate larger vehicles that may be anticipated.

5.2 Off Site Transport Effects

The off site transportation effects of this development would be predominantly felt at the nearby Frankton Road intersection with Sugar Lane and Marina Drive. This intersection was modelled in the previous TGD Transport Assessment dated 15 June 2007 for a larger development. The traffic generation shows that this development would have slightly less impact as the traffic flow during the peak period is likely to be approximately 23% less than the traffic flow of the previously approved marina development.

Modelling undertaken by TDG show that the Sugar Lane approach to the State highway intersection was operating at capacity without development traffic. This is backed up by the cash history for the intersection which shows two crashes in the last five years are a result of drivers not waiting for appropriate gaps before emerging from the side roads. Both these crashes happened during the peak periods where the modelling shows that the side road approaches are approaching capacity.

The modelling shows that any additional traffic would increase queue lengths on the Sugar Lane approach. It is likely that this could lead to further drivers being impatient and accepting gaps on the State Highway that are too small resulting in a crash.

With development traffic the queue lengths on the minor road approaches would significantly increase to between 11.8 and 12.2 vehicles on Sugar Lane with only minor queue length increases on Marina Drive. Although there will be significant increases to queue length and delays on the Sugar Lane approach this has a very minor impact on the major road, Frankton Road (SH 6A), as these vehicles have the right of way through the intersection. In reality, longer queues and delays result in drivers on the minor road approaches accepting smaller gaps which can lead to an increase in road traffic crashes and reduced road safety. The approval for the previous marina development included a condition requiring that a development contribution be made to NZTA to fund intersection improvements.

NZTA should be consulted regarding the existing and future operation of the state highway intersection of Sugar Lane, Frankton Road (SH 6A) and Marina Drive. Through consultation it is expected that methodology would be developed to manage any traffic impacts at the intersection and on the state highway network.

6 Summary

This transport assessment considers the design and potential impacts of the proposed marina to be developed by Lakes Marina Projects Limited. The proposed marina would be established near to the existing Frankton Marina and boat ramp accessed from Sugar Lane in Frankton.

The site access will be accessed from Sugar Lane and is designated as Frankton Marina Local Purpose Reserve (Designation 165) and the surrounding land is zoned Low Density Residential.

Sugar Lane provides access to the existing Frankton Marina, the boat ramp and a number of adjacent commercial operations including a café in the historic Ticket Office, visitor accommodation at the recently completed Mantra Apartments, a number of marine/tourist operations, professional offices and two residential properties.

Sugar Lane is a local road accessed from Frankton Road (SH 6A) a state highway and major arterial road between Queenstown and Frankton. The site can also be accesses from the Queenstown Trail, an off road pedestrian and cycle route between Queenstown and Frankton. Pedestrian and cycle facilities are also provided on Frankton Road. Bus stops are located on Frankton Road and are located near the Sugar Lane/Marina Drive intersection. The development site is well connected to the District's Transport networks.

The proposed marina development includes will include 194 marina berths and 1036m^2 GFA commercial floor space to be leased to a number of different businesses and users. The development will include 159 parking spaces and a 30m loading zone. The final make up of activities within the commercial space is not known at this stage, the assessment based on likely uses shows that between 142 to 163 parking spaces would be required. This suggests that the amount of parking provided would be sufficient to cater for the anticipated commercial activities at the site.

The current businesses on Sugar Lane use a considerable amount of space for parking and storage of vehicles or equipment. This means that there is unlikely to be any available parking on-street as a result of the existing adjacent land uses. Coach parks have been provided on Sugar Lane to cater for some of the existing marine based tourist activities such as jet boat or charter operations.

A traffic generation for the proposed marina show that this development would have less impact on the adjacent road network than a previously approved marina development. This is based on the proposed traffic generation creating a peak period traffic generation approximately 23% less than the consented marina development.

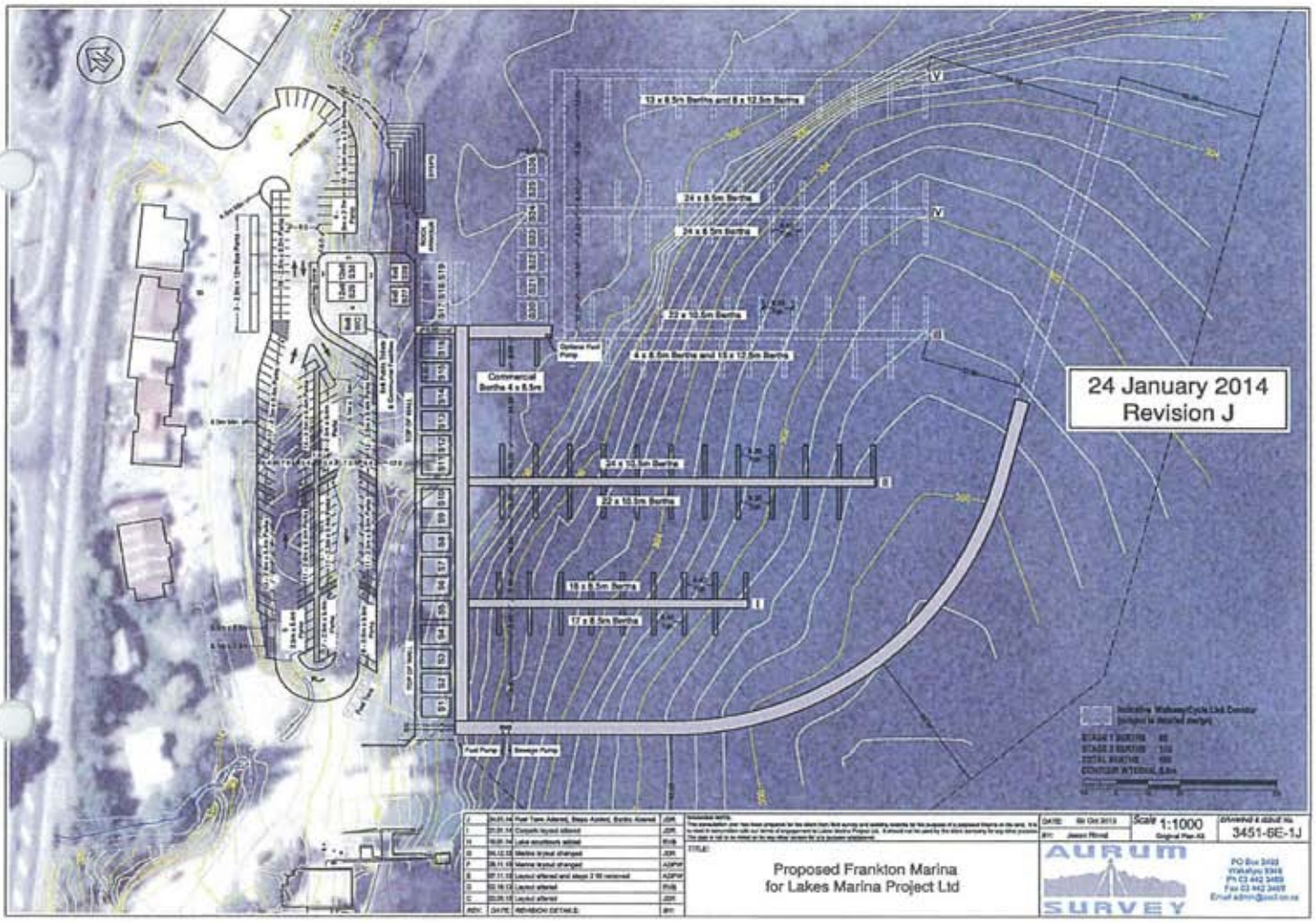
The greatest effects of this development are a result of traffic and would have an impact at the nearby intersection of Frankton Road (SH 6A), Marina Drive and Sugar Lane. Modelling undertaken for the consented development by Traffic Design Group shows that the Sugar Lane approach to this intersection is already operating at capacity during the weekday evening peak period. Therefore any additional traffic during this period will generally increase queue lengths. The modelling showed that once the approved development was added this approach could have a maximum queue of between 11.8 and 12.2 vehicles. It is expected that this proposed development will, although less, have a similar impact.

As a result of this Transport Assessment I conclude that the only potential traffic effects are a result of additional traffic at the intersection of Sugar Lane, Frankton Road (SH 6A) and Marina Drive. In order to manage the impacts it is suggested that NZTA should be consulted. Through consultation it is expected that methodology would be developed to manage any traffic impacts at the intersection and on the state highway network.

Appendix A Development Plans

Including:

- Proposed Frankton Marina for Lakes Marina Project Ltd (Aurum, 3451-6E-1J) showing full development layout, and
- Proposed Frankton Marina for Lakes Marina Project Ltd (Aurum, 3451-6E-2E) showing detail dimensions of the parking area and buildings.


24 January 2014
Revision J
Proposed Frankton Marina
for Lakes Marina Project Ltd
Scale 1:1000
3451-6E-1J
AURUM SURVEY

[N] ASSESSMENT OF ENVIRONMENTAL NOISE EFFECTS REPORT

Assessment of Environmental Noise Effects

Frankton Marina
Lakes Marina Projects Limited

QUEENSTOWN

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Report 11/022.2
29 January 2014

Assessment of Environmental Noise Effects

Frankton Marina
Lakes Marina Projects Limited
QUEENSTOWN

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Document Sign Off by:	**Malcolm Hunt.** MNZAS. MNZEIH Principal Acoustic Consultant

Assessment of Environmental Noise Effects

Frankton Marina
Lakes Marina Projects Limited
QUEENSTOWN

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Report Distribution

REPORT HISTORY

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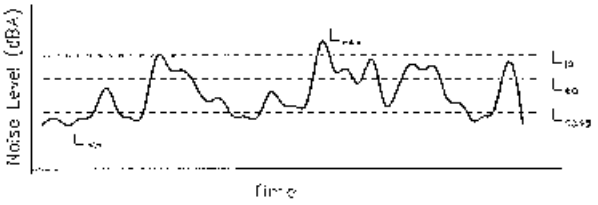
Frankton Marina
Lakes Marina Projects Limited
QUEENSTOWN

Glossary of Noise Terms

dB(A)	A weighted Decibel. A measurement of sound which has its frequency characteristics modified by a filter (A-weighted) so as to more closely approximate the frequency bias of the human ear.
Lmax or L_{max}	The single highest sampled level of sound. Used in night time emission limits as a means of ensuring sleep protection.
Leq or L_{eq}	The time-averaged sound level (or equivalent sound level) that has the same mean square sound pressure level as the time-varying sound level under consideration. Commonly referred to as an "energy average" measure of sound exposure.
L_x as function of Time	
NZS 6801:1991	NZ Standard 'Measurement of Environmental Noise'
NZS 6802:1991	NZ Standard 'Assessment of Environmental Noise'
Sound Power	Sound Power Level. The 'energy' created by a sound is defined as its sound power. The ear cannot hear sound power nor can it be measured directly. Sound power is <u>not</u> dependent upon its surrounding environment. Sound power is the rate per unit time at which airborne sound energy is radiated by a source. It is expressed it watts (W). Sound power level or acoustic power level is a logarithmic measure of the sound power in comparison to the reference level of 1 pW (picowatt). The sound power level is given the letter Lw or SWL, it is not the same thing as sound pressure (L_p). Any L_p value is dependent of the distance from the noise source and the environment in which it was measured. Lw values are preferred for noise prediction purposed as their value is independent of distance or environment. There are recognised formulas for converting L_w to L_p. A-weighted sound power levels are usually denoted L_{wA} (dB) or sometimes L_A (dBA) or SWL (dBA).
Sound Pressure	Sound Pressure Level is defined as varying pressure fluctuations caused by sound waves. The ear converts these fluctuations into what we call audible sound, which is the sensation (as detected by the ear) of very small rapid changes in the air pressure above and below a static value. This "static" value is atmospheric pressure.

Frankton Marina
Lakes Marina Projects Limited
QUEENSTOWN

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noise and environmental consultants

1.0 Introduction

Malcolm Hunt Associates have conducted an assessment of environmental noise effects relating to a proposal by Lakes Marina Project Limited (LMPL) to develop a marina and associated facilities at Frankton in the Queenstown Lakes District.

The method of investigation has been to review the Applicant's plans and technical reports and assess potential noise effects on the existing environment .As explained below, an existing resource consent provides for an earlier, larger marina to be developed on the site now proposed to be developed by LMPL. This fact is relevant to the noise assessment below alongside the relevant noise standards and guidelines employed to assess potential effects.

This report discusses potential noise emissions in terms of both construction noise and operational noise. Construction noise has been assessed in terms of the New Zealand Standard for construction noise - NZS6803:1999. Operational noise has been assessed in terms of the Queenstown Lakes District Plan noise criteria which refers to NZ Standards NZS6801:2008 and NZS6802:2008..

This report contains:

- A brief outline of the proposed activity and site.
- A review of the Queenstown Lakes District Plan regarding noise rules and related criteria.
- An assessment of operational and construction noise levels from the proposed activities as received in the surrounding environment.

2.0 Environmental Noise Assessment

The environmental effects of land use activities are controlled through the provisions of the Resource Management Act 1991 (the RMA), which embraces the sustainable management of natural, and physical resources, focusing on the effects that land use activities have on the receiving environment. The environment involves people and communities and their ability to provide for their social and cultural well being as well as for their health and safety.

Section 16 of the Resource Management Act places a general duty on all occupiers to adopt the best practicable option (BPO) to ensure noise emitted from any site does not exceed a reasonable level. What constitutes a "reasonable level" is not prescribed by the Act. Noise limits prescribed in the *Queenstown Lakes District Plan* are used to determine limits of acceptability. Further to Section 16 it is important to note Section 17 of the Act. ***Section 17*** states that every person has the general duty to avoid remedy or mitigate potential adverse effects, including noise.

3.0 Site and Activity

The site and activity are described in detail within the Resource Consent Application. A brief summary of the activity and description of the site are provided below. The Frankton Marina development is located on the western shores of the Frankton Arm of Lake Wakatipu adjacent to Frankton Road (SH6A) to the north-west and Lake Wakatipu to the south-east. Access to the site will be via Sugar Lane which runs off SH6A.

The site is designed to cater for 195 marina berths, associated buildings, landscaping and 156 car park spaces, and a hardstand area. The layout of the site is shown in **Figure 1** as follows:

Figure 1 Layout of the proposed marina adjacent to existing commercial activities in the area. Ambient sound level monitoring locations A and B are also shown (see Section 4.0).

The site is currently used as a small marina and car parking area with associated buildings. There is some existing marina activity in this area currently. There are some scrubs and trees covering the remainder of the site. The site zoning is shown in **Figure 2**.

Figure 2. Zoning of site and surrounding area as per QLDC District Plan.

As shown in **Figure 2**, the subject site is zoned ***Rural General*** and ***Low Density Residential*** under the Queenstown Lakes District Plan. Surrounding sites are zoned ***Low Density Residential*** under the plan The nearest structures to the proposed development are buildings housing commercial activities on the other side of Sugar Lane (south of the State Highway) being less than 20m from the closest part of the subject site.

4.0 Existing Environment

Ambient sound levels have been measured in the area during daytime when maximum activity is likely to take place at the marina. Measurements of existing sound levels (including sounds from aircraft overhead on approach / departure to Queenstown airport) were included in the measurements taken between 8.30am and 11am.

Measurement A (see Figure 1) was taken at a location on the front fence of the closest residential site to the Frankton Marina jetty [819 Frankton Road], some 124 metres from the water's edge.

The results of a time–varying sound level measurement at this location is shown as follows;

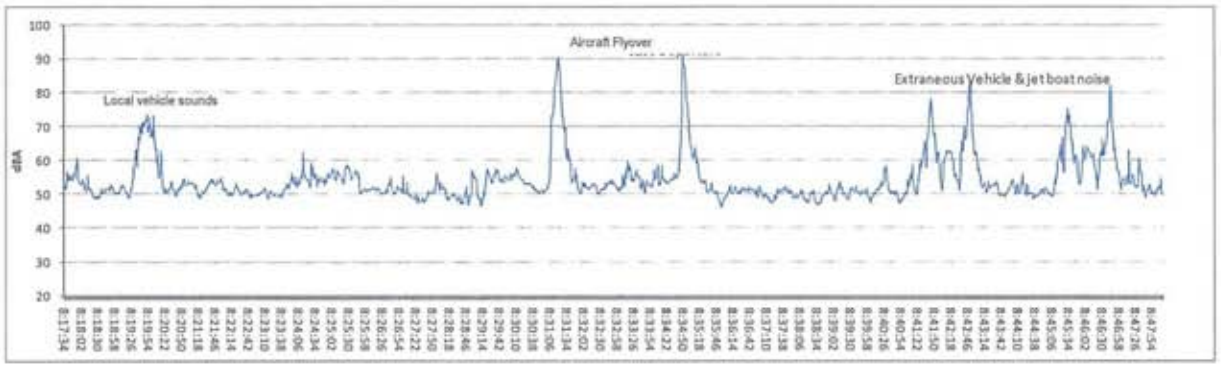
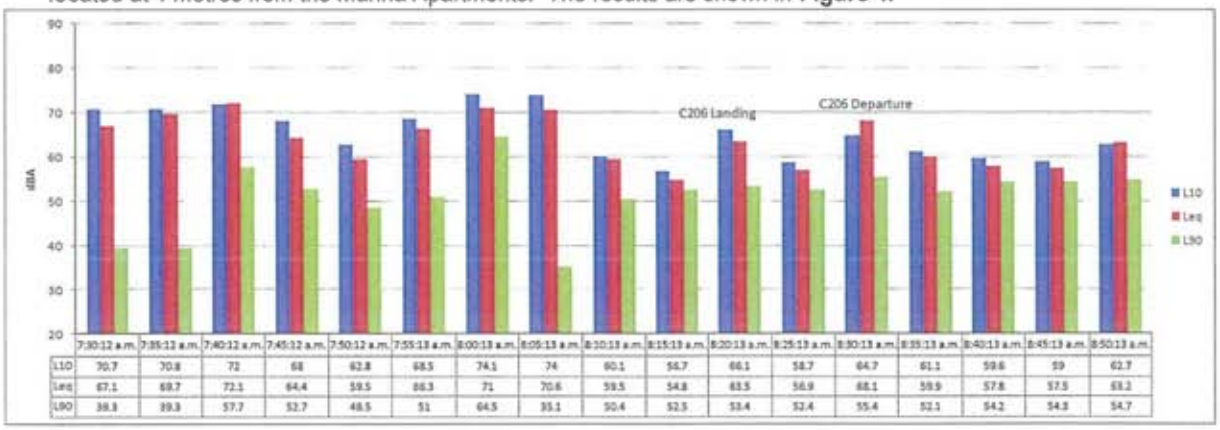


Figure 3: Time-varying ambient sound levels [L_{Aeq}, dB] measured at Site A, see **Figure 1**, 25 March 2009.

Sound levels were also measured near The Marina apartments, located near the lake shore, some 128 metres north of the Frankton Marina Jetty. Sound levels were measured with a Rion NA 27 Class 1 sound level meter located at 4 metres from the Marina Apartments. The results are shown in **Figure 4.**



	7:30:12 a.m.	7:35:12 a.m.	7:40:12 a.m.	7:45:12 a.m.	7:50:12 a.m.	7:55:13 a.m.	8:00:13 a.m.	8:05:13 a.m.	8:10:13 a.m.	8:15:13 a.m.	8:20:13 a.m.	8:25:13 a.m.	8:30:13 a.m.	8:35:13 a.m.	8:40:13 a.m.	8:45:13 a.m.	8:50:13 a.m.
L10	70.7	70.8	72	68	62.8	68.5	74.1	74	60.1	56.7	66.1	58.7	64.7	61.1	59.6	59	62.7
Leq	67.1	69.7	72.1	64.4	59.5	66.3	71	70.6	59.5	54.8	63.5	56.9	68.1	59.9	57.8	57.5	63.2
L90	38.3	39.3	57.7	52.7	48.5	51	64.5	35.1	50.4	52.3	53.4	52.4	55.4	52.1	54.2	54.3	54.7

Figure 4: Logged ambient sound levels [L_{A10}, L_{Aeq} , and L_{A90}, dB] 7.30 am to 8:50 am 25 March 2009, measured at Site B (Figure 1 - Marina Apartments).

Overall, the measurements confirm the existing receiving environment has moderately high ambient sound levels during daytime, affected by traffic sounds and aircraft using Queenstown Airport.

We understand any consents granted for activities in the area form part of the existing environment. In 2007 Malcolm Hunt Associates provided a report assessing the environmental noise effects of the construction and operation of a proposed marina at Frankton which has become known as the Queenstown Marina Development Limited (QMDL) project. This marina was granted consent by a joint QLDC and Otago Regional Council

committee and land use consent was granted in June 2008 (RM070524) and 2007 (365-367 and 2007.272-282). The project incorporated a greater number of berths and was a larger project than that now being applied for by LMPL. The scale of the noise emissions associated with the current proposal (as outlined below) would therefore fit within the maximum noise effects of a larger marina on the site, such as the one consented in 2008.

4.0 Effect of the Proposed Activity

The proposed day-to-day activities will generate noise from the following sources:

- Temporary engine noise for motor vessels and noise from the halyards on yachts;
- General marina and vessel maintenance activities involving cleaning and re-surfacing, motorised equipment and hand tools etc;
- Movement of traffic onto and off the site, as;
  - ✓ Light vehicle's movements: Visitor cars, staff cars etc
  - ✓ Goods handling (couriers, delivery vehicles).
  - ✓ Maintenance vehicles.
- People sounds associated with outdoors activities
- Low level noise from fixed plant items.
- Occasional heavy vehicle movements associated with hauling of large non trailorable boats from water.

The facility will emit temporary construction noise during the construction of the proposed site buildings, jetty and erection of the buildings and landscaping. It is proposed that a Noise Management Plan will be prepared which specifically addresses noise mitigation measures in regards to the marina construction.

The potential for off site noise effects at noise sensitive sites such as low density residential sites or non residential noise sensitive sites is limited due to the modest levels of noise produced from the activity. The assessment of noise effects is set out in Section 6.0.

5.0 Queenstown Lakes District Plan Noise Criteria

The site on which the activity will take place is in a zoned "*Rural General*" and "*Low Density Residential*" under the Queenstown Lakes District Plan, however potential noise effects (if any) will arise within part the area beyond the site north of SH6A which is zoned "*Low Density Residential*". The applicable rule is reproduced as follows:

Noise

(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:

(i) daytime (0800 to 2000 hrs)	***50 dB $L_{Aeq(15\,min)}$***
(ii) night-time (2000 to 0800 hrs)	***40 dB $L_{Aeq(15\,min)}$***
(iii) night-time (2000 to 0800 hrs)	***70 dB L_{AFmax}***

(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.

(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance and comply with NZS 6803:1999.

Compliance with these District Plan noise limits is discussed below.

6.0 Assessment of Operational Noise Effects

Assessment of noise from the proposed operation requires consideration of the proposed activities to be carried out on site, the type of sound emission and the proximity to residential sites. The hours of operation and related activities also require assessment in regards to potential off site noise effects.

As described above there will be a number of functions and activities associated with the day-to-day operation of the site with the main activity being the jetty and marina along with all associated facilities.

The marina consists of two distinct and unconnected parts – the breakwater arm and the main berth area. The main marina berth area will be accessed via its connection to the land directly in front of the proposed buildings. . The marina will be constructed from floating reinforced concrete pontoons attached to the lakebed by a screw anchor bungy system, similar to those used in the Marlborough mussel farms. The pontoons will be approximately 4.8 metres wide and 1.8 metres deep. Approximately 1.3m of the pontoon will sit below the water and will provide stable public access and wave protection for the marina.

To accommodate activities associated with and essential to the marina operation, small buildings are proposed between the marina and the car park.

It is understood that there will be no residential units or visitor accommodation associated with the marina development. Further it is understood that the marina development is being designed so that people will not have the facilities to stay overnight on their vessels. We understand that any person wishing to stay overnight on their vessel while it is parked in the marina would require resource consent for such an activity. This is beyond the scope of this report and has therefore not been considered as a potential noise effect.

Adjoining the entrance to the roadway is a car parking area, which will service visitors to the marina and on-shore facilities. The proposed development will include 156 car parking spaces and 3 bus parks as a key component of the proposed development.

Due to the attributes of the noise sources identified in **Section** 4.0 above, the marina will produce only modest levels of noise within the area depending upon the activity. While there will be a wide variety of maritime and boat related activities that will take place on-site, only a portion of activities are assessed as having the ability to potentially emit significant noise. Mostly the sounds from the site (if any) will be low levels of vehicle sounds associated with the use of the car park. Sounds from the berths will generally be related to vessel maintenance, cleaning and testing. Power tools, hand tools and other equipment in use at the marina will be similar to those often found in the domestic setting. Maintenance noise levels are assessed as likely to be no more than minor and would generally not be audible beyond the site boundary of the proposed centre.

Sound from slapping halyards on yachts can be an issue at times of high wind. Halyards are the ropes used to raise and lower the sails of a sailing yacht. To avoid noise it is a common practice to tie the halyards to a shroud (a wire mast support on either side of the mast) with light line, ribbons or shock cord. The sound is mid and high frequency meaning that this type of sound does not tend to carry (it is the mid and high frequencies that are most reduced over distance due to air absorption). Thus, the cumulative sounds have a very localised effect and are at their loudest under windy conditions where outdoor acoustic amenity in exposed positions are somewhat compromised due to elevated natural sounds due to wind.

Sounds from the marina may be audible in the local area where there is line-of-sight with the activity, however this audible sound is not expected to exceed L10 40 dBA beyond the immediate marina area, when measured and assessed in accordance with NZS6801:2008 and NZS6802:2008.

These modest levels of sound emission would not generally be audible within any sites north of Highway 6A. Regarding the closest residential site at 819 Frankton Road, this site will receive the highest levels of sound from the marina activities, most likely levels up to $L_{Aeq(15\ min)}$ 50 dBA during busy daytime periods in summer. given the ambient noise climate associated with traffic on the nearby highway and air transportation sources, cumulative

noise from the proposed marina will result in minor noise effects. Sounds associated with marina activities is predicted to be received at less than 40 dBA at the closest dwellings across SH6A from the marina location.

Thus, while some low-level sounds from boats and people may be audible in the area; such sounds are not unexpected and occur within an existing environment highly affected by transportation noise. Thus, should resource consent be granted, we do not expect the marina will generate adverse noise. We expect noise levels will comply in all respects with the relevant Queenstown Lakes District Plan noise limits, including taking into account any special audible characteristics.

6.1 Noise Mitigation Measures

The following methods are assessed as the ***best practicable option*** (RMA) to ensure noise emitted from the activity on site does not exceed a reasonable level at the closest residential dwellings and non-residential activities:

The ***best practicable option*** is defined as follows:

"...the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to

(a) The nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and
(b) The financial implications, and the effects on the environment, of that option when compared with other options; and
(c) The current state of technical knowledge and the likelihood that the option can be successfully applied."

- All equipment, machinery and vehicles to be operated and maintained in a sensible manner that takes into account noise emissions and excessive noise. Engines and other noise sources to be oriented as far as practical to reduce noise emissions in the direction of the nearest residence. Excessive engine revving, excessive use of horns or other audible devices, and the use of un-silenced equipment are examples of non-conformance with the obligation to limit the emission of unreasonable noise.

- Moored boats with mast rigging or other equipment which is not securely tied down may bang, ring or emit sound. To address this, we understand wording of berth licenses will ensure berth occupiers are responsible to secure ropes and other pieces of equipment to ensure that potential banging or similar unreasonable noise impacts do not occur. To ensure on-going compliance we understand a marina manager will overview this procedure. It has also been recommended to management to erect signage at the main entry points to the marina reminding people to secure and operate equipment for noise control reasons.

- Portable items (i.e. hand tools, generators etc) should be positioned (and if necessary enclosed/screened), as far as practical to prevent a direct line of sight between the noise source and off site receivers.

- Audible warning devices (such as reversing alarms) should be limited in terms of sound level and frequency of use, to a practical minimum that satisfies health and safety requirements.

- All vehicles operating on the site are to be restricted to 20 km/hr. Management are recommended to consult with Council in order to request Council adopt a site speed limit of 20km/hr with signage at all entry points being erected.

6.2 Noise from Rubbish and Containers & Deliveries of Goods

Containers of rubbish or delivery (loading/unloading) of goods are to be handled with care, reducing sound from this source. Containers and rubbish are not to be handled outdoors after 8.00pm or before 8.00am (daily). It is recommended that outdoor skips or bins are appropriately located and shielded not to cause a nuisance in relation to noise. Deliveries of goods on site will occur between the hours of 8.00am and 8.00pm only and be shielded from line of sight with surrounding residential sites.

6.3 People Noise

All visitors and staff etc will be made aware by management that noise emissions are kept to a reasonable level. In particular, activities carried out in the outdoors (day or night) involving fixed or mobile plant items need to be undertaken in a noise-sensitive manner. In this regard management will ensure that visitors, marine users etc are made fully aware of the need to adopt the noise control methods. Personnel should be informed about the need to reduce noise and about the hazards of excessive noise.

Site management are to be aware that compliance with noise limits may be breached unless the noise emissions are kept to a reasonable level. In this regard, management are to be aware of the applicable noise limits as set out in this report and in turn are to ensure that each staff member is made fully aware of the need to adopt the noise control methods.

The above methods can be achieved by Management through a variety of methods including management undertaken discussions with owners/occupiers/tenants/visitors via verbal, written or other means such as placing signage on site.

6.4 Overall Assessment - Operational Noise Levels

Outdoor activities are not expected to affect areas off-site to any significant degree when managed sensibly. Noise emissions from the berth area and inside the proposed buildings will generally be low given their use as described above, with the marina layout design itself assisting in reducing the potential for adverse off site noise effects. Predicted sound levels from the (daytime-based) activities carried out within the building are expected to be minor and not exceed $L_{Aeq(15\ min)}$ 50 dBA at any residential location during daytime and $L_{Aeq(15\ min)}$ during night time. L_{AFMax} sound levels are generated by impulsive type sounds such as activities that generate audible "bang" or "crash" type sounds. No activities generating any significant sounds from these types of activities are considered likely to be associated with the proposed marina. Sounds of car doors slamming would measure L_{AFmax} in the region of 55 to 60 dB at the closest residential site and therefore comply with the District Plan night time L_{AFmax} limit.

Importantly, during night time the marina activity levels are very low and no significant sounds will be emitted.

Existing residential sites adjacent to the marina site currently experience ambient noise from vehicle, maritime and commercial based noise sources at around $L_{Aeq(15\ min)}$ 50 to 55 dB daytime and 45 to 40 dB night time. This is unlikely to change significantly.

The overall conclusion is that levels of noise received off-site will be managed to acceptably low levels, compliant with the Queenstown Lakes District Plan noise limits. This is a reasonable expectation given the proposed structure of the buildings, their layout, and the intended nature of the overall operation, including proposed mitigation measures.

7.0 Assessment of Temporary Construction Noise Effects

The proposed activity will involve temporary construction noise. Construction noise will arise from site excavation, preparation, establishing foundations/piles, services, and the construction of buildings. It is understood that there will be no blasting or rock breaking of hard schist rock. It is understood that there will piling off shore. Piling activity on-shore may also be required due to ground conditions.

The full definition of construction work (as defined in ***Section 2*** of the ***Construction Act 1959***) means any work in connection with the construction, erection, installation, carrying out, repair, maintenance and cleaning.

The proposal would involve excavating and stock piling of material from the site, site works, and the construction of the buildings and associated landscaping works. Off shore construction of the jetty will use driven piling systems.

Noise emitted from these construction activities over the construction period will most frequently be noticed off-site from a combination of daytime exterior building works and internal fit out work (i.e. chiefly involving vehicle noise and noise from hand tools). The proposed construction activity involves noise emissions from a number of sources including the following:

- General construction equipment and plant, piling (on-shore and off shore) and excavation machinery, bulldozers and drilling machinery etc.
- Vehicle noise associated with trucks and small utility vehicles
- Hand tools and 'bench' tools
- People noise, noise from trades people

It is understood the construction based activities will be carried out between 0730 hrs to 1800 hrs Monday to Saturday (inclusive). It is understood that the entire project length from site preparation to the completion of the excavation, site works and building will be in excess of 20 weeks, thus the "long term" construction noise limits of NZS6803:1999 apply.

Table 2 of NZS6803: 1999 sets out the general noise limits for construction, maintenance and demolition work received at *residential locations*, as summarised in **Table 1** below.

		Duration of work					
Time of week	Time period	Typical duration (dBA)		Short-term duration (dBA)		Long-term duration (dBA)	
		L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
Weekdays	0630-0730	60	75	65	75	55	75
	0730-1800	75	90	80	95	70	85
	1800-2000	70	85	75	90	65	80
	2000-0630	45	75	45	75	45	75
Saturdays	0630-0730	45	75	45	75	45	75
	0730-1800	75	90	80	95	70	85
	1800-2000	45	75	45	75	45	75
	2000-0630	45	75	45	75	45	75
Sundays and	0630-0730	45	75	45	75	45	75
Public holidays	0730-1800	55	85	55	75	55	85
	1800-2000	45	75	45	75	45	75
	2000-0630	45	75	45	75	45	75

Table 1: Recommended upper limits of levels of construction noise received in residential areas. Reference Table 2, NZS6803:1999.

Note that in relation to table 2 of NZS6803:1999

1. *"Short-term" means construction work of at any one location for up to 14 calendar days.*
2. *"Typical duration" means construction work at any one location for more than 14 calendar days but less than 20 weeks; and*
3. *"Long-term" means construction work at any one location with a duration exceeding 20 weeks.*

Table 3 of NZS6803: 1999 sets out the recommended noise limits for construction, maintenance and demolition work received at *industrial and commercial locations*, as summarised in **Table 2** below.

	Duration of work		
Time period	*Typical duration* Leq (dBA)	Short-term duration Leq (dBA)	Long-term duration Leq (dBA)
	L_{eq}	L_{eq}	L_{eq}
0730-1800	75	80	70

Table 2: *Recommended upper limits of levels of construction noise received in industrial and commercial areas. Reference Table 3, NZS6803: 1999.*

The applicable noise limits for the proposed construction activity as extracted from Tables 2 and 3 of NZS6803: 1999 are summarised below in Table 3.

	Residential, and Commercial Areas 6803: 1999		
Time of Week	Time period	*Long Term* Duration (dBA)	
		L_{eq}	Lmax
Weekdays	0730-1800	70	85*

Note* Lmax applies at residential sites only as NZS6803: 1999 does not place recommended Lmax limits on commercial premises.

Table 3: Recommended upper limits of levels of construction noise received in residential and commercial areas. Reference NZS6803: 1999 for proposed construction works.

Should any shore pile driving be undertaken, relevant criteria to assess vibration are set out within part 2 of *ISO2631* which refers to vibration peak velocity limits across the sensitive spectrum of between 0.1 and 1.0 mm/sec for protecting people and buildings.

We have obtained research results of similar piling and produce the following graph (Figure 5) of peak vibration velocity (mm/sec) for typical shore pile driving.

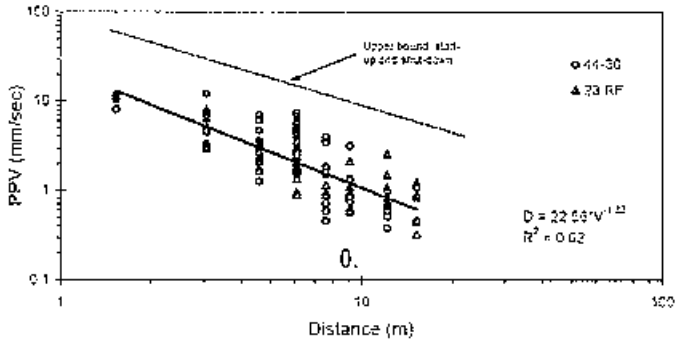


Figure 5: Peak particle velocity versus distance, pile driving[1].

The data shows that vibrations at the closest dwelling to the pile driving works (both on or off shore) would have no significant vibration effects near the source. At distances greater than approx 20 metres from the source vibration would be at or below the 1mm/sec threshold which is a reasonable threshold for adverse vibration effects. All dwellings and other relevant receiver sites are located > 20m from any proposed piling position.

Although the activity is assessed as be able complying with the relevant noise criteria, management have indicated that management methods will be used to ensure the ***best practicable option*** (BPO) is adopted so that noise does not exceed a reasonable level at the closest residential dwellings.

The nature of the day time construction sounds can be controlled by following sensible noise management precautions such as:

- Operation of any machinery should be carried out in a noise-aware manner including avoiding excessive revving or producing crash/bang impact sounds (metal on metal).
- Avoid use of horns or other audible devices, and use of un-silenced equipment.

[1] Sources: Abdel-Rahman, S.M. (2002) "Vibration associated with pile driving and its effects on nearby historical structures." Proceedings of SPIE, 475311, 1251-1258.
Athanasopoulos G.A., and Pelekis P.C. (2000) "Ground vibrations from pile driving in urban environment: measurements, analysis and effects on buildings and occupants." Soil Dynamics and Earthquake Engineering, 19, 371-387.

- All audible warning devices and safety equipment should be reduced to lower levels consistent with the scope of OSH regulations.
- Before being used on site, all equipment shall be checked to ensure it is in good working order and shall be kept in good working order.

8.0 Conclusion

An assessment has been carried out for the proposed marina development at Frankton Marina situated on the western shores of Frankton Arm, of Lake Wakatipu. The activities have been identified as relatively low noise in nature and are considered unlikely to introduce unreasonable noise or represent a potential nuisance at existing residential or commercial sites.

The activities are assessed as capable of complying with the District Plan criteria with recommended mitigation measures in place and a Construction Noise Management Plan adhered to during the construction phase.

The overall conclusion is this assessment finds noise effects from both construction and operational activities will be able to comply with the relevant noise criteria and not result in any significant noise or vibration effects on the environment.

Malcolm Hunt Associates

Glossary of Terms

LAeq: The time-averaged sound level (or equivalent sound level) that has the same mean square sound pressure level as the time-varying sound level under consideration. Commonly referred to as an "energy average" measure of sound exposure.

Ldn. Limit day night. The Ldn is the Leq over a 24 hour period after the addition of 10 decibels to sound levels at night-time, defined as 2200 – 0700 unless specified otherwise.

L10: The level of sound equalled or exceeded for 10% of the monitoring period. This level of sound therefore equates to an average maximum sound and is used widely in emission limits as the L10 correlates well with the subjective reaction to sound. NZS6802:1991 *Assessment of Environmental Sound* sets maximum permissible noise levels for residential land uses in terms of the L10 criteria.

LAFmax: The single highest sampled level of sound.

[O] FUEL SUPPLY REPORT

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Hoon Hay, Christchurch
PO Box 12 141, Beckenham
Christchurch 8242

P. 03 943 4695
E. project@arista.co.nz
W. www.arista.co.nz

Vivian + Espie Limited
Unit 15, 70 Glenda Drive,
Frankton,
Queenstown

Attention: Carey Vivian

Dear Carey,

RE: FRANKTON MARINA DEVELOPMENT

As per recent communication and design, to support the Resource Consent application for the development, I offer the following supporting commentary for your submission.

In considering all design works provided by Arista Group Limited, the associated, but not limited to, legislation and documents are referred to ensure compliance, during this process.

- ASNZS 60007910.1-2009 Explosive Atmospheres
- HSNO COP 44 Below Ground Stationary Container Systems for Petroleum - Design
- HSNO COP 45 Below Ground Stationary Container Systems for Petroleum - Operations
- Code of Practice for the Transport and disposal of Petroleum Storage Tanks and related Assessment Guide for Hazardous Facilities
- Code of Practice for Signage for Premises Storing Hazardous Substances And Dangerous Goods
- Code of Practice for Demolition
- Code of Practice for Excavation and Shafts For Foundations
- Contaminated Land Management Guidelines Schedule A Hazardous-Activities-Industrial-list (HAIL) Environmental Management Plan (EMP) Guide Template
- Guidelines for assessing and managing petroleum hydrocarbon contaminated sites in NZ
- Waste Contaminated Land Management Guidelines
- NZBC FS/AS1 Construction and Demolition Hazards
- NZS 3108 & 3109 Concrete Construction
- NZS 3114 Specification for Concrete Surface
- NZS 6803 Acoustics – Construction Noise
- NZS 4404 Land Development & Subdivision Infrastructure Building Act 2004
- Building Regulations 1992
- Health and Safety in Employment Act 1992
- Health and Safety in Employment Regulations New Zealand Building Code
- Historic Places Act 1993
- Resource Management Act 1991

THE PROPOSED INSTALLATION:

It is proposed that a 60,000L single tank, with two refuelling dispensers, be installed at the above named site and will be completely buried under the guidance of sound geotechnical and civil engineering principals to also accommodate for potential seismic issues that may arise in the area.

Due to the location of the tank particular consideration will be required to consider liquefaction and lateral spread. This will be a triple compartment tank comprising of 30,000L (91MS), 20,000L (AGO), and 10,000L (95MS). The tank will be constructed of corrosion proof double wall fibreglass as required under the new regulations. The manufacture of the tank will be by Maskell Productions Ltd who are an EPA approved tank fabricator.

All underground pipework will be double contained Nupi HDPE pipework. This will also be applicable for the remote fill, delivery and vent lines due to the location of the installation beside the environmentally protected lake. This requirement is additional to that of the minimum requirements set out in the relevant Code of Practice.

All pipework will have safety devices installed for any inappropriate movement in the ground to allow instant shut down of the facility in the case of out of design displacement or deflection of the installation.

All installation works will be managed under the direct control of an industry subject matter expert and installed by an industry approved installer.

In accordance with relevant legislation the installation will also be overseen by an EPA approved Test Certifier. As the installation is a below ground installation, there is also no controlled zone to consider.

Suitable signage will be displayed on the site to meet the requirements of the Hazardous Substances (Emergency Management) Regulation 2001 once the site is ready for commissioning.

On the completion of the project the approved Test Certifier will collate all of the necessary documentation including the checklist verifying all QA matters are met.

Additional to the fuels installation, a SPEL water treatment Puraceptor will be installed as a safety device within the refueling areas. This device is installed to protect waterways in the unlikely case of a spill. The discharge point of this devise will be confirmed during the construction design process. This device is set at a depth of approx. 2.4m below ground.

SUMMARY:

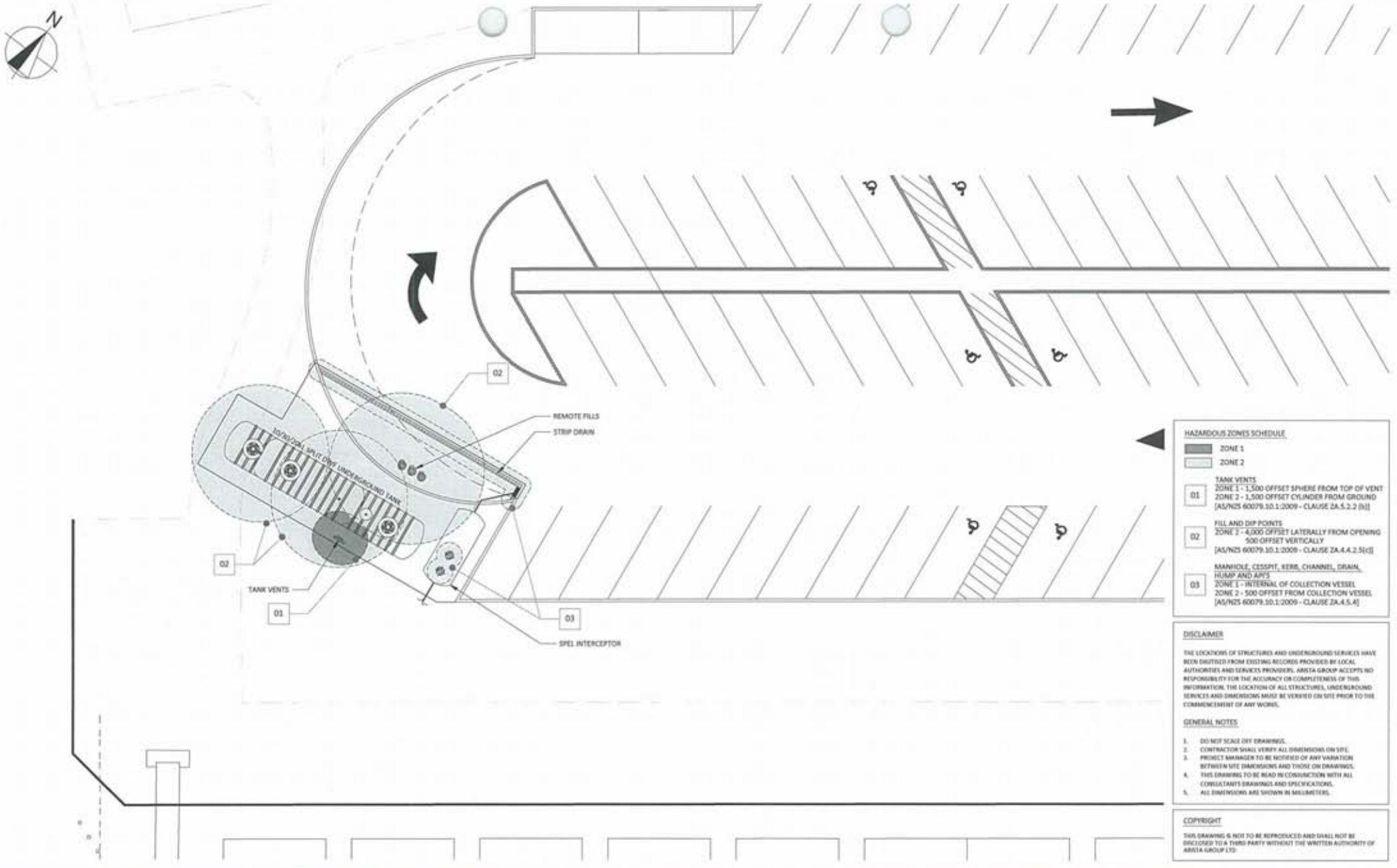
In summary, our services are offered to ensure compliance is met with regards to all relevant legislation pertaining to the fuels installation, facilitation of HSNO management and secured test certification in accordance with the objectives of the project.

The current proposal, based on the information to date, is designed with all requirements being satisfied.

For any further queries please refer to the writer at any time.

Yours faithfully;
FOR ARISTA GROUP LIMITED

MIKE DAVIS
Managing Director



HAZARDOUS ZONES SCHEDULE

ZONE 1

ZONE 2

01 TANK VENTS
ZONE 1 - 1,500 OFFSET SPHERE FROM TOP OF VENT
ZONE 2 - 1,500 OFFSET CYLINDER FROM GROUND
[AS/NZS 60079.10.1:2009 - CLAUSE 2A.5.2.2 (b)]

02 FILL AND DIP POINTS
ZONE 1 - 4,000 OFFSET LATERALLY FROM OPENING
500 OFFSET VERTICALLY
[AS/NZS 60079.10.1:2009 - CLAUSE 2A.4.4.2.5(c)]

03 MANHOLE, CESSPIT, KERB, CHANNEL, DRAIN, HUMP AND APS
ZONE 1 - INTERNAL OF COLLECTION VESSEL
ZONE 2 - 500 OFFSET FROM COLLECTION VESSEL
[AS/NZS 60079.10.1:2009 - CLAUSE 2A.4.5.4]

DISCLAIMER

THE LOCATIONS OF STRUCTURES AND UNDERGROUND SERVICES HAVE BEEN DIGITISED FROM EXISTING RECORDS PROVIDED BY LOCAL AUTHORITIES AND SERVICES PROVIDERS. ARISTA GROUP ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. THE LOCATION OF ALL STRUCTURES, UNDERGROUND SERVICES AND DIMENSIONS MUST BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS.

GENERAL NOTES

1. DO NOT SCALE OFF DRAWINGS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE.
3. PROJECT MANAGER TO BE NOTIFIED OF ANY VARIATION BETWEEN SITE DIMENSIONS AND THOSE ON DRAWINGS.
4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL CONSULTANTS DRAWINGS AND SPECIFICATIONS.
5. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS.

arista

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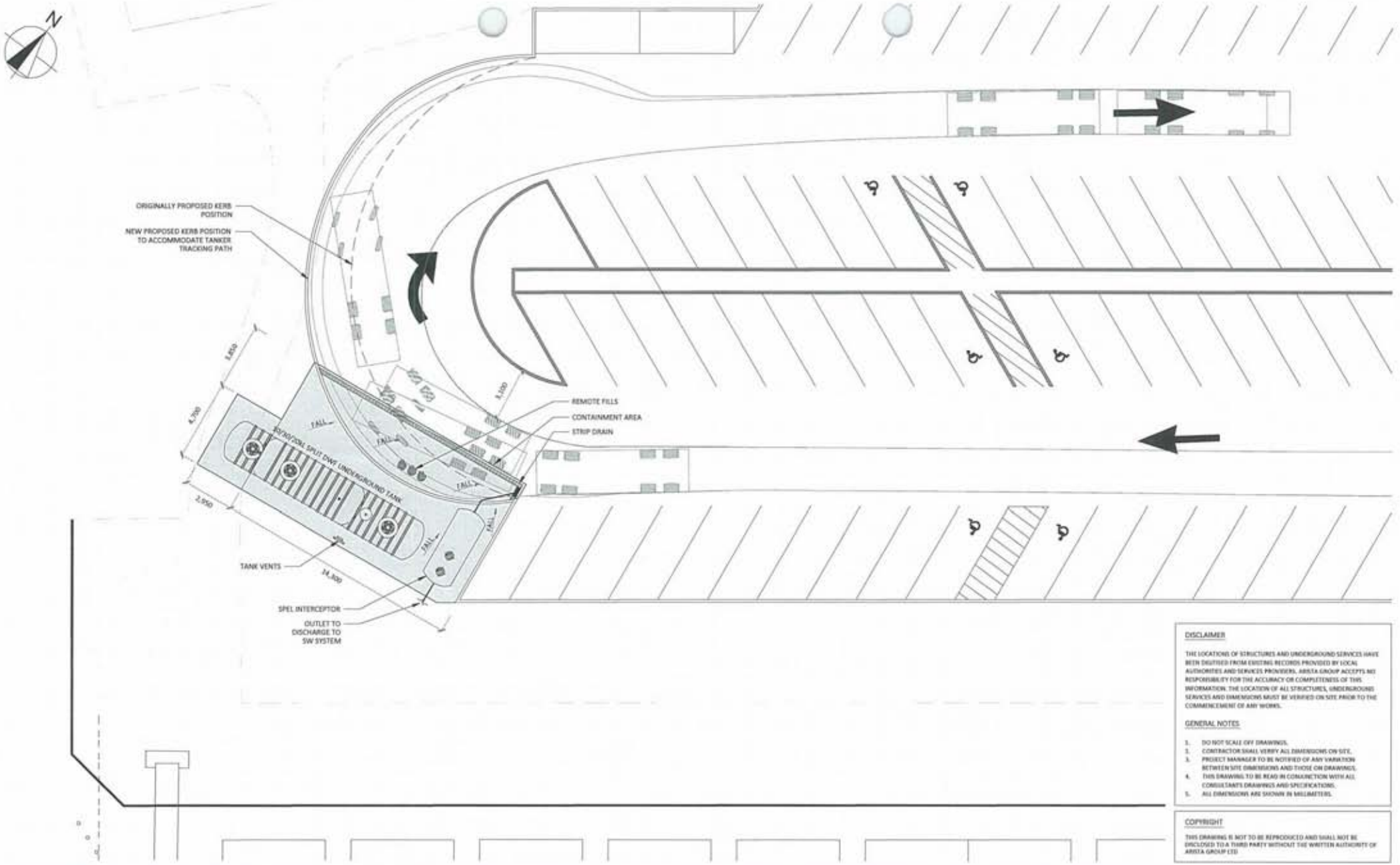
Client:	Client Name	Drawn By:	B Mellor	Drawing Number:	700-01
Project:	Frankton Marina	Approved:	M Davis		
		Revision:	2		Hazardous Zones Plan
Status:	For Review	Date:	22/01/14	Scale:	1:200 @ A3



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Project:	Frankton Marina	Approved:	M Davis		
		Revision:	2		Truck and Trailer Tracking Path
Status:	For Review	Date:	22/01/14	Scale:	1:200 @ A3