

Applicant Information Form 1a Notified or Non-notified Process



Department of
Conservation
Te Papa Atawhai

New Zealand Government

Is this the right application form for me?

This **Applicant Information Form 1a** – Notified or Non-notified Process must be completed for the following longer term applications (i.e. not one-off applications):

- Grazing
- Land use: Tenanted and/or using existing DOC facility/structure
- Land use: Use of public conservation land for private commercial facility/structure
- Guiding/Tourism/Recreation: Watercraft activities
- Filming
- Sports events
- Marine reserves application form 11a: Structure in a marine reserve

For other activities use the specific activity application forms that combine applicant and activity information or book a pre-application meeting.

How do I complete this applicant information form?

- Complete all sections of this **applicant information form**.
- In addition, you must complete the **activity application form/s** that you wish to undertake.
- DOC encourages electronic applications (e.g. typed Word document), rather than handwritten applications. Electronic applications are easier to read and less likely to be returned to you for clarification.
- If you need extra space, attach or include extra documents and label them according to the relevant section. Record all attachments in the table at the back of the application information form section **F Attachments**.

How do I submit my application?

Email the following to permissions@doc.govt.nz:

- **Completed applicant information form 1a**
- **Completed activity application form**
- Any other relevant attachments.

If I need help, where do I get more information?

- Check the [DOC webpage for the activity you are applying](https://www.doc.govt.nz/get-involved/apply-for-permits/apply-for-a-permit/)¹ for.

¹ <https://www.doc.govt.nz/get-involved/apply-for-permits/apply-for-a-permit/>

- Arrange a pre-application meeting (either face to face or over the phone) by contacting the [Department of Conservation Office](#)² closest to where the activity is proposed. You can use [DOC maps](#)³ to identify which District Office you should contact. Or arrange a meeting with any of our [four offices that process concessions](#)⁴ – choose the one closest to where the activity is proposed.
- If your application covers multiple districts, contact the office nearest most of the locations you are applying for, or nearest to locations you have a specific question about.

What happens next?

Once your application forms are received, your application will be assessed by DOC. If your application is complete, DOC will begin processing.

If your application is incomplete it will be returned to you for more information.

Why does DOC ask for this information?

The questions in this application information form and the activity application form/s are designed to cover the requirements set out in conservation legislation. Your answers allow us to assess:

- Your most up-to-date details so that DOC can contact you about your application.
- Your qualifications, resources, skills and experience to adequately conduct the activity on public conservation land.
- Your creditworthiness will help determine whether DOC should extend credit to you and set up a DOC customer accounts receivable credit account for cost recovery. To make this assessment DOC will supply your information to a credit checking agency.

Note:

- Personal information will be managed by DOC confidentially. For further information check [DOC's privacy and security statements](#)⁵.
- Information collected by DOC will be supplied to a debt collection agency in the event of non-payment of payable fees.

What fees will I pay?

You may be required to pay a **processing fee** for this application regardless of whether your application is granted or not. You may request an estimate of the processing fees for your application. If you request an estimate, DOC may require you to pay the reasonable costs of the estimate prior to it being prepared. DOC will not process your application until the estimate has been provided to you. In addition, if you are granted a guiding concession on public conservation land you may be required to pay annual **activity and management fees**. These fees are listed on the [DOC webpage for the activity you are applying](#)⁶ for.

DOC will invoice your processing fees after your application has been considered. If your application is large or complex, DOC may undertake billing at intervals periodically during processing until a decision is made. If you withdraw your application DOC will invoice you for the costs incurred up to the point of your withdrawal.

² www.doc.govt.nz/footer-links/contact-us/office-by-name/

³ <http://maps.doc.govt.nz/mapviewer/index.html?viewer=docmaps>

⁴ <https://www.doc.govt.nz/get-involved/apply-for-permits/contacts>

⁵ <https://www.doc.govt.nz/footer-links/privacy-and-security/>

⁶ <https://www.doc.govt.nz/get-involved/apply-for-permits/apply-for-a-permit/>

Your application will set up a credit account with DOC. See the checklist at the end of the form for the terms and conditions you need to accept for a DOC credit account.

Will my application be publicly notified?

Your application will be publicly notified if:

- It is a license with a term of more than 10 years.
- It is a lease.
- After having regard to the effects of the activity, DOC considers it appropriate to do so.

Public notification will increase the time and cost of processing of your application.

What does DOC require if my application is approved?

If your application is approved DOC requires:

- **Insurance** to indemnify the Minister of Conservation against any claims or liabilities arising from your actions. The level of insurance cover will depend on the activity.
- A copy of your **safety plan** audited by an external expert (e.g. Health and Safety in Employment (Adventure Activity) Regulations 2011 audit or a DOC listed organisation). See the [Safety Plan](#)⁷ information on the DOC website for further information.

Note: DOC/Minister can vary the concession if the information on which the concession was granted contained material inaccuracies. DOC may also recover any costs incurred.

⁷ <https://www.doc.govt.nz/get-involved/apply-for-permits/managing-your-concession/safety-plans/>

A. Applicant details

Legal status of applicant (tick)	☐ Individual (Go to ①)		
	☒ Registered company (Go to ②)	☐ Trust (Go to ②)	
	☐ Incorporated society (Go to ②)	☐ Other e.g. Educational institutes (Go to ②)	

①	Applicant name (individual)			
	Phone		Mobile phone	
	Email			
	Physical address		Postcode	
	Postal address (if different from above)		Postcode	

②	Applicant name (full name of registered company, trust, incorporated society or other)	Real Journeys Limited		
	Trading name (if different from applicant name)	Realnz		
	NZBN if applicable (to apply go to: https://www.nzbn.govt.nz)	9429040267098	Company, trust or incorporated society registration number	154923
	Registered office of company or incorporated society (if applicable)	14 Captain Roberts Road, Te Anau 9600		
	Company phone	0800656501	Company website	www.realnz.com
	Contact person and role			
	Phone		Mobile phone	
	Email	@realnz.com		
	Postal address	P.O. Box 1, Te Anau	Postcode	9640
	Street address (if different from postal address)	14 Captain Roberts Road, Te Anau	Postcode	9600

B. Pre-application meeting

Have you had a pre-application meeting or spoken to someone in DOC?

No	☒
Yes	☐

- If yes record the:

Date of DOC pre-application meeting	
Name of DOC staff member	
Name of person who had the pre-application meeting with DOC	

C. Activity applied for

Tick the **activity application form** applicable to the activity you wish to undertake on public conservation land. Complete the applicant information form and the activity application form and email them with any attachments to permissions@doc.govt.nz

ACTIVITY APPLICATION FORM*	FORM NO.	TICK
Grazing	2a	☐
Land use: Tenanting and/or using existing DOC facility/structure	3a	☐
Land use: Use of public conservation land for private/commercial facility/structure	3b	☒
Guiding/Tourism/Recreation: Watercraft activities	4b	☒
Filming	5a	☒
Sporting Events	6a	☐
Marine reserves application form: Structure in a marine reserve	11a	☐
Other activities (not covered in the above forms or in the new activity application forms that combine applicant and activity information)	7a	☐

Note: If the activity is not in this list check the activity on the DOC website to find the correct application form or book a pre-application meeting. Application forms that combine applicant and activity information on the DOC website include:

- [Aircraft activities](https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/aircraft-activities/)⁸
- [Easements](https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/access-easements/)⁹
- [Land based guiding](https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/land-based-guided-activities/)¹⁰

⁸ <https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/aircraft-activities/>

⁹ <https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/access-easements/>

¹⁰ <https://www.doc.govt.nz/get-involved/apply-for-permits/business-or-activity/land-based-guided-activities/>

D. Are you applying for anything else?

Are you submitting any other application forms in relation to this application?

No

☐

Yes

☒

- If yes, state which application forms:

Drone use application form orange category and red category

E. Background experience of applicant

Provide relevant information relating to your ability to carry out the proposed activity (e.g. details of previous concessions, membership of professional organisations, and relevant qualifications).

In 1954 Sir Leslie and Lady Olive Hutchins began operating the Manapouri-Doubtful Sound Tourist Company, running four-day excursions to and from Doubtful Sound Patea travelling across Lake Manapouri Moturau. That is Real Journeys has been operating in the Manapouri-Doubtful Sound Patea area for over 70 years. In 1966 Les and Olive acquired Fiordland Travel Ltd with its Te Ana-au Glow-worm Caves and Milford Track Lake Transport operation and began trading as Fiordland Travel Limited. Continued expansion followed with the acquisition of the vintage steamship "TSS Earnslaw" in Queenstown in 1969 and with the establishment of cruises in Milford Sound in 1970.

Since 2002 Fiordland Travel Ltd has operated all its tourism excursions under the 'Real Journeys' brand; in 2004 Stewart Island Experiences was established and in 2006 changed its company name to Real Journeys Limited. In 2013 Real Journeys purchased Cardrona Alpine Resort and the 155-hectare property at Walter Peak which Real Journeys previously leased. Then in 2016 Real Journeys took over 100% ownership of Queenstown Rafting and purchased Kiwi Discovery which were also wrapped into the Go Orange brand.

In October 2018 the Wayfare Group was established and each company created or acquired by Real Journeys Limited became wholly owned subsidiaries of the Wayfare Group. Due to the fallout from COVID-19 in early 2021 Go Orange was absorbed into Real Journeys and all Go Orange concessions were assigned to Real Journeys.

Later in 2021 Wayfare has become Realnz and while Cardrona Alpine Resort, and Treble Cone maintain their individual brands as Realnz experiences, all the tourism brands including all the Go Orange Products come under the umbrella of Realnz. Accordingly, the Realnz remains in private ownership and is the largest tourism operator in the region with operational bases in Milford Sound Piopiotahi, Te Anau, Manapouri, Queenstown, Wanaka and Stewart Island Rakiura.

F. Attachments

Attachments should *only* be used if there is:

- Not enough space on the form to finish your answer
- You have additional information that supports your answer
- You wish to make an additional request of DOC regarding the application.

Label each document clearly and complete the table below.

Section of the application form the attachment relates to	Document title	Document format	Description of attachment
3b – private structures	Caves Wharf Drawing 2	PDF	Te Ana-au Glowworm Caves wharf plan
3b – private structures	Caves Wharf Drawing 3		Te Ana-au Glowworm Caves wharf – south elevation
3b – private structures	Caves Wharf Drawing 4		Te Ana-au Glowworm Caves wharf – east elevation
3b – private structures	SDC GIS		Aerial view of Lakefront Jetty showing the Fiordland National Park Boundary
3b – private structures	151028 4975–Topo1		Bonisch Consultants survey plan of 85 Lakefront Drive prior to Realnz visitor centre upgrade in 2016
3b – private structures & 4b – watercraft	Real Journeys Oil or Diesel and Sewerage Spillage Contingency Plan		Contingency plan in the event of any spills into Lake Te Anau
3b – private structures	Land Use Consent AUTH-20201980		Resource Consent to disturb the bed of Lake Te Anau to undertake dredging of the lake bed and gravel extraction
3b – private structures	Te Ana-au Caves Concession 99211-ATT Plan V2		Te Ana-au Glowworm Caves site survey plan

G. Checklist

Application checklist	Tick
I have completed all sections of this applicant information form relevant to my application and understand that the form will be returned to me if it is incomplete.	☒
I certify that the information provided in this applicant information form, and any attached additional forms is, to the best of my knowledge, true and correct.	☒
I have completed the activity application form .	☒

I have appropriately labelled all attachments and completed section F Attachments .	☒
I will email permissions@doc.govt.nz my: - Completed applicant information form - Completed activity application form/s - Any other attachments.	☒

H. Terms and conditions for a credit account with the Department of Conservation

Have you held an account with the Department of Conservation before?	Tick
No	☐
Yes	☒
If 'yes' under what name	Real Journeys Limited
Does your organisation require a purchase order number for invoicing purposes?	☐
If yes, please provide the number here:	

All invoices related to this Permission will be coded to this purchase order number unless otherwise advised. It is the applicant's responsibility to advise the Department if the purchase order needs to change through the lifetime of the Permission.

In ticking this checklist and placing your name below you are acknowledging that you have read and agreed to the terms and conditions for an account with the Department of Conservation

Terms and conditions	Tick
I/We agree that the Department of Conservation can provide my/our details to the Department's Credit Checking Agency to enable it to conduct a full credit check.	☒
I/We agree that any change which affects the trading address, legal entity, structure of management or control of the applicant's company (as detailed in this application) will be notified in writing to the Department of Conservation within 7 days of that change becoming effective.	☒
I/We agree to notify the Department of Conservation of any disputed charges within 14 days of the date of the invoice.	☒
I/We agree to fully pay the Department of Conservation for any invoice received on or before the due date.	☒
I/We agree to pay all costs incurred (including interest, legal costs and debt recovery fees) to recover any money owing on this account.	☒
I/We agree that the credit account provided by the Department of Conservation may be withdrawn by the Department of Conservation, if any terms and conditions (as above) of the credit account are not met.	☒
I/We agree that the Department of Conservation can provide my details to the Department's Debt Collection Agency in the event of non-payment of payable fees.	☒

Typed applicant name/s			Date	1 May 2026
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For Departmental use			
Credit check completed			
Comments:			
Signed		Name	
Approved (Tier 4 manager or above)		Name	



Concession Application Form 3b – Private/commercial facility/structures

The Department recommends that you contact the Department of Conservation Office closest to where the activity is proposed to discuss the application prior to completing the application forms. Please provide all information requested in as much detail as possible. Applicants will be advised if further information is required before this application can be processed by the Department.

This form is to be used when the proposed activity is the building or use of any private or commercial facility or structure on public conservation land managed by the Department of Conservation. Examples may include lease of land to erect an information centre; authorisation to erect a weather station; or construct or lease a private/commercial campground or lodge. This form is to be completed in conjunction with either Applicant Information Form 1a (longer term concession) or Applicant Information Form 1b (one-off concession) as appropriate.

Please complete this application form, attach Form 1a or Form 1b, and any other applicable forms and information and send to permissions@doc.govt.nz. The Department will process the application and issue a concession if it is satisfied that the application meets all the requirements for granting a concession under the Conservation Act 1987.

If you require extra space for answering, please attach and label according to the relevant section.

A. Description of Activity

Please describe the proposed activity in detail – where the site is located, please use NZTM GPS coordinates where possible, what you intend to use the building for, whether you intend to make any changes to the infrastructure.

If necessary, attach further information including a map, a detailed site plan and drawings of proposal and label Attachment 3b:A.

Continued occupation of an area of Lake Te Anau (Fiordland National Park) with two wharf structures. One at Te Anau Lakefront and the other at Te Ana-au Glowworm Caves. Plus, the repairs and maintenance and use of these jetties by Real Journeys. Minor modifications to these jetties in the event different vessels are being introduced on to Lake Te Anau. Both structures incorporate bollards, cleats, lines (ropes), rubbing strips, electric lighting, railings or fencing, and signage.

Real Journeys Te Anau Main Lakefront Jetty

The Te Anau Main Lakefront Jetty is located on the eastern side of Lake Te Anau immediately adjacent the Te Anau town centre. This jetty is a fixed rectangular structure extending perpendicular from the shore into the lake. The deck at the lakeward end of the structure decreases in height over several steps to accommodate changes in lake level for vessel access. The structure is founded on two rows of driven steel universal column (UC) piles with UC transoms and parallel flange channel longitudinal beams. The longitudinal beams are embedded into the concrete abutment at the landward end of the jetty. The deck consists of timber planks supported on the longitudinal beams at each end and a central timber stringer at midspan. Slip resistance on the deck is provided by slip resistant carpet. Barriers along the edge of the jetty consist of wire mesh tied off to galvanised pipe sections between timber balusters. Ultra-high-molecular-weight polyethylene (UHMWP) fenders are attached vertically directly to the UC piles and timber pile extensions.

This jetty is used to berth the Real Journeys vessel (currently usually the “Luminosa”) servicing Real Journeys Te Ana-au Glowworm Caves operation. Both the north and south sides of the main lakefront jetty need to be kept clear so that the “Luminosa” can come alongside either side of the jetty depending on the prevailing wind. The vessel servicing the Te Ana-au Glowworm Caves is also ‘resupplied’ (water, fuel, consumables and provisions) at this jetty including all the provisions and equipment used for the Te Ana-au Caves operation. The “Fiordland Express” the vessel that currently services the start of the Milford Track can be likewise supplied at this jetty. Plus, waste from these Real Journeys vessels is discharged at this site (sullage, recycling and rubbish) along with waste from the Te Ana-au Glowworm Caves operation (rubbish and recycling)

The Te Anau Lakefront jetty includes an RD Petroleum diesel installation (bowser and fuel line) which is used for refuelling Real Journeys vessels along with a freshwater connection to supply drinking water to Real Journeys vessels (plus for vessel wash down) and sullage connection to provide for effluent to be discharged ashore into the Te Anau township sewerage system.

Real Journeys Lake Te Anau vessels are also serviced and maintained alongside this Te Anau Lakefront Jetty including in water annual maintenance and survey. Under Maritime New Zealand (MNZ) Rule Part 46: Surveys, Certification and Maintenance, the outside of the ship’s hull of a passenger ship, must be “inspected with the ship out of the water not more than 2 years after it was last inspected with the ship out of the water or 13 months after an approved in-water survey, whichever is soonest” to keep a vessel in survey and operational. Hence outside these “out of water surveys”; vessel surveys are undertaken in water alongside this jetty typically in the winter months.

Moreover, Real Journeys requests approval to excavate the lakebed alongside both sides the Lakefront Jetty to ensure this jetty remains useable; as when the lake is very low (below the gazetted operating range) the “Luminosa” can ground on the lake bottom when coming alongside the lakefront jetty. On three occasions in the past Real Journeys has sought a one-off DOC permit to undertake this activity, however given that one off permits can take numerous days to process this delay has the potential to compromise the ability for Real Journeys vessels to operate from this jetty.

Real Journeys holds a land use resource consent (AUTH-20201980) to disturb the bed of Lake Te Anau to undertake dredging of the lakebed and gravel extraction and it would be helpful if this concession also included approval for the activities authorised under resource consent number AUTH-20201980.

Real Journeys Te Ana-au Glowworm Caves Wharf

Te Anau Caves Wharf is located on the western shore of Lake Te Anau at the Glow Worms Caves. The wharf consists of a cross braced fixed mooring structure with an elevated walkway linkspan on cantilevered piles connecting the mooring structures to the shore. The substructure of both the access linkspan and mooring structure is fabricated from painted steel, and the deck is treated pine with no slip resistance treatment. The wharf structure has steel cross braced members in both directions. The access linkspan is supported on a row of single cantilevered piles with T-shaped pier caps supporting the deck. All piles are driven steel tube sections, and the piles of the wharf structure are concrete filled. The perimeter beams supporting the timber deck are steel parallel flange channels (PFC). The wharf structure includes a stepped structure to allow access to and from the vessels at various lake levels. The wharf structure and linkspan have barriers consisting of equal angle balusters fixed to the subframe, pipe section top rails and horizontal wire infill. No barrier is present where vessels are embarked and disembarked. UHMWP fenders are attached to parallel flange channel sections bolted to cleats on the steel piles on the lakeward edge of the mooring structure.

The Te Ana-au Glowworm Caves wharf is used to berth the vessel transferring Realnz guests (and supplies, provisions, equipment, rubbish and recycling) between the Te Anau Lakefront Jetty and the Te Ana-au Caves. Also, on occasion (at high lake levels) this jetty is used to berth one of Real Journeys work boats or staff boats which are used to transfer Real Journeys staff (technicians and engineers) and contractors to and from Te Ana-au Glowworm Caves.

Telecommunications equipment (including a solar panel and battery pack) is installed on the Te Ana-au Caves jetty. One of these telecom installations is a Downers radio repeater and the other transmits telemetry info (via cell phone link) related the environmental monitoring of the Te Ana-au Glowworm Cave and the measurements of parameters related to the functioning of on-site infrastructure.

In addition, Real Journeys requests approval to modify the Te Anau Caves wharf in particular:

- Extend at least six of wharf piles (incl the UHMWP fenders) along the outer edge of the wharf so that at very high lake levels the “Luminosa’s” rubbing strip or belting does not get caught on the top of these lower piles – refers figure 1 & 2. As when this occurs the “Luminosa” cannot be utilised. However, to stabilise these pile extensions they may need to be braced back to the corresponding pile on the other side of the wharf as the piles on the outer end of the Lakefront Jetty have been braced – refer figure 3.
- Plus, the potential installation of a removable ‘flip down’ embarkation and disembarkation structure at the height of the wharf decking to improve wharf access at high lake levels – refer figure 4
- Install a roof connected back to the wharf shelter over the wider landward end of the Te Ana-au Caves wharf to provide a greater covered area to enable more Te Ana-au Glowworm Caves visitors to wait out of the rain prior to embarking the “Luminosa” and returning to Te Anau. This will also require the installation of uprights to support this proposed roof. Refer figures 5 & 6



Figure 1 – Photo of Te Ana-au Caves Wharf when the lake is very high.



Figure 2 – photo Te Ana-au Caves Wharf showing approximately the outer wharf piles that need to be extended.



Figure 3 – photo of Real Journeys Lakefront Jetty showing bracing of the piles at the lakeward end

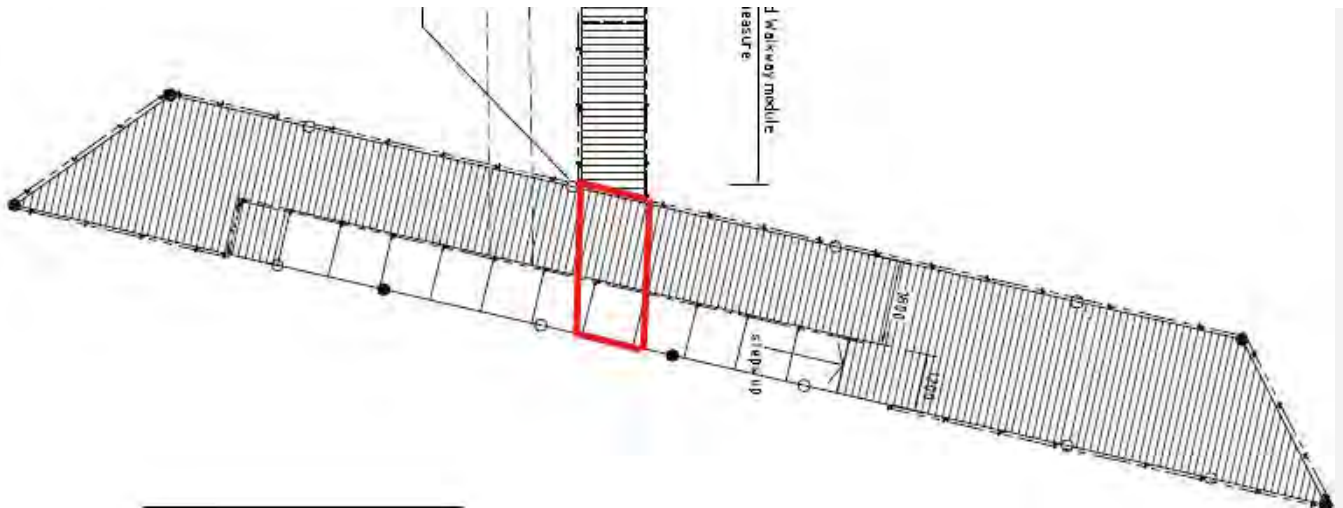


Figure 4 – plan showing where proposed flip down embarkation and disembarkation structure would be located.



Figure 5 – proposed approximate location of rooved section to provide Te Ana-au Glowworm Caves visitors with more shelter while waiting to embark the Luminosa.

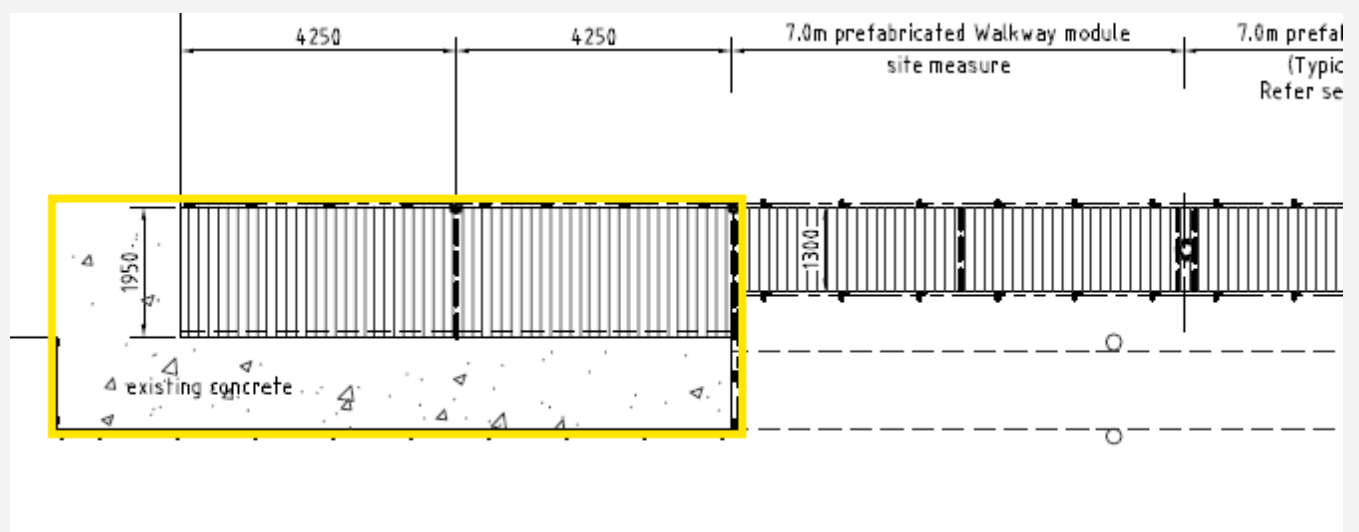


Figure 6 – plan showing location proposed of rooved section to provide Te Ana-au Glowworm Caves visitors with more shelter while waiting to embark the Luminosa.

Real Journeys Te Anau Main Lakefront Jetty



Figure 7 – approximate location of Real Journeys Te Anau Lakefront Jetty NZTM2000 1186229E 4957024N or 85 Lakefront Drive Te Anau



Figure 8 – map showing the lakefront boundary of the Fiordland National Park¹

¹ <https://maps.doc.govt.nz/externalmaps/?viewer=docmaps>



Figure 9 – aerial view showing the approx. area that the Lakefront Jetty occupies – however not all this area is in the NP (approx. 123m² of the structure is within FNP – however the boundary of the FNP varies across online maps, hence it is difficult to get an accurate estimate)



Figure 10 – Photo of Te Anau Lakefront Jetty

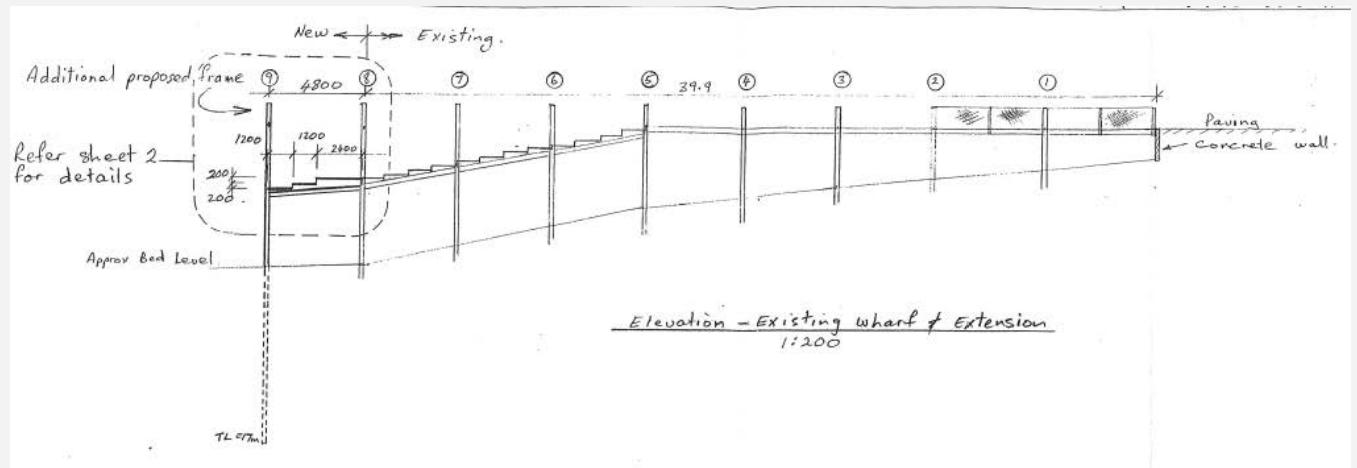


Figure 11 – elevation of Te Anau Lakefront Jetty, however this drawing does not include the bracing across the top of the jetty piles as per figures 10 & 13



Figure 12 – Photo of Te Anau Lakefront Jetty including lighting and signage



Figure 13 – Photo of Te Anau Lakefront Jetty from the lake

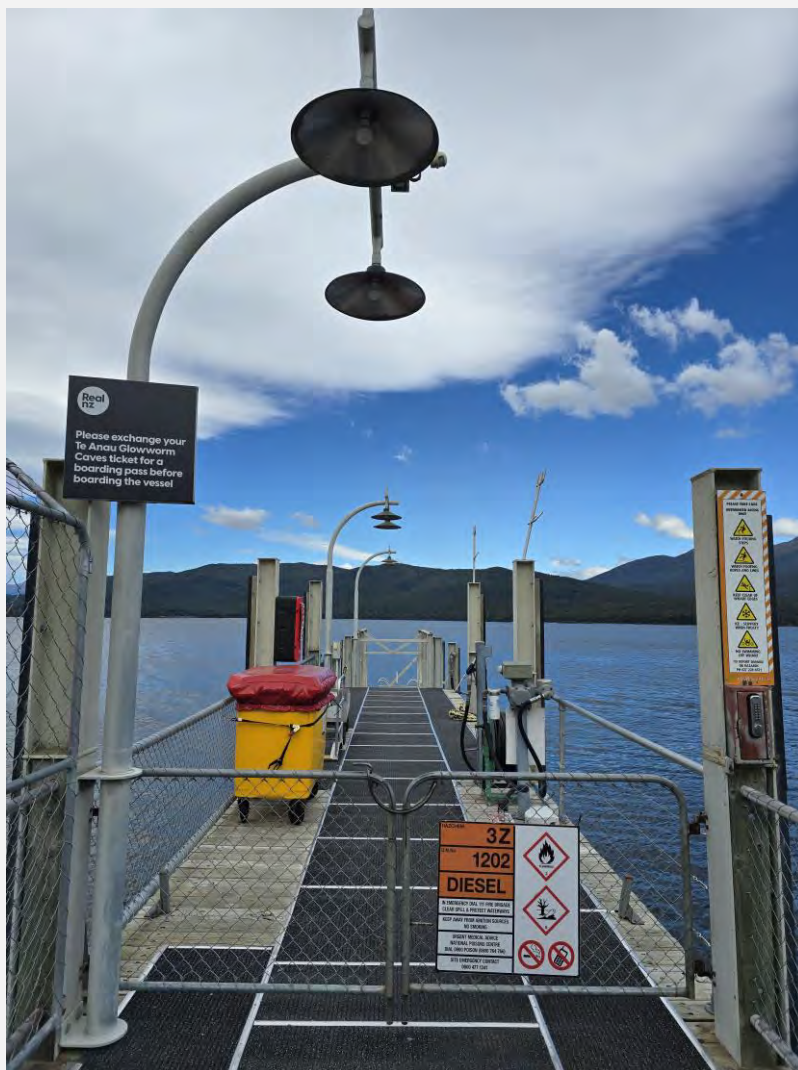


Figure 14 – photo of Te Anau Lakefront Jetty showing the entry gates, railings, lighting and some of the signage



Figure 15 – photo of jetty lighting



Figure 16 – photo of fuel installation



Figure 17 – photo of the fuel installation under the jetty



Figure 18 – photo of spill kit



Figure 19 – photo of fire extinguisher and life ring



Figure 20 – photo of the services under the jetty – fuel, sullage, water and electricity



Figure 21 – photo of the services under the jetty – water, sullage and fuel



Figure 22 – photo of vessel shore power cable connection



Figure 23 – photo of jetty electrical panel

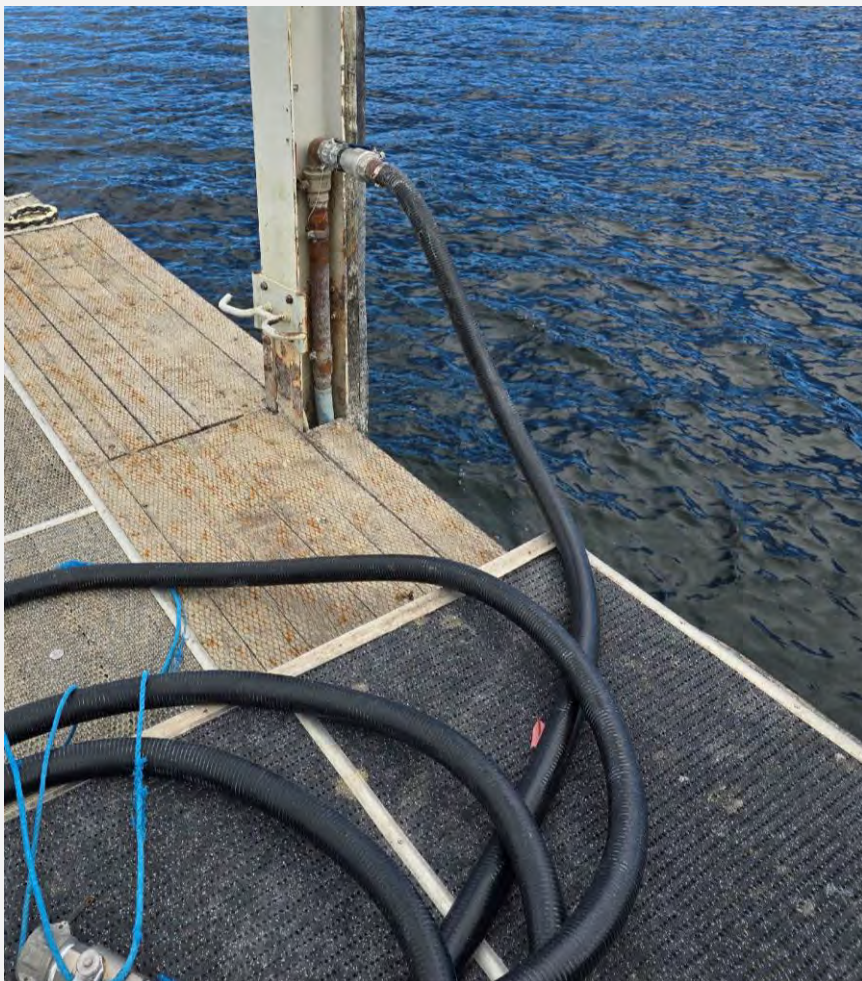


Figure 24 – photo of sullage connection and sullage line which is connected to the vessel to discharge effluent.



Figure 25 – photo of freshwater supply



Figure 26 – photo of jetty rodent trap

Te Ana-au Glowworm Caves wharf

Select the co-ordinate system your point is in:

Easting, Northing (NZTM) ▼

Enter the co-ordinates:

Easting:
e.g. 1221512

Northing:
e.g. 4856857

Select the colour of your marker:

☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Plot

An aerial photograph of a coastal area with a road and a body of water. A red dot is placed on the road, indicating the location of the wharf.

Figure 27 – approximate location of Real Journeys Te Ana-au Glowworm Caves wharf NZTM2000 1186609E 4970736N



Figure 28 - Aerial photo of Te ana-au Glowworm Caves wharf



Figure 29 – photo of Te Ana-au Glowworm Caves wharf



Figure 30 – photo of Te Ana-au Glowworm Caves wharf



Figure 31 – photo of Te Ana-au Glowworm Caves wharf



Figure 32 – photo of the type of lighting on Te Ana-au Glowworm Caves wharf

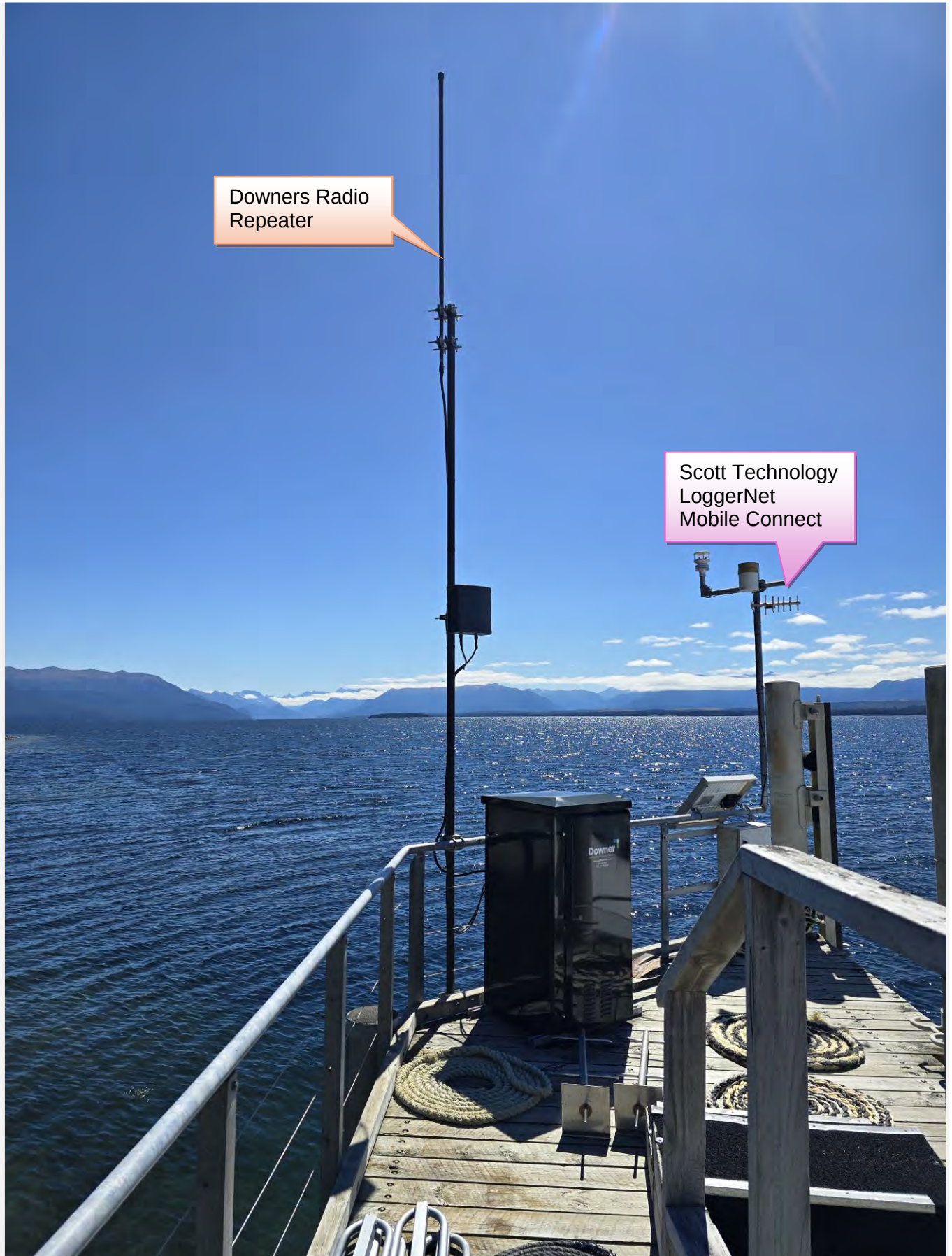


Figure 33 – photo of the 2x telecommunications equipment on the Te Ana-au Glowworm Caves wharf



Figure 34 – photo of the 2x telecommunications equipment on the Te Ana-au Glowworm Caves wharf

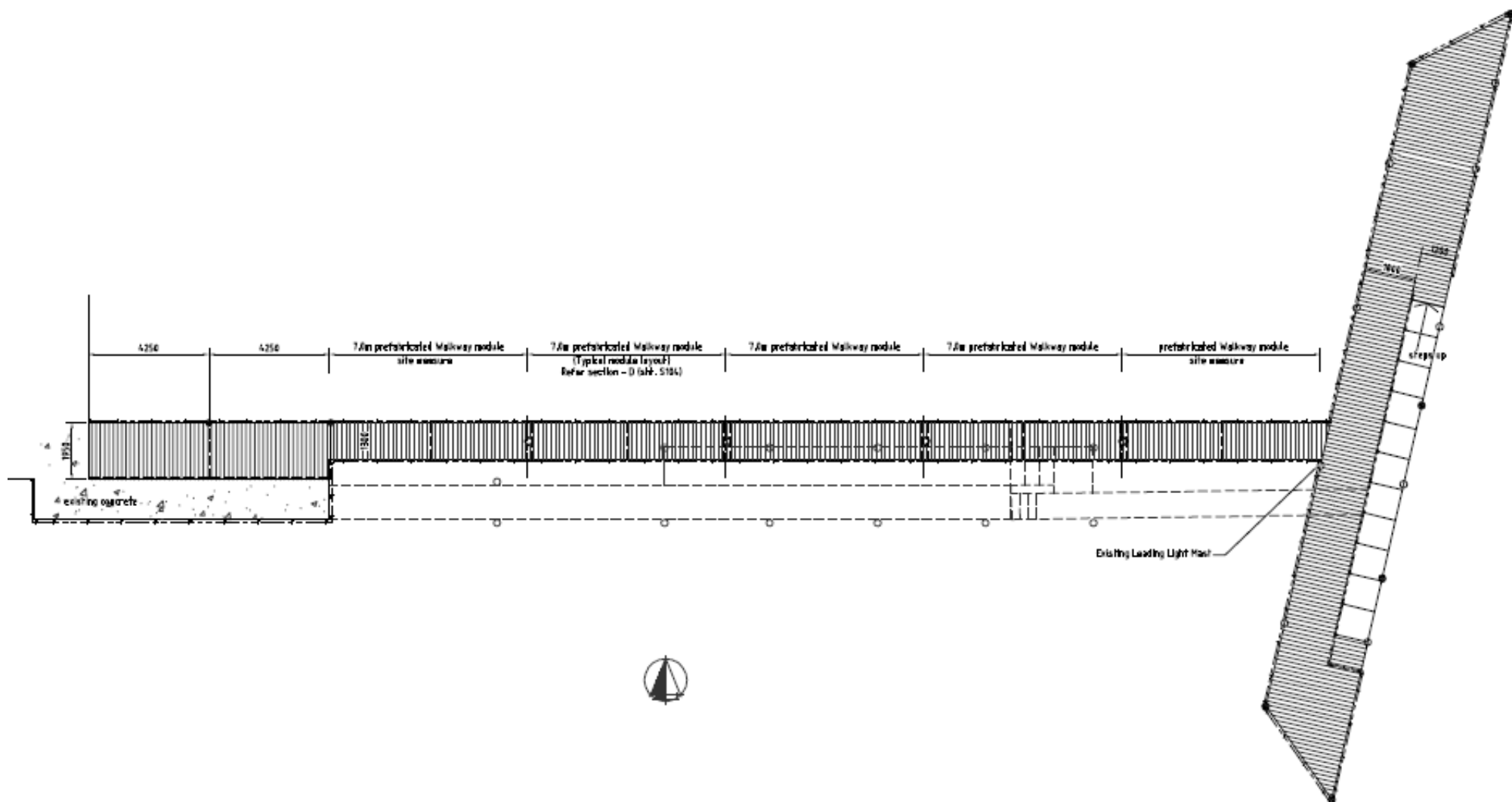


Figure 35 – plan of Te Ana-au Glowworm Caves Wharf – drawing # S101

B. Alternative sites considered

If your application is to **build, extend or add** to any permanent or temporary structures or facilities on public conservation land, please provide the following details:

- Could this structure or facility be reasonably located outside public conservation land? Provide details of other sites/areas considered.
- Could any potential adverse effects be significantly less (and/or different) in another conservation area or another part of the conservation area to which the application relates? Give details/reasons

Because these 2x wharf structures are already installed the consideration of an alternative location is not relevant.

In the future it is likely an electric or hydrogen powered vessel will be introduced to the Te Ana-au Caves operation, and this will likely require further modifications to both jetties to make the jetties fit for purpose for an alternative vessel.

C. Larger area

Is the size of the area you are applying for **larger** than the structure/facility

YES / NO

If **yes**, please detail the size difference in the box below, and answer the following 3 questions, if **no** please go on to the next section:

Both jetties are used to berth vessels hence an area alongside of the jetty needs to be available for vessels to come alongside. That is when the vessel is berthed an area alongside the jetty occupied by the vessel plus space for the vessel to manoeuvre when berthing and departing the jetty. Also, because both of these jetties are fixed (i.e. they do not include a floating pontoon) where vessels are positioned to embark and disembark passengers varies depending on the lake level. At high lake level the vessel berthing at the jetty are positioned closer to the top of the jetty steps (northern end of caves jetty and eastern end of the lakefront jetty) and at lower lake levels the vessel berths closer to the outer end of these jetties (southern end of caves jetty and western end of the lakefront jetty).

For the Te Ana-au Glowworm Caves wharf the caves passenger vessel berths on the outside (eastern side) of the jetty however on occasion one of Real Journeys work or staff vessels (tender craft) can be berthed on the inside of caves jetty, especially at high lake levels when there is no beach available to land tender craft passengers. For the Te Anau Lakefront Jetty passenger vessels berth on either side (north and south) of the jetty depending on the prevailing wind direction. Also, sometimes both the "Luminosa" (main Te Ana-au Caves vessel) and "Fiordland Express" can be berthed on either side of the Lakefront jetty.



Figure 37 – aerial photo showing approximate larger area that needs to be utilised to berth vessels at Te Anau Lakefront jetty



Figure 38 – aerial view showing the Luminosa alongside the Te Ana-au Glowworm Caves wharf²

² https://satellites.pro/New_Zealand_map#-45.417132,167.709984,18



Figure 39 – aerial photo showing approximate larger area that needs to be utilised to berth vessels at Te Ana-au Caves jetty

Is this necessary for safety or security purposes? YES / ~~NO~~

Is this necessary as an integral part of the activity? YES / ~~NO~~

Is this essential to carrying on the activity? YES / ~~NO~~

If the answer to any of the above is yes, please provide details and attach supporting evidence if necessary and label Attachment 3b:C.

[Refer commentary above.](#)

D. Exclusive possession

Do you believe you need **exclusive possession** of the public conservation land on which your structure/building is located, ie no one else can use the land during your use of it? YES / NO
 (Exclusive occupation requires a lease which requires public notification of the application)

If **yes**, please answer the following 3 questions, if no please go to the next section:

Is exclusive possession necessary to protect public safety? YES / NO

Is exclusive possession necessary to protect physical security of the activity? YES / NO

Is exclusive possession necessary for the competent operation of the activity?

YES / NO

If the answer to any of the above is yes, please provide details and attach supporting evidence if necessary and label Attachment 3b:D.

Te Anau Lakefront Jetty

Access to Te Anau Lakefront Jetty is mainly through Realnz Te Anau Visitor centre (85 Lakefront Drive) and because this jetty is used only to berth Real Journeys Lake Te Anau vessels; "Luminosa" (Te Ana-au Glowworm Caves excursion vessel) and "Fiordland Express" (Milford track transport) or replacement vessels, exclusive possession effectively results. Specifically, both the north and south sides of the main lakefront jetty need to be kept clear so that the "Luminosa" (or substitute vessel) can come alongside either side of the jetty depending on the prevailing wind. That is in peak season the Te Ana-au Glowworm Caves excursion vessel typically departs from the lakefront jetty every 1¼ hours from 0745 until 2130 hours (that is returning to the lakefront jetty every hour for 15 minutes); therefore, this jetty is nearly used continuously. However larger Lake Te Anau vessels such as the "Faith" do utilise Real Journeys lakefront jetty (between Te Ana-au Caves trip departures) to refuel.

Te Ana-au Glowworm Caves Wharf

Given that access to Te Ana-au Glowworm Caves under concession number 99211-ATT is effectively via an exclusive lease and access to Te Ana-au Glowworm Caves is by means of the Te Ana-au Caves jetty. Therefore, indirectly exclusive possession of Te Ana-au Caves jetty is necessary to protect the public safety; physical security of the activity; and competent operation of the Te Ana-au Glowworm Caves activities under 99211-ATT.

E. Technical Specifications (for telecommunications sites only)

Frequencies on which the equipment is to operate

Power to be used (transmitter output)

Polarisation of the signal

Type of antennae

Cell phone relay

The likely portion of a 24-hour period that transmitting will occur

24 hours

Heaviest period of use

F. Term

Please detail the length of the term sought (i.e. number of years or months) and why.

Note: An application for a concession for a period over 10 years must be publicly notified, an application for a concession up to 10 years will not be publicly notified unless the adverse effects of the activity are such that it is required, or if an exclusive interest in the land is required.

30 Years

Real Journeys is requesting up to a 30-year concession term to enable investment in replacement vessel or vessels that are not solely diesel powered, when this technology becomes more reliable and more readily available. That is transition to the transport to and from Te Ana-au Glowworm Caves and for Lake Te Anau scenic cruises to either fully electric or hybrid or hydrogen powered vessels. Moreover, during the term of this concession, it is likely that the wharves, the Real Journeys Lakefront mooring (102156-OTH) and Tawera Slip (PAC 14-18-51-01) associated with this application will all require upgrading which will require further investment. Hence sufficient concession term is required to get a return on these proposed investments.

G. Bulk fuel storage

Under the Hazardous Substances and New Organisms Act 1996 (HSNO Act) 'Bulk fuel storage' is considered to be any single container, stationary or mobile, used or unused, that has a capacity in excess of 250 litres of Class 3 fuel types. This includes petrol, diesel, aviation gasoline, kerosene and Jet A1. For more information on Hazardous Substances, go to:

<http://www.business.govt.nz/worksafe/information-guidance/legal-framework/hsno-act-1996>

Do you intend to store fuel in bulk on the land as part of the activity?

YES/ NO

The fuel tank associated with the bowser on the Lakefront Jetty is currently behind the RD Petroleum Petrol Station at 7 Town Centre. That is this fuel storage is off site.

H. Environmental Impact Assessment

H1. Site Description

Lake Te Anau (Te Ana-au) is the largest of the southern glacial lakes, covering 344 square kilometres. It is the second-largest lake by surface area in New Zealand (after Lake Taupo) and the largest in the South Island. It is the largest lake in Australasia by freshwater volume. It is 61km long and 19km wide at its widest point. The Lake has a mean depth of 144m and is 417m at its deepest point.

The main body of the lake runs north-south and three large fiords reach out from its western side - these arms are called North Fiord, Middle Fiord and South Fiord. Rolling hill country characterises the eastern side of the lake; and on the western side forest flanked mountains predominate, including the Kepler and Murchison Ranges which rise to around 1700 metres above sea level. Lake Te Anau itself, along with all the land to the west are within the boundaries of Fiordland National Park and the Te Wahipounamu World Heritage site, and is classified as an outstanding natural landscapes.

The whole area has been subject to many geological forces: tectonic plate movements, glaciation and erosion. The landform has been created by the uplift of hard plutonic rocks such as granite and diorite and in the south-west of Fiordland Te Rua-o-Te-Moko; the uplifted marine terraces are unique in New Zealand. Specifically, the Fiordland Te Rua-o-Te-Moko terrain was scoured by glaciations during the last ice age, between 75,000 and 15,000 years ago. The larger lakes in Fiordland Te Rua-o-Te-Moko such as Lake Te Anau are situated in these old glacial valleys or troughs; their shorelines have evolved similarly to those of the coastal fiords. Most erosion since the last glaciation period has been by way of rockfalls and slips. Effects are local and minor so that the glacial landforms are usually well preserved, other than where rivers have cut deep narrow gorges into the valley floors.

The mountains adjacent Lake Te Anau are predominantly covered in mountain beech plant communities with some podocarp species present. The land on eastern side of Lake Te Anau is a significantly modified, primarily low-lying, pastoral landscape, contrasting sharply with the untouched wilderness of the western side of the lake. This area serves as the main hub for human activity, infrastructure, and agriculture in the region. Te Anau township, located on the south-eastern edge of Lake Te Anau, is the main settlement, featuring residential, commercial, and tourism infrastructure.

Te Ana-au is one of the lakes referred to in the tradition of "Nga Puna Wai Karikari o Rakaihautu" which tells how the principal lakes of Te Wai Pounamu were dug by the Rangatira Rakaihautu, during his exploration of the inland of the Te Wai Pounamu. Te Ana-au was important for the Ngai Tahu in pre-

European times as the area was a traditional stopping point on their seasonal journeys between the south, east and west coasts of the Te Wai Pounamu, where they obtained mahinga kai and other resources such as Tangiwai from Piopiotahi. The lake still holds immense spiritual significance, representing the mauri that connects natural and spiritual worlds. Consequently, these associations are recognised under Ngai Tahu Claims Settlement Act 1998 which designates Te Ana-au as a statutory acknowledgement area.

The first European explorers to ‘discover’ the lake were Charles Naim and William Stephen in 1852. The settlement of Te Anau was first surveyed in 1893, shortly after the Milford Track was opened, by Europeans’. But the town itself only developed after the opening of the Homer Tunnel and road route to Milford Sound Piopiotahi in 1953.³

Te Anau Lakefront Jetty

The Te Anau Lakefront allows mainly unobstructed views of Lake Te Anau (Te Ana-au) and mountain views within the Fiordland National Park and the Te Wahipounamu World Heritage Site, the latter of which was officially recognised internationally in 1990. The western shores feature the imposing landforms of Kepler and Murchison Mountains, which are clothed in indigenous vegetation. However, the western shore of the lake is at least 2.3km away from the site of the Te Anau Lakefront Jetty, therefore there is no significant areas of indigenous vegetation in close proximity to the Lakefront Jetty.

Te Anau Lakefront along the shoreline retains much of its natural character however since installation of the Lake Te Anau control gates in 1974 (as part of the construction of the Manapouri Hydroelectric Power scheme) the level of the lake has been controlled. Also, since 1982 the lake levels have been managed under the “Operating guidelines for Lakes Manapouri and Te Anau”⁴ to balance the areas ecological, recreational, and hydroelectric needs. Consequently, now the main operating range for Lake Te Anau is between 201.5–202.7m above sea level which has altered shoreline erosion patterns, vegetation stress, and sediment movement. Hence even without the infrastructure installed at the Te Anau lakefront, the lake foreshore represents a modified environment. In addition, the original vegetation along the eastern margins of the lake has been removed and replaced with predominately introduced species further domesticating the environment. The beach area at the location of the lakefront jetty is a mixed sand gravel beach composed of reworked glacial moraine, river sediments and weathered soft rocks.



Figure 40 - aerial view of the Lakefront Jetty showing the town infrastructure on the landward side of the lake

³<https://nzhistory.govt.nz/keyword/teanau#:~:text=The%20settlement%20was%20first%20surveyed,route%20to%20Milford%20in%201953.&text=Named%20after%20the%20lake, the%20shores%20of%20the%20lake.>

⁴ <https://gazette.govt.nz/notice/id/2025-go2889>

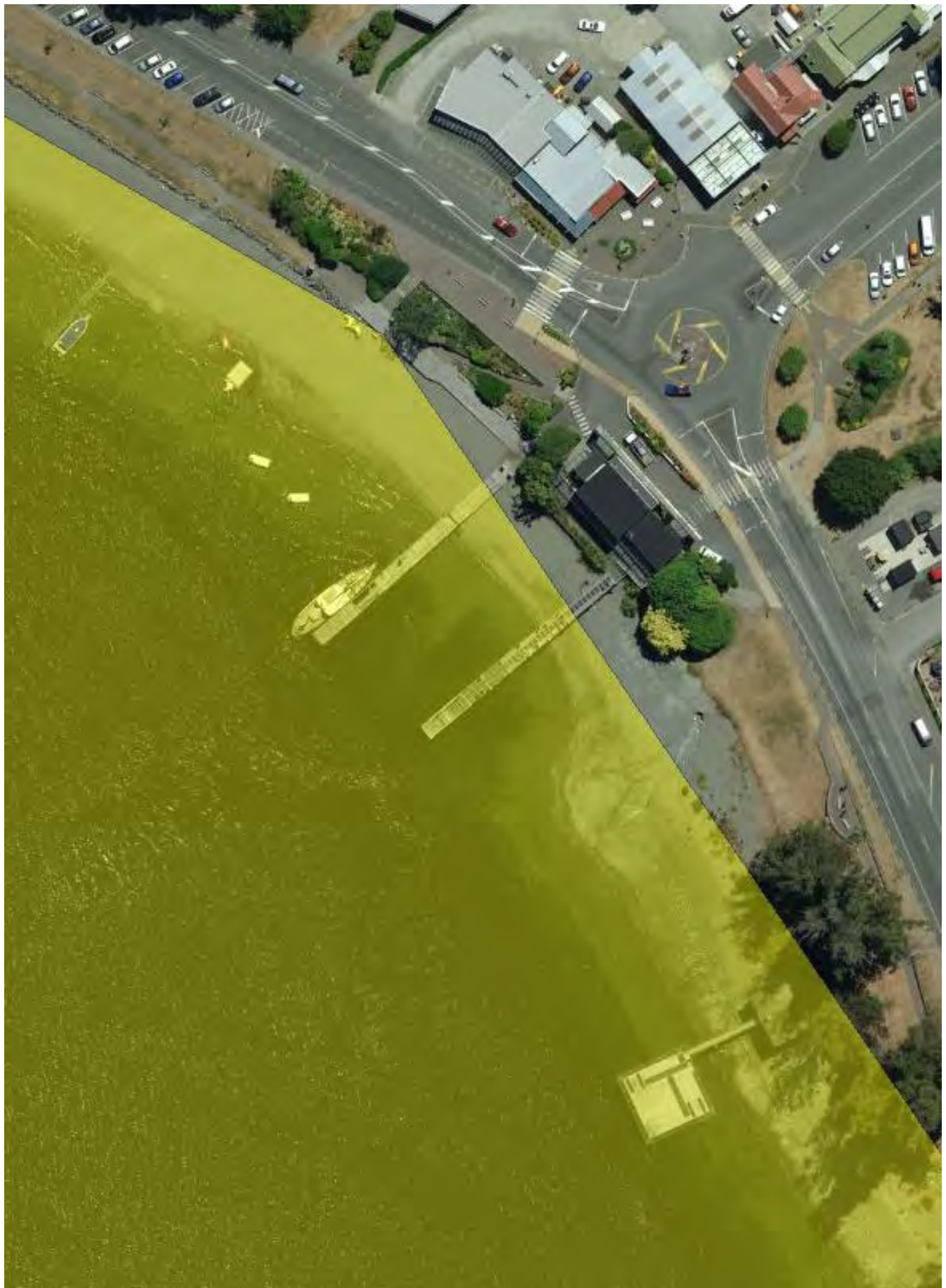


Figure 41 – aerial view showing the built-up environment (including adjacent lake structures) immediately adjacent the Te Anau Lakefront Jetty

MAP 14. TE ANAU LAKEFRONT FRONTCOUNTRY



Figure 42 – Map 14 from the Fiordland National Park Management Plan (FNPMP) which shows the sites zoning.



Figure 43 – photo of the landward end of the Te Anau Lakefront Jetty

Immediately adjacent the Te Anau Lakefront Jetty in the lake there is a moveable floating water taxi jetty (Kepler water taxi); the “Government” wharf; a helipad; a floatplane wharf; and the Government wharf structure has been in this area since the late 1890’s. Also, in the FNPMP the site of Real Journeys main

lakefront jetty is located within the “Motorised Transport” zone – refer figure 42. As a consequence, motorised vessel activity including the float plane landing and take offs, are anticipated and expected along this section of the Te Anau Lakefront. Also, the landward end of this jetty is predominately hardscape with some landscaping contributing to the modified nature of this site – refer figures 40, 41 and 43.

Te Ana-au Glowworm Caves Wharf

The Te Ana-au Glowworm Caves are located on the western side of the lake in the lower reaches of the Murchison Mountains between the Middle Fiord and South Fiord. The cave itself is a karst system formed by the Tunnel Burn which is fed by Lake Orbell Kōhaka Takahea / Te Wai-o-Pani – refer figure 44.



Figure 44 – Map showing the location of Te Ana-au Caves

The site of the Te Ana-au Glowworm Caves wharf retains much of its natural character with the land outside the onsite Te Ana-au Caves infrastructure being clothed in native bush. Yet immediately adjacent the jetty is the infrastructure associated with the operation of the Te Ana-au Glowworm Caves. In particular (refer figure 45):

- The shelter at the landward end of the wharf (wharf shelter);
- The walkway from the shelter to Cavern House;

- Cavern House;
- 2x viewing platforms including a gabion wall;
- Other walkways;
- Beech House;
- Hydro plant;
- Diesel Generator; and
- Wastewater Treatment System.

Accordingly, the site of the Te Ana-au Glowworm Caves wharf is a modified environment especially compared to the undeveloped areas of the Fiordland National Park. Hence, as a modified environment this site is better able to absorb change. Yet the jetty is only significantly visible from Lake Te Anau itself; from the eastern shore of the lake the jetty is barely noticeable, and binoculars are required to locate the jetty as it grey in colour making it visually recessive – refer figures 46 and 47.

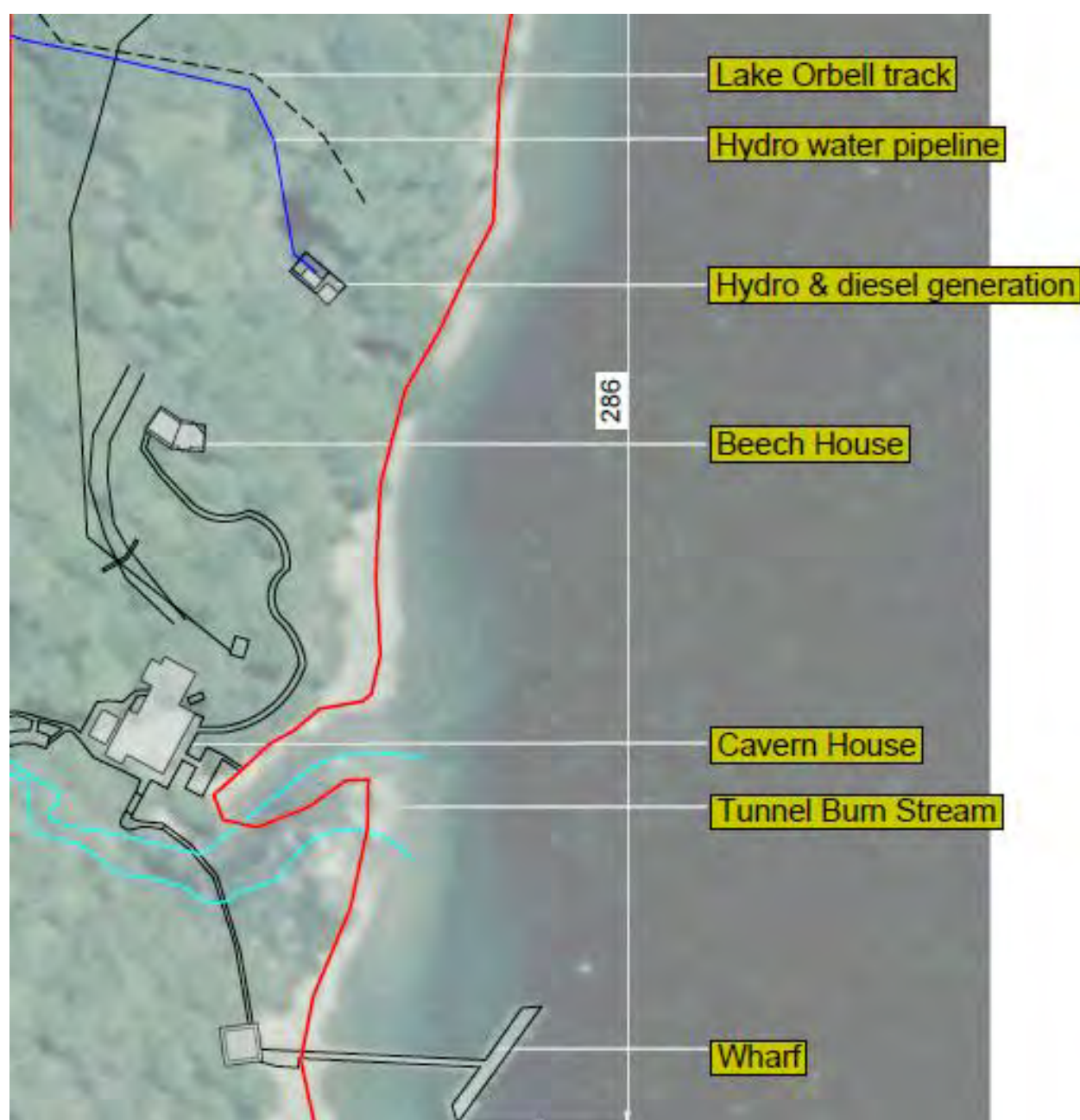


Figure 45 – section of Ralph Moir drawing file ref 25A78



Figure 46 – zoomed in photo of Te Ana-au Glowworm Caves wharf taken from the eastern side of the lake (~4.8km distant)

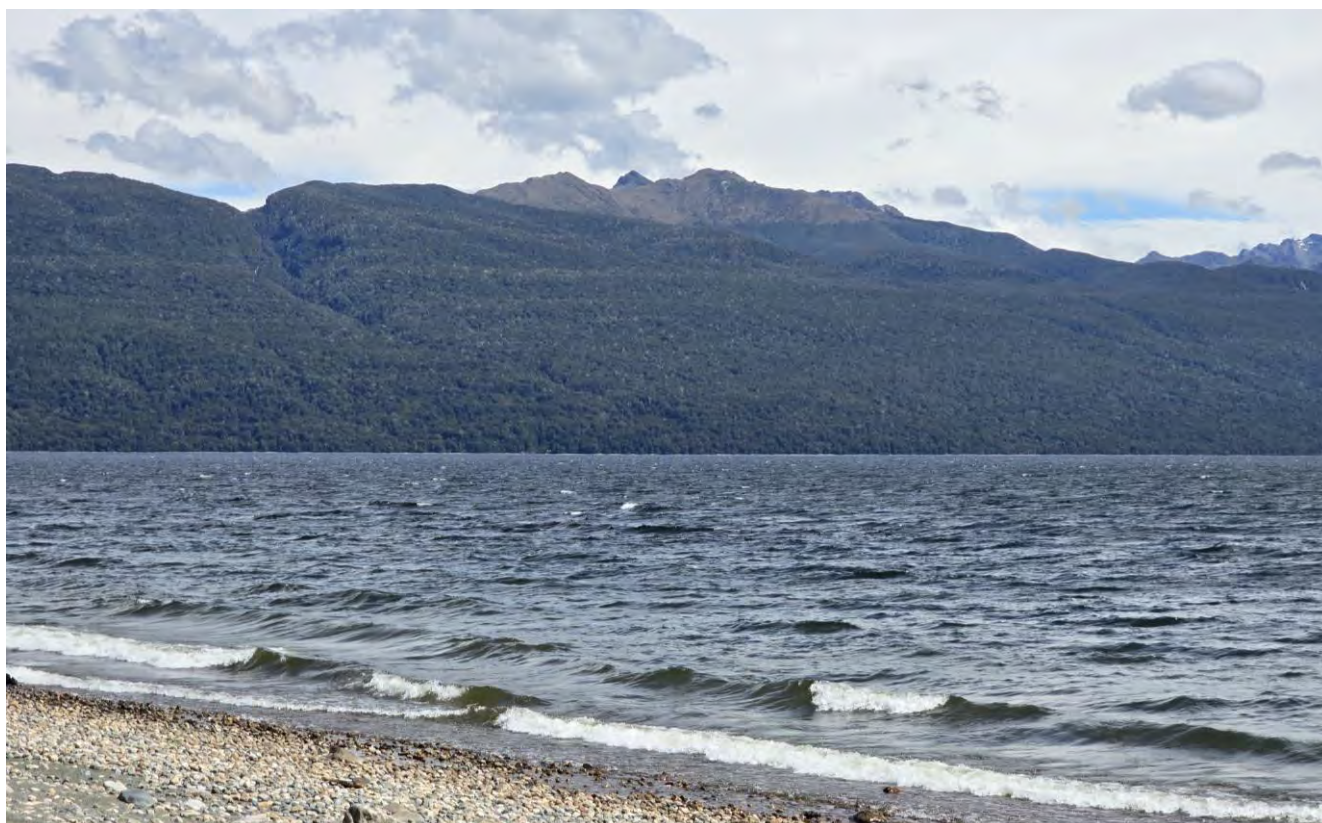


Figure 47 –photo of Te ana-au Glowworm Caves wharf taken from the eastern side of the lake

H2. Social and Economic Effects

Real Journeys Te Anau lakefront jetty and Te Ana-au Glowworm Caves wharf facilitate Real Journeys Te Ana-au Glowworm Caves operation and access to the start of the Milford Track. The Milford Track experience is described as ‘the finest walk in the world’ and access to this ‘great walk’ is via watercraft, as there is no road access to the start of the Milford Track and the Real Journeys vessel that services the Milford Track on occasion utilises this Te Anau lakefront jetty. Visitors travelling to Te Anau to walk the Milford Track and or visit the Te Ana-au Glowworm Caves usually overnight in Te Anau and contribute to the wider economy by also spending on other services such as accommodation; transport; food and beverages.

A significant number of people employed by Real Journeys reside in Fiordland. That is, Real Journeys creates direct and indirect employment for people in Southland and Otago communities. This generates the positive social effect of stability for families and communities alike which in turn creates a positive social flow on effect, as an increase in population can sustain the provision of more goods and services in the area. This improves the quality of life for all of those who reside in the Te Anau basin. Accordingly, the undertaking of vessel passenger transport activities on Lake Te Anau facilitated by these jetties provides for the economic and social wellbeing of the Te Anau community in particular. Consequently, the social and economic effects facilitated by these jetties should be viewed as positive.

H3. Effects on Other Users

Lake Te Anau is used recreationally by power boats, kayakers, swimmers, water-skiers, paddle boarders, kite surfers, yachts, and fishers. Power Boat competitions are held annually on Lake Te Anau. Sailing regattas are typically held in front of the Marakura Yacht Club with an annual Te Anau Downs Classic held in February. Recreational fishing also occurs on Lake Te Anau, which is encouraged by annual events, such as, the Stabicraft Te Anau - Manapouri Fishing Classic. Recreational users utilise areas of the shoreline of Lake Te Anau. Non-motorised boat users make use of either the beach north of the Marakura Yacht Club or the area known locally as the “pontoon” (swim pontoon), which is located outside the boat harbour / marina adjacent Bluegum Point. Motorised recreational boats are launched at either the three public boat ramps or the boat ramp in the Lake Te Anau boat harbour / marina. These recreational boats generally head to one of the shorelines main beaches, at Bluegum Point, Dock Bay, Brod Bay, Garden Point or Honeymoon Beach. That is well clear to Real Journeys Te Anau lakefront jetty and the Te Ana-au Glowworm Caves wharf. Moreover, with Lake Te Anau having a surface area of 344km² there is plenty of space for recreational boats to traverse around the lake away from Real Journeys jetties.

There are also a few other commercial vessels operating of Lake Te Anau such as the “Faith”; Fiordland Outdoors Water Taxis, and “Flyby” (Cruise Te Anau). It is only the Kepler Water Taxi and the “Faith” that operate in close proximity to Real Journeys lakefront jetty with the Kepler Water Taxi departing the lakefront at 8.30am, 9.30am, 10.30am, 2.30pm and the “Faith” departing the “Government” Wharf 9.00am, 2.00pm (for 3 hour excursion) and 6.00pm (for 1½ hour excursion). Hence it is only the “Faith’s” 2.00pm departure that coincides with any of the of the vessel movements associated with the use of the Te Anau Lakefront Jetty. These interactions are managed under Maritime New Zealand rules (specifically Part 22 and Part 91) that establish give-way “rules of the road,” prioritising safety through clear hierarchy: sail/paddle, power over motor, overtaking vessels must stay clear, and power-driven vessels meeting head-on should pass port-to-port by turning to starboard. Moreover, vessel skippers communicate with each other via VHF radio to ensure there is no conflict, when these two vessels are departing their respective jetties.

H4. Effects on ecosystems and habitats

Real Journeys Te Anau lakefront jetty and Te Ana-au Glowworm Caves wharf are static structures existing infrastructure there will be no disturbance of flora and fauna associated with these jetties and fish passage is not impacted by these jetties; hence there no effects on ecosystems and habitats associated with these jetties. Also, because the lakefront jetty enables the disposal of effluent ashore

this ensures that there are no adverse effects on the lake ecosystems and habitats from such discharges.

H5. Contamination

There is the possibility that sullage or fuel could be spilt from a vessel in the following occurrences:

Spills resulting from accidents:

- Hull damage due to grounding or collision (including collision with a jetty); and
- Excessive list of the vessel.

Spills resulting from accidents due to hull damage are managed by adherence to Maritime Rule Part 22 – Collision Prevention; Maritime Rule Part 91 – Navigation Safety Rules and Southland Regional Council Navigation Safety Bylaws. In particular vessels should not exceed five knots within 200m of the shore or any structure. Therefore, vessels approaching any jetty must do so at low speed to comply with these rules and bylaws (the 5-knot rule); and for safe vessel operation. That is, irrespective of the 5 knot rule it is prudent to approach a jetty at low wake speed so that the vessel is not jostled about by the vessel's own wake when the vessel comes alongside the jetty as this makes it more difficult to tie up.

Moreover, both sides of the Te Anau Lakefront Jetty are kept clear to enable the “Luminosa” to come alongside depending on the prevailing winds. Plus, Te Ana-au Glowworm excursions are cancelled in strong winds when the lake is very choppy which reduces the likelihood a vessel will collide with a jetty. Furthermore, because Real Journeys operates well maintained vessels with appropriately trained launch masters, such a collision or grounding that could rupture the vessel's tanks is very unlikely. Vessel accidents are managed as per the vessel shipboard safety manual. An excessive list is very unlikely with a catamaran and would only occur if there was hull damage.

Operational Spills:

- Spillages during pumping sullage ashore or fueling a vessel;
- Leaking or failure of hoses / lines / non-return values;
- Spillage when disconnecting hoses used to pump black water ashore or pumping fuel into vessel tanks, or during maintenance;
- Rupture of hoses;
- Operator error (such as not disconnecting the hose before the vessel departs the jetty); and
- Sabotage.

Operational spills are avoided by ensuring correct procedures are followed (including the skipper monitoring pumping); vessel equipment; and the pipeline ashore being regularly inspected and appropriately maintained.

To avoid sabotage Real Journeys passenger vessel fueling port and sullage port are kept padlocked when not in use and the gate at the entrance to the lakefront jetty is shut at night (after hours). Plus, there are security cameras in Real Journeys lakefront visitor centre which are trained on the lakefront jetty and the “Luminosa” to record any nefarious nighttime activities at this site.

In the event of a spill Real Journeys Inland Lakes Oil or Diesel and Sewerage Spillage Contingency Plan is followed.

H6. Landscape and visual effects

Real Journeys Te Anau lakefront jetty and Te Ana-au Glowworm Caves wharf are both recessive colours (grey paint work, galvanised railing, and weathered timber decking) therefore at a distance these structures are visually inconspicuous. Both jetties are more visually conspicuous when the vessels are alongside, (refer figure 48) nevertheless Real Journeys Lake Te Anau vessels are not a permanent feature alongside these jetties.



Figure 48 – photo of the Te ana-au Glowworm Caves Wharf with Luminosa alongside

Both the Te Anau Lakefront and the Te Ana-au Glowworm Caves shorelines represent modified environments with the Te Ana-au Glowworm Caves site being the much less modified. As such these sites are better able to absorb the ‘change’ associated with this jetty infrastructure compared to the majority of the unmodified lake shoreline on the western side of the lake and the lake arms and fiords. In particular the Te Anau Lakefront Jetty when viewed from the water effectively recedes in the landscape against the background of the form of Real Journeys Lakefront visitor centre (refer figures 13, 40, 41, & 43). Also, because of the location of Real Journeys lakefront visitor centre views of the lakefront jetty from the land are predominantly blocked by the visitor centre. In particular because of the siting of the visitor centre on the landward side of the visitor centre, the jetty does not block the views across the lake. It is only when persons are north or south of the Lakefront jetty (and the visitor centre) that the jetty can be seen from the land.

Te Ana-au Glowworm Caves wharf is low lying compared to the substantial landscape form of the Murchison Mountains (refer figures 46 & 47). Therefore, when the Te Ana-au Glowworm Caves wharf is being viewed from lake Te Anau or the eastern side of Lake it is the landscape forms of the Murchison Mountains that dominate the landscape. Moreover, because the Te Ana-au Glowworm Caves wharf structure is effectively transparent with railings and piles that can be looked through it is not visually

dominate when viewed from the lake – refer figure 49. This wharf is even less conspicuous when the lake level is high as then it is only the wharf deck and railings that are visible.



Figure 49 – photo of the Te ana-au Glowworm Caves Wharf when approaching from the south.

H7. Cultural Effects

Te Ana-au (Lake Te Anau) is a Statutory Acknowledgements Area hence Te Ana-au is recognised as significant to Ngāi Tahu under the Ngāi Tahu Claims Settlement Act 1998. Te Ana-au is one of the major lakes in Te Wai Pounamu dug by the rangatira Rākaihautū of the Waitaha waka Uruao. For generations, Ngāi Tahu used Te Ana-au as a vital, strategic waypoint for seasonal journeys to harvest koko-tangiwai (a rare form of bowenite) from Piopiotahi.

The mauri of Te Ana-au represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.⁵ The concept of mauri highlights that the health of the lake is inseparable from its surroundings, with the water often acting as a connector between the mountains and the people. The proposed on-going use of these two jetties will not adversely impact on the mauri to Te Ana-au.

Also, in recognition of the cultural and spiritual association with ngā roto waimāori, the disposal of wastewater to water results in physical and spiritual contamination of water. Therefore, for Ngāi Tahu ki

⁵ <https://www.legislation.govt.nz/act/public/1998/0097/latest/DLM429090.html>

Murihiku, discharge to land of wastewater is considered a better option than discharge to water, as discharging to land allows Papatūānuku to filter and cleanse contaminants from the discharge in a natural way, before the discharge enters the hydraulic system⁶. Accordingly, the discharge of effluent ashore at the Te Anau lakefront jetty is in accord with Ngāi Tahu ki Murihiku values.

H8. Noise Effects

When effluent is being pumped ashore and when the vessel holding tanks are being emptied there are noise effects. The macerator pump create noise when in use. Both the pumps are housed within soundproofed hull, and it only takes five minutes per day to pump effluent ashore thus this noise effect is of very short duration and is of minor consequence especially in the context of the adjacent road noise and float plane activity.

H9. Monitoring

Three yearly Stantec undertake wharf structural inspections and the Stantec engineer record their observations and recommendations including routine maintenance actions to ensure these jetties remain safe and structurally sound.

Real Journeys skippers monitor the performance of the on-board vessel sullage pump and their ability to pump effluent ashore. If there are any problems with pumping effluent ashore our Te Anau based engineers rectify the issue. For instance, all our vessels operate the same effluent macerator pumps, and we have a spare pump in Te Anau so if the pump fails it can be readily swapped out with the spare. Also, every year our vessels go through a maintenance and survey regime when the likes of the macerator pumps are serviced, and all couplings are checked, to ensure that there are minimal problems with the vessel pumping equipment while the vessel is in service.

The fuel installation on the Te Anau Lakefront Jetty is owned by RD Petroleum and any problems with this fuel installation are reported to RD Petroleum and RD Petroleum engage an appropriate contractor to check the installation or undertake repairs.

H10. As Required Proposed Excavation of Lake Te Anau Lakebed on either side of the Lakefront Jetty

(i) Background Information

In 2008, 2013, and 2022, Lake Te Anau's water levels dropped to a critical operational level and during these times the Te Ana-au Glow-worm Caves vessel, the "Luminosa", could nearly no longer tie up to the Lakefront Jetty safely due to insufficient depth of water alongside the jetty. The lake level at these times was approximately 201.30 metres above sea level. The main gazetted operating range for Lake Te Anau is from 201.5 to 202.7 metres above sea level and the low operating range is from 200.86 to 201.5 metres above sea level⁷. When the operating range of Lake Te Anau falls into the lower range, this is when the operation of the Te Ana-au Glow-worm Caves vessel is compromised.

⁶ <https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/iwi-management-plan/documents/Te%20Tangi%20a%20Taurira%20-%20The%20Cry%20of%20the%20People.pdf>

⁷ <https://gazette.govt.nz/notice/id/2002-go7755>



Figure 50 – photo of the southern side of the lakefront jetty



Figure 51 - photo of the “Luminosa” alongside the southern side of the Lakefront Jetty

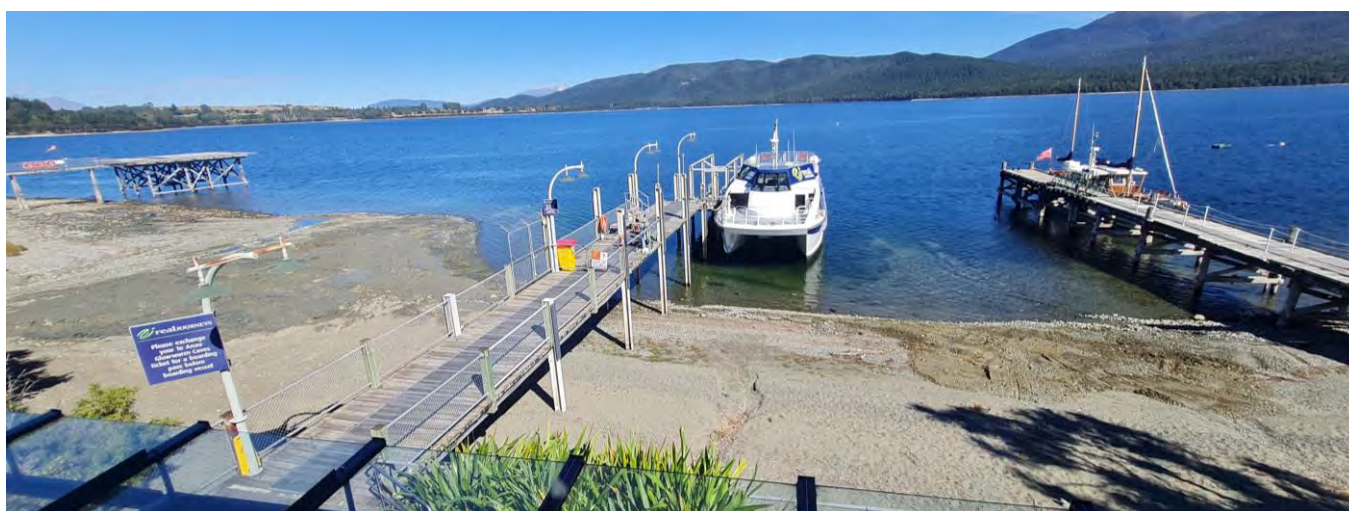


Figure 52 – photo of the lakefront foreshore at the site of Real Journeys Lakefront Jetty when lake te Anau is very low.

Meridian Energy Limited's historic data on the water levels of Lake Te Anau from 14 January 1926 to the 28 February 2019 show that Lake Te Anau's water level's lowest recorded reading was at 200.857 metres above sea level on 24 February 1953, and the highest water level reading was at 205.108 metres above sea level on 4 November 1988. This data shows that for 97% of the time Lake Te Anau's water level was at 201.30 metres above sea level, however for 3% of the time Lake Te Anau's water level was at a critical operation level for the Te Ana-au Glowworm Caves excursion vessel. Yet Meridian Energy Limited's principal climatic forecasting scientist Dr Jennifer Purdie is predicting increases in temperatures in the coming decades which will result in a rise in snowlines and a corresponding reduction in the volume of water stored as snow in the Waiau catchment. Consequently, river flows into the lakes will be higher in winter with the smaller snowpacks likely resulting in less snowmelt in summer and potentially resulting lower river flows into the lake compared to the past.⁸ Accordingly it is likely that in the future the lake levels will drop to 201.30 metres asl or lower which will necessitate excavating the shallow areas alongside the northern and southern sides of the Real Journeys Lakefront Jetty.

(ii) The Proposed Lakebed Excavation

This proposal seeks approval to engage a contractor to use an excavator to dredge the shallow areas of Lake Te Anau's lakebed on the northern and southern sides of the Lakefront Jetty (refer figure 53) when Lake Te Anau's water level drops to a level whereby; the Te Ana-au Glow-worm Caves vessel can nearly no longer tie up to the Real Journeys Lakefront Jetty safely because of an insufficient depth of water. Also, the stormwater drain which is immediately south of the Lakefront Jetty effectively creates a gravel delta which overtime encroaches towards the Te Ana-au Caves vessel berth alongside the southern side of the jetty and this area is likely to require excavation in the future plus a small area between Real Journeys Lakefront Jetty and the Government wharf where the "Faith" berths – refer figure 54.

The water depth required adjacent the Lakefront Jetty is set by the draft of the vessel servicing the Te Ana-au Caves, which for the "Luminosa" is 1m. However, if the "Luminosa" was to be replaced by a vessel with a larger draft, then the new vessel's draft will prescribe the water depth that would need to be maintained alongside the Lakefront Jetty.

The lakebed on both sides of the jetty will be required to be excavated as the prevailing wind dictate the side of the jetty the vessel must come alongside. That is it preferable for the vessel to be blown on to the wharf when coming alongside.

Refer figure 55 for the size of excavator that is likely to be used to undertake the proposed lakebed excavation. It cannot be too large an excavator as it needs to be driven under the Lakefront Jetty (between two piles) to access the northern side of the jetty.

To enable the excavator to reach out to the area alongside the outer (lake) end of the jetty this may involve the construction of temporary gravel / sand platforms in the shallow water close to the lake's edge, from which the excavator can operate from. These platforms would prevent the excavator from sinking into the mud in the lake. The gravel / sand used to make these platforms would then be reinstated along the lakeshore once the excavation was completed. Furthermore, Real Journeys proposes that any gravel spoil dredged from the lake will be spread along the base of the grass bank at the lake edge to the south of the Lakefront Jetty, and that any mud / clay spoil will be buried on the lakeshore above the lake level. The lakeshore will then be smoothed out so the work of the excavator is not readily evident. Refer figure 56.

⁸ Meridian Energy Limited v Southland Regional Council, ENV-2018-CHC-38 [32, 33]

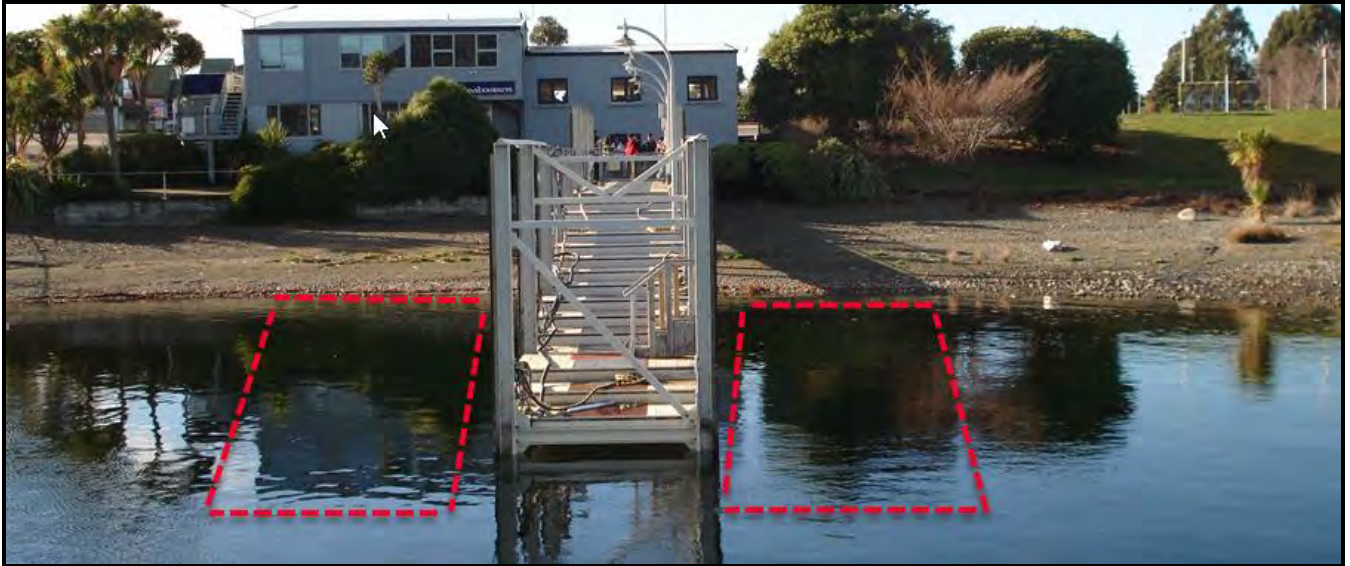


Figure 53 – photo showing the approximate main areas that need to be maintained with an adequate depth.



Figure 54 – area photo showing shallow areas in the lake that are likely to require excavation in the future.



Figure 55 – photo of the type of excavator used to do the lakebed excavation in 2022.



Figure 56 - Photo of the lakeshore after the excavation was completed

There are three stormwater outlets along Lake Te Anau’s shoreline south of the Lakefront Jetty. To avoid the excavated spoil clogging up these outlets Real Journeys will ensure the contractor leaves a buffer zone around the stormwater outlets where the spoil deposits are to be distributed. To access Lake Te Anau the excavator will need to be driven across the grass above the lakeshore – refer the red line in figure 57 below. This proposed route will ensure the excavator avoids the stormwater pipes. Further, if the grass area above the shoreline is rutted by the excavator tracks Real Journeys will repair this damage. Real Journeys will cordon off the shoreline north and south of the Lakefront Jetty during the proposed works for public safety. However Real Journeys will not inhibit public access to the grass area above the shoreline during the proposed work in the lakebed; however, when the excavator is traversing across the grass area the public will be excluded from this grass area for safety reasons. Refer figure 57.



Figure 57 – site of the proposed lakebed excavation showing relevant infrastructure.

(iii) Social and Economic Effects

This proposal will ensure the ongoing operation of Real Journeys Te ana-au Glowworm Caves excursions. As such this provides social and economic benefits to the Te Anau community in particular, through providing employment opportunities to those working directly for Real Journeys along with employment offered by local businesses such as retail outlets; accommodation, service, transport, food and beverage providers. Because the visitors that travel to Te Anau to undertake a Te Ana-au Glowworm Caves tour typically spend on other products and services while in the township. This creates the positive social effect by creating stability for families and the community alike.

(iv) Effects on Other Users and Public Access

The public use of the site of the application is by people walking along the lake edge or the footpath, (refer figure 58 below) hence for a short time while the excavator is located to and from the lakebed public access will be restricted. Therefore, any impact on public access due to this proposed activity should be viewed as less than minor.



Figure 58 – aerial photo showing how the area is used by other users and the public

(v) Potential Contamination

To avoid contamination of the waters of Lake Te Anau Te Anau Earthworks Ltd (or similar contractor) would steam clean / water blast their excavator prior to accessing the site and commencing work. No fuel will be stored in the lakebed or on the lake margins and the machinery used to undertake the activity will not be refuelled on site and no other contaminants will be brought onto the site of the application. The excavator to be used for the proposed activity will be checked for oil leaks when the equipment is being cleaned prior to being brought on to site to ensure no oil is discharged on site.

(vi) Noise Effects

There will be some noise created by this proposal; in particular excavator noise. All the vehicle activities undertaken at the site of the application will occur during normal working hours (0800-1700 hours) and at very low speeds hence the noise created will be minimal and the noise effects will be noise more significant compared to the traffic noise on the adjacent road or the aircraft noise related to the floatplane which takes off and lands on the lake south of the site of this application.

(vii) Effects on the lakeshore and lakebed

A typical shoreline of Lake Te Anau follows the shoreline vegetation zonation pattern as per figure 59 below. However, as the shoreline near Real Journeys Lakefront Jetty is located on the eastern side of Lake Te Anau, is a modified section of the Lake, it does not reflect this vegetation zonation pattern. The shoreline at the proposed location is a gravel and sand beach (refer figure 59) which flows upwards to exotic grass, buildings and roads. Also, this area has been disturbed three times since 2008 due to

previous excavation works and in addition the area of proposed lakebed disturbance is small in size and scale, compared to the vast size of Lake Te Anau.

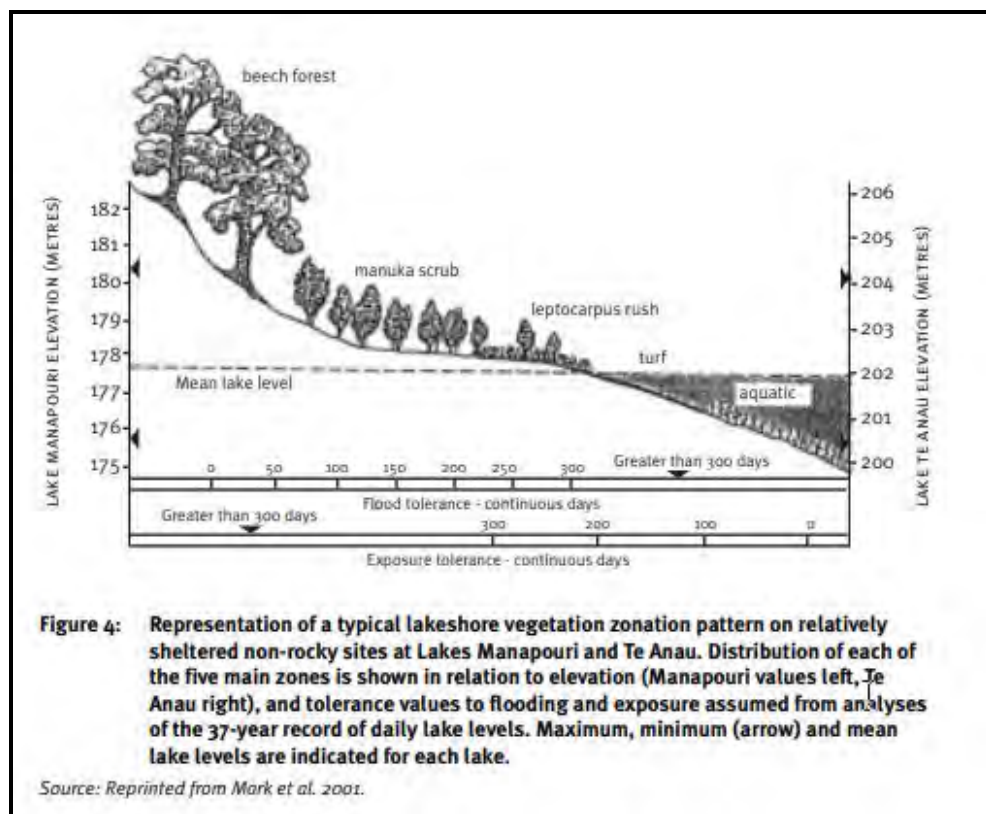


Figure 59 - Typical Lake Te Anau vegetation zonation pattern⁹



Figure 60 – photo of the site of this aspect of this application showing the characteristics of the material that would be relocated.

⁹ Lake Level Management, Ministry for the Environment, Mark James (NIWA), 2002, pg 15.

The shoreline of Lake Te Anau is influenced by the lake's fluvial processes. The Lake Te Anau lake levels are generally lower in summer when prevailing winds are higher and higher lake levels occur in the winter when prevailing winds are lower. In respect to wind, records show that 49% of the time no or little wind blows in the Lake Te Anau area. Of the remaining 51% north-westerlies and southerlies are the two prevailing wind directions blowing 37% of the time, although the northerly dominates due to topographic funnelling. The remaining 14% sees winds blowing from other directions.¹⁰

Fluvial processes in the lake environment are influenced by wind velocity, wind duration, fetch length and water depth¹¹. The Lake Level Management document states that when lake levels are lower, the area of the foreshore effected by wave action becomes lower. Because of this, waves will erode the foreshore's sediment and deposit it deeper into the offshore face, where it is lost to the depths of the lake. Further, higher lake levels contribute to shoreline erosion as sediment can become fluidised and move offshore. However, on Lake Te Anau the rising and falling water levels are the strongest influence on the lake's fluvial processes. This is because the rising water level causes shoreline sediment to move lake wards as they become fluidised, while falling lake levels result in accretion of the shoreline because sediment held in suspension is deposited on the shoreline when the lake's water retreats¹².

In regard to this proposal, Lake Te Anau's fluvial process pattern indicates that it is likely that once the lake levels rise, typically in the winter, that the contoured sediment on the shoreline of Lake Te Anau may be transported back into the lake environment and that the dredged area may become infilled through the lake's fluvial erosion, transportation and deposition processes. Because of Lake Te Anau's fluvial pattern, the potential effect of the proposed excavation on the shoreline of Lake Te Anau immediately adjacent Real Journeys Lakefront Jetty should be considered minor; because this shoreline disturbance is likely to be restored by natural processes during the following winter.

(viii) Effects on Wildlife, Ecosystems and Habitats

The proposed removal of gravel and sand on the northern and southern sides of the Lakefront Jetty will not have a more than minor effect on the wildlife, ecosystems and habitats of Lake Te Anau. This is due to most species living in the lake are at greater depths of the lake than the proposed excavation sites.

The aquatic species in Lake Te Anau that may reside near the Lakefront Jetty are predominantly consist of macrophytes, periphyton and macroinvertebrates. Submerged vegetation¹³ near the Lakefront Jetty is likely to be represented as 'C' in the diagram below (figure 61) as outlined in the New Zealand Journal of Marine and Freshwater Research. At site C it is expected that once the water's depth reaches >4m that the species of; *Chara corallina*, *Nitella hookeri* and *Nitella pseudoflabellata* will be present. *Chara corallina*, *Nitella hookeri* and *Nitella pseudoflabellata* are algae described as small, submerged plants.¹⁴

Periphyton may develop from any small, submerged plant species in the area however, because the proposed dredging location is in a modified site of Lake Te Anau and has been subject to regular boating activity since the 1950's, any species within the proposed area are not likely to be abundant at this location. Further, if macrophytes are located in the proposed excavation area their regrowth occurs either by vegetative invasion of existing plants or from seed germination.¹⁵ However, if macrophytes species are present at the proposed site they will be able to regenerate from the existing plants that remain near the location. Nevertheless, the location for the proposed work adjacent the Real Journeys

¹⁰ Catamaran Wake from "Fiordland Express" on the Shoreline of Lake Te Anau, I Dawe and M Hemmingsen, Land and Water Studies International Limited, 1999.

¹¹ Lake Level Management, Ministry for the Environment, Mark James (NIWA), 2002, pg 10.

¹² Lake Level Management, Ministry for the Environment, Mark James (NIWA), 2002, pg 24.

¹³ Submerged vegetation of Lakes Te Anau, Manapouri, Monowai, Hauroko, and Poteriteri, Fiordland, New Zealand, New Zealand Journal of Marine and Freshwater Research, Rohan D. S. Wells, John S. Clayton & Mary D. de Winton, 2010.

¹⁴ <http://nzpcn.org.nz/>

¹⁵ Lake Level Management, Ministry for the Environment, Mark James (NIWA), 2002, pg 35.

Lakefront Jetty is subject to regular disturbance hence is unlikely to be habitat to significant aquatic species.

Lake Te Anau is habitat to the endemic Long-Finn Eel Tuna and the exotic species of; brown trout, rainbow trout and much lower numbers of Quinnat Salmon (rarely seen). These species do not reside at the proposed excavation site because they need a greater abundance of submerged plants to feed off. Consequently, the proposed excavation is unlikely to have an effect on these species or affect fish passage.

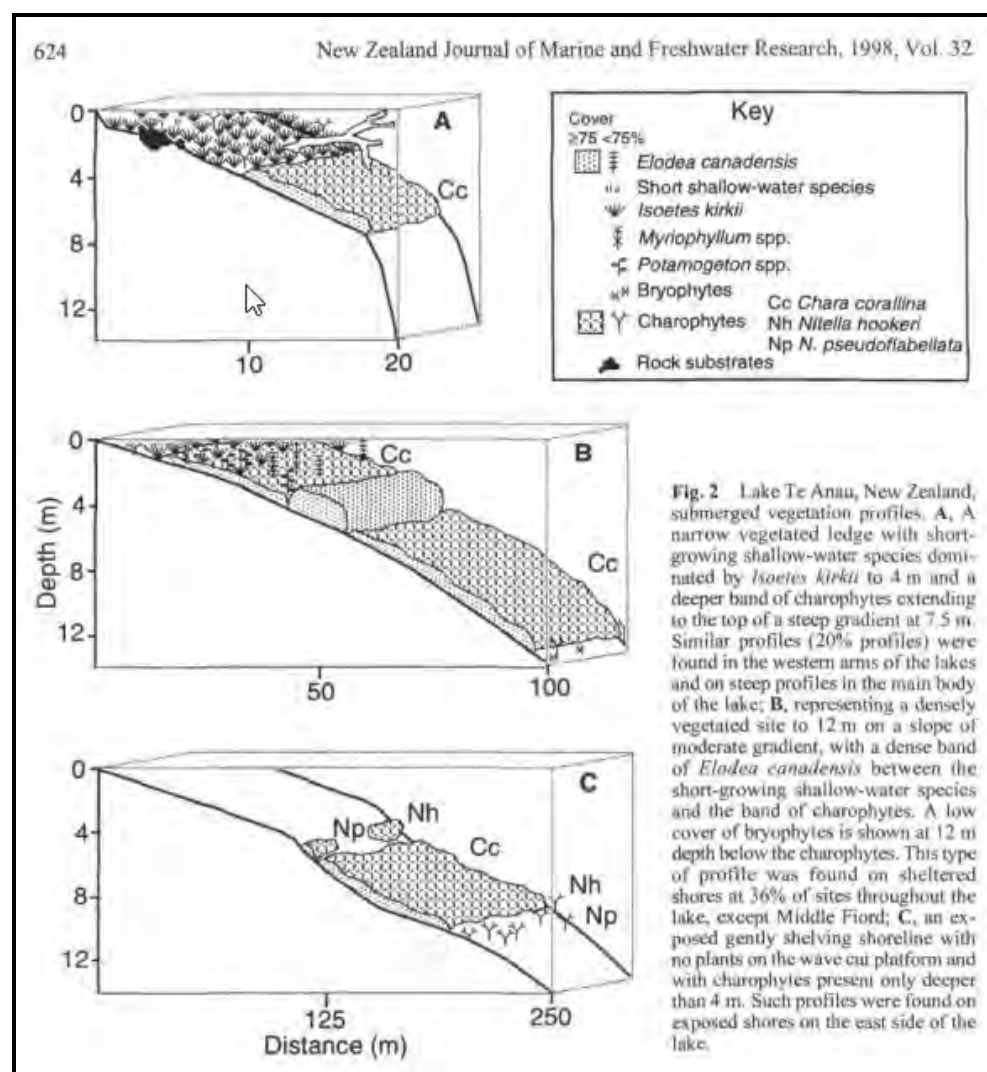


Figure 61 – diagram showing shoreline profiles

The sediment that will be stirred up by the excavator will quickly settle and the lake environment will return to its normal state rapidly. Because there are no significant species habitats located at the proposed site, this sediment disturbance will not create an adverse effect on the intrinsic values of ecosystems. Thus, any potential impact on the environment with respect to wildlife, habitats and ecosystems should not be considered as more than minor.

(ix) Effects on Natural Character and Landscape Values

Te Anau's Lakefront is described in the Fiordland National Park Management Plan as;

The Te Anau lakefront is an invaluable asset to the town. It has very important recreational, commercial, amenity and natural values. Although the original vegetation has been removed it still retains much of its natural character with few buildings, which allows unobscured mountain and

lake views and easy public access to the lake. It is important that the existing character is maintained. Any new development (other than reasonable extensions to existing facilities) is not considered appropriate.

Even without the infrastructure installed at the Te Anau lakefront the lake foreshore represents a modified environment. In addition, the original vegetation along the eastern margins of the lake has been removed and replaced with predominately introduced species further domesticating the environment. Hence the immediate site of the proposed excavation does not have significant natural character values.

Nonetheless the natural character, landscape values and visual appearance of the lakefront will not be significantly altered by the proposed excavation of gravel on either side of Real Journeys Lakefront Jetty. Because any gravel or sediment removed during the proposed work will be placed on the shoreline and contoured to reflect the natural slope of the existing shoreline. Further, Lake Te Anau's fluvial processes will restore the shoreline back to its original form once the lake's water levels rise as discussed above. The proposed work has been undertaken three times previously by Real Journeys and this has had a minimal impact on the site.

(x) Effects on Cultural and Historic Values

There are no cultural or historic sites adjacent to the site of this application hence no cultural or historic sites will not be affected by this proposal.

Statutory acknowledgement applies to Te Ana-au under schedule 58 of the Ngāi Tahu Claims Settlement Act 1998. Ngāi Tahu have a cultural, spiritual, historic and a traditional associations with Te Ana-au. The customs and traditions of Te Ana-au are values that remain important to Ngāi Tahu today. Yet, the proposed minimal excavation of Te Ana-au lakebed should not impact Ngāi Tahu's association with the lake. The proposed activity will not distribute contaminants into the lake which could potentially affect the mauri of the waterway, nor will the activity affect the endemic species that live in Te Ana-au.

(xi) Alternative locations or methods

Given the Lakefront jetty is an existing structure, which has been in use for decades and is in an optimum location for passenger embarkation and disembarkation due to the close proximity of Realnz's Te Anau visitor centre consideration of an alternative location is not possible. Another alternative method would be deploying a barge that is a dredge or can be used to deploy an excavator. However, given the shallowness of the sites of the proposed excavation this is not a viable alternative as any barge would ground on the lakebed. Therefore overall, no alternative locations or methods are appropriate with respect to this proposed Lakebed excavation.

H11. Proposed modifications to the Te Ana-au Glowworm Caves Wharf

(i) Background information and proposal details.

Real Journeys is seeking approval to modify the Te Ana-au Caves wharf to ensure this wharf remains useable at high lake levels and provide more shelter from the rain to improve the customer experience. Specifically Real Journeys is proposing the following wharf modifications.

- Extend at least six of wharf piles (including the UHMWP fenders) along the outer edge of the wharf so that at very high lake levels the "Luminosa's" rubbing strip or belting does not get caught on the top of these lower piles. However, to stabilise these pile extensions they may need to be braced back to the corresponding pile on the other side of the wharf as the piles on the outer end of the Lakefront Jetty have been braced – refer figure 3.
- Plus, the potential installation of a removable 'flip down' embarkation and disembarkation structure at the height of the wharf decking to improve wharf access at high lake levels.

- Install a roof connected back to the wharf shelter over the wider landward end of the Te Ana-au Caves wharf to provide a greater covered area to enable more Te Ana-au Glowworm Caves visitors to wait out of the rain prior to embarking the “Luminosa” and returning to Te Anau. This will also require the installation of uprights to support this proposed roof.

To undertake these proposed modifications all the relevant components will be fabricated off site and transported to site and bolted and/or welded in place on site. All these proposed installation activities will occur on the wharf structure, outside the waterway itself.

(ii) Social and Economic Effects

This proposal will ensure the ongoing operation of Real Journeys Te ana-au Glowworm Caves excursions at high lake levels and will improve the visitor experience at the Te ana-au Caves when it is raining. As such this provides social and economic benefits to the Te Anau community in particular, through providing employment opportunities to those working directly for Real Journeys along with employment offered by local businesses such as retail outlets; accommodation, service, transport, food and beverage providers. Because the visitors that travel to Te Anau to undertake a Te Ana-au Glowworm Caves tour typically spend on other products and services while in the township. This creates the positive social effect by creating stability for families and the community alike.

(iii) Effects on Other Users and Public Access

Due to the Te Ana-au Glowworm Caves Concession # 99211-ATT which includes a lease of the area along the lake edge out to the landward end of the Te Anau Caves wharf, this site is not utilised by the public or other users.

(iv) Potential Contamination

During these proposed works, sheets of pile wood will be laid down on the wharf to prevent and debris falling into the lake through the gaps in the wharf deck planks. The proposed works will be undertaken using welding equipment and hand tools powered by a petrol powered 230v generator which will be located with in the shelter at the landward end of the Te Ana-au Caves wharf. This generator will be re-fuelled utilising an enclosed refuelling system or a fuel container with Auto Shut off Pouring Spout to prevent fuel spills to assist in protecting the surrounding environment from any accidental spillages. Any waste materials generated during the proposed works will be removed off site and disposed of in Te Anau through appropriate waste channels. Hence all appropriate measures will be taken to avoid any contamination of the environment at the site during the proposed works.

(v) Noise Effects

There will be some noise created by this proposal; in particular noise from drilling and / welding and any noise will not be continuous as the nature of the proposed works will be start stop while the attachments are fashioned and then the components are installed. Nevertheless, all the proposed works undertaken at the site of the application will occur during normal working hours (0800-1700 hours) and will cease when passengers from the “Luminosa” are disembarking or embarking the vessel. The proposed works will be of a relatively short duration over a couple of weeks and given the site of this application there are no other persons in the vicinity of the works to be affected, other than Real Journeys guests and staff. Accordingly, to prevent the disruption of visitors to Te Ana-au Glowworm Caves it is in the best interests of Real Journeys to minimise to noise effects.

(vi) Effects on the Lake Environment

All of the proposed works will occur out of the waterway of Lake Te Anau, hence this proposal will not affect the lake itself.

(vii) Effects on Wildlife, Ecosystems, and Habitats

Because the proposed works will occur out of the waterway of Lake Te Anau, this proposal will not affect the lake wildlife, ecosystems and habitats, yet birds may nest and roost in the bush at the landward end of this wharf. Therefore, there is the potential to disturb terrestrial bird species however these proposed works will be short lived over a few weeks at most and after the installation is completed any on-going disturbance of fauna will primarily be related to the movement of people, and vessels; which is already typical of the site currently. These proposed works are likely to be undertaken in the winter months to limit disruption to visitors to Te Ana-au Glowworm Caves as the number of people that visit the caves over winter is much less compared to summer. As such any disturbance of nesting birds is likely to be minimal, as most terrestrial birds commence nesting in spring.

(viii) Effects on Natural Character and Landscape Values

As can be seen from figures 46-49 the existing wharf structure is visually recessive in the landscape. The proposed extension of piles and the extension of the wharf shelter roof over the wider landward section of the wharf will have minor visual effects. That is as now it is unlikely that the extended piles will be visually obvious. The proposed roof will be of a similar colour as the roof of the wharf shelter and will either need to be on a slope or curved to shed rain however this slope / curve is not likely to be as large as that of the wharf shelter. Therefore, when this rooved section is viewed at a distance it will only be the side elevation of the roof that will be visible and it is not likely it will be more visually conspicuous than the shelter itself. Hence the effects of this proposal on the natural character and landscape values of this site are likely to be minor.

(ix) Effects on Cultural and Historic Values

There are no known cultural or historic sites in the immediate vicinity of the Te Ana-au Caves wharf to be affected by this proposal. Given that all the proposed works associated with this proposal will occur on the Te Ana-au Glowworm Caves wharf structure outside the waterway there will be no effects on Te Ana-au's cultural values.

(x) Alternative Locations and Methods

Given the Te Ana-au Glowworm Caves Wharf is an existing structure, which has been in use for decades and is in an optimum location for embarkation and disembarkation of passengers to access the Te Ana-au Glowworm Caves consideration of an alternative location is not applicable. An alternative method would be to not prefabricate the proposed wharf upgrade structures off site, however this does not make sense from a practical or an environmental point of view. Hence alternative locations or methods are not viable.

I. Other

Is there any further information you wish to supply in support of your application? Please attach if necessary and label Attachment 3a:I.

Real Journeys Te Anau Lakefront jetty is used by larger Lake Te Anau vessels such as the "Faith" to refuel.

Real Journeys has operated and maintained two jetties at these two locations since 1966 with the purchase of Fiordland Travel by the Manapouri Doubtful Sound Tourist Company. A wharf / jetty has been in place at Te ana-au Glowworm Caves since shortly after the rediscovery of the caves in 1947; with the first jetty being constructed of manuka poles. This jetty was replaced with a more robust structure however the Te Ana-au Glowworm Caves wharf was rebuilt in 2006 prior to the introduction of the "Luminosa" on to Lake Te Anau to transfer guests to and from Te Ana-au Glowworm Caves. The first additional Lakefront Jetty (in addition to the "Government" wharf) was installed in 1965 and this jetty was rebuilt in 1999 and extended in 2006 to allow for the introduction of the "Luminosa". Hence these embarkation and disembarkation structures have been in place on the lake foreshore for decades.



- NOTES:
- Aerial imagery is indicative only.
 - Aerial imagery has been sourced from SDC GIS.
 - Areas and dimensions are subject to final survey.
 - Coordinates are in terms of NZGD 2000, Mt York Meridional Circuit
Coordinate Origin BGTK
N: 816601.190 E: 398342.831
 - Heights are Mean Sea Level
Origin of levels BGTK RL: 212.769m
 - All other boundary data is sourced from LINZ XML and is indicative only
 - Topo Completed October 2015
 - Services shown are indicative only unless otherwise stated.
 - Service providers should be contacted prior to any digging on site to mark out their location.
 - Contour interval: 0.2m & 1m

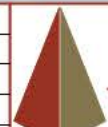
LEGEND

- Top of Bank
- Bottom of Bank
- Building
- Fence
- Road
- Footpath
- Stormwater Pipe
- Waterfront
- Manhole
- Stormwater Sump
- Downpipe
- Water Toby
- Water Valve
- Fire Hydrant
- Gate
- Telecom Plinth
- Lightpost
- Sign
- Borehole



Last Edited By: Chris on 28/10/2015 3:08:07 p.m.

REV	REVISION DETAILS	DRN	CHK	APP	DATE

**bonisch**
consultants

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W www.bonischconsultants.co.nz

CLIENT:

**realJOURNEYS**

PROJECT:

**TOPOGRAPHICAL SURVEY
REAL JOURNEYS TE ANAU
LAKEFRONT DRIVE, TE ANAU, SOUTHLAND**

SHEET TITLE:

**TOPOGRAPHICAL SURVEY -
OVERALL SITE PLAN**

SURVEYED:	MEO	Oct '15	SCALE (ORIGINAL SIZE A1)	1:200
DESIGNED:			DATE ISSUED	28.10.15
DRAWN:	CHM	22.10.15		
DRAWING CHECK:	JMH	28.10.15		
DESIGN CHECK:			JOB NO	4975
APPROVED:			SHEET	1 of 2
			REV.	0

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NOTES:

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LEGEND

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- Water Valve
- Fire Hydrant
- Gate
- Telecom Plinth
- Lightpost
- Sign
- Borehole

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REV	REVISION DETAILS	DRN	CHK	APP	DATE

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CLIENT: **realJOURNEYS**

PROJECT: **TOPOGRAPHICAL SURVEY
REAL JOURNEYS TE ANAU
LAKEFRONT DRIVE, TE ANAU, SOUTHLAND**

SHEET TITLE: **TOPOGRAPHICAL SURVEY -
SITE & BUILDING ZOOM**

SURVEYED:	MEO	Oct '15	SCALE (ORIGINAL SIZE A1)	1:50
DESIGNED:			DATE ISSUED	28.10.15
DRAWN:	CHM	22.10.15	JOB NO	4975
DRAWING CHECK:	JMH	28.10.15	SHEET	2 of 2
DESIGN CHECK:			REV.	0
APPROVED:				

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Photo 1



Photo 2



Photo 3



Photo 4



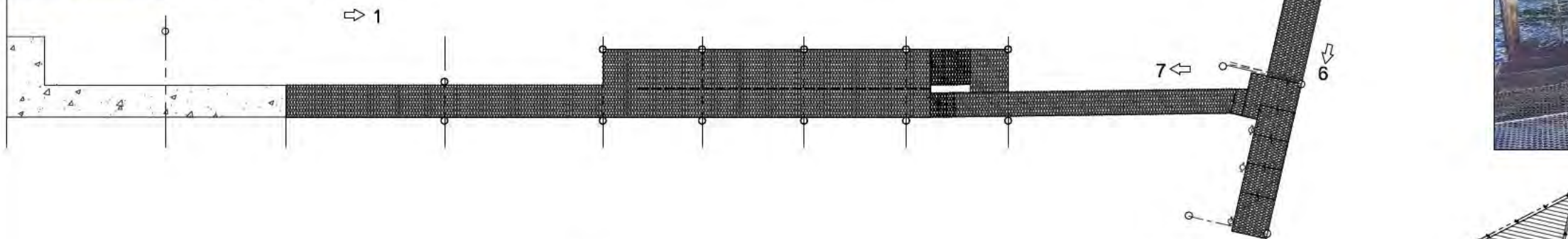
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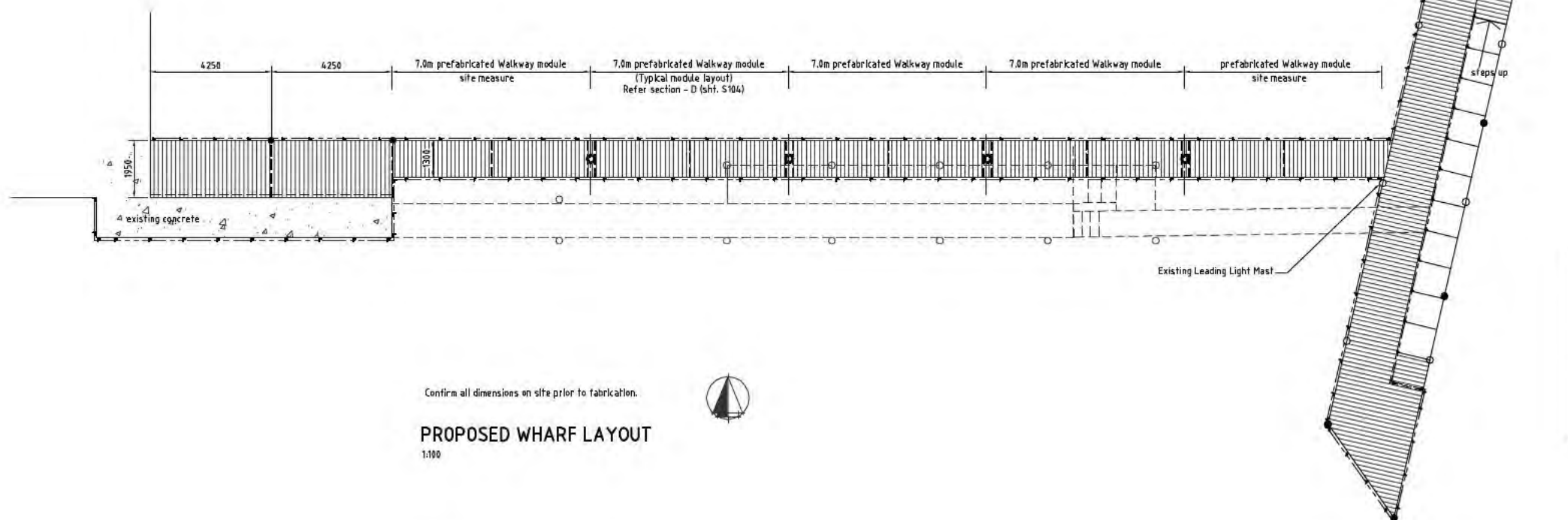
Photo 6



Photo 7



EXISTING WHARF LAYOUT
1:100



Confirm all dimensions on site prior to fabrication.

PROPOSED WHARF LAYOUT
1:100



SHEET INDEX

S101	General Arrangement
S102	Plan & Elevations
S103	Plan & Elevations
S104	Structural Details
S105	Cross Sections
S106	Cross Sections

PRELIMINARY ONLY FOR APPROVAL

DESIGNED:	DATE:	ORIGINAL SIZE:
DRAWN:	DATE:	A1
CHECKED:	DATE:	SCALE:
APPROVED:	DATE:	1:100

KENSINGTON CONSULTING
Professional Civil & Structural Engineers

Mobile: [REDACTED]
Fax: 64 3 217 7254
email: kensingtons@xtra.co.nz

CLIENT:



DRAWING TITLE:

**Te Anau Caves Wharf
Upgrade 2006
General Arrangement**

DRAWING NUMBER:	REVISION:
S101	B

DO NOT SCALE THIS DRAWING - IF IN DOUBT ASK

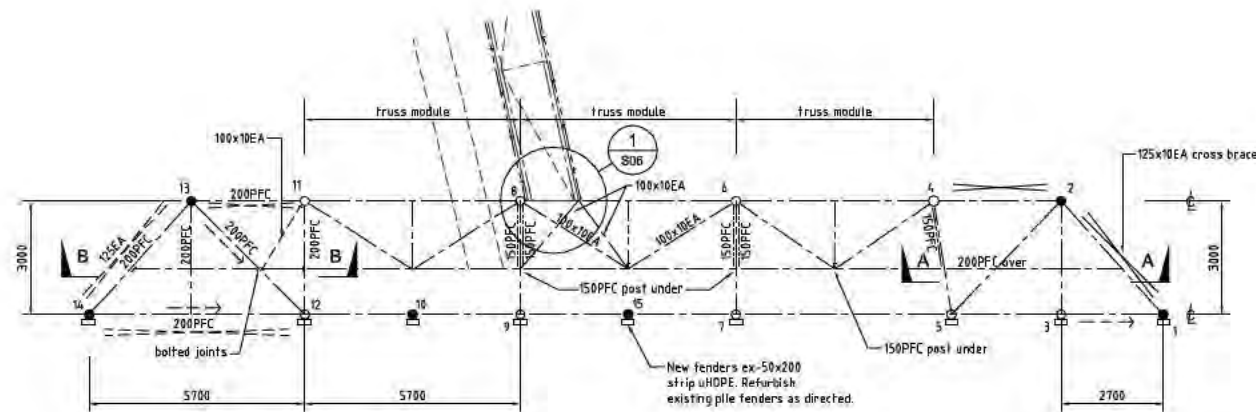
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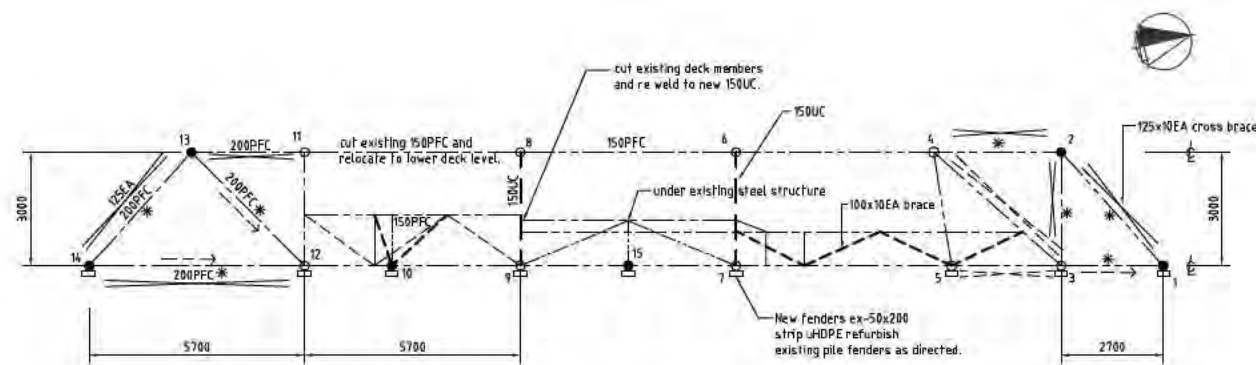
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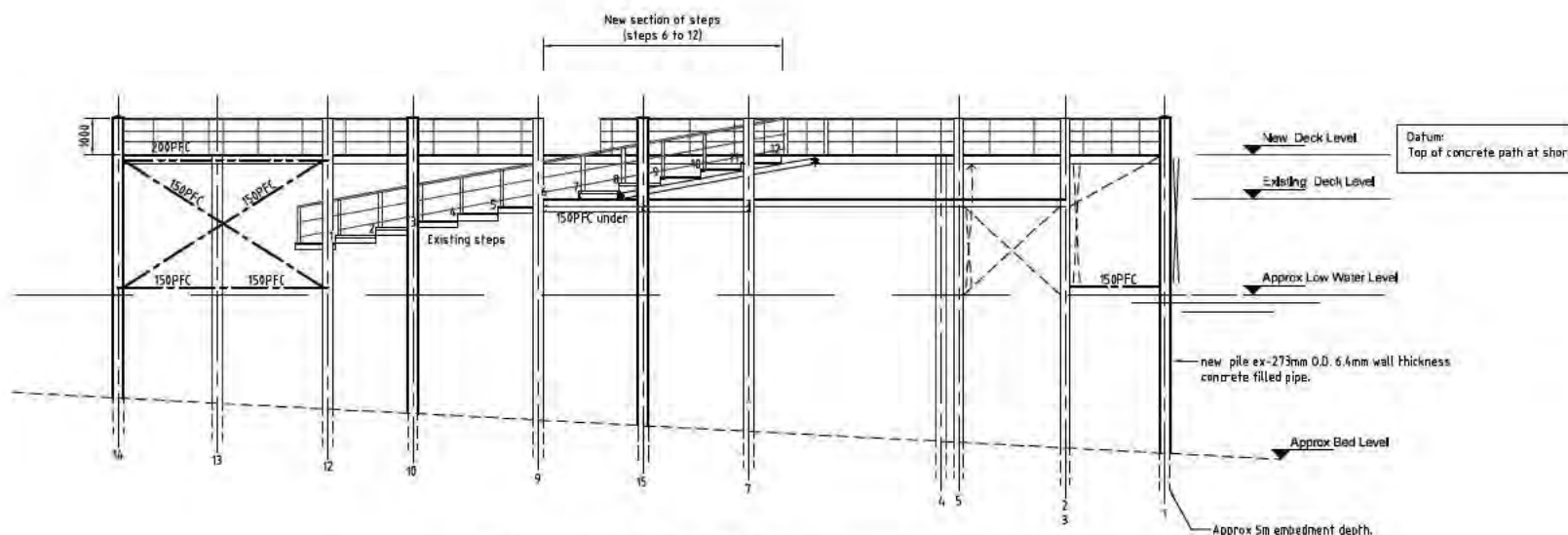
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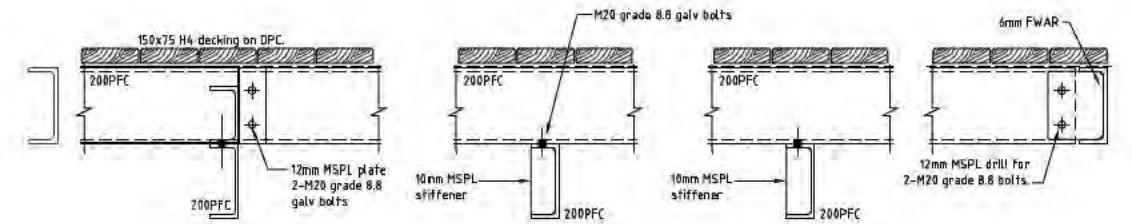
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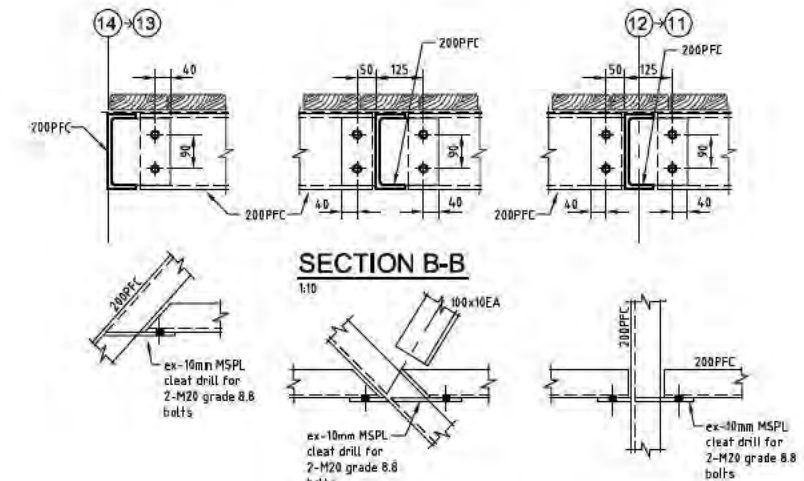
PROPOSED EAST WHARF LAYOUT (Lower Level)
1:100



WHARF ELEVATION - EAST
1:100



SECTION A-A
1:10



SECTION B-B
1:10

PRELIMINARY ONLY
FOR APPROVAL

DESIGNED	DATE	ORIGINAL SIZE
A	5/06	A1
CHECKED	DATE	SCALE
APPROVED	DATE	1:100

KENSINGTON CONSULTING
Professional Civil & Structural Engineers

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CLIENT:

real JOURNEYS

DRAWING TITLE:
Te Anau Caves Wharf
Upgrade 2006
Plan & Elevation
Fender details

DRAWING NUMBER: S103
REVISION: B

DO NOT SCALE THIS DRAWING - IF IN DOUBT ASK

DO NOT SCALE - IF IN DOUBT ASK

FILE NO.



Land Use Consent

Pursuant to Section 104B of the Resource Management Act 1991, a resource consent is hereby granted by the Southland Regional Council (the "Council") to **Real Journeys Limited** (the "consent holder") of **P O Box 1, Te Anau 9640** from 1 April 2020.

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Permit

Purpose for which permit is granted:	To disturb the bed of Lake Te Anau to undertake dredging of the lake bed and gravel extraction
Location	- receiving environment - catchment
	Lake Te Anau Lake Te Anau
Legal description of land at the site:	Crown Land, Fiordland National Park
Expiry date:	1 April 2045

Schedule of Conditions

1. This consent authorises the disturbance of the bed of the lake for dredging and gravel extraction in general accordance with the application (APP-20201980) dated 18/02/2020, at the location described in the table below;

Site Address	85 Lakefront Drive, Te Anau
Site Location	"Main Wharf", Real Journey's Visitor Centre, Te Anau
at or about Map Reference NZTM 2000	1186254E 4957004N

2. The activities authorised by this consent shall be limited to;
 - (a) the construction of temporary lakeshore gravel/sand platforms at the lake's edge;
 - (b) the dredging of no more than a total of 50 m³ of gravel/sand up to a distance of no more than 20 metres out from the "Main Wharf", to the north side and south side of the wharf using a long reach excavator;
 - (c) the spreading of the gravel spoil dredged from the lake; along; the base of the grass bank at the lake edge to the south of the Main Wharf; and
 - (d) the remediation of the lakeshore through burying of the mud/clay spoil on the lakeshore above the lake level , after which the lakeshore will be smoothed out so the work of the excavator is not readily evident.
3. The spreading of the gravel/sand spoil as per Condition 2(c) must be along the base of the grass bank on the lake edge, to the south side of the "Main Wharf" only.
4. The remediation as per Condition 2(d) must be undertaken to ensure the lakeshore is reinstated back to its natural character, as much as reasonably practicable, including;
 - (a) ensuring the lakeshore is returned to its natural level; and
 - (b) there is no obvious signs of the works, including the excavator work, upon completion of any dredging event.
5. The Consent Holder must not refuel any machinery within the bed of the lake or on the lakeshore.
6. The consent holder must ensure that:
 - (a) fuel and oil are prevented from entering the lake during the construction works;
 - (b) all construction equipment, machinery, plant and debris are removed from the lake on completion of the works;
 - (c) silt disturbance and works in the bed are kept to a minimum; and
 - (d) no washing of equipment occurs in the lake;
 - (e) the site is kept tidy, and left in a safe and aesthetically acceptable state so that the natural character of the lakebed is not adversely affected.
7. The Consent Holder must notify the Consent Authority in writing;
 - (a) no more than three days prior to commencing any works; and
 - (b) no more than three days after completion of the works.
8. The Consent Holder must have and maintain a record of activities and supply this record to the Consent Authority by 31 May each year, or upon request.
9. The Record of Activities required by Condition 9 shall include;
 - (a) The date and time works begun;
 - (b) The volume of material removed from the lake bed;
 - (c) The location the dredging spoil was deposited;
 - (d) A list of any incidents and/or complaints received;
 - (e) Photographs (date and time stamped) of the remediation works upon completion of any works; and
 - (f) The completion date of any works.
10. The grass bank (above the lake edge) disturbed or eroded during the construction works are to be restored and resown upon completion of the works.

11. The works authorised by this consent must not prevent public access to the grass area above the lakes edge or to the lake.
12. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the works, the consent holder shall immediately cease operations in that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence with the written permission of the Council's Director of Environmental Management. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix 1 outlines the process in the event of such a discovery.
13. The work sites may be inspected to ensure compliance with consent conditions. Under Section 36 of the Resource Management Act 1991, administrative charges and the costs of the inspections are payable by the consent holder.
14. The consent holder shall take all reasonable precautions to minimize the spread of pest plants and aquatic weeds. In particular, the consent holder shall:
 - (a) remove any vegetation caught on the machinery;
 - (b) where necessary, clear vegetation from the site before material is extracted;
 - (c) avoid working in areas where aquatic weeds such as *Lagarosiphon major* are known to be present (for information, contact Environment Southland); and
15. If an event (such as contamination of the watercourse by sediment, fuel or oil) occurs that may have significant adverse effect on water quality, the consent holder shall notify, as soon as reasonably practicable, the following:
 - (a) Environment Southland (ph 03 2115 115 or 03 2115 225 after hours)

for the **Southland Regional Council**



Consents Manager

Appendix 1
Protocol in the event of a discovery, or suspected discovery,
of a site of cultural importance (Waahi Taonga/Tapu)

1. *Koiwi accidental discovery*

If Koiwi (human skeletal remains) are discovered, then work shall stop immediately and Te Ao Marama Inc (Ngai Tahu (Murihiku) Resource Management Consultants) will be advised. Contact details for Te Ao Marama Inc are as follows:

Te Ao Marama Inc
Murihiku Marae, 408 Tramway Road, Invercargill
P O Box 7078, South Invercargill 9844
Phone: (03) 931 1242

It will arrange a site inspection by the appropriate Tangata Whenua and their advisers, including statutory agencies, who will determine whether the discovery is likely to be extensive and whether a thorough site investigation is required.

In recognition of Section 6 of the Resource Management Act (1991) and legal requirements under the Historic Places Act (1993) there is a requirement to consult the New Zealand Historical Places Trust when archaeological sites are disturbed without authorisation previously obtained. The New Zealand Police also need to be consulted if the discovery includes Kōiwi or human remains.

Materials discovered will be handled and removed by Iwi responsible for the tikanga appropriate to their removal or preservation.

2. *Taonga or artefact accidental discovery*

Taonga or artefact material (e.g. pounamu/greenstone artefacts) other than Koiwi will be treated in a similar manner so that their importance can be determined, and the environment recorded by qualified archaeologists alongside the appropriate Tangata Whenua.

3. *In-situ (natural state) pounamu/greenstone accidental discovery*

Pursuant to the Ngai Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngai Tahu tribal area is owned by Te Runanga o Ngai Tahu. The Ngai Tahu Pounamu Resource Management Plan provides for the following measure:

- any *in-situ* (natural state) pounamu/greenstone accidentally discovered should be reported to the Pounamu Management Officer of Te Runanga o Ngai Tahu as soon as is reasonably practicable. The Pounamu Management Officer of Te Runanga o Ngai Tahu will in turn contact the appropriate Kaitiaki Papatipu Runanga;
- in the event that the finder considers the pounamu is at immediate risk if loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground.

The find should then be notified immediately to the Pounamu Management Officer. Contact details for the Pounamu Management Officer are as follows:

Te Rūnanga o Ngāi Tahu
50 Corsair Drive
P O Box 13-046,
Otautahi/Christchurch 8021
Phone: (03) 366 4344: Fax: (03) 341 6792

Web: www.ngaitahu.iwi.nz
Pounamu Management Officer
Kaiwhakarite Tiaki Pounamu
Te Rūnanga o Ngāi Tahu

The Department recommends that you contact the Department of Conservation Office closest to where the activity is proposed to discuss the application prior to completing the application forms. Please provide all information requested in as much detail as possible. Applicants will be advised if further information is required before this application can be processed by the Department.

This form is to be used when the proposed activity involves using watercraft on public conservation land. Examples may include kayaking, boat landings, or use of Department of Conservation wharves. This form is to be completed in conjunction with either Applicant Information Form 1a (longer term concession) or Applicant Information Form 1b (one-off concession) as appropriate.

- If your application involves guiding clients or aircraft transportation on public conservation land, please also fill in Form 4a and/or Form 4c as appropriate.
- If your application includes building, extending or adding to any permanent or temporary structures or facilities on public conservation land, please also fill in Form 3b,
- If your application includes tenancy of any DOC managed buildings (other than overnight usage of huts) please also fill in Form 3a.

Please complete this application form, attach Form 1a or Form 1b, and any other applicable forms and information and send to permissions@doc.govt.nz. The Department will process the application and issue a concession if it is satisfied that the application meets all the requirements for granting a concession under the Conservation Act 1987.

If you require extra space for answering please attach and label according to the relevant section.

A. Location(s) and Activity(ies)

Name of Conservation Area	Activity	Waterway being used, location and/or name of all landing sites	Size, type, colour and name of all watercraft	Proposed months /season	Max. Party Size (incl. guides)	Frequency of Use (trips/landings)
Fiordland National Park	Transfer of passengers (guests), crew, staff, engineers, technicians, contractors, supplies, provisions, equipment and waste (rubbish and recycling) between Real Journeys Te Anau Lakefront Jetty and the Te Ana-au Glowworm Caves wharf (including cruising through the Dome Islands) as part of Te Ana-au Glowworm Caves excursions and to facilitate Te Ana-au Glowworm Caves excursions.	Lake Te Anau (Te Ana-au) Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N and the Te Ana-au Glowworm Caves wharf at approximately NZTM2000 1186609E 4970736N	1x vessel operating either "Luminosa", or "Fiordland Flyer" or "Fiordland Express" or a Fiordlander class vessel or a replacement vessel that is new to Lake Te Anau	Year round	99 passengers + crew and staff (maximum party size of 107)	Up to 12 return trips per day with passengers (4380 return trips per year) + 1 relocation return trip to transfer cave guides to and from Te Ana-au Caves site.
Fiordland National Park	Transfer staff, engineers, technicians and contractors along with relevant equipment between Real Journeys Te Anau Lakefront Jetty (or from an alternative location on the lakefront) and the Te Ana-au Glowworm Caves wharf or the shore in front of Cavern House for R&M, site monitoring, investigation, remediation, filming or photography activities to facilitate Te Ana-au Glowworm Caves excursions.	Lake Te Anau (Te Ana-au) Real Journeys tender crafts (work boats) are launched and retrieved at one of the boat ramps along the Te Anau Lakefront. The boat ramp utilised depends on the wind conditions with usually the one being the Lake Te Anau Boat Harbour / marina given preference at approximately NZTM2000 1185738E 4957885N with personnel and equipment sometimes being picked up at the Te Anau Lakefront Jetty at approximately	Up to 2x vessel operating out of the following vessels "Raho-tu", "Teretere", "Ulva", or "Waihau" or a replacement Real Journeys 'work boat' or staff boat.	Year round	12 persons	52 return trips per year for engineers, technicians, and contractors + 1 return trip per day (365) in place of relocation return trip to transfer cave guides to site Te Ana-au Caves referenced above.

Name of Conservation Area	Activity	Waterway being used, location and/or name of all landing sites	Size, type, colour and name of all watercraft	Proposed months /season	Max. Party Size (incl. guides)	Frequency of Use (trips/landings)
		NZTM2000 1186229E 4957024N and the Te Ana-au Glowworm Caves wharf at approximately NZTM2000 1186609E 4970736N or the shore in front of Cavern House at approximately NZTM2000 1186579E 4970815N				
Fiordland National Park	Transfer of a vessel between Real Journeys Lakefront Mooring; Real Journeys Lakefront Jetty; Te Ana-au Glowworm Caves Wharf; and Te Anau Downs Jetty. With the carriage of passengers and staff between the jetties and wharves (no passengers on board for the transfers to and from the mooring). Operated in either direction northward or southward.	Lake Te Anau (Te Ana-au) Lakefront Mooring at approximately NZTM 2000 1186481E 4956537N Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N Te Ana-au Glowworm Caves wharf at approximately NZTM2000 1186609E 4970736N Te Anau Downs jetty at approximately NZTM20001193628E 4982532N	1x vessel operating either “Luminosa”, or “Fiordland Flyer” or “Fiordland Express” or a Fiordlander class vessel or a replacement vessel that is new to Lake Te Anau	Mainly 1 October to 30 April	99 passengers + crew and staff (maximum party size of 107)	230 trips per year
Fiordland National Park	Scenic cruises and/or charter cruises ex Te Anau Lakefront jetty to anywhere within Lake Te Anau (including via Te Ana-au Glowworm Caves) that is zoned as front country and northern backcountry in the Fiordland National Park	Lake Te Anau (Te Ana-au) Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N Potentially also utilising the Te Ana-au Glowworm Caves wharf at approximately NZTM2000	“Luminosa” or “Fiordland Flyer” “Fiordland Express” or a Fiordlander class vessel or a replacement vessel that is new to Lake Te Anau with proposed cruises currently	Year round	99 passengers + crew and staff (maximum party size of 107)	960 trips per year

Name of Conservation Area	Activity	Waterway being used, location and/or name of all landing sites	Size, type, colour and name of all watercraft	Proposed months /season	Max. Party Size (incl. guides)	Frequency of Use (trips/landings)
	Management Plan (FNPMP)	1186609E 4970736N or Hidden Lakes jetty at approximately NZTM 1183759E 4963364N or Te Anau Downs jetty at approximately NZTM20001193628E 4982532N or Glade Wharf at approximately NZTM2000 1199919E 5012086N	mainly being undertaken when Te Ana-au Glowworm Caves are closed. Plus, in the future operating another vessel undertaking an supplementary lake excursion in addition to the vessel servicing Te Ana-au caves vessel.			
Fiordland National Park	Transfer of vessels from Te Anau Lakefront jetty (or the Te Anau Downs Jetty) and Real Journeys Lakefront Mooring to 'store' a vessel when not in service.	Lake Te Anau (Te Ana-au) Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N Lakefront Mooring at approximately NZTM 2000 1186481E 4956537N	"Luminosa" or "Fiordland Flyer" "Fiordland Express" or a Fiordlander class vessel or a replacement vessel that is new to Lake Te Anau	Mainly from May to October	Crew only	Up to 36 times per year (return trips) associated "storing" a vessel on Real Journeys Lakefront mooring
Fiordland National Park	Transfer of vessels from Te Anau Lakefront jetty (or the lakefront mooring) to Tawera Slip or the adjacent public boat ramp to take the vessel in or out of the lake for R&M or vessel survey or transfer vessels to and from another lake and Lake Te Anau.	Lake Te Anau (Te Ana-au) Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N Lakefront Mooring at approximately NZTM 2000 1186481E 4956537N Tawera Slip at approximately NZTM2000 1186795E 4956237N Public boat ramp at approximately NZTM2000	"Luminosa" or "Fiordland Flyer" "Fiordland Express" or a Fiordlander class vessel or a replacement vessel that is new to Lake Te Anau or the proposed additional vessel.	Mainly from May to October	Crew only	Up to 12 times per year (return trips)

Name of Conservation Area	Activity	Waterway being used, location and/or name of all landing sites	Size, type, colour and name of all watercraft	Proposed months /season	Max. Party Size (incl. guides)	Frequency of Use (trips/landings)
		1186798E 4956279				

During the term of this concession as new technologies become more readily available and more reliable, it is very likely Real Journeys will replace the “Luminosa” with a vessel that is not solely diesel powered to decarbonise this passenger transport operation. That is introduce a vessel with hybrid engines or entirely battery powered engines or a hydrogen powered engines. Accordingly Real Journeys is requesting the ability to substitute an alternative replacement vessel under this concession provided the replacement vessel is in survey; is no larger than the “Luminosa”; the vessel noise limits do not exceeding 80dBA measured 50m from the vessel; and the vessel wake effects on the lake shoreline are comparable to or lesser than the wake effects of the “Luminosa”. Moreover, because of the limited number of Te Anau based visitor activities Real Journeys is seeking approval to operate scenic cruises and/or charter cruises with an additional vessel (or an existing vessel) ex Te Anau Lakefront jetty to anywhere within Lake Te Anau (including via Te Ana-au Glowworm Caves) that is zoned as front country and northern backcountry in the FNPMP with the additional vessel being in survey; no larger than the “Luminosa”; the vessel noise limits do not exceeding 80dBA measured 50m from the vessel; and the vessel wake effects on the lake shoreline are comparable to or lesser than the wake effects of the “Luminosa”.

Currently during the busiest months’, the “Luminosa” undertakes 1x relocation return trip to transfer cave guides to and from Te Ana-au Caves site. Under this concession Real Journeys are requesting the ability to utilise one of Real Journeys tender crafts (or a new tender craft) in place of the “Luminosa” to undertake these staff relocation trips.

The “Luminosa” or “Fiordland Flyer” “Fiordland Express” or a Fiordlander class vessel (or a replacement vessel that is new to Lake Te Anau) activities also include the ‘resupplying’ (water, fuel, consumables and provisions) of these vessels at the Te Anau Lakefront jetty along with all the provisions and equipment used for the Te Ana-au Glowworm Caves operation. Then in turn the transfer of supplies, provisions, equipment and waste (rubbish and recycling) at the Te Ana-au caves wharf.

Real Journeys Lake Te Anau vessels are also serviced and maintained alongside this Te Anau Lakefront Jetty including in water annual maintenance and survey. However under Maritime New Zealand (MNZ) Rule Part 46: Surveys, Certification and Maintenance, the outside of the ship’s hull of a passenger ship, must be “inspected with the ship out of the water not more than 2 years after it was last inspected with the ship out of the water or 13 months after an approved in-water survey, whichever is soonest” to keep a vessel in survey and operational. Hence the need to access the Tawera Slip or the adjacent boat ramp to provide for these vessel out of water inspections.

On occasion the “Luminosa” or other passenger vessels are stored on Real Journeys Lakefront mooring; for instance, when vessel parts have been delayed and vessel survey / maintenance cannot be completed. Or when the lake level is not optimum to remove a vessel from the lake via the boat ramp.

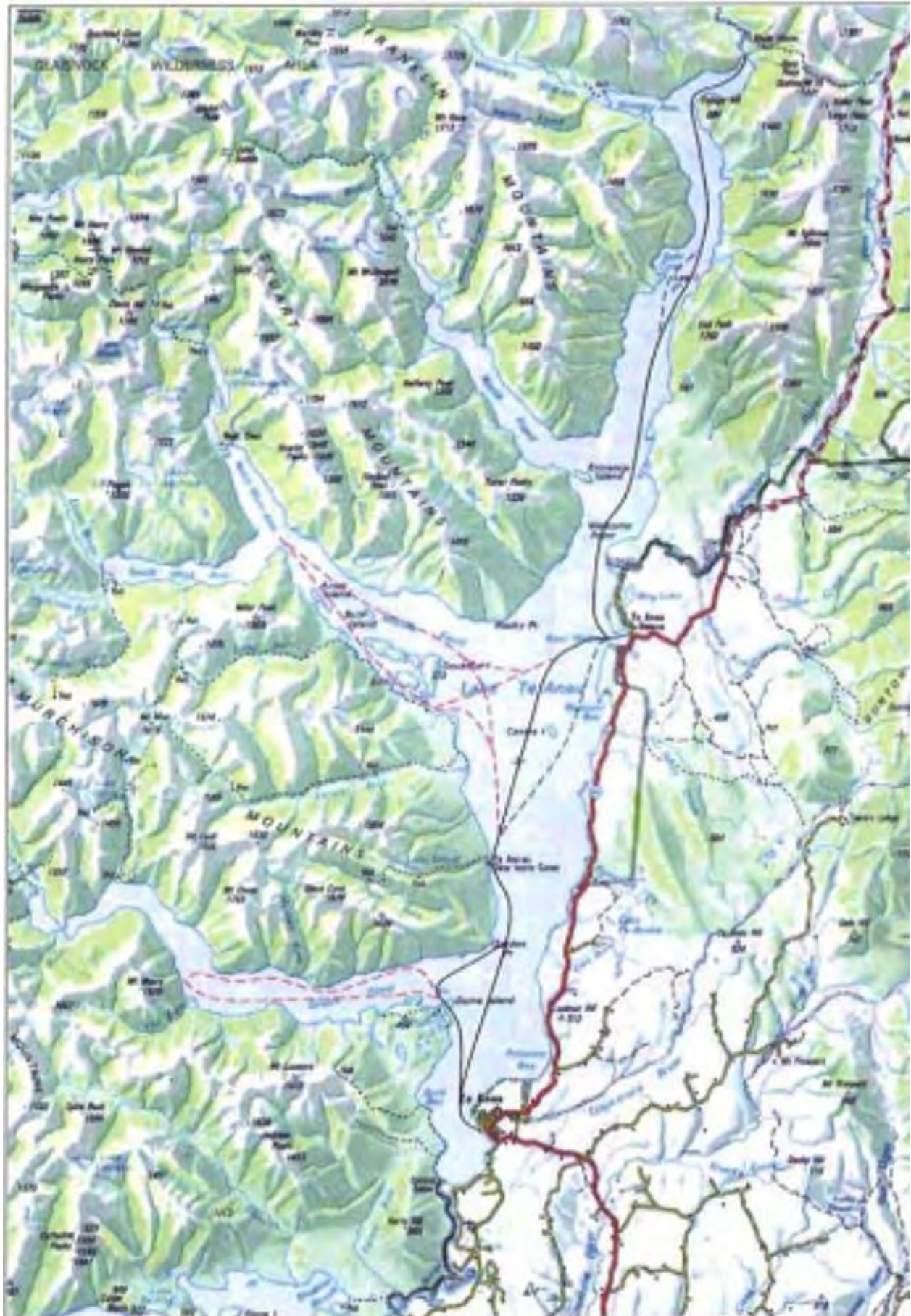


Figure 1 - Map showing the typical vessel routes associated with this application



Figure 2 – approximate passenger vessel route between the Lakefront Jetty, Te Ana-au Caves Wharf and Te Anau Downs Jetty

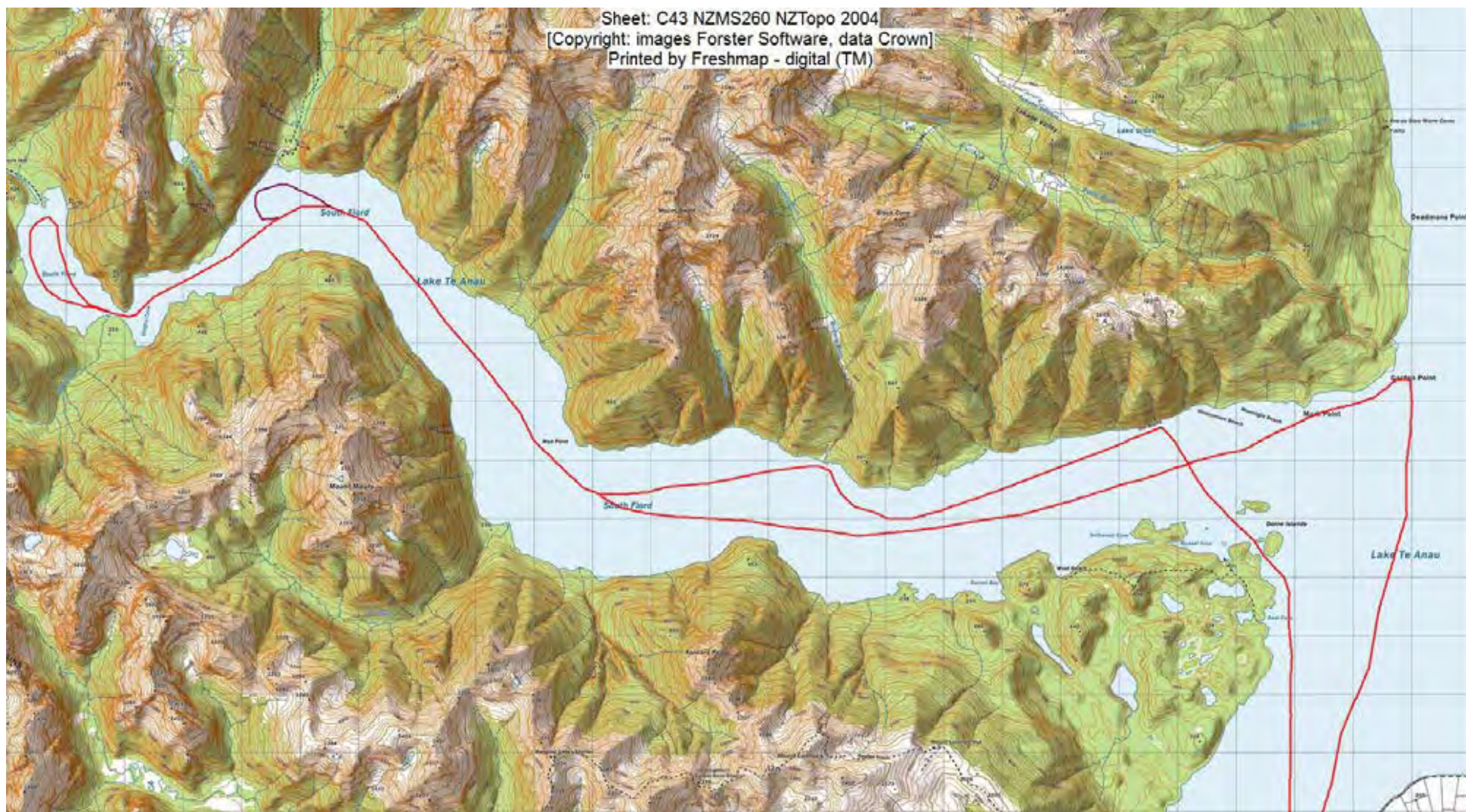


Figure 3 - proposed route of South Fiord scenic or charter cruises

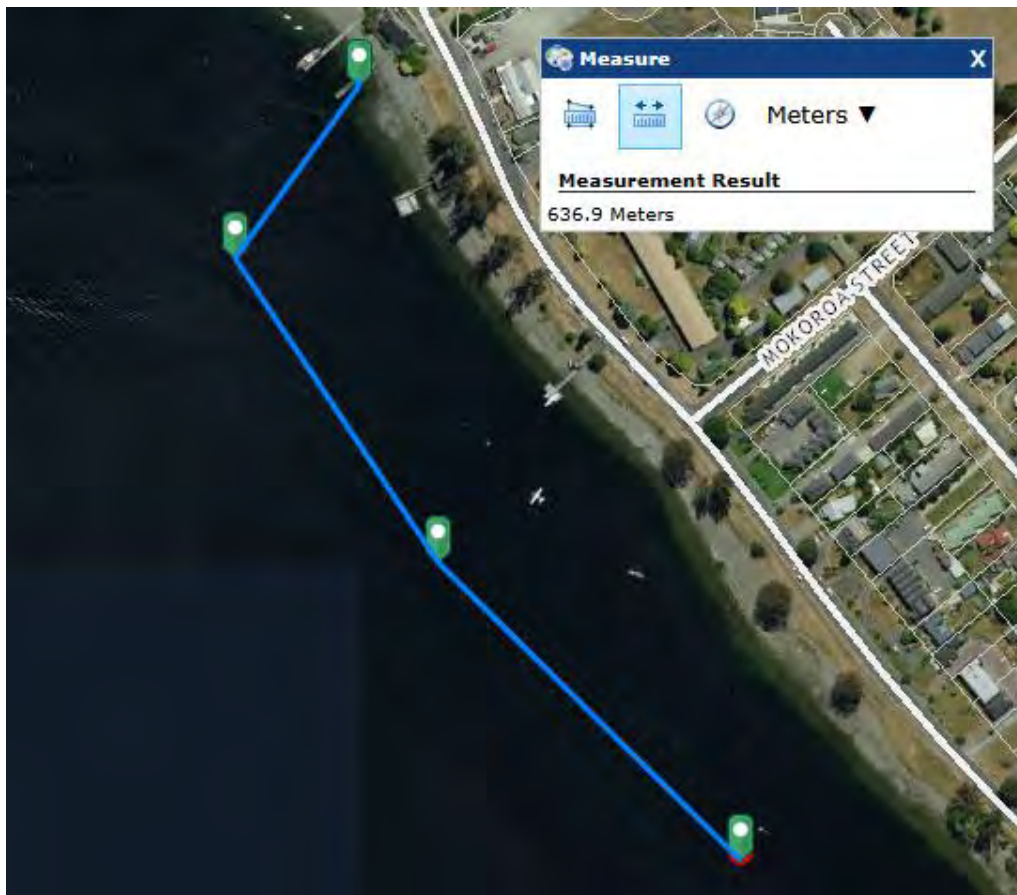


Figure 4 - aerial view showing the approximate route between the Lakefront mooring and Lakefront jetty



Figure 5 - aerial view showing the approximate route between lakefront jetty and Tawera Slip



Figure 6 - photo of Te Ana-au Glowworm Caves vessel "Luminosa" (MNZ# 132299)

- Aluminium Catamaran
- Size:
 - Length: 23 metres
 - Beam: 6.8 metres
 - Draft 1 metres
- Cruising Speed Typically 24 knots
- Engines: 2x 533kw C18 Cats
- Maximum Displacement 52 tonnes
- Capacity Maximum 99 passengers + crew
- Toilets 2 with holding tanks installed



Figure 7 - photo of the "Fiordland Flyer" (MNZ# 100160)

- Aluminium Catamaran
- Size:
 - Length: 18 metres
 - Beam: 6.5 metres
 - Draft 1.5 metres
- Cruising Speed Typically 22 knots
- Engines Twin 336 kw Volvo TAMD165A
- Maximum Displacement 89 tonnes
- Capacity Maximum 140 passengers + crew
- Toilets 2 with holding tanks installed



Figure 8 - photo of the "Fiordland Express" (MNZ# 101926)

- Aluminium Catamaran
- Size:
 - Length: 19.19 metres
 - Beam: 7.2 metres
 - Draft 1.27 metres
- Cruising Speed Typically 22 knots
- Engines Twin 533kw C18 Cats
- Maximum Displacement 83 tonnes
- Capacity Maximum 99 passengers + crew
- Toilets 2 with holding tanks installed

Real Journeys owns three Fiordlander Class vessels. They were developed in the 1960s specifically for operations on Lakes Manapouri and Te Anau. Today the fleet is typically deployed as follows, however occasionally vessels rotated between the lakes to allow for survey work, and to cover vessel breakdowns.

- *Explorer* - Lake Whakatipu
- *Fiordlander II* - Lake Manapouri
- *Motu-Rau* - Lake Manapouri and Lake Te Anau



Figure 9 - photo of one of Real Journeys Fiordland Class vessel "Fiordlander II (MNZ# 100161)

Typical Fiordland Class vessel specifications are as follows:-

- Mono hull
- Size:

Length:	Approx. 16.4 metres
Beam:	Approx. 4.1 metres
Draft	1.5 metres
- Cruising Speed Typically 19 knots
- Engines 2x C12 Caterpillars / Scania
- Maximum Displacement 24 tonnes
- Capacity Maximum 83 passengers + crew
- Toilets 1 with holding tank installed

Real Journeys largest work boat is the "Ulva" and it is the only tender craft which is painted all the other tender crafts are unpainted pontoon style aluminium mono hulls either manufactured by stabicraft or kiwi craft.



Figure 10 - photo of one of Real Journeys workboats "Ulva" (MNZ#1333647)

- Pontoon style aluminium mono hull stabicraft
- Size:
 - Length: 7.86 metres
 - Beam: 2.55 metres
- Cruising Speed Typically 19 knots
- Engine 1x Mercury Seapro 112kw outboard motor
- Capacity Maximum 10



Figure 11 - one of Real Journeys 7m pontoon style electric tender crafts

The probable replacement work boat or staff boat will be an electric tender craft (but with a cabin) as per the photo above.

B. Environmental Impact Assessment

This section is one of the most important factors that will determine the Department's decision on the application. Please answer in detail.

B1. Site of the Application



Figure 12 - Map showing the locations of sites relevant to this application¹

¹ <https://www.topomap.co.nz/NZTopoMap?v=2&ll=-44.99564,167.888947&z=11>

Lake Te Anau (Te Ana-au) is the largest of the southern glacial lakes, covering an area of 344 square kilometres. It is the second-largest lake by surface area in New Zealand (after Lake Taupo) and the largest in the South Island. It is the largest lake in Australasia by freshwater volume. It is 61km long and 19km wide at its widest point. The Lake has a mean depth of 144m and is 417m at its deepest point.

The main body of the lake runs north-south and three large fiords reach out from its western side - these arms are called North Fiord, Middle Fiord and South Fiord – refer figure 12. Rolling hill country characterises the eastern side of the lake; and on the western side forest flanked mountains predominate, including the Kepler and Murchison Ranges which rise to around 1700 metres above sea level. Lake Te Anau itself, along with all the land to the west are within the boundaries of Fiordland National Park and the Te Wahipounamu World Heritage site, and is classified as an outstanding natural landscape.



Figure 13 - Aerial Photo of Lake Te Anau showing the township on the eastern shore²

The whole area has been subject to many geological forces: tectonic plate movements, glaciation and erosion. The landform has been created by the uplift of hard plutonic rocks such as granite and diorite and in the south-west of Fiordland Te Rua-o-Te-Moko; the uplifted marine terraces are unique in New Zealand. Specifically, the Fiordland Te Rua-o-Te-Moko terrain was scoured by glaciations during the last ice age, between 75,000 and 15,000 years ago. The larger lakes in Fiordland Te Rua-o-Te-Moko such as Lake Te Anau are situated in these old glacial valleys or troughs; their shorelines have evolved similarly to those of the coastal fiords. Most erosion since the last glaciation period has been by way of rockfalls and slips. Effects are local and minor so that the glacial landforms are usually well preserved, other than where rivers have cut deep narrow gorges into the valley floors.

² <https://www.southlanddc.govt.nz/news-and-public-notice/news/wsp-appointed-to-run-te-anau-basin-development-plan/>

The mountains adjacent Lake Te Anau are predominantly covered in mountain beech plant communities with some podocarp species present. These species are shallow rooting and extract their nutrients from the humus layer that covers the mountains forest floor. The land on eastern side of Lake Te Anau is a significantly modified, primarily low-lying, pastoral landscape, contrasting sharply with the untouched forest of the western side of the lake. This area serves as the main hub for human activity, infrastructure, and agriculture in the region. Specifically, Te Anau township, located on the south-eastern edge of Lake Te Anau, is the main settlement, featuring residential, commercial, and tourism infrastructure.

Lake Te Anau's surrounding land provides for a wide diversity of shoreline types, these range from sheer cliffs through to boulder and sandy beaches. Hard rock makes up two thirds (63.4%) of the Lake's shores, with one third (35%) being composed of beaches and a small percentage (1.6%) being turf shores. Much of the hard shoreline has remained unmodified by lake process since the last glaciation.³



Figure 14 - Aerial photo of Lake Te Anau (view to the south)⁴

Te Ana-au is one of the lakes referred to in the tradition of "Nga Puna Wai Karikari o Rakaihautu" which tells how the principal lakes of Te Wai Pounamu were dug by the Rangatira Rakaihautu, during his exploration of the inland of the Te Wai Pounamu. Te Ana-au was important for the Ngai Tahu in pre-European times as the area was a traditional stopping point on their seasonal journeys between the south, east and west coasts of the Te Wai Pounamu, where they obtained mahinga kai and other resources such as Tangiwai from Piopiotahi. The lake still holds immense spiritual significance, representing the mauri that connects natural and spiritual worlds. Consequently, these associations are

³ Catamaran Wake from "Fiordland Express" on the Shoreline of Lake Te Anau, I Dawe and M Hemmingsen, Land and Water Studies International Limited, 1999, section 3.0.

⁴ Realnz.com

recognised under Ngai Tahu Claims Settlement Act 1998 which designates Te Ana-au as a statutory acknowledgement area.

The first European explorers to 'discover' the lake were Charles Naim and William Stephen in 1852. The settlement of Te Anau was first surveyed in 1893, shortly after the Milford Track was 'opened', by Europeans'. But the town itself only developed after the opening of the Homer Tunnel and road route to Milford Sound Piopiotahi in 1953.⁵

Lake Te Anau (Te Ana-au) and the surrounding land has been modified; most significantly in the 1960's when the Manapouri Power Station was constructed, and the control gates were installed (in the early 1970's) across Lake Te Anau's outlet, the upper Waiau River to regulate the water level of Lake Te Anau and Lake Manapouri. Pursuant to section 4A of the Manapouri-Te Anau Development Act 1963, the lake level of Lake Te Anau is now managed through the Gazetted Operating Guidelines for Levels of Lakes Manapouri and Te Anau⁶.

The consequences of this control structure on the natural environment has not been widely studied, however, it can be agreed that this structure has had some impact on Lake Te Anau's natural environment. Moreover, during the decades since 1970 the Te Anau Basin became more populated resulting in the further development of farming, tourism, and recreational pursuits. These activities at some level have altered the nutrient runoff entering Lake Te Anau.

Nevertheless, Lake Te Anau is classified oligotrophic (nutrient-poor, very clear) with very high-water quality. Specifically, under the Trophic Level Index, Lake Te Anau's water quality is considered very good⁷. Moreover, Lake Te Anau's Ecological Conditions are considered as moderate under the Submerged Plant Indicators (SPI). Lake Te Anau's native plant condition is at 38%, in comparison the invasive impact is at 49%. Environment Southland classify Lake Te Anau's water within the Waiau Catchment quality as; Natural State. Also, Lake Te Anau is habitat to the endemic Longfinned Eel Tuna and the exotic species of; brown trout, rainbow trout and lesser numbers of landlocked quinnat salmon.

In recent times the spread of pest species such as *Didymosphenia geminata* has been the greatest environmental threat to Lake Te Anau. *Didymosphenia geminata* is currently present in Lake Te Anau. It is an invasive freshwater diatom that forms massive, thick, brown or white mats on the bottom of streams, rivers, and lakes, smothering native plants, and invertebrates. *Lindavia intermedia* has been discovered in neighbouring Lake Manapouri which raises the risk this weed species will also invade Lake Te Anau.

B3 Assessment of Actual and Potential Effects on the Environment

(i) Social and Economic Effects

Real Journeys operations have a positive social and economic effect on the wider community. Real Journeys facilitates access to view and experience public spaces that many people cannot otherwise access. Prior to COVID-19 Real Journeys Te Ana-au Glowworm Caves tour, carried the third highest volume of passengers of all Real Journeys experiences. This is significant economically and socially for Te Anau as the visitors who undertake a Te Ana-au Glowworm Caves tour usually overnight in Te Anau and contribute to the wider economy by also spending on other services such as accommodation; transport; food and beverages.

⁵<https://nzhistory.govt.nz/keyword/teanau#:~:text=The%20settlement%20was%20first%20surveyed,route%20to%20Milford%20in%201953.&text=Named%20after%20the%20lake.,the%20shores%20of%20the%20lake.>

⁶ <https://gazette.govt.nz/notice/id/2002-go7755>

⁷ www.lawa.org.nz/explore-data/southland-region/lakes/lake-te-anau

Real Journeys creates direct and indirect employment for people in Southland and Otago communities. This creates the positive social effect of stability for families and communities alike. This creates a positive social flow on effect, as an increase in population can sustain the provision of more goods and services in the area. This improves the quality of life for all of those who reside in this place.

Accordingly, the proposed vessel activities on Lake Te Anau undertaken with the “Luminosa” (or a replacement vessel); and an additional passenger vessel; one workboat or substitute vessels will provide for the economic and social wellbeing of the Te Anau community in particular. Consequently, the social and economic effect of the proposal should be viewed as positive.

(ii) Effects on Other Users

Lake Te Anau is used recreationally by power boats, kayakers, swimmers, water-skiers, paddle boarders, kite surfers, yachts, and fishers. Trailerable recreation boats are launched at the four Lake Te Anau boat ramps (1x adjacent to the District DOC office; 1x near Dusky Street; 1x within the Lake Te Anau boat harbour / Marina; and 1x at Te Anau Downs) and some of the larger recreational vessels are moored in the Lake Te Anau Boat Harbour / Marina.

Power Boat competitions are held annually on Lake Te Anau. Sailing regattas are typically held in front of the Marakura Yacht Club with an annual Te Anau Downs Classic held in February. Recreational users utilise areas of the shoreline of Lake Te Anau; with non-motorised boat users making use of either the beach north of the Marakura Yacht Club or the area known locally as the “Pontoon” (swim pontoon), which is located outside the boat harbour / marina adjacent Bluegum Point.

Motorised boaties generally head to one of the shorelines main beaches, Bluegum Point, Dock Bay, Brod Bay, Honeymoon Beach or Garden Point. Recreational boats accessing the northern section of Lake Te Anau typically launch and retrieve their trailer vessels at the Te Anau Downs public boat ramp well away from the vessel route to and from the Te Ana-au Caves. Recreational fishing also occurs on Lake Te Anau, which is encouraged by annual events, such as, the Stabicraft Te Anau - Manapouri Fishing Classic.

The “Lakefront” area from Bluegum Point in the north and south to Tawera Slip is zoned Te Anau Lakefront Frontcountry visitor zone and is recognised as “motorised transport” zone in the Fiordland National Park Management Plan (FNPMP) – refer Map 14 in FNPMP. As a consequence, motorised vessel activity including the float plane landing and take offs, are anticipated and expected along this section of the Te Anau Lakefront.

Plus, the proposed operation of the “Luminosa” (or other Real Journeys vessels) mainly between Te Anau Lakefront jetty and the Te Ana-au Caves wharf will be well away from the public boat ramp adjacent to the District DOC office and the Marakura Yacht Club hence will not affect vessels operating ex the southern section of the Lake. The “Luminosa” (or alternative vessels) cruises in closer proximity to the boat ramp adjacent Dusky Street and within the Lake Te Anau Boat Harbour / Marina, however the “Luminosa” cruise route when leaving and arriving at the Lakefront Jetty is away from the Lakefront out into the middle of the lake to avoid activities along the lakeshore adjacent Te Anau Terrace – refer figure 15.

The predominate proposed “Luminosa” activity on Lake Te Anau will be undertaken as a timetabled service with a constant departure times. Hence local boaties are generally aware of this timetable making it easier for other users to work around “Luminosa’s” activities reducing impacts on other boating activity. Nonetheless the “Faith” and the Kepler Water Taxi operate in proximity of the Lakefront Jetty with the only other vessel departure coinciding with the Te Ana-au Caves departure being the 1400

hours “Faith” departure. To avoid any conflicts the respective vessel skippers contact each other via VHF radio to coordinate these vessel departures.

With respect to “Luminosa” or other Real Journeys vessel departing or leaving the Te Ana-au Caves wharf, there is rarely any other vessel activity within the vicinity of this wharf and the Lake is 4.86km wide at the site of this wharf therefore other vessels can cruise past this site without coming anywhere near this wharf.

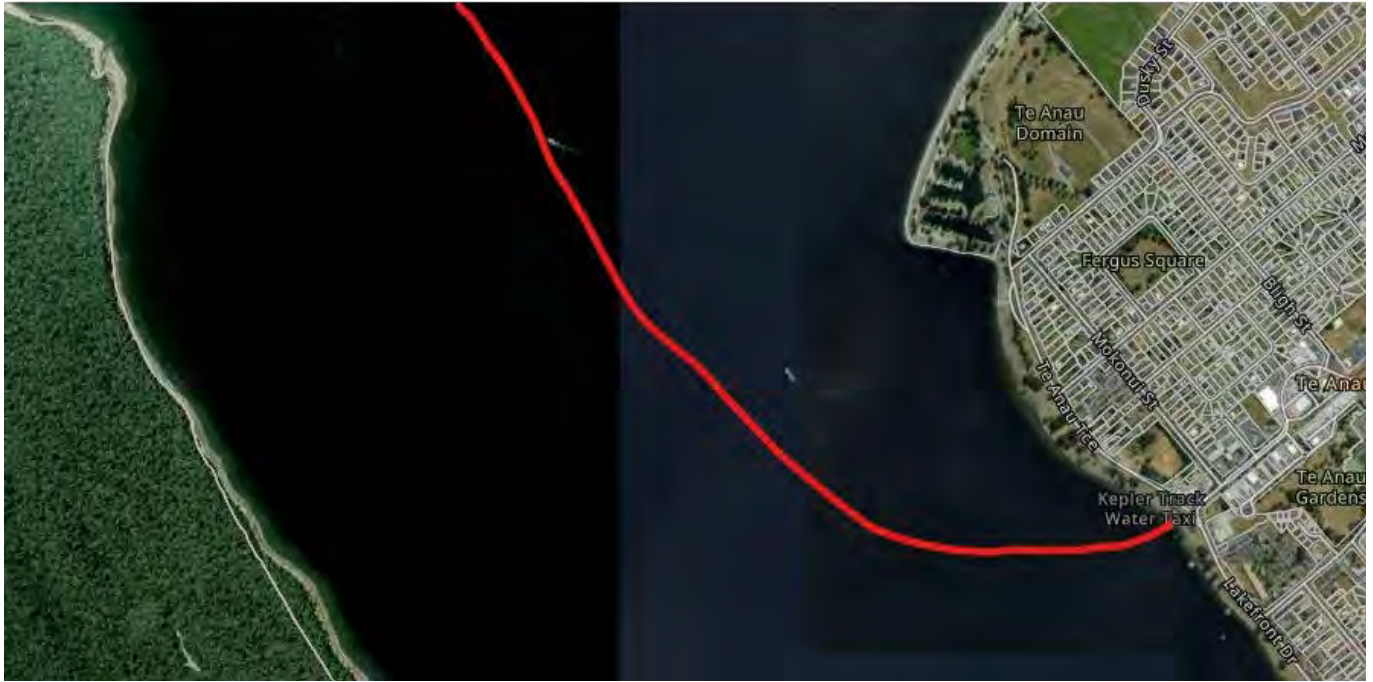


Figure 15 – Typical “Luminosa” route to and from the Lakefront Jetty.

Recreational and commercial vessel operations have coexisted on Lake Te Anau since the area was populated, by Europeans. Interactions with other boaties on Lake Te Anau are managed through Maritime Rule Part 91 – Navigation Safety Rules and Southland Regional Council Navigation Safety Bylaws preventing collisions by defining which vessel has the right of way. Key rules include giving way to the right (starboard), powerboats giving way to sail/rowing craft, and overtaking vessels keeping clear and generally, maintain a 5-knot speed within 200m of shore or a diver, and 50m from another vessel. Therefore, the proposed “Luminosa” and other Real Journeys vessel activities will continue in compliance with these Navigation Safety Rules and Southland Regional Council Navigation Safety Bylaws avoiding impacts on other vessel activities.

(iii) Landscape and visual effects

Real Journeys Lake Te Anau vessels are not a permanent fixture in Lake Te Anau’s environment and they can be removed at any point if required. Moreover, apart from when alongside or when secured to our Lakefront mooring Real Journeys vessels cruise from point to point therefore their activity is of transitory nature.

The colours of Real Journeys vessels being black and white, grey, and blue, hues are not in conflict with the surrounding natural environment. Nevertheless, our Lake Te Anau vessels still need to be visually conspicuous to other users of the Lake for navigational safety purposes. Refer to the figure 6-11 for photos of the Real Journeys vessels in their current livery.

Lake Te Anau covers an area of 344 km², the size and scale of the Lake is significant compared to the current Real Journeys vessel activity on the lake. Because of this, Lake Te Anau has the capacity to absorb the transient visual impact created by Real Journeys vessels. Further, as boating activity is part of the existing environment of Lake Te Anau, the operation of Real Journeys vessels for the purposes of 'commercial' recreation does not have significantly greater effects compared to recreational boating activity on the lakes landscape values.

In considering the actual landscape and the potential visual environmental effects of the proposal, the presence of mainly the "Luminosa" on Lake Te Anau should be viewed as minor. This is because the visual appearance of boats on the Lake is expected by the general public. Furthermore, the "Luminosa" is mainly cruising to and from the Te Ana-au Glow Worm Caves and its effects on the wider lake are transient and minimal. Moreover, because of the provisions of the Fiordland National Park Management Plan Real Journeys vessel use of the lake is restricted to Front Country and Backcountry Visitor Settings leaving the areas identified as 'Remote Visitor Setting' undisturbed by Real Journeys vessel movements. This will reduce Real Journeys vessels' visual impacts on the surrounding landscape, because of the relative scale, size, and shape (with numerous arms) of lake environment including the massive forms of the mountains on the western side of the lake that dwarf Real Journeys vessel activity.

(iv) Wake Effects

The issue of the effects of vessel wake, on the shores of Lake Manapouri and Lake Te Anau has been subject to debate since the 1970s. As a result of this Real Journeys more modern vessels "Titiroa" (operating on Lake Manapouri) and "Luminosa" were designed by Incat Crowther, Australia, to have minimal impact on the environment in which they operate, including reducing the wash generated by the vessel. Incat Crowther specialise in designing low wash vessels. Refer the following links.

<https://www.marinelink.com/news/catamaran-luminosa311133>

<https://www.marinelink.com/news/catamaran-crowther-design336350>

<https://www.rina.org.uk/res/november61.pdf>

To address the concerns regarding the effects of vessel wake, in 1989 Dr. R M Kirk prepared a report assessing the effect of wake from the vessels used by Real Journeys on the shoreline of Lake Manapouri. In that report he compared the effects of natural wave action and the wake of the vessels on the foreshore profile. Based on the research of others on the lake and his own observations, he concluded that both monohull (the Fiordlander Class) vessels and (to a greater degree) catamarans, can cause damage to beaches where they pass at speed close to those beaches.

In 1997 a further report was commissioned from Professor Kirk. Professor Kirk then noted that wake is influenced by the depth of water (the deeper the better), the speed of the vessel (the slower the better) and distance from shore (the further the better). He also noted that monitoring in the lake did not show any adverse effects from the wake of vessels operating at that time.

In 1999, Real Journeys contracted Land and Water Studies International Limited to undertake an assessment of the "Fiordland Express's" boat wake. The report aimed to conclude if the "Fiordland Express" boat wake would create an adverse effect on the varying environments that form the shoreline of Lake Te Anau. The study examined natural wave action on Lake Te Anau along with the boat wake that was created by the *Fiordland Express*. The report states that Lake environments are subject to natural wind waves which range in height and frequency depending on the force and direction of the

wind. On Lake Te Anau natural waves ranged between 0.5 – 2 m at the Lake level between 201.59 m to 202.17 m. These were described as steep and erosive waves.⁸ The report concluded that:

“the wake waves produced by the “Fiordland Express” are of sizes and periods that fall well within the natural wave spectrum. Over 5 million waves could be expected to break on anyone point on the coastline over the period of a year. Compared to about 14 500 wake waves of the “Fiordland Express”. That represents a 0.03% increase; statistically insignificant increase given the variability of the wave environment.”

Then in 2007 Real Journeys commissioned Martin Single of Shore Processes and Management Ltd to undertake an additional assessment of boat wake on Lake Manapouri in preparation for lodging the resource consent application to provide for the introduction of the “Titiroa”. Martin Single notes:

Single et al. (2007) and earlier studies monitoring the condition of the beaches on Lakes Manapouri and Te Anau, have found that the beaches adjust quickly in response to changes in the wave environment. However, in the long term, the beaches are robust and have achieved near equilibrium conditions to the total wave environment, including wind waves and boat wake.

The observations of the beaches and comparison to earlier photographs show that there is an absence of specific effect relating to wake waves. Although the wake waves do move sediment on the beach, there is no net erosion, nor is there permanent adjustment of the beach shape in response to the wake events.

This report concludes:

From my observations of the wake from the Flyer and Fiordlander Class vessels on the beaches of Lake Manapouri, there is no adverse effect on the stability of the shore and beaches of the lake. The wake waves do move sediment on the sandy beaches, but there is no net erosion, nor irreversible adjustment of the beach. The beaches appear adjusted to the total wave environment of the lake, including wind waves and boat wake.

The operating procedures carried out by Real Journeys with regard to vessel speed, routes and distance to the shore do not result in adverse effects on the shore processes nor for other users of the lake.

Martin Single also undertook an assessment of the *Luminosa* on Lake Te Anau vessels in 2007. Martin Single's findings related to the *Luminosa* are as follows:

....there was an opportunity to observe the wake from the Luminosa on the shores of Lake Te Anau. The Luminosa is a 23m long catamaran that operates between Te Anau and the Glow-worm caves. Its cruising speed is about 24 knots. The purpose in observing the wake from this vessel is that a new vessel is being considered for operation on Lake Manapouri. The new vessel is about 1m longer than the Luminosa, but with a similar hull shape and cruising speed. It would carry up to 125 passengers.

Two sets of observations of the wake from the Luminosa were made at Bluegum Point, north of the Te Anau Marina. Although the vessel was travelling outward from Te Anau for one observation and inward to Te Anau for the other, the distance from shore was about 400 to 500m on both occasions, and the speed was 24 knots.

The wake events each lasted about 4 minutes at the shore. There were two sets of waves within each event. The first set comprised 10 to 12 waves, up to 30 cm in height with periods of about 4 seconds. The second set contained smaller waves (up to 10 cm high, 1.8 second period). Although sand and small pebbles were moved by the breaking waves, there was no significant change to the beach.

⁸ Catamaran Wake from “Fiordland Express” on the Shoreline of Lake Te Anau, I Dawe and M Hemmingsen, Land and Water Studies International Limited, 1999, section 4.3.

Long-term measurements of the beach at Bluegum Point show no effect attributable to boat wakes. Changes to the beach at Deadman's Point (close to the Glow-worm caves and near the sailing line for the Luminosa) between 2002 and 2006 included erosion and steepening of the foreshore. However, this beach faces into the topographically forced westerly winds and is subject to large storm waves from the north. Changes in sediment supply have also resulted in adjustment of the beach. Wake observed at this beach during surveying in 2006 did not appear to cause more than a minor effect.

Information from InCat Crowther (designers of the Flyer, Luminosa and any proposed new vessel) shows that the maximum wave height at 400 m from the vessel for a 24 m catamaran would be about 27 cm, with a wave period of about 2.1 seconds. These waves would be similar in character to the waves of the Luminosa and Flyer.

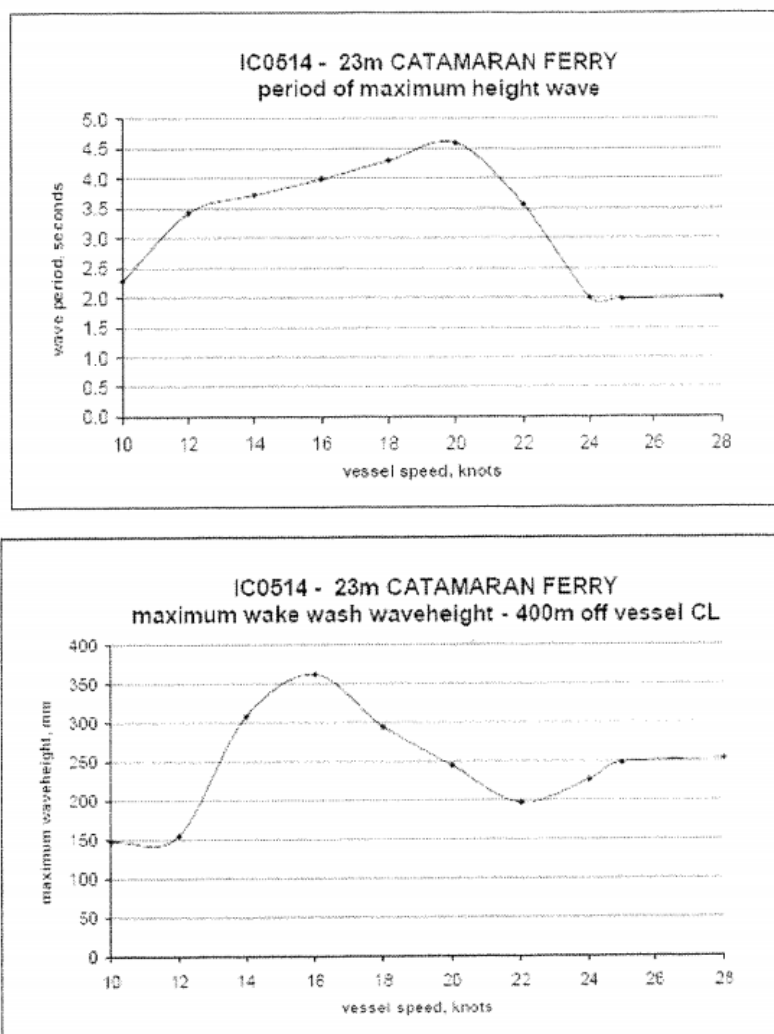


Figure 16 - graphs showing vessel wake profile

In addition, the *Luminosa* was subject to specific tests and modelling by Incat Crowther to assess both wake wave height and wave period compared to vessel speed. The figures above show the predicted maximum wave heights and corresponding wave periods for the wake wash generated by a 21.7 metre length waterline fully loaded catamaran at 52.4 tonnes displacement. The wake heights are graphed against a range of vessel speeds from 10 to 28 knots. The predicted maximum wake wave characteristics when travelling at 25 knots at 400 metres from the line of travel are:

- 250mm in height; and
- 2.0 seconds wave period.

The above graphs show that the wake height is below 150mm when “Luminosa” is travelling at low speeds as required by the so called ‘5 knot rule’ which is part of Maritime New Zealand Part 91 rule – Navigation Safety. The 5-knot rule requires vessels to travel at 5 knots when within:

- 200m of the shore;
- 200m of any structure;
- 200m of a boat displaying a diver's flag;
- 50m of any other boat; and
- 50m of a person swimming.

Therefore, when the “Luminosa” is in close proximity to the shore she must be travelling at low wake speeds. Hence the actual and potential effect of the “Luminosa’s” regular vessel movements and less frequent movements of Real Journeys other vessels on the shoreline of Lake Te Anau can be considered as less than minor.

Moreover, Real Journeys is requesting the ability to substitute an alternative vessel (new to Lake Te Anau) and an additional passenger vessel under this concession provided the replacement vessels’ wake effects on the lake shoreline are comparable to or lesser than the wake effects of the “Luminosa”.

(v) Effect on ecosystems and habitats

The proposed operation of the Te An-au Caves vessel on Lake Te Anau will not contribute to the introduction of invasive plant species or other pest species into Lake Te Anau’s water as this vessel is based in Lake Te Anau. Real Journeys tender crafts are trailerable and their hulls and voids dry out between transfers between varying locations. In addition, if Real Journeys vessels need to be transferred between waterways (lakes) they are cleaned (water blasted) at Real Journeys wash bay at its Te Anau workshop (14 Captain Roberts Road), and dried prior to being transferred into another lake.

LakeSPI (Lake Submerged Plant Indicators) is a method of characterising the ecological condition of lakes based on the composition of native and invasive plants growing in them. A higher LakeSPI percentage result is associated with better ecological health: Lake Te Anau’s SPI⁹ is 43.5%. The overall LakeSPI score is calculated using a Native Condition Index (‘good’ plants) and an Invasive Impact Index (introduced, non-native plants). In 2014 Lake Te Anau’s SPI was described as moderate with a native condition of 38%. Its invasive impact was 49%. Native plant species present included; Turf community, Isoetes, Native Pondweeds, Native Milfoils, Charophyte species and Charophyte meadow. The invasive plant species found to be present is Elodea¹⁰.

Under the Trophic Level Index (TLI) Lake Te Anau’s water quality is considered ‘very good’. Trophic Level Indicator (TLI) measures four parameters: water clarity, chlorophyll content, total phosphorus, and total nitrogen. From these parameters a TLI value is calculated. The higher the value, the greater the nutrients and fertility of the water which encourages growth, including algal blooms. Higher TLI scores mean poorer water quality. In 2017, Lake Te Anau’s TLI score was 1.58, this was its lowest measurement since data collection commenced in 2008. This measurement classifies Lake Te Anau as a microtrophic lake where the lake is clear and blue with very low levels of nutrients and algae.¹¹ The operation of the “Luminosa” on Lake Te Anau has been authorised since October 2006. Over this time the water quality of Lake Te Anau has improved from a TLI score of 2.52 in 2008 to 1.58 in 2017, indicating that regular boating activity on the lake does not create an adverse effect on the lakes water quality which would in turn affect the ecology of the lake.

⁹ Lake Te Anau is subject to tannin staining from the leaf litter that enters the water from the surrounding national park. Tannins effect Lake SPI results. LakeSPI results should be viewed with caution when comparing to non-tannin-stained lakes.

¹⁰ <https://lakespi.niwa.co.nz/lake/52566>

¹¹ <https://www.lawa.org.nz/explore-data/southland-region/lakes/lake-te-anau/>

Lake Te Anau is habitat to the native Tuna Kuwharuwharu (Longfinned Eel) and the introduced species of Brown and Rainbow Trout as well as lesser numbers of landlocked Quinnat Salmon. These proposed activities will have a less than minor effect on ecosystems and habitats; because these activities will occur on the surface of the water, away from the lakebed ecosystems and habitats. The water quality information detailed above shows that the operation of the “Luminosa” and substitute (and additional) vessels on Lake Te Anau will not significantly alter the chemical, biological or physical characteristics of the Lake environment. This is supported by data from Environment Southland. Environment Southland’s water data samples collected from Lake Te Anau at Bluegum Point from February 2000 to February 2019; show that over this time the Nitrate levels have ranged from <0.01 to 0.06 (g/m³). These nitrate levels are considered safe within the Drinking Water Standards for New Zealand¹².

Chlorophyll-a is a measure of the phytoplankton (algae) biomass¹³. Environment Southland’s water data samples for Lake Te Anau at Bluegum Point from February 2000 to February 2019 show that the Chlorophyll-a data has ranged from <3 to 0 (mg/m³)¹⁴. The Ministry of the Environment’s Clean Water report states that a Lakes ecosystem’s health is considered healthy and resilient, similar to natural reference conditions when the milligrams chlorophyll-a per cubic metre is ≤2 (mg/m³) for the Annual Median and ≤10 (mg/m³) for the Annual Maximum. As Lake Te Anau’s Chlorophyll-a measurements range between 0 and <3 mg/m³ the Ministry of the Environment would consider the Lake the ecosystem condition is healthy and resilient.

The data above shows that regular boating activity on Lake Te Anau does not create an adverse effect on the ecosystems within the lake. The “Luminosa” primarily operates on Lake Te Anau and will not transport other species into the lake which have the potential to alter the biological diversity of the environment. Because of this, regular boating activity on Lake Te Anau should be viewed as having a minor effect on the ecosystems and habitats in Lake Te Anau.

(vi) Cultural Effects

Te Ana-au is recognised as Statutory Acknowledgement Area under schedule 58 of the Ngāi Tahu Claims Settlement Act 1998¹⁵ in which the crown recognises the mana of a tangata whenua in relation to Te Ana-au. Ngāi Tahu have a cultural, spiritual, historic, and traditional associations with Te Ana-au and these customs and traditions with respect to Te Ana-au are values that remain important to Ngāi Tahu today.

The proposed Real Journeys vessel activities on Te Ana-au should not impact Ngāi Tahu’s association with the lake. The proposed activity will not distribute contaminants into the lake which could potentially affect the mauri of the waterway, nor will the operation of Real Journeys vessels affect the species which reside in Te Ana-au in accord with Ngai Tahu values.

(vii) Noise Effects

In section 5.6 Boating and Facilities of the Fiordland National Park Management Plan requires noise from boating vessels on waterbodies within the Fiordland National Park not to exceed 77 dB(A) (Lmax). Refer figure 17. With the exception of the “Ulva” all these noise tests have been undertaken over a decade ago and in the interim some of the above vessels have been re-engined and have had additional sound insulation installed. However, we have not had these vessels retested as they all complied to the noise levels set in the Fiordland National Park Management Plan (FNPMP).

¹² Drinking-water Standards for New Zealand 2005 Revised 2018, Ministry of Health, 2018.

¹³ <https://www.stats.govt.nz/indicators/lake-water-quality>

¹⁴ Environment Southland Water Sample Test Results on Lake Te Anau

¹⁵ <http://www.legislation.govt.nz/act/public/1998/0097/latest/DLM430891.html>

Figure 17 - summary of Real Journeys vessel noise readings

Vessel	Northward / Eastward	Southward / Westward	Manoeuvring
<i>M.V. Luminosa</i>	L _{max} 73 dBA	L _{max} 74 dBA	
<i>Fiordland Express</i>	L _{max} 72 dBA	L _{max} 71 dBA	L _{max} 63 dBA
<i>Moto-Rau</i>	L _{max} 72 dBA	L _{max} 66 dBA	L _{max} 59 dBA
<i>Fiordland Flyer</i>	No reading	L _{max} 73 dBA	
<i>Ulva</i>	Cruising speed 78 dB L _{AE}	No-wake speed 71 dB L _{AE}	

Nonetheless noise level tests were undertaken on the “Fiordland Express” on Lake Te Anau using a non-calibrated noise level meter. These test results at the landward boundary of Lake Te Anau the background noise level averaged 49.4 (dB(A)). This noise level reading was subject to light traffic from the nearby road. When the “Fiordland Express” was located near the centre of the lake, the vessels noise level measurement was similar to the background noise level reading, recording an average of 47.2 (dB(A)). At 200 metres from the shoreline, the “Fiordland Express’s” noise level reading averaged 47.3 (dB(A)).

Given the fact that the *Luminosa*, *Moto-Rau*, *Fiordland Flyer* all had similar noise readings as the *Fiordland Express*, (in the table above) we believe these subsequent noise readings for the “Fiordland Express” can be used as a proxy for the other larger vessels Real Journeys propose to operate on Lake Te Anau. Specifically, the noise level measurements for the “Fiordland Express” are compliant with the limits set in the FNPMP. The “Luminosa’s” (and substitute vessels) main route to and from Te Ana-Au Caves is away from the urbanised area of Te Anau therefore, the noise level created by the proposed activity will be similar to the background noise level at the shoreline of Lake Te Anau.

The noise level on the shoreline will increase slightly when Real Journeys vessels are nearing a wharf. However, when approaching the wharf, the vessel travels at no wake speed which is quieter than normal cruising speed. The Southland District Council’s 2006 Sound Level readings of the “Fiordland Express” and “Moto-au” found when travelling at manoeuvring speed, the noise level recorded at a distance of 25 metres from the vessel was 63 dBA and 59 dB, respectively. The “Fiordland Express’s” noise level when stationed at a wharf with its engines idling was measured by Real Journeys at an average of 52 (dB(A)). Thus, it can be expected that when all of the aforementioned vessels are in the vicinity of Lake Te Anau wharves or alongside, the noise level readings will be compliant with the noise limits set in the FNPMP.

In conclusion, as the “Luminosa’s” (or other Real Journeys vessels) regular boating activity on Lake Te Anau is compliant with the noise limits set in the FNPMP.

(viii) Discharge of Contaminants

Real Journeys disposes of all waste appropriately. Rubbish is collected on board the “Luminosa” (and from Te Ana-au Caves) then it sorted into recyclable waste such as glass, aluminium, cardboard, and non-recyclable waste. This waste is taken ashore for later collection contractors to either be recycled or taken to landfill. To reduce the effects of waste on the environment Real Journeys is undertaking an on-going sustainability initiatives to remove unnecessary single use plastic items from its operations. For example, the company has partnered with Fonterra with Fonterra collecting plastic milk bottles to recycle.

Black and grey water from the “Luminosa” (or other vessels) is discharged ashore at Real Journeys main Lakefront Jetty into the Te Anau sewer. Hence, no black or grey water is discharged into Lake Te Anau.

The “Luminosa” and other Real Journeys larger passenger vessels are all diesel powered and when operating on the Te Ana-au Caves run they are refuelled via a bowser on the main lakefront Jetty, this fuel installation is owned and maintained by RD Petroleum Limited. A fuel spill could occur when refuelling. Such a situation would be managed as per Real Journeys Lake Te Anau Oil or Diesel and Sewerage Spillage Contingency Plan and utilising the Lakefront jetty spill kit.

The “Teretere”, “Ulva” “Raho-tu” and Real Journeys other tender crafts are refuelled with petrol ashore (on their trailers) using an enclosed fueling system or a fuel container with auto shut off pouring spout to prevent fuel from being spilt. This prevents fuel spilling into the lake during refuelling.

Fuel could also be spilled because of a catastrophic vessel collision. Such an occurrence is managed by adherence to Maritime Rule Part 22 – Collision Prevention. However, because Real Journeys operates well maintained vessels with appropriately trained launch masters, such a collision which would rupture the vessel’s fuel tanks is very unlikely.

In summary, Real Journeys takes all practical measures to prevent contaminants entering Lake Te Anau. Because of this, the actual and potential effect of contaminants entering Lake Te Anau via the “Luminosa” or other Real Journeys vessels is considered minor.

(ix) Alternative locations or methods

The “Luminosa” is primarily used on Lake Te Anau to undertake trips to and from Te Ana-Au Caves and because of the location of Te Ana-Au Caves on the eastern side to Lake Te Anau. That is because of the location of the Te ana-au Glowworm Caves this site must be accessed by water. Also, because the two wharf structures associated with this application are already installed the consideration of an alternative location is not relevant.

As new fuel engine technologies become more widely available and more reliable it is likely in the future a hybrid, an electric or hydrogen powered vessel will be introduced to the Te Ana-au Caves operation which will represent an alternative method.

C. Term

Please detail the length of the term sought (i.e. number of years or months) and why. If you are applying for a one-off permit, please state the specific dates and/or times sought.

Note: An application for a concession for a period over 10 years must be publicly notified, an application for a concession up to 10 years will not be publicly notified unless the adverse effects of the activity are such that it is required, or if an exclusive interest in the land is required.

30 years

Real Journeys is requesting up to a 30-year concession term to enable investment in replacement vessel or vessels that are not solely diesel powered, when this technology becomes more reliable and more readily available. That is transition to the transport to and from Te Ana-au Glowworm Caves and for Lake Te Anau scenic cruises to either fully electric or hybrid or hydrogen powered vessels. Moreover, during the term of this concession, it is likely that the wharves, the Real Journeys Lakefront mooring (102156-OTH) and Tawera Slip (PAC 14-18-51-01) associated with this application will all require upgrading which will require further investment. Hence sufficient concession term is required to get a return on these proposed investments.

D. Bulk fuel storage

Under the Hazardous Substances and New Organisms Act 1996 (HSNO Act) 'Bulk fuel storage' is considered to be any single container, stationary or mobile, used or unused, that has a capacity in excess of 250 litres of Class 3 fuel types. This includes petrol, diesel, aviation gasoline, kerosene and Jet A1. For more information on Hazardous Substances, go to:

<http://www.business.govt.nz/worksafe/information-guidance/legal-framework/hsno-act-1996>

Do you intend to store fuel in bulk on the land as part of the activity?

YES ~~NO~~

If you have answered yes, then please provide full details of how and where you intend to store the fuel, and label any attachments including plans, maps and/or photographs as Attachment 4b:D. If your concession application is approved you will be required to provide a copy of your HSNO compliance certification to the Department before you begin the activity.

Real Journeys catamarans typically have two 2000 litre fuel tanks one in each hull, yet HSNO compliance is not relevant as vessel compliance is managed by Maritime New Zealand.

E. Safety Plan

The Department requires that all concessionaires holding concessions for recreation or tourism activities have a safety plan which has been audited by an external expert.

If your activity is covered by the Health and Safety in Employment (Adventure Activity) Regulations 2011 proof of that audit is sufficient. If your activity is **not** covered by the Adventure Activity Regulations, please read the *Guidelines on the Requirements for Concessionaire Safety Plans* on the Department's website. If you are unsure, please go to the WorkSafe website and read their [guidance](#).

If your concession application is approved, you will be required to provide a copy of an independent auditor's approval of your safety plan to the Department before you begin the activity.

While the Department requires a copy of an independent auditor's approval of your safety plan this is not required if the activity is (as this activity is) already regulated and audited by Maritime New Zealand (MNZ). MNZ manages vessel safety via the Maritime Operator Safety System (MOSS), which includes risk-based audits.

F. Other

Is there any further information you wish to supply in support of your application? Please attach if necessary and label Attachment 4b:F.

The proposed scenic cruises or charter cruises ex Te Anau Lakefront jetty to anywhere within Lake Te Anau (including via Te Ana-au Glowworm Caves) that is zoned as front country and northern backcountry in the FNPMP is currently to mainly act as a substitute for a tour through Te ana-au Glowworm Caves when the caves are closed for any reason or when the Milford Road is closed as some agents require an alternative cruise option, particularly for tour groups. This is especially an issue in the summer months when alternative accommodation in another location cannot be secured. By offering this alternative cruise this has the benefit of retaining visitors in Te Anau so they continue to contribute to the local economy.

Real Journeys also gets some requests for one off charter cruises for functions which could be facilitated by the ability to cruise to other backcountry visitor setting areas of Lake Te Anau.

Furthermore, given how busy the Te Ana-au Glowworm Caves are in summer months and the paucity of other Te Anau based visitor attractions Realnz believes there is potential to operate an additional vessel undertaking scenic cruises within the areas of Lake Te Anau zoned as front country and northern backcountry in the FNPMP. Accordingly Real Journeys is seeking approval for this activity through this concession application.

This application is effectively for a concession to replace PAC-14-06-02-01B. Hence the activities in this application will mainly be complimentary to the Te Ana-au Glowworm Caves concession number 99211-ATT. Accordingly Real Journeys contends as occurred under PAC-14-06-02-01B a nominal activity fee be paid under this concession and the main activity fee is paid under 99211-ATT based on the income derived from guests who visit the Te Ana-au Glowworm Caves (incorporating the income associated with the boat rides to/from the caves and other parts of Lake Te Anau) is included in the calculation of the Gross Annual Revenue under concession number 99211-ATT. Refer condition 68 of schedule 3 of 99211-ATT. These proposed scenic cruises or charter cruises along accessing with the Lakefront mooring and Tawera slip will be operated under the same Real Journeys cost centre as the Te ana-au Glowworm Caves, hence the activity fees for these proposed cruises can readily be calculated.

It is Real Journeys preference for this concession expiry date not to coincide with expiry date for concession number 99211-ATT because the preparation of two significant concession applications at the same time is very unwieldy and onerous for the applicant.

Real Journeys Inland Lakes Oil or Diesel and Sewerage Spillage Contingency Plan

An oil, diesel and hydraulic oil spill can result from the following types of occurrence:

OPERATIONAL SPILLS

- Spillages during refueling including tank overflow from filling port and or breathers;
- Faulty or Leaking hoses / lines / oil containers / non return valves;
- Rupture of hoses including high pressure hoses;
- Operator error;
- Bilge pumping; and
- Sabotage.

SPILLS RESULTING FROM ACCIDENTS

- Hull damage;
- Grounding;
- Fire and or explosion;
- Collision; and
- Excessive list of vessel.

In the event of an OPERATIONAL SPILL carry out the following procedures:

1. IDENTIFY
 - The oil or chemical spilt, the spill source and estimate volume split
2. STOP SPILL
 - If possible by turning off pump switch and or closing the appropriate valve or source associated with the spill if you can do so safely.
3. CONTAIN
 - With absorbent booms and pads.
 - Contain the spread of spill on land as much as possible by forming a temporary bund/containment structure or using portable spill kit materials.
 - If a large spill contact RJs workshop to deploy trailer spill kit and request additional assistance.
4. ALERT
 - Notify Manapouri/Te Anau Ops Duty Manager as soon as possible. Provide details of the location and size of spill, and current status (i.e. deployment of mats and containment of spill).
5. REPORT
 - If contaminant has entered waterway (Lake / River) report spill to Environment Southland noting the nature of the oil or contaminant split, the volume spilt and an estimate of the area of water or land covered by the oil or contaminant - phone 0800 768-845 / <https://www.es.govt.nz/online-services/report-environmental-incidents>
 - If the contaminant has not made it into the storm water system or may be flushed by storm water to a waterway report spill to Environment Southland – phone 0800 768-845 <https://www.es.govt.nz/online-services/report-environmental-incidents>
 - Complete Real Journeys Incident Report via EcoPortal
6. CLEAN UP
 - Remove and dispose of the contaminated absorbent booms or pads. Seal contaminated pads & booms in plastic rubbish bags / wheelie bin liners, arrange for RJs workshop to pick up bags from vessel. Contact Petroleum Waste Solutions Dunedin phone 03 453-4687 to dispose of contaminated material.
7. FOLLOW UP
 - Evaluate incident and devise procedure or plan to prevent reoccurrence. Complete and submit any job cards if required.

SPILLS RESULTING FROM ACCIDENTS – refer Shipboard Safety Manual

A sewerage spill can result from the following types of occurrence:

OPERATIONAL SPILLS

- Spillages during pumping ashore;
- Spillages when shore based septic tank is being emptied;
- Leaking or failure of hoses / lines / non-return valves;
- Spillage when disconnecting hoses used to pump black water ashore or during maintenance
- Rupture of hoses;
- Operator error;
- Sabotage

SPILLS RESULTING FROM ACCIDENTS

- Hull damage;
- Grounding;
- Fire and or explosion;
- Collision;
- Excessive list of vessel.

In the event of an OPERATIONAL SPILL carry out the following procedures:

8. IDENTIFY
 - The spill source
9. STOP SPILL
 - If possible by turning off pump and or closing the appropriate value or source associated with the spill if you can do so safely.
10. CONTAIN
 - With absorbent booms and pads
 - Contain the spread of spill on land as much as possible by forming a temporary bund/containment structure.
11. ALERT
 - Notify Manapouri/Te Anau Ops Duty Manager as soon as possible. Provide details of the location and size of spill, and current status (i.e. spill containment).
12. REPORT
 - Report spill to Environment Southland on 0800 768-845 / <https://www.es.govt.nz/online-services/report-environmental-incidents>
 - Report spill to Southland District Council 0800 732 -732 water & waste department manager
 - Report spill to Public Health South (03) 211 – 0900
 - Report Spill to local Iwi - Te Ao Marama Inc (03) 931-1242 or email: office@tami.maori.nz
 - Complete Real Journeys Incident Report – via EcoPortal
13. CLEAN UP
 - Remove and dispose of the contaminated materials used to clean up spill. (Gore Septic Tank Cleaners)
 - Wash down and / or disinfect any contaminated areas / plant – ensure disinfectant does not flow into waterways or storm water systems.
14. FOLLOW UP
 - Evaluate incident and devise procedure or plan to prevent reoccurrence. Complete and submit any job cards if required.

SPILLS RESULTING FROM ACCIDENTS – refer Shipboard Safety Manual

The Department recommends that you contact the Department of Conservation Office closest to where the activity is proposed to discuss the application prior to completing the application forms. Please provide all information requested in as much detail as possible. Applicants will be advised if further information is required before this application can be processed by the Department.

This form is to be used when the proposed activity involves any filming on public conservation land. It is to be completed in conjunction with either Applicant Information Form 1a (longer term concession) or Applicant Information Form 1b (one-off concession) as appropriate.

Note: If you are seeking to exclusively film with a drone / remotely piloted aircraft, do not complete this form. Instead, refer to [Drone use on conservation land: Apply for permits](#)¹. If you are seeking to undertake film with a drone but also undertake other types of filming (i.e., filming on the ground, filming with larger piloted aircraft like a helicopter) then complete this application form.

Please complete this application form, attach Form 1a or Form 1b, and any other applicable forms and information and send to permissions@doc.govt.nz. The Department will process the application and issue a concession if it is satisfied that the application meets all the requirements for granting a concession under the Conservation Act 1987.

If you require extra space for answering please attach and label according to the relevant section.

A. Description of Activity

Please note the purpose of the filming activity (advertisement, movie, documentary etc), and describe in detail the proposed filming activity. If you need further space please attach and label Attachment Form 5a:A1. The locations for the filming are to be listed in section E.

[Taking promotional video footage and photographs for the purposes of marketing and selling Realnz Te Ana-au Glowworm Caves operation or alternative scenic cruises in South Fiord.](#)

Specifically:

- footage (stills and video) of Real Journeys passenger vessel cruising on Lake Te Anau taken from the shore (including from 3x wharf structures); a tender craft; or taken using a drone.
- footage (stills & video) of passengers embarking and disembarking the "Luminosa" (or alternative vessel) at Te Anau Lakefront Jetty; Te Ana-au Glowworm Caves wharf; and Te Anau Downs Jetty
- footage (stills and video) of passengers on board Real Journeys vessel cruising on Lake Te Anau

Are there to be any fires/pyrotechnics involved with the filming?

YES/ NO

If so, please describe in detail how these will be used, including how they will be created and managed. If you need further space please attach and label Attachment Form 5a:A2.

¹ www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land

Are there any other special effects that may be used? **YES / NO**

If so, please describe in detail how these will be used, including how they will be created and managed.
If you need further space please attach and label Attachment Form 5a:A3.

Are animals involved with the filming? **YES / NO**

If so, please provide details. If you need further space please attach and label Attachment Form 5a:A4.

Please note: animals are not permitted in many public conservation areas, please contact the Department of Conservation Office closest to where the activity is proposed to discuss

Possible incidental filming (stills & video) of lake birds such as NZ Scaup / Papango, Paradise Shelduck / Putangitangi, Grey Duck/Parera and Australasian Grebe / Kāmana if they are seen on Lake Te Anau

Are vehicles involved with the filming? **YES / NO**

If so, please provide details. If you need further space please attach and label Attachment Form 5a:A4.

B. Facilities/Structures

If you wish to build, extend or add to any **permanent or temporary structures** on public conservation land (eg toilets, sets, storage facilities). Please include any details of construction eg location, building dimensions, materials, purpose, number of people and vehicles involved etc.

N/A

C Aircraft/Boats

If aircraft/boats (including Remotely Piloted Aircraft Systems (drones)) are proposed to be used please provide details of the purpose and a description of size/type. If you need further space please attach and label Attachment Form 5a:C.



Figure 1 - photo of Te Ana-au Glowworm Caves vessel "Luminosa" (MNZ# 132299)

- Aluminium Catamaran
- Size:
 - Length: 23 metres
 - Beam: 6.8 metres
 - Draft 1 metres
- Cruising Speed Typically 24 knots
- Engines: 2x 533kw C18 Cats
- Maximum Displacement 52 tonnes
- Capacity Maximum 99 passengers + crew
- Toilets 2 with holding tanks installed



Figure 2 - photo of one of Real Journeys tender crafts "Ulva" (MNZ#1333647)

- Pontoon style aluminium mono hull stabicraft
- Size:
 - Length: 7.86 metres (under 8m)
 - Beam: 2.55 metres
- Cruising Speed Typically 19 knots
- Engine 1x Mercury Seapro 112kw outboard motor
- Capacity Maximum 10



Figure 3 – Photo DJI Air 3 drone

DJI Air 3 drone (or replacement drone or contractors' drone or influencers drone) utilises a dual-primary camera system with embedding a 1/1.3-inch-CMOS wide-angle camera and a 1/1.3-inch-CMOS 3x medium tele camera in a compact body. The two cameras have the same sensor size but different focal lengths, delivering consistent image quality.

Please provide the following information for each **proposed landing sites for both aircraft and boats** and attach maps of flight paths, courses, and/or landing areas.

Landing site/reason	Maximum number of landings at each site per day/per year	Maximum number of people landed at each site per day/per year
Real Journeys Lakefront Jetty where passengers and gear are embarked and disembarked	For this activity up to 24 times per year	For Realnz activity – a crew of 7 with 6 talent Influencers – travel singularly or as couples Visiting Media – travel singularly or as parties of up to four
Te Ana-au Caves wharf where passengers and gear are embarked and disembarked	For this activity up to 24 times per year	For Realnz activity – a crew of 7 with 6 talent Influencers – travel singularly or as couples Visiting Media – travel singularly or as parties of up to four
Te Anau Downs Jetty where passengers and gear are embarked and disembarked	For this activity up to 4 times per year	For Realnz activity – a crew of 7 with 6 talent Influencers – travel singularly or as couples Visiting Media – travel singularly or as parties of up to four
Along Real Journeys approximate passenger vessel route to and from Te Ana-au Glowworm Caves – refer figure 4	For this activity up to 24 times per year	For Realnz activity – a crew of 7 with 6 talent Influencers – travel singularly or as couples Visiting Media – travel singularly or as parties of up to four
Along Real Journeys approximate passenger vessel route for Lake Te Anau scenic cruises - refer figure 5	For this activity up to 4 times per year	For Realnz activity – a crew of 7 with 6 talent Influencers – travel singularly or as couples Visiting Media – travel singularly or as parties of up to four

Along Real Journeys
approximate passenger
vessel route to / from Te
Anau Lakefront Jetty to
Te Anau Downs Jetty via
Te Ana-au Glowworm
Caves – refer figure 6

For this activity up to 4
times per year

For Realnz activity – a crew of 7 with 6 talent
Influencers – travel singularly or as couples
Visiting Media – travel singularly or as parties of
up to four



Figure 4 – approximate passenger vessel route to and from Te Ana-au Glowworm Caves

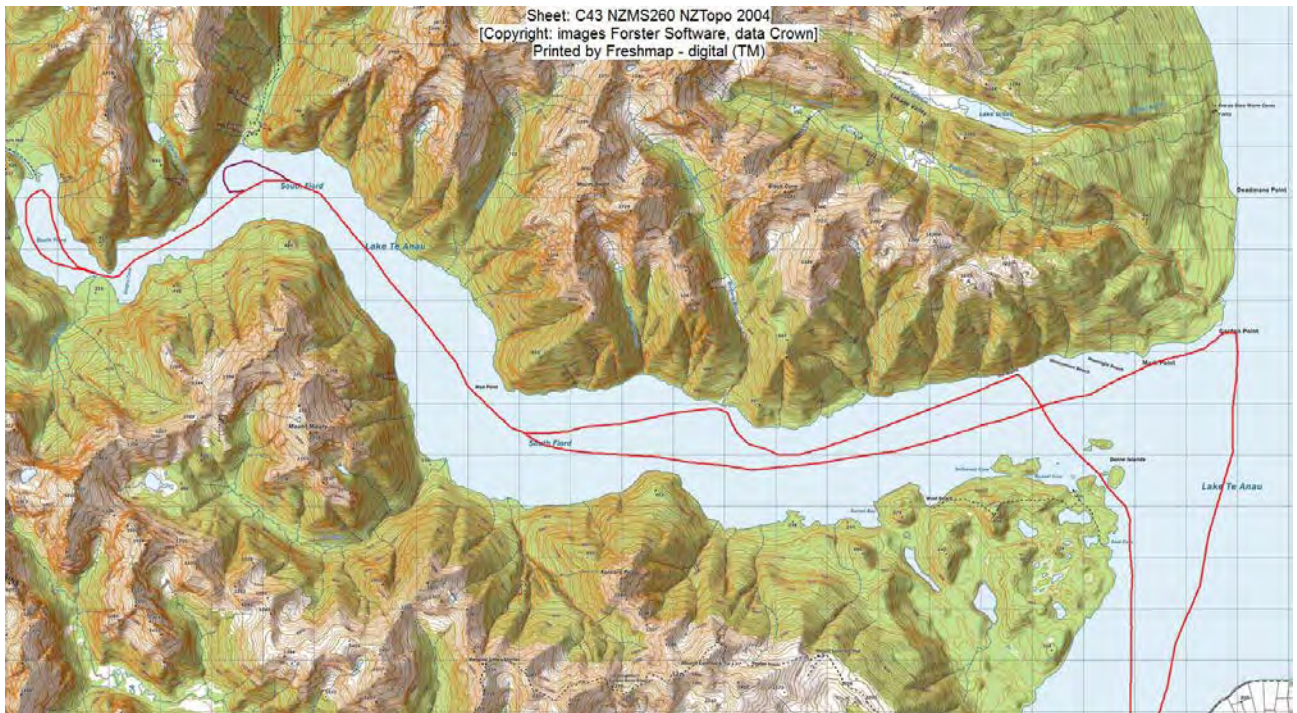


Figure 5 - proposed passenger vessel route for South Fiord scenic or charter cruises



Figure 6 - proposed passenger vessel route to / from Te Anau Lakefront Jetty to / from Te Anau Downs Jetty via Te Ana-au Glowworm Caves

D. Term

Please detail the length of the term sought (i.e. specific dates or weeks or months) and why.

If you are applying for a one-off permit please state the **specific dates and/or times sought**.

Note: An application for a concession for a period over 10 years must be publicly notified, an application for a concession up to 10 years will not be publicly notified unless the adverse effects of the activity are such that it is required, or if an exclusive interest in the land is required.

The same term as concession for the 2x Lake Te Anau wharf structures (form 3b – private structures) and the vessel that transfers passengers to and from the Te ana-au Glowworm Caves (form 4b – water - craft

E. Area(s)

List the areas of your proposed filming, please use NZTM GPS coordinates where possible. If you are unable to identify the areas or you do not know them, please seek the assistance of Departmental staff. Please attach a map of the site, a detailed site plan and drawings of proposal (as necessary), these should be labelled Attachment 5a:E. If possible include photographs of the site.

Name of Conservation Area	DOC Facilities to be used	Max. Crew Size at Each Area	Duration of Operation (half or full days?)
Lake Te Anau - Fiordland National Park: ➤ Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N ➤ Te Ana-au Glowworm Caves wharf at approximately NZTM2000 1186609E 4970736N ➤ Te Anau Downs Jetty at approximately NZTM2000 1193626E 4982531N ➤ On Lake Te Anau along the approximate route to and from Te Ana-au Glowworm Caves shown in figure 4. ➤ On Lake Te Anau along the approximate route for Lake Te Anau scenic cruises shown in figure 5 ➤ On lake Te Anau along approximate route to / from Te Anau Lakefront Jetty to / from Te Anau Downs Jetty via Te Ana-au Glowworm Caves shown in figure 6.	N/A	a crew of 7 with 6 talent	For each Realnz shoot one half day (or full day) and potentially return for a second time to get further footage if the initial footage taken is inadequate or unsatisfactory. “Influencers” and visiting media would just undertake a usual Te Ana-au Glowworm Caves trip with the total duration being 2¼ hours ex the Te Anau Lakefront Jetty.

F. Environmental Impact Assessment

This section is one of the most important factors that will determine the Department's decision on the application. Please answer in detail.

Location on public conservation land	Special feature or value	Potential effects of your activity on the feature or value (positive or adverse)	Methods to remedy, mitigate or avoid any adverse effects identified
Lake Te Anau - Fiordland National Park	Lake Te Anau is the largest lake in the South Island and second-largest in New Zealand, renowned for its dramatic inland fiords, deep glacial waters, and role as the gateway to Fiordland National Park.	With respect to the filming on board Real Journeys the passenger vessel or from a tender craft refer the environmental impact assessment in application form 4B-watercraft. Real Journeys will ensure filming is undertaken in frontcountry and backcountry visitor zones. Regarding filming on the Real Journeys Te Anau Lakefront Jetty and the Te Ana-au Glowworm Caves Wharf refer the environmental impact assessment in application form 3b – private structures. Real Journeys will ensure filming is undertaken in Frontcountry and backcountry visitor zones. The proposed UAV use to film activities mainly associated with the Te Ana-au Caves vessel activities represents more cost-effective aerial photography with lesser environment effects (noise and visual effects) compared to images captured by manned aircraft (helicopter). Plus, the ability to capture oblique imagery with UAVs is more valuable than top-down views typically captured from helicopters	Coordinate UAV deployment with Te Anau based aircraft operators. Ensure UAV is flown below 75m as in New Zealand, helicopters typically fly at minimum heights of approximately 150 metres as per Part 135 of the Civil Aviation Rules. Although given the height of the Murchison Mountains and Mount Luxmore at approximately 1680m and 1470m respectively helicopters flying over Lake Te Anau are generally flying at a much high altitudes than 150m above the surface of the lake.

G. Other

Is there any further information you wish to supply in support of your application? Please attach if necessary and label Attachment 5a:G.

Include the ability to undertake filming related to or utilising a replacement Te Ana-au caves excursion vessel new to Lake Te Anau and an additional passenger vessel to be utilised for scenic cruises – refer form 4b-water craft.

It is likely over the term of this concession more modern UAV will be utilised for filming.

Drone Use Form – Red and Orange Category Locations



Department of
Conservation
Te Papa Atawhai
New Zealand Government

Is this the right application for me?

Use this application form if you meet the following criteria:

- ☐ You are taking off, landing, or hovering your drone on Public Conservation Land.
- ☐ You will comply with DOC's standardised drone conditions.
- ☐ You want a concession term longer than 1-year.
- ☐ Under the [Drone Use Policy](#)¹ the proposed Public Conservation Land location(s) where you want to operate your drone are either:
 - Red Category location(s); or
 - Orange Category location(s); or
 - A combination of locations (i.e., Red and Green Category locations, or Red, Green and Orange Category locations).

If you want to operate a drone for **recreational purposes** or **research purposes** at **Green Category** locations for a 1-year term or less, apply for a permit online.

[Apply for a recreational drone permit](#)²

[Apply for a research drone permit](#)³

If you want to operate a drone for **commercial purposes** at Green Category locations for a 1-year term or less, and you will need to complete the **Drone Use Application Form – Green Category Locations (Commercial Use)**.

For more information see [Drone use on conservation land: Apply for permits](#)⁴ webpage.

How do I complete this application form?

- Complete all sections of this form.
- DOC encourages electronic applications (e.g. email a typed Word document), rather than handwritten applications. Electronic applications are easier to read and less likely to be returned to you for clarification.
- If you require extra space, attach or include extra documents and label them according to the relevant section. Record all attachments in the table at the back of the application form (section H).

I need help, where can I get more information?

¹ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

² <https://www.doc.govt.nz/get-involved/apply-for-permits/all-permissions/drone-use-on-conservation-land/recreational-drone-use/>

³ <https://www.doc.govt.nz/get-involved/apply-for-permits/all-permissions/drone-use-on-conservation-land/research-drone-use/>

⁴ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

- Check the DOC's [Drone use on conservation land: Apply for permits](#)⁵ webpage.
- Arrange a free pre-application meeting (either face to face or over the phone) by contacting the Permissions Team at permissions@doc.govt.nz.

How do I submit my application?

Email your completed application, recommended location forms, and any other attachments to permissions@doc.govt.nz

What happens next?

Once received, your application will be assessed by DOC.

- If your application is complete, we will begin processing.
- If your application is incomplete, it will be returned to you for more information.

What processing fees will I pay?

You will be required to pay a **processing fee** for your application. For more information see [Drone use on conservation land: Apply for permits](#)⁶ webpage.

DOC will invoice your processing fee after a decision has been made on your application. If you withdraw your application, you will be invoiced for the costs incurred by DOC up to that point.

What activity fees will I pay?

If your concession is granted, you may be required to pay an **activity fee**. The activity fee is dependent on the purpose for which you use your drone, and the frequency in which you use your drone. For more information see the [Drone use on conservation land: Apply for permits](#)⁷ webpage.

⁵ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

⁶ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

⁷ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

A. Applicant details

Legal status of applicant (tick)	☐ Individual (Go to ①)	
	☒ Registered company (Go to ②)	☐ Trust (Go to ②)
	☐ Incorporated society (Go to ②)	☐ Other e.g. Educational institutes (Go to ②)

①	Applicant name (individual)		
	Phone		Mobile phone
	Email		
	Physical address		Postcode
	Postal address (if different from above)		Postcode

②	Applicant name (full name of registered company, trust, incorporated society or other)		Real Journeys Limited	
	Trading name (if different from applicant name)		Realnz	
	NZBN if applicable (to apply go to: https://www.nzbn.govt.nz)	9429040267098	Company, trust or incorporated society registration number	154923
	Registered office of company or incorporated society (if applicable)		14 Captain Roberts Road, Te Anau 9600	
	Company phone	0800656501	Company website	www.realnz.com
	Contact person and role			
	Phone		Mobile phone	
	Email	realnz@realnz.com		
	Postal address	P.O. Box 1, Te Anau	Postcode	9640
Street address (if different from postal address)	14 Captain Roberts Road, Te Anau	Postcode	9600	

A. Pre-application meeting

Have you had a pre-application meeting or spoken to someone in DOC?

No



Yes



If yes, state when and who with:

B. Type of drone activity

I intend to take off, land, and/or hover⁸ my drone on Public Conservation Land for the following purposes (tick which apply):

- ☐ Recreational use (i.e., you will not receive any commercial gain or reward)
- ☐ Research purposes (i.e., academic use, for the purposes of furthering conservation knowledge or information)

Commercial Use – Filming/Photography producing media content for the public

- ☒ Commercial Use – Filming – Commercials
- ☐ Commercial Use – Filming – Feature Film
- ☐ Commercial Use – Filming – Television Drama
- ☐ Commercial Use – Filming – Documentary
- ☐ Commercial Use – Filming – Sporting Event
- ☐ Commercial Use – Filming – Schools and Students
- ☒ Commercial Use – Filming – Conservation / Recreation Promotion
- ☐ Commercial Use – Filming – land surveying/monitoring
- ☒ Commercial Use – Photography

Commercial Use – Filming/Photography not producing media content for the public (i.e., land surveys or mapping to support building projects)

- ☐ Commercial Use – Filming
- ☐ Commercial Use – Photography

Unsure which category applies? Refer to the [Drone use on conservation land](#)⁹ webpage.

⁸ “Hover” refers to keeping a drone in a stationary position in the air/above the ground.

⁹ <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/>

C. Term

State the length of the term sought, and your comments on why this term is required.

Note: The maximum term for a drone permit is 10 years.

Start date: DD/MM/YYYY (inclusive)

End date: DD/MM/YYYY (inclusive)

Comments:

10 year permit – to the reduce the requirement to apply for one off permits

D. Public Conservation Land Locations

You must identify all the Public Conservation Land locations where you want to use your drone. Use [DOC maps](#)¹⁰.

Name of public conservation land:	NZTM GPS Coordinates	Duration of Operation ¹¹	Drone Category	Maximum number of landings per Day	Maximum number of landings per Year
Fiordland National Park	Te Anau Lakefront Jetty at approximately NZTM2000 1186229E 4957024N	Half Day / Full day	Orange Category	3x per day	24x per year
	Te Ana-au Glowworm Caves wharf at approximately NZTM2000 1186609E 4970736N			3x per day	24x per year
	Te Anau Downs Jetty at approximately NZTM2000 1193626E 4982531N			3x per day	24x per year
	On Lake Te Anau along the approximate route to and from Te Ana-au Glowworm Caves shown in figure 1 below			3x per day	24x per year
	On Lake Te Anau along the approximate route for Lake Te Anau scenic cruises shown in figure 2			3x per day	4x per year
	On lake Te Anau along approximate route to / from Te Anau Lakefront Jetty to Te Anau Downs Jetty via Te Ana-au Glowworm Caves shown in figure 3.			3x per day	4x per year

¹⁰ <http://maps.doc.govt.nz/mapviewer/index.html?viewer=docmaps>

¹¹ If you can complete the operation under 5 hours, it is a Half Day Operation. If you complete the operation in over 5 hours, it is a Full Day Operation. This will influence the overall activity fee you are charged.

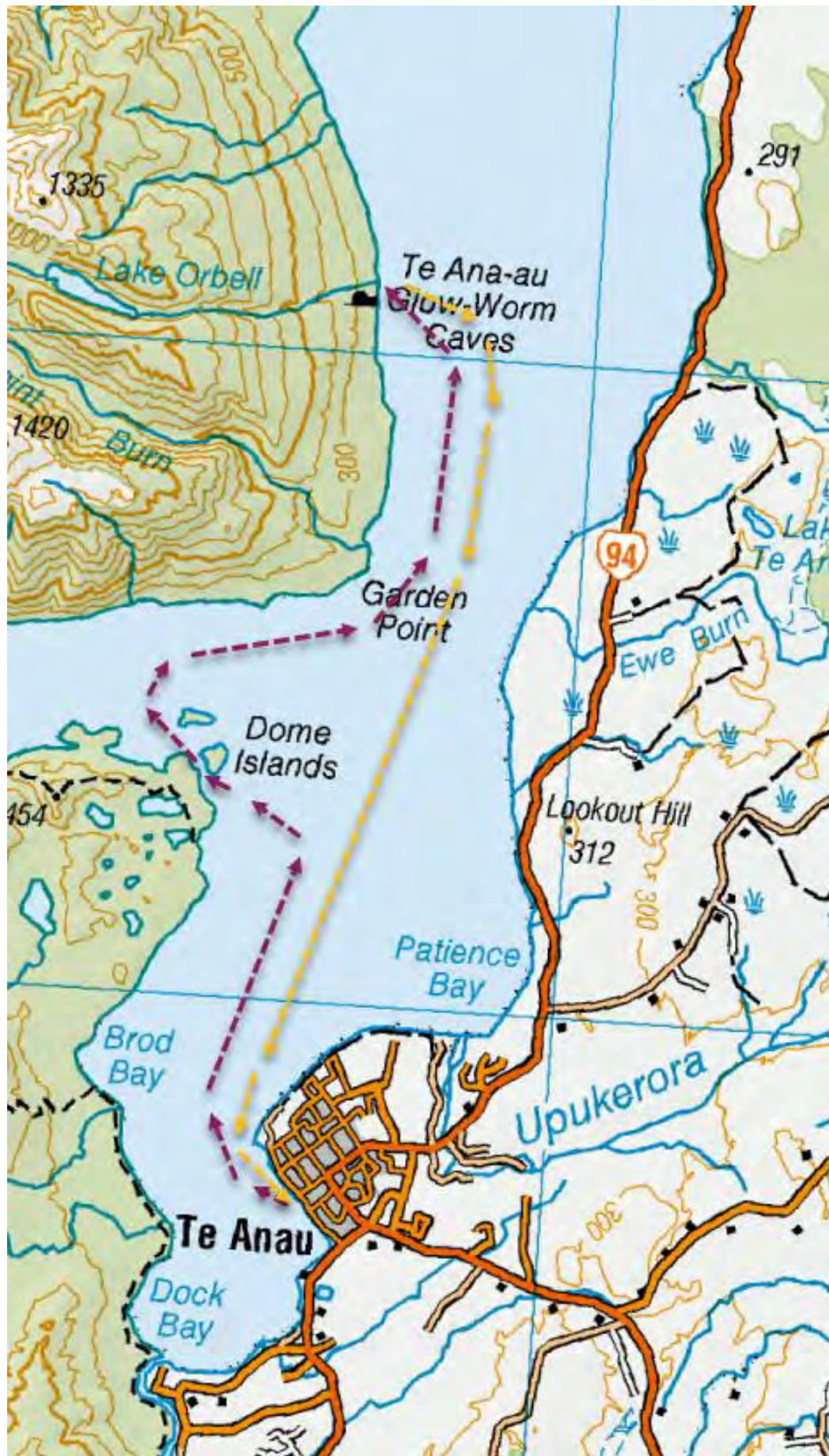


Figure 1 – approximate Real Journeys passenger vessel route to and from the Te ana-au Glowworm Caves

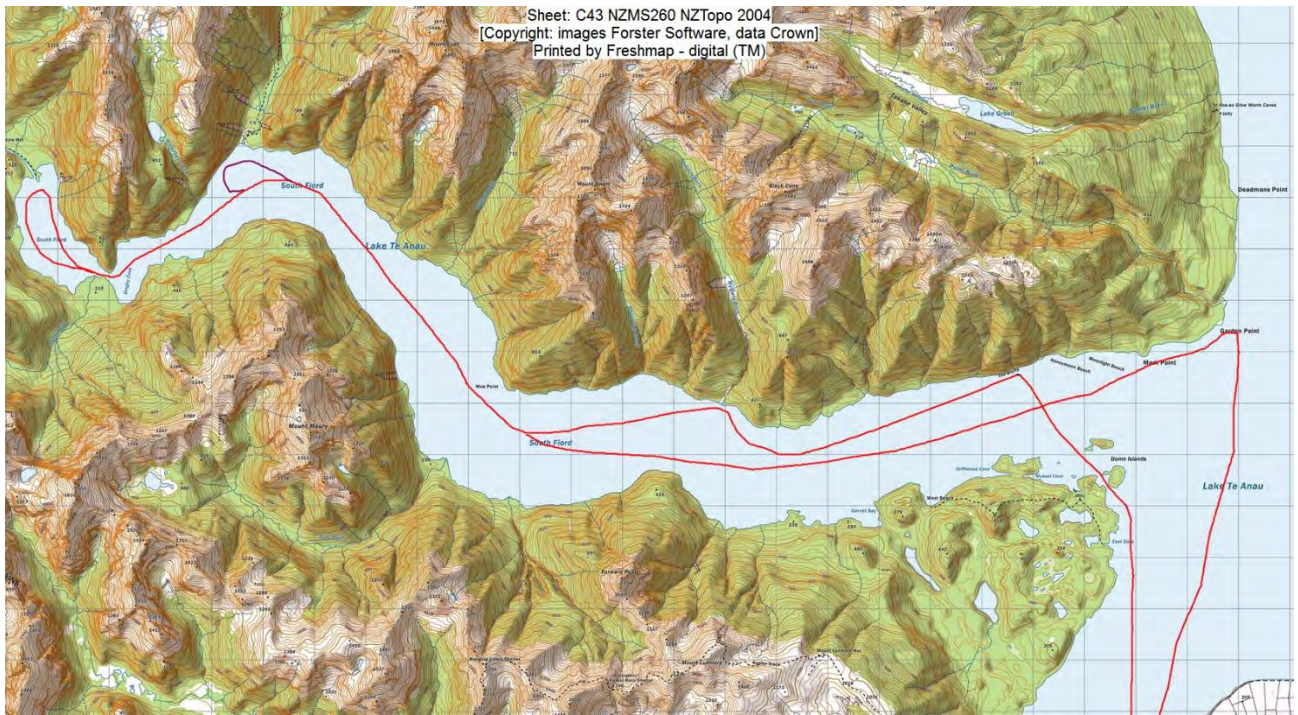


Figure 2 - proposed passenger vessel route for South Fiord scenic or charter cruises

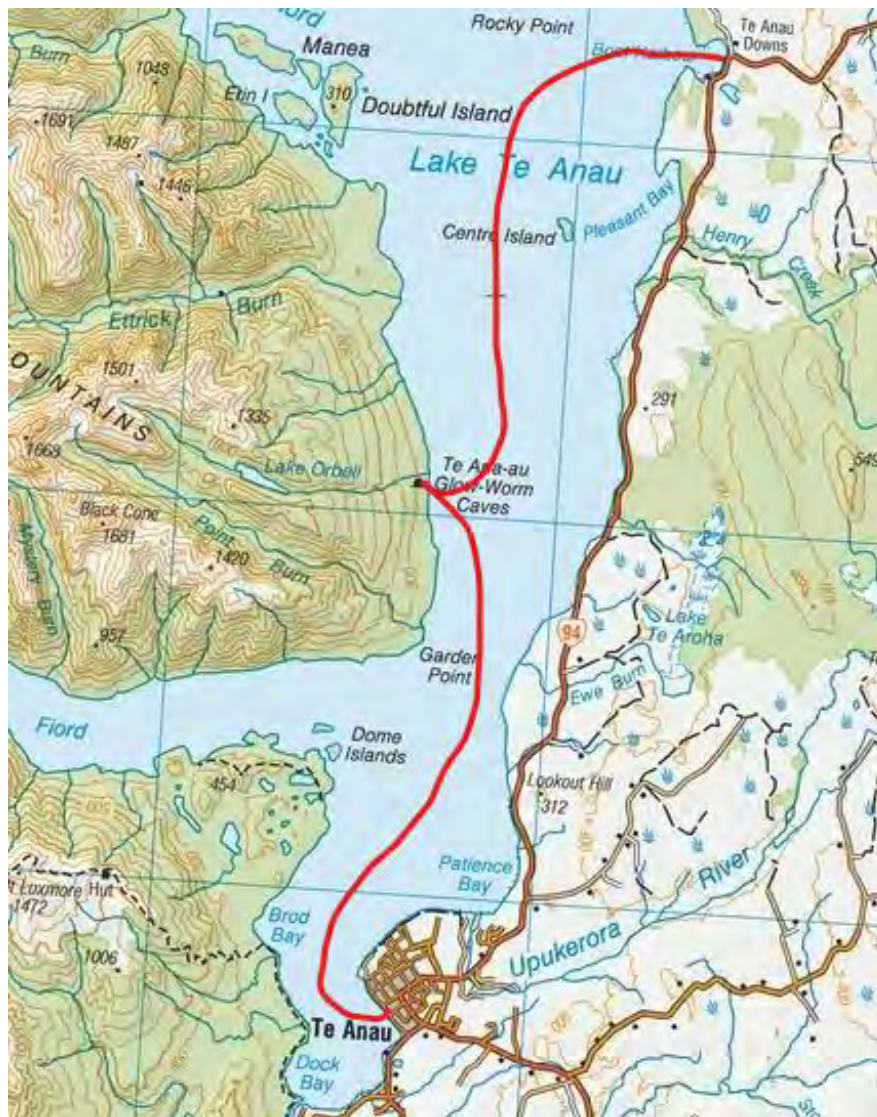


Figure 3 - proposed passenger vessel route to / from Te Anau Lakefront Jetty to Te Anau Downs Jetty via Te Anau Glowworm Caves

E. Effects assessment

Drones can have adverse effects on the natural, cultural, historical, and recreational values of Public Conservation Land. To grant a concession, DOC must be assured any adverse effects can reasonably be avoided, remedied, or mitigated.

To reasonably avoid, remedy, or mitigate any adverse effects from drones, we have developed [DOC's Standardised Drone Operating Conditions](#).¹² DOC considers anyone complying their drone with these conditions complies with the requirement to avoid, remedy, or mitigate adverse effects.

- ☒ I have read and understood DOC's Standardised Drone Operating Conditions for operating a drone on Public Conservation Land; and
- ☒ I will comply with DOC's Standardised Drone Operating Conditions for operating a drone on Public Conservation Land.

F. Other

Is there any further information you wish to supply in support of your application (e.g. evidence of training or certification in piloting drones)? If you need more space, continue your answer on a separate document and fill in section H 'Attachments'.

G. Attachments

Additional attachments should *only* be used if there is not enough space on the form or you have additional information that supports your application (e.g. a drone licence, a map to support your NZTM GPS locations). Label each document clearly and complete the table below.

Section of the application form the attachment relates to	Document name	Description of attachment

H. Checklist

Application checklist	Tick
I have read, understood, and will comply with the relevant New Zealand Civil Aviation Rules ¹³	☒
I have completed all sections of this form and understand that the form will be returned to me if it is incomplete.	☒

¹² <https://www.doc.govt.nz/get-involved/apply-for-permits/drone-use-on-conservation-land/drone-safety/>

¹³ <https://aviation.govt.nz/drones>

I certify that the information provided in this application form and any attached additional forms and information is true and correct, to the best of my knowledge.	☒
I agree to pay the processing fees for my application.	☒

I. Terms and conditions for a credit account with the Department of Conservation

Have you held an account with the Department of Conservation before?	Tick
No	☒
Yes	☒
If "yes", under what name:	Real Journeys Limited or Realnz Limited

In ticking this checklist and placing your name below you are acknowledging that you have read and agreed to these terms and conditions for an account with the Department of Conservation

Terms and conditions	Tick
I/We agree that the Department of Conservation can provide my/our details to the Department's Credit Checking Agency to enable it to conduct a full credit check.	☒
I/We agree that any change which affects the trading address, legal entity, structure of management or control of the applicant's company (as detailed in this application) will be notified in writing to the Department of Conservation within 7 days of that change becoming effective.	☒
I/We agree to notify the Department of Conservation of any disputed charges within 14 days of the date of the invoice.	☒
I/We agree to fully pay the Department of Conservation for any invoice received on or before the due date.	☒
I/We agree to pay all costs incurred (including interest, legal costs and debt recovery fees) to recover any money owing on this account.	☒
I/We agree that the credit account provided by the Department of Conservation may be withdrawn by the Department of Conservation, if any terms and conditions (as above) of the credit account are not met.	☒
I/We agree that the Department of Conservation can provide my details to the Department's Debt Collection Agency in the event of non-payment of payable fees.	☒
Applicant Name/s (of authorised person/s)	
Date	1 May 2026