# IN THE ENVIRONMENT COURT AT AUCKLAND

## I TE KŌTI TAIAO O AOTEAROA KI TĀMAKI MAKAURAU

## Decision [2023] NZEnvC 156

IN THE MATTER OF an appeal under section 120 the Resource

Management Act 1991

BETWEEN THE BEARS HOME PROJECT

MANAGEMENT LIMITED

(ENV-2023-AKL-000017)

Appellant

AND AUCKLAND COUNCIL

Respondent

AND NGĀ MAUNGA WHAKAHII O

KAIPARA DEVELOPMENT TRUST

Section 274 party

Court: Judge J A Smith sitting alone under s 279 of the Act

Last case event: 24 July 2023

Date of Order: 27 July 2023

Date of Issue: 27 July 2023

#### **CONSENT ORDER**

A: Under section 279(1)(b) of the Resource Management Act 1991, the Environment Court, by consent, <u>orders</u> that:

he Bears Home Project Management Limited v Auckland Council

- (1) resource consent is granted for the construction, operation and maintenance of a golf course, sports academy and luxury accommodation complex, including ancillary buildings, structures and activities subject to conditions as set out in Appendix A;
- (2) this order resolves the appeal in its entirety.
- B: Under section 285 of the Resource Management Act 1991, there is no order as to costs.

#### **REASONS**

#### Introduction

- [1] This order relates to an appeal by The Bears Home Project Management Limited (**Appellant**) against specific conditions imposed by part of the decision (**Decision**) of the Auckland Council (**Respondent**) to grant consents for the construction, operation and maintenance of a golf course, sports academy and luxury accommodation complex, including all associated ancillary buildings, structures and activities at 670, 610, 451, 697, 680 and 614 Muriwai Road, Muriwai Valley (**Project**).
- [2] Ngā Maunga Whakahii o Kaipara Development Trust have given notice of an intention to become a party under section 274 of the Resource Management Act and have signed the memorandum setting out the relief sought.
- [3] The appeal is limited to four conditions of consent contained in the Decision in land use consent LUC60393757:
  - (a) Condition 21 requiring the amalgamation of all the records of title for the site and surrounding properties;
  - (b) Condition 22 requiring a covenant in favour of the Respondent limiting the use of the land to rural production use;
  - (c) Condition 23 requiring a covenant protecting all indigenous vegetation, wetlands, streams and riparian setbacks, and areas of proposed ecological enhancement; and

- (d) Condition 24 the preparation of a plan showing the areas to be protected under condition 23 to be certified by Council prior to the registration of the covenant.
- [4] On 13 March 2023, a decision<sup>1</sup> was issued granting the Appellants application under s 116 RMA. The consents were allowed to commence forthwith on the conditions of consent as granted. The golf course was not to become operational until the appealed conditions were resolved or by further order of the Court.

#### Agreement reached

- [5] As a result of the Court-assisted mediation held on 30 May 2023 and 12 June 2023, all issues surrounding the appeal have been resolved and the parties have agreed that the appeal can be disposed of by consent.
- [6] The amendments are as follows:
  - (a) condition 21 is deleted and replaced with a new condition 21;
  - (b) the addition of a new condition 21A;
  - (c) condition 22 is replaced;
  - (d) the addition of a new condition 22A;
  - (e) condition 23 is replaced with a new condition 23;
  - (f) the addition of a new condition 23A;
  - (g) replacement of condition 24;
  - (h) the addition of a new condition 24A; and
  - (i) the addition of a new condition 24B.

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<sup>&</sup>lt;sup>1</sup> [2023] NZEnvC 42.

- [7] The agreed amendments comprise a replacement set of conditions that effectively propose:
  - (a) some of the lots being held in common ownership for a specific period and a covenant giving effect to this obligation being recorded on the records of the relevant titles;
  - (b) the use of the land being restricted for a specific period to rural production activities or activities which are permitted within the zone. The Appellant may seek resource consent for other activities but must include assessments of any effects on rural production and amenity in any future application. A covenant to that effect will be recorded on the records of title;
  - (c) protection in perpetuity and maintenance of significant ecological areas and wetlands, indigenous flora, wildlife habitats and the natural landscape within those protect areas;
  - (d) a covenant in relation to the significant areas and wetlands may be recorded on the records of the relevant titles;
  - (e) a plan must be prepared identifying the significant ecological areas and the wetlands to be protected for certification by the Council; and
  - (f) within five years following certification of the Ecology and Restoration Management Plan, a plan must be prepared showing areas for ecological restoration and enhancement works. Following consultation with the Kaitiaki Committee that is established in partnership with Mana Whenua, the Council may require that the consent holder enter into a covenant to ensure protection of the ecological restoration and enhancement areas.

#### Consideration

[8] The Court has now read and considered the consent memorandum of the parties dated 24 July 2023.

[9] Without a hearing the Court cannot assess matters fully, but it does appear to the Court that the agreed amendments improve the consent. A balance has been achieved to allow development of the golf course while preventing ad-hoc development on the site, protecting environmental features, and allowing change of use but after consideration of impacts.

[10] The Court is making this order under section 279(1) of the Act, such order being by consent, rather than representing a decision or determination on the merits pursuant to section 297. The Court understands for present purposes that:

- (a) all parties to the proceedings have executed the memorandum requesting this order; and
- (b) all parties are satisfied that all matters proposed for the Court's endorsement fall within the Court's jurisdiction, and conform to the relevant requirements and objectives of the Act including, in particular, Part 2.

#### Order

- [11] The Court orders, by consent, that:
  - (a) resource consent is granted for the construction, operation and maintenance of a golf course, sports academy and luxury accommodation complex, including ancillary buildings, structures and activities subject to conditions as set out in **Appendix A**;
  - (b) this order resolves the appeal in its entirety; and
  - (c) there is no order for costs.

J A Smith Environment Judge

# Appendix A

# **Conditions of consent**

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# **DEFINITIONS AND EXPLANATION OF TERMS**

This table below defines the acronyms and terms used in the conditions.

Acronym/Term	Definition		
AEE	The document titled "The Bears Home Project Management Limited Muriwai Downs Golf Project Resource Consent Applications and Assessment of Environmental Effects" dated 17 December 2021, including all technical assessments and supporting reports.		
AMP	Archaeology Management Plan		
AUP	Auckland Unitary Plan (Operative in Part)		
ВМР	Bat Management Plan		
Bulk Earthworks	Large scale soil disturbances associated with any Project Construction Works (excluding earthworks associated with Enabling Works) or post construction maintenance activities.		
CEMP	Construction Environmental Management Plan		
СНІ	Cultural Health Indicator		
Consents	The consents include but are not limited to those bundled under BUN60393755:  • LUC60393757 (s9 – Main land use consent) • LUC60399652 (s9 - Land use consent – Bore Construction) • DIS60393756 (s15 - Stormwater permit) • DIS60400308 (s15 - Wastewater permit) • DIS60400370 (s15 – Discharge consent - Miscellaneous) • WAT60393758 (s14 - Water permit – Off Stream Water Storage) • WAT60400304 (s14 - Water permit – Diversion at Water Storage Reservoir) • WAT60400305 (s14 - Water permit – Groundwater take from bore 31108) • WAT60400306 (s14 - Water permit – Groundwater take from new bore)		

Acronym/Term	Definition		
	<ul> <li>WAT60400307 (s14 - Water permit – Surface water take)</li> <li>LUS60393759 (s13- Streamworks consent)</li> </ul>		
Completion of Construction	The time when any Project Construction Stage is complete and is available for its intended use.		
Construction	<ul> <li>All activities related to constructing the Project excluding:</li> <li>On-site monitoring activities;</li> <li>Works necessary to implement sediment or erosion control improvements or repairs following rainfall events or to enact responses required in accordance with the ESCAMP or to address any other actual or potential consent non-compliance;</li> <li>Activities associated with the "growing in" of Project grass (e.g. mowing, watering, spraying).</li> </ul>		
Council	Auckland Council		
CLSMP	Contaminated Land Site Management Plan		
СТМР	Construction Traffic Management Plan		
DMP	Dust Management Plan		
Earthworks	Alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.		
Enabling Works	<ul> <li>Minor construction related activities not affecting any indigenous vegetation and occurring outside the following locations: <ul> <li>Any land within 10m of any stream;</li> <li>Any land within 20m of any natural wetland or Wetland Management Area;</li> <li>Any SEA (Terrestrial);</li> <li>Any Natural Stream Management Area;</li> <li>Any land within 50m of any Natural Lake Management Area;</li> <li>Any Outstanding Natural Feature;</li> <li>Any land within 10m of any recorded New Zealand Archaeological Association and Cultural Heritage Inventory site as shown in Figure 22 of Appendix 14 of the AEE;</li> <li>Any land within a Kauri Hygiene Area.</li> </ul> </li> <li>Enabling Works include, but are not necessarily limited to: <ul> <li>Re-grassing (spraying, sowing) that does not involve soil disturbance;</li> <li>Geotechnical investigations and formation of associated access;</li> <li>Establishment of site yards, site entrances and fencing;</li> <li>Demolition or removal of buildings and structures;</li> <li>Relocation, upgrading and establishment of Project Site services and utilities;</li> <li>Construction of pump sheds;</li> </ul> </li> </ul>		

Acronym/Term	Definition
	<ul> <li>Installation of water supply and irrigation reticulation, control and monitoring infrastructure (excluding the water intake structure and additional groundwater bore);</li> <li>Construction of temporary structures;</li> <li>Wetland delineation/site surveying; and</li> <li>Any other construction related activity ordinarily permitted by the AUP and other relevant NES.</li> <li>Enabling Works are able to be undertaken without a certified CEMP and without a Pre-Construction Meeting.</li> </ul>
ERMP	Ecology and Restoration Management Plan
ESCAMP	Erosion and Sediment Control Adaptive Management Plan
ESCP	Site-Specific Erosion and Sediment Control Plans
Field Capacity	The amount of water that is able to be held in the soil after excess water has run off
FMP	Flocculation Management Plan
FPMMP	Fish Passage Monitoring and Maintenance Plan
GD05	Auckland Council Guideline Document 2016/005 'Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region'
HNZPT	Heritage New Zealand Pouhere Taonga
In-Stream Works	<ul> <li>Comprises the following works:</li> <li>Culverting stream P3 (if undertaken);</li> <li>Reclamation of a part of stream I9; and</li> <li>Construction of the surface water intake structure.</li> </ul>
KC	Kaitiaki Committee
Kaitiaki Monitor	Nominated representatives of Te Kawerau lwi Tiaki Trust and Ngā Maunga Whakahii o Kaipara Development Trust participating in precommencement meetings, providing cultural induction training and undertaking cultural monitoring activities.
KMP	Kauri Dieback Management Plan
LP	Landscape Plan
LIMP	Landscape Implementation and Management Plan
LMP	Lizard Management Plan
ММЕМР	Mātauranga Māori Environmental Monitoring Plan
NFFRP	Native Freshwater Fish Relocation Plan
Project	Includes all physical resources associated with the Project Site and all activities associated with designing, consenting, constructing, operating and maintaining the development as further described in <b>Schedule 1</b> of these conditions.
Project Site	All land within The Muriwai Downs Property to be used for the Project

Acronym/Term	Definition
Project Construction Work Component	Specified components of constructing the Project (including all associated activities (excluding Enabling Works)). Project Construction Work Components include, but are not necessarily limited to:  1. Water Reservoir construction; 2. Golf course bulk earthworks excluding removal of indigenous vegetation; 3. Golf course construction works involving removal of indigenous vegetation; 4. In-stream works; 5. Bridges; 6. Construction of the clubhouse; 7. Construction of the golf and property maintenance complex; 8. Construction of the sports academy; 9. Construction of the lodge and associated buildings; 10. Construction works involving creation of car parks or permanent impervious surfaces; and 11. Ecological enhancement and restoration.
Project Construction Stage	A phase of construction associated with one or more Project Construction Work Components undertaken in accordance with a certified CEMP and preceded by a Pre-Construction Meeting. Project Construction Stages and Project Construction Work Components may occur concurrently.
RMA	Resource Management Act 1991
RSA	Road Safety Audit
SEA	Significant Ecological Area as shown in the Auckland Unitary Plan Overlay Maps
Start of Construction	The time when any Project Construction Stage (excluding Enabling Works) starts.
SOMP	Site Operations Management Plan
SQEP	Suitably Qualified and Experienced Person - A person (or persons) who can provide sufficient evidence to demonstrate their suitability and competence.
SWMP	Stormwater Management Plan
The Muriwai Downs Property	Includes 670, 610, 451, 697, 680 & 614 Muriwai Road, Muriwai Valley
ТМР	Tree Management Plan

# **GENERAL CONDITIONS**

The consents must be carried out in general accordance with the documents and 1. drawings and all supporting additional information submitted with the applications, detailed below including:

 Application form and Assessment of Environmental Effects titled: "Muriwai Downs Golf Project – Resource Consent Applications and Assessment of Environmental Effects", prepared by Mitchell Daysh Ltd, dated 17 December 2021 inclusive of the following reports;

Report title and reference	Author	Rev	Dated
Muriwai Downs Golf Course Design Description	Kyle Phillips Golf Course Design	-	13.12.21
Golf Course Operations and Maintenance	NZ Sports Turf Institute & Steve Marsden Turf Services	19	25.11.21
Interim Advice – Preliminary Geotechnical Appraisal Report and Groundwater Standpipe Installations at the Muriwai Downs Farm. Ref No: J01662	Lander Geotechnical	A	11.02.21
Geotechnical Investigation Report – Muriwai Downs Reservoir Muriwai Valley. Ref 210339-A	Riley Consultants	-	18.11.21
Geotechnical Investigation Report Muriwai Downs Golf Project. J01662	Lander Geotechnical	А	30.11.21
Engineering Infrastructure Assessment Report. Project No. 1976	McKenzie and Co	1	09.12.21
Muriwai Downs Golf Project: Updated Preliminary Site Investigation.	Pattle Delamore Partners Ltd	-	12.10.21
Muriwai Downs Golf Project: Detailed Site Investigation.	Pattle Delamore Partners Ltd	-	26.11.21
Muriwai Downs Golf Project: Water Supply Options Assessment.	Pattle Delamore Partners Ltd	-	21.09.20
Muriwai Downs Golf Project: Water Supply Assessment for Proposed Reservoir Sites Q and J. Ref: A03582504	Pattle Delamore Partners Ltd	-	02.06.21
Muriwai Downs Golf Project: Effects on soils	New Zealand Sports Turf Institute	-	20.08.21
Muriwai Downs Golf Project: Assessment of Environmental Effects – Farming Operations Report	DNA Lands Ltd	-	02.12.21
Muriwai Downs Golf Project: Water Effects Summary Report. WWLA0321	Williamson Water & Land Advisory	4	08.12.21
Muriwai Downs Golf Project: Baseline Environmental Monitoring Report. WWLA0321	Williamson Water & Land Advisory	6	07.12.21

Report title and reference	Author	Rev	Dated
Muriwai Downs Golf Project: Site Water Balance and Water Strategy Report. WWLA0321	Williamson Water & Land Advisory	5	08.12.21
Muriwai Downs Golf Project: Surface Water Effects Assessment Report. WWLA0321	Williamson Water & Land Advisory	5	08.12.21
Muriwai Downs - Assessment of Basalt Extent. Electrical Resistivity Tomography Survey. WWLA0321	Williamson Water & Land Advisory	2	05.08.21
Muriwai Downs - Assessment of Potential Groundwater Supply and Associated Hydrological Effects. Numerical Model Based Analysis of Proposed Groundwater Take. WWLA0321	Williamson Water & Land Advisory	6	08.12.21
Lake Ōkaihau. Lake Water Balance Assessment. WWLA0321	Williamson Water & Land Advisory	5	07.12.2 1
Muriwai Downs Golf Course: Ecological Effects Assessment. Report Number 2042	RMA Ecology Ltd	1-4	17.12.2 1
Muriwai Golf Project - Assessment of Environmental Effects, Appendix 12 Arboricultural Effects Assessment	Peers Brown Miller Ltd	-	08.12.2 1
Muriwai Downs Golf Course. Landscape and Visual Amenity Effect Assessment	Boffa Miskell	-	10.12.2
Muriwai Downs Golf Project: archaeological assessment. Ref 21 1213	CFG Heritage	-	09.12.2 1
Muriwai Downs Golf Project Noise Assessment. Rp 001 20201129.	Marshall Day Acoustics	-	18.11.2 1
Muriwai Downs, Muriwai Golf Project. Integrated Transportation Assessment Report. Ref: J002074	Commute Transportation Consultants	-	25.11.2 1
Economic Assessment of Proposed World-Class Golf Facility in Muriwai	Insight Economics	-	16.12.2 1
Design Statement for Johnstone Callaghan Architects – Muriwai Downs Golf course.	Johnstone Callaghan Architects	-	11.21
Muriwai Downs Lodge Development, 670 Muriwai Road, Muriwai. Design Statement.	Mason & Wales Architects	-	24.11.2 1

Report title and reference	Author	Rev	Dated
Cultural Impact Assessment for Muriwai Downs Golf Project. Ref: TKITT00005	Te Kawerau lwi Tiaki Trust	-	05.12.2 1

# the following plans / drawings;

Subject Matter	Drawn by	Drawing Numbers	Rev	Dated
Bridges	McKenzie & Co.	1976-1-280 to 1976-1-283	D	04/03/22
	McKenzie & Co.	1976-1-283A	Α	23/06/22
	McKenzie & Co.	1976-1-284 to 1976-1-294	D	04/03/22
Clearing	McKenzie & Co.	1976-1-180 to 1976-1-187	Е	10/10/22
	McKenzie & Co.	1976-1-188	F	10/10/22
	McKenzie & Co.	1976-1-189	Е	10/10/22
	McKenzie & Co.	1976-1-190 to 1976-1-192	В	04/03/22
	McKenzie & Co.	1976-1-195	Α	20/04/22
Cut and Fill	McKenzie & Co.	1976-1-215	Е	10/10/22
	McKenzie & Co.	1976-1-216 to 1976-1-218	D	10/10/22
	McKenzie & Co.	1976-1-219	Е	10/10/22
	McKenzie & Co.	1976-1-220 to 1976-1-228	D	10/10/22
Erosion and	McKenzie & Co.	1976-1-230 to 1976-1-243	Е	10/10/22
Sediment Control	McKenzie & Co.	1976-1-295 to 1976-1-297	С	26/11/21
Final Contours	McKenzie & Co.	1976-1-200 to 1976-1-213	Е	10/10/22
Water Reservoir and Water Take	McKenzie & Co.	1976-R1-150 to 1976-R1- 455	В	26/11/21
	McKenzie & Co.	1976-R1-610 to 1976-R1- 616	С	26/04/22
1976-Roading	McKenzie & Co.	1976-1-300	С	26/11/21
	McKenzie & Co.	1976-L1-300A	С	26/11/21
	McKenzie & Co.	1976-L1-301 to 1976-L1- 303	С	26/11/21
	McKenzie & Co.	1976-L1-304A	С	26/11/21
	McKenzie & Co.	1976-L1-304B to 1976-L1- 304D	D	04/03/22
	McKenzie & Co.	1976-CH1-305 to 1976- CH1-307	С	26/11/21
	McKenzie & Co.	1976-CH1-308A to 1976- CH1-308B	D	04/03/22
	McKenzie & Co.	1976-CH1-308C	С	26/11/21

Subject Matter	Drawn by	Drawing Numbers	Rev	Dated
	McKenzie & Co.	1976-CH1-309 to 1976- CH1-310	С	26/11/21
	McKenzie & Co.	1976-AC1-311A	D	04/03/22
	McKenzie & Co.	1976-AC1-311B to 1976- AC1-311C	С	26/11/21
	McKenzie & Co.	1976-1-315	С	26/11/21
	McKenzie & Co.	1976-1-320	С	26/11/21
	McKenzie & Co.	1976-1-321	D	26/11/21
	McKenzie & Co.	1976-1-322	С	26/11/21
	McKenzie & Co.	1976-1-323	В	04/03/22
	McKenzie & Co.	1976-1-324	Α	04/03/22
	McKenzie & Co.	1976-1-325	D	04/03/22
	McKenzie & Co.	1976-1-326 to 1976-1-390	С	26/11/22
Stormwater	McKenzie & Co.	1976-1-400	D	04/03/22
	McKenzie & Co.	1976-L1-400A	D	04/03/22
	McKenzie & Co.	1976-L1-401 to 1976-L1- 403	D	04/03/22
	McKenzie & Co.	1976-L1-403A	Α	04/03/22
	McKenzie & Co.	1976-L1-404A to 1976-L1- 404C	D	04/03/22
	McKenzie & Co.	1976-CH1-405	D	04/03/22
	McKenzie & Co.	1976-CH1-406 to 1976- CH1-407	С	26/11/22
	McKenzie & Co.	1976-CH1-408A to 1976- CH1-408B	С	26/11/22
	McKenzie & Co.	1976-AC1-409 to 1976- AC1-410	С	26/11/22
	McKenzie & Co.	1976-AC1-411A to 1976- AC1-411C	С	26/11/22
	McKenzie & Co.	1976-1-420 to 1976-1-426	D	04/03/22
	McKenzie & Co.	1976-1-427	С	26/11/21
	McKenzie & Co.	1976-1-430 to 1976-1-435	С	26/11/22
	McKenzie & Co.	1976-1-450 to 1976-1-457	С	26/11/22
	McKenzie & Co.	1976-1-458 to 1976-1-459	Α	04/03/22
	McKenzie & Co.	1976-1-460 to 1976-1-480	С	26/11/21
	McKenzie & Co.	1976-L1-481A to 1976-L1- 481C	С	26/11/21
	McKenzie & Co.	1976-CH1-482 to 1976- CH1-483	С	26/11/21

Subject Matter	Drawn by	Drawing Numbers	Rev	Dated
	McKenzie & Co.	1976-AC1-484	С	26/11/21
	McKenzie & Co.	1976-AC1-485A to 1976- AC1-485B	С	26/11/21
	McKenzie & Co.	1976-1-486 to 1976-1-491	С	26/11/21
Utilities	McKenzie & Co.	1976-1-800 to 1976-1-801	D	04/03/22
	McKenzie & Co.	1976-L1-802 to 1976-L1- 804	С	26/11/21
	McKenzie & Co.	1976-CH1-805	D	04/03/22
	McKenzie & Co.	1976-CH1-806	С	26/11/21
	McKenzie & Co.	1976-AC1-807	D	04/03/22
	McKenzie & Co.	1976-AC1-808	С	26/11/21
	McKenzie & Co.	1976-1-809	С	26/11/21
Wastewater	McKenzie & Co.	1976-1-500	G	23/06/22
	McKenzie & Co.	1976-L1-501	D	11/05/22
	McKenzie & Co.	1976-CH1-502	D	11/05/22
	McKenzie & Co.	1976-L1-503 to 1976-L1- 504	D	11/05/22
	McKenzie & Co.	1976-CH1-505 to 1976- CH1-506	D	11/05/22
	McKenzie & Co.	1976-AC1-507 to 1976- AC1-508	D	11/05/22
	McKenzie & Co.	1976-CH1-510	Н	13/07/22
	McKenzie & Co.	1976-CH1-511	F	13/07/22
	McKenzie & Co.	1976-CH1-512	С	13/07/22
	McKenzie & Co.	1976-1-513 to 1976-1-514	С	13/07/22
	McKenzie & Co.	1976-1-597 to 1976-1-598	Α	No date
Water	McKenzie & Co.	1976-1-600	С	26/11/21
	McKenzie & Co.	1976-L1-600A	С	26/11/21
	McKenzie & Co.	1976-CH1-601	С	26/11/21
	McKenzie & Co.	1976-L1-602 to 1976-L1- 603	С	26/11/21
	McKenzie & Co.	1976-CH1-604	Α	XX/08/21
	McKenzie & Co.	1976-CH1-605 to 1976- CH1-606	С	26/11/21
	McKenzie & Co.	1976-CH1-607A	С	26/11/21
	McKenzie & Co.	1976-AC1-608 to 1976- AC1-609	С	26/11/21
	McKenzie & Co.	1976-AC1-610A	С	26/11/21

Subject Matter	Drawn by	Drawing Numbers	Rev	Dated
	McKenzie & Co.	1976-1-690 to 1976-1-692	С	26/11/21

# and the following other information;

Report title and reference	Author	Rev	Dated
Tranches 1-5 – Further information responses including all attachments and documents	Mitchell Daysh	-	As at 12.07.22
Waterbody classification review	Puhoi Stour Ltd	-	21.02.22
Lighting Effects Assessment	LDP Ltd	-	17.03.22
On Site Wastewater Disposal Assessment Report	McKenzie and Co Consultants Ltd		28.03.22
Inlet screen design memo Ref: WWLA0321	Williamson Water & Land Advisory Ltd		04.05.22
Test Pumping Report Ref: WWLA DS0002	Williamson Water & Land Advisory Ltd	3	24.05.22
Flood Assessment	McKenzie and Co Consultants Ltd	-	23.06.22
Earthworks Cut Depths in Relation to Wetlands and Local Groundwater Levels Ref: WWLA0321	Williamson Water & Land Advisory Ltd	-	01.07.22
Muriwai Downs Golf Wastewater Report	McKenzie and Co Consultants Ltd	4	12.07.22
Landscape Assessment - Addendum	Boffa Miskell Ltd	0	11.07.22
Ecological Assessment of Potential Bat Habitat	Kessels & Associates Ltd	-	13.07.22
Draft Construction Environmental Management Plan	McKenzie and Co Consultants Ltd	-	01.12.21
Draft Dust Management Plan	McKenzie and Co Consultants Ltd	1	01.12.21
Draft Stormwater Management Plan	McKenzie and Co Consultants Ltd	В	02.22
Draft Contaminated Land Site Management Plan	Pattle Delamore Partners Ltd	-	10.05.22
Draft Kauri Dieback Management Plan	Boffa Miskell Ltd	1	19.05.22
Draft Erosion and Sediment Control Adaptive Management Plan	McKenzie and Co Consultants Ltd		10.08.22

- 2. Where there is inconsistency between:
  - The reports and plans listed in condition 1 and the requirements of the following a) consent conditions, the consent conditions shall prevail; and
  - b) The reports and plans in condition 1 and the management plans under these conditions, the requirements of the management plans shall prevail.

#### **Monitoring Charges**

3. The consent holder must pay the Council an initial consent compliance monitoring charge of \$2,000 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs incurred to ensure compliance with the conditions attached to this consent.

#### Advice Note:

The initial monitoring deposit is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files, etc, all being work to ensure compliance with the resource consent(s). In order to recover actual and reasonable costs, monitoring of conditions, in excess of those covered by the deposit, shall be charged at the relevant hourly rate applicable at the time. The consent holder will be advised of the further monitoring charge. Only after all conditions of the resource consent(s) have been met, will the Council issue a letter confirming compliance on request of the consent holder.

## Lapse

- 4. Under section 125 of the RMA, the consents lapse five years after the day of the commencement date unless:
  - The consents are given effect to; or a)
  - The Council extends the period after which the consents lapse. b)

#### **Consent Duration**

5. Unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the RMA, the duration of each consent is as follows:

Consent	Duration (years)
Land use	
LUC60393757 (s9 - Main land use	Unlimited.
consent)	The regional earthworks component of consent LUC60393757 expires seven (7) years from the date of commencement.
LUC60399652 (s9 – Bore construction land use consent)	Unlimited
Discharge Permits	
DIS60393756 (s15 stormwater permit)	35

Consent	Duration (years)	
DIS60400308 (s15 wastewater permit)	35	
DIS60400370 (s15 other discharges to air, land and water consent)	35	
Water Permits – Taking, using, damn	ning and diverting water and drilling	
WAT60393758 (s14 water permit for off-stream water storage)	35	
WAT60400304 (s14 water permit – groundwater diversion at Water Storage Reservoir)	35	
WAT60400305 (s14 water permit – groundwater take from bore 31108)	35	
WAT60400306 (s14 water permit groundwater take from new bore)	35	
WAT60400307 (s14 water permit)	35	
Activities affecting lakes, rivers, streams and wetlands		
LUS60393759 (s13 streamworks consent)	5	

#### Kaitiaki Committee

- 6. The consent holder must invite the following parties to nominate at least one representative to be their representative(s) on a Kaitiaki Committee (KC):
  - Te Kawerau lwi Tiaki Trust;
  - Ngā Maunga Whakahii o Kaipara Development Trust.

The purpose of the KC is to:

- a) Foster and encourage mutual understanding between the consent holder and mana whenua on the effectiveness of the measures implemented by the consent holder to avoid, remedy, mitigate or offset adverse effects on sites of significance associated with the whenua, wetlands, wai and ngahere;
- b) Facilitate ongoing engagement with mana whenua;
- c) Enable mana whenua to provide kaitiaki inputs into the drafting and preparation of the Ecological and Restoration Management Plan (ERMP), Mātauranga Māori Environmental Monitoring Plan (MMEMP) and Landscape Implementation Management Plan (LIMP);
- d) Discuss access and management arrangements for sites of cultural significance to mana whenua: and
- Provide mana whenua with reports, monitoring information and updates. e)

The first meeting of the KC must be convened prior to the commencement of any Bulk Earthworks. Thereafter the KC is to meet at least six monthly intervals (or at such lesser frequency as the KC decides). At least 20 working days prior to each KC meeting, the consent holder must provide meeting invites to all KC representatives including the date and time of the meeting. A record of all meetings is to be distributed to Auckland Council no later than one month after each meeting.

The consent holder must fund the reasonable costs of the operation of the KC.

#### Advice Notes:

Should any KC representatives choose not to attend a KC meeting, this does not constitute a non-compliance of this consent condition.

The consent holder commits to entering into Memoranda of Understanding with Te Kawerau Iwi Tiaki Trust and with Nga Maunga Whakahii o Kaipara Development Trust and will use best endeavours to achieve this outcome.

#### Mātauranga Māori

#### Pre-Construction

7. At least 15 working days prior to the commencement of any Bulk Earthworks or stream works, the consent holder must invite each KC representative to nominate a Kaitiaki Monitor to participate in pre-commencement meetings, provide cultural induction training and undertake cultural monitoring associated with the activities authorised by the consents.

#### Advice Note:

Kaitiaki Monitors can be changed by each Kaitiaki Committee representative at any time.

- The consent holder must invite each Kaitiaki Monitor to attend any pre-commencement 8. meeting required pursuant to any Project Construction Work Stage and any stream works. The invites must be provided at least 10 working days prior to any pre-commencement meeting occurring.
- 9. Prior to the commencement of any Bulk Earthworks or stream works, the consent holder must arrange a time for the Kaitiaki Monitor(s) to provide cultural induction and cultural safety training, including tikanga protocols, for construction workers and other specialists involved in such works.

#### **During Construction**

- The consent holder must invite each Kaitiaki Monitor to undertake cultural monitoring visits and cultural surveys of the Project Site and surrounds for the duration of all works undertaken within any Project Construction Stage.
- 11. The consent holder must fund the reasonable costs incurred by Kaitiaki Monitors during the pre-construction and construction phases.

#### Advice Note:

Should any KC representatives choose not to nominate a Kaitiaki Monitor and should any Kaitiaki Monitor choose not to attend a pre-commencement meeting or provide cultural induction and cultural safety training or undertake cultural monitoring visits, this does not constitute non-compliance with the relevant consent condition.

#### Ongoing

Prior to any ecological enhancement and / or restoration works commencing, the consent 12. holder must, in collaboration with the KC, prepare a Mātauranga Māori Environmental Monitoring Plan (MMEMP).

The purpose of the MMEMP is to establish a methodology to monitor and report on cultural values of the natural environment within and around the Project Site for the duration of the Consents.

To achieve this purpose, the MMEMP must include:

- A methodology, established with the KC, to use Cultural Health Indicator (CHI) a) surveys to monitor the health of the environment;
- b) The development of CHI attributes tailored to monitoring points on the site; and
- c) Recommendations and advice on landscape and ecological enhancement and restoration works including riparian, wetland enrichment, and forest planting treatment, pest flora and fauna management, and any fish passage devices;
- d) Optional initiatives that respond to the historic and cultural context of the Muriwai Downs Property and its features to be developed, confirmed and implemented in association with the KC, and where relevant, incorporated into the LIMP. For example, installation of interpretive signage, wayfinding devices, pouwhenua and/or artworks in suitable locations to reference the historic and cultural relationship and values of the Project Site and wider setting.

Implementation of the MMEMP must include the following:

- i. An introductory hui for the KC on the use of CHI survey and monitoring;
- ii. An initial CHI survey to be undertaken at, or within, 6 months of ecological enhancement and / or restoration works commencing; and
- iii. Ongoing CHI surveys at monitoring sites at least every five years thereafter (or at such greater frequency as the KC decides).

The final MMEMP will be provided to the KC for comment at least 20 working days prior to submitting the MMEMP to the Council for certification.

Any changes proposed to the MMEMP, or its implementation, must be confirmed in writing by the consent holder following consultation with the KC, prior to the implementation of any changes proposed.

The consent holder must fund the reasonable costs of the implementation of the MMEMP.

## **Management Plans**

The consent holder must prepare Management Plans that encompass the combined scope of all Project Construction Work Components associated within each Project Construction Stage in accordance with the following table and corresponding conditions of this consent:

Project Construction Work Component	Pre-Construction Management Plan Requirements
Water Storage Reservoir construction  Golf course Bulk	<ul> <li>Lizard Management Plan (LMP)</li> <li>Construction and Environmental CEMP</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>An Erosion and Sediment Control Adaptive Management Plan (ESCAMP)</li> <li>A Flocculation Management Plan (FMP)</li> <li>A Dust Management Plan (DMP)</li> <li>A Construction Traffic Management Plan</li> <li>A Landscape Implementation and Management Plan (LIMP); and</li> <li>A Landscape Plan</li> <li>Lizard Management Plan (LMP);</li> </ul>
Earthworks excluding removal of indigenous vegetation and/or any works in a Kauri Hygiene Area	<ul> <li>Construction and Environmental CEMP;</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>An Erosion and Sediment Control Adaptive Management Plan (ESCAMP)</li> <li>A Flocculation Management Plan (FMP)</li> <li>A Dust Management Plan (DMP)</li> <li>A Contaminated Land Site Management Plan (CLSMP)</li> <li>A Construction Traffic Management Plan</li> <li>A Landscape Implementation and Management Plan (LIMP) and</li> <li>A Landscape Plan</li> </ul>
Golf course and its construction works involving removal of indigenous vegetation and/or works in a Kauri Hygiene Area	<ul> <li>Lizard Management Plan (LMP)</li> <li>Construction and Environmental CEMP</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>An Erosion and Sediment Control Adaptive Management Plan (ESCAMP)</li> <li>A Flocculation Management Plan (FMP)</li> <li>A Dust Management Plan (DMP)</li> <li>Kauri Die-back Management Plan (KMP)</li> <li>A Construction Traffic Management Plan</li> <li>A Tree Management Plan (TMP)</li> </ul>

Project Construction Work Component	Pre-Construction Management Plan Requirements
	<ul> <li>Bat Management Plan</li> <li>Bird Nesting Survey</li> <li>A Landscape Implementation and Management Plan (LIMP); and</li> <li>A Landscape Plan</li> </ul>
In-Stream Works	<ul> <li>Stream Works Management Plan (SMP)</li> <li>Water Take Structure Design (WTSD)</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>Native Freshwater Fish Relocation Plan (NFFRP)</li> </ul>
Construction works involving creation of car parks or permanent impervious surfaces	<ul> <li>Stormwater Management Plan (SWMP)</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>Kauri Die-back Management Plan (KMP)</li> <li>A Landscape Implementation and Management Plan (LIMP) and</li> <li>A Landscape Plan</li> </ul>
Construction of the clubhouse	<ul> <li>Lizard Management Plan (LMP)</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>A Construction Traffic Management Plan</li> <li>A Tree Management Plan (TMP)</li> <li>Kauri Die-back Management Plan (KMP)</li> <li>Bat Management Plan</li> <li>Lighting Design</li> <li>Ecology and Restoration Management Plan (ERMP)</li> <li>A Landscape Implementation and Management Plan (LIMP)</li> <li>A Landscape Plan and</li> <li>Stormwater Management Plan (SWMP)</li> </ul>
Construction of the golf and property maintenance complex	<ul> <li>Lizard Management Plan (LMP)</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>A Construction Traffic Management Plan</li> <li>Bat Management Plan</li> <li>Lighting Design</li> <li>Ecology and Restoration Management Plan (ERMP)</li> <li>A Landscape Implementation and Management Plan (LIMP)</li> <li>A Landscape Plan</li> <li>Stormwater Management Plan (SWMP)</li> </ul>

Project Construction Work Component	Pre-Construction Management Plan Requirements
Construction of the sports academy  Construction of the lodge and associated buildings	<ul> <li>Lizard Management Plan (LMP)</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>A Construction Traffic Management Plan</li> <li>Bat Management Plan</li> <li>Lighting Design</li> <li>A Landscape Implementation and Management Plan (LIMP)</li> <li>A Landscape Plan</li> <li>Stormwater Management Plan (SWMP)</li> <li>Lizard Management Plan (LMP)</li> <li>Construction and Environmental CEMP</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> <li>An Erosion and Sediment Control Adaptive Management Plan (ESCAMP)</li> <li>A Flocculation Management Plan (FMP)</li> <li>A Dust Management Plan (DMP)</li> <li>Kauri Die-back Management Plan (KMP)</li> </ul>
	<ul> <li>A Construction Traffic Management Plan</li> <li>A Tree Management Plan (TMP)</li> <li>Bat Management Plan</li> <li>Lighting Design</li> <li>A Landscape Implementation and Management Plan (LIMP)</li> <li>A Landscape Plan</li> <li>Stormwater Management Plan (SWMP) and</li> <li>Matāuranga Māori Environmental Monitoring Plan (MMEMP)</li> </ul>
Vehicle crossing upgrades and relocation works	<ul> <li>A Landscape Plan</li> <li>Erosion and Sediment Control Plans (ESCPs)</li> </ul>
Ecological enhancement and restoration works	<ul> <li>Ecology and Restoration Management Plan (ERMP)</li> <li>Wetland Restoration Plan (WRP)</li> <li>A Landscape Implementation and Management Plan (LIMP)</li> <li>Matāuranga Māori Environmental Monitoring Plan (MMEMP)</li> </ul>

14. The consent holder must supply a copy of each Management Plan, as set out in Condition 13, to the Council no less than 15 working days prior to commencement of the relevant Project Construction Work Component. Subject to Condition 16, the consent holder must

not commence the relevant activities pertaining to a Management Plan until written certification has been obtained from the Council.

In the event the Council does not provide a response within 30 working days of receiving a Management Plan, it shall be deemed to be certified and the consent holder shall be entitled to proceed with the relevant activities pertaining to the Management Plan in accordance with the submitted plan and the conditions of consent.

#### Advice Note:

The certification (or withholding certification) of a Management Plan by the Council shall be based on the Council's assessment as to whether the plan adequately addresses its objectives as set out in these conditions. Where the relevant Council officer considers a Management Plan cannot be certified, their response should outline these inconsistencies to the consent holder.

- 16. Subsequent Management Plan changes and reviews must also be submitted to Council for certification in accordance with conditions 14 and 15. Any amended Management Plan shall have no effect until certification has occurred. The consent holder must meet the costs of the production, monitoring and review of Management Plan changes.
- 17. This Consent and a copy of the Council certified versions of all the management plans required by this Consent must be kept on site at all times until practical completion of the development.

#### Pre-commencement meeting – Project Construction Work Stages

- 18. Prior to the commencement of any Project Construction Work Stage, the consent holder must hold a pre-construction meeting that:
  - is located on the subject site;
  - is scheduled not less than ten (10) working days before the anticipated commencement of the Project Construction Work Stage;

The pre-commencement meeting must include, at a minimum, a representative of the consent holder, Kaitiaki Monitors, the Council compliance monitoring officer, a representative from the contractor(s) who will undertake works for the Project Construction Work Component and any suitably qualified and experienced person(s) who are required to supervise any part of the Project Construction Work Component.

The following information must be made at the prestart meeting:

- a) Scheduling and staging of the works, including the proposed start date;
- b) Resource consent conditions;
- Contact details for all relevant parties; c)
- d) Site inspections requirements;
- Final Erosion and Sediment Control Plans (ESCP); e)

- f) Final Construction and Environmental Management Plan (CEMP);
- Final Erosion and Sediment Control Adaptive Management Plan: g)
- h) Final Flocculation Management Plan;
- i) Any other Management Plan required by Condition 13.

The meeting must ensure all parties are aware of and familiar with the necessary conditions of this consent and any relevant plans.

#### Advice Note:

To arrange the pre-construction meeting please contact the Council to arrange this meeting on monitoring@aucklandcouncil.govt.nz or 09 301 01 01. The conditions of consent should be discussed at this meeting. All additional information required by the Council should be provided 2 days prior to the meeting.

#### **Enabling Works**

All Enabling Works involving Earthworks must be undertaken in accordance with GD05 and a certified LMP.

#### Advice Note:

Enabling Works can commence without a pre-commencement meeting.

## Specific conditions – land use consent LUC60393757

20. The regional earthworks component of resource consent LUC60393757 expires seven (7) years from the date of issue unless it has been surrendered or cancelled at an earlier date pursuant to the RMA.

Amalgamation Condition

#### 21. **Condition 21**

For the period ending 31 December 2043, Lot 1 DP187057, Lot 2 DP 196478, Lot 1 DP 191137 and Sec 1 SO 69201, Lot 3 DP 196479 and Sec 3 SO 41485, Lot 1 DP163736 and Lot 1 DP 196478 must be held in common ownership.

#### **Condition 21A**

Prior to the operation of the golf course (that being when the course is open for play), the consent holder must enter into a section 108 Resource Management Act 1991 covenant in favour of Auckland Council (the Council) for Lot 1 DP 187057, Lot 2 DP 196478, Lot 1 DP 191137 and Sec 1 SO 69201, Lot 3 DP196479 and Sec 3 SO 41485, Lot 1 DP163736 and Lot 1 DP 196478.

The consent holder must contact the Council to initiate the preparation of the covenant. A copy of the updated Computer Register (Record of Title) showing that the covenant has

been registered must be provided to the Council prior to operation of the golf course. In the event of undue delay with the registration process that is beyond the consent holder's control, the consent holder may begin operating the golf course prior to the registration of the covenant, with the Council's written approval.

#### The covenant must:

- Record the requirements of condition 21 to ensure ongoing compliance with this a) condition.
- b) Be drafted by the Council's nominated Solicitor at the consent holder's cost;
- c) Be registered against the Record of Title for the affected land by the consent holder at their cost;
- d) Require the consent holder to:
  - i. be responsible for all legal fees, disbursements and other expenses incurred by the Council in connection with the covenant, and procure its solicitor to give an undertaking to the Council for payment of the same; and
  - indemnify the Council for costs, fees, disbursements and other expenses incurred ii. by the Council as a direct or indirect result of the Council being a party to this covenant.

#### 22. **Condition 22**

For the period ending 31 December 2043, the consent holder must retain the areas identified for future grazing on "Future Grazing Area Overall Plan" prepared by McKenzie & Co - Drawing 1976-0-060 Rev A 09/11/21 on Lot 1 DP187057, Lot 2 DP 196478, Lot 1 DP 191137 and Sec 1 SO 69201, Lot 4 DP187060, Lot 3 DP196479 and Sec 3 SO 41485, Lot 5 DP 187061, Lot 1 DP163736 and Lot 1 DP 196478 for rural production activities or activities which are permitted activities within the Rural Production Zone.

For the purposes of this condition, Rural Production activities are those activities that involve the production of primary products such as those produced from farming, horticulture and forestry which are reliant on the site's physical, climatic and production characteristics.

The consent holder may apply for a resource consent for any other activity.

In the event that the consent holder applies for a resource consent, it must address as part of the application, in addition to any requirement for the activity:

- The effects of the proposed activity on the rural character and amenity outcomes a) sought to be achieved by this consent including but not limited to effects on:
- i. Views experienced by persons from Muriwai Road (undulating pastoral landscape and open space characteristics) and rural production activities remaining dominant across large areas of the property for both external and public viewing audiences.

- ii. The context of the wider 500 hectare property, rather than discrete areas.
- iii. Character, scale and intensity within a predominantly working rural environment.
- iv. The purpose of the Landscape Implementation and Management Plan including any mitigation proposed under this plan (condition 77, 78, 79, 81 & 83 of BUN60393755).
- b) The effects of the proposed activity on rural production on the affected land subject to this consent including but not limited to:
- i. Prioritisation of rural production activities.
- ii. The extent to which the proposed activity maintains the coexistence of productive farming activity and premium golf to their mutual economic benefit.

#### Advice note:

This condition does not prevent the consent holder from seeking to vary this consent.

#### **Condition 22A**

Prior to the operation of the golf course (that being when the course is open for play), the consent holder must enter into a section 108 Resource Management Act 1991 covenant in favour of the Council for Lot 1 DP187057, Lot 2 DP 196478, Lot 1 DP 191137 and Sec 1 SO 69201, Lot 4 DP187060, Lot 3 DP196479 and Sec 3 SO 41485, Lot 5 DP 187061, Lot 1 DP163736 and Lot 1 DP 196478.

The consent holder must contact the Council to initiate the preparation of the covenant. A copy of the updated Computer Register (Record of Title) showing that the covenant has been registered must be provided to Council prior to operation of the golf course. In the event of undue delay with the registration process that is beyond the consent holder's control, the consent holder may begin operating the golf course prior to the registration of the covenant, with the Council's written approval.

#### The covenant must:

- Record the requirements of condition 22 to ensure ongoing compliance with this a) condition.
- Be drafted by the Council's nominated Solicitor at the consent holder's cost; b)
- c) Be registered against the Computer Register(s) (record of title) to the affected land by the consent holder at their cost; and
- d) Require the consent holder to:
  - i. be responsible for all legal fees, disbursements and other expenses incurred by the Council in connection with the covenant, and procure its solicitor to give an undertaking to the Council for payment of the same; and
  - ii. indemnify the Council for costs, fees, disbursements and other expenses incurred by the Council as a direct or indirect result of the Council being a party to this covenant.

#### 23. **Condition 23**

The consent holder must:

- Protect in perpetuity all existing Significant Ecological Areas and Wetlands as a) identified in condition 24 and, subject to the outcome and process set out in condition 24B, ecological restoration and enhancement areas as identified pursuant to condition 24A (the Protected Areas);
- b) Protect in perpetuity the indigenous flora, wildlife habitats and the natural landscape within the Protected Areas;
- Not do anything that would prejudice the health or ecological value of the c). Protected Areas, their long-term viability and/or sustainability;
- d) Not (without the prior written consent of the Council and then only in strict compliance with any conditions imposed by the Council) cut down, damage or destroy, or permit the cutting down, damage or destruction of the indigenous vegetation or indigenous wildlife habitats within the Protected Areas;
- Maintain the Protected Areas free from earthworks or land modification: e)
- f) Not place any building and/or structure within the Protected Areas nor undertake any recreational or other activity that would adversely affect the integrity of the Protected Areas unless authorised by this consent BUN60393755;
- Control all pest plants and pest animals in perpetuity within the Protected Areas g) in accordance with a Covenant Management Plan (CMP) or the Ecological and Restoration Management Plan (ERMP) if the consent holder includes all of the Protected Areas in the ERMP:
- Manage the Protected Areas in accordance with the approved ERMP and the h) CMP subject to Council ecologist approval;
- i) Keep the Protected Areas free of livestock and maintain stock proof fencing on the boundary of Protected Areas that are adjacent to a paddock containing livestock.
- j) Provide a CMP for Council's approval which will specify how the Protected Areas will be managed to achieve the outcomes sought by this condition unless the consent holder has included these areas in the ERMP.

Notwithstanding the above, within any Protected Area, the consent holder:

- May undertake trimming of vegetation within 1m of structures consented under a) BUN60393755 to maintain operational use and maintenance of the structure, and then only in accordance with BUN60393755 or within the standards permitted under E15.6.9 (AUP(OP));
- May undertake activities identified as permitted in Table E3.4.1 (AUP(OP)), only b) to maintain operational use and maintenance of the golf course and associated structures consented under BUN60393755; and

c) Will not be in breach of this condition if any of the Protected Areas to be protected die as a result of fire and/or natural causes not attributable to any act or default on their part for which they are not responsible.

#### Advice note:

A Covenant Management Plan is a plan specifically designed for environmental covenants, to direct developers and landowners as to how best to manage their particular covenant.

It contains details of the location and size of a covenant, species found within the covenant, a rehabilitation management plan for the covenant and the required maintenance activities to maintain the covenant. It also clearly outlines the obligations and activities of the landowner.

## Significant Ecological Areas and Wetland Covenant

#### **Condition 23A**

Prior to operation of the golf course (that being when the course is open for play), the consent holder must, in respect of all Significant Ecological Areas and Wetlands identified in Condition 24, enter into a section 108 Resource Management Act 1991 covenant in favour of the Council for Lot 1 DP187057, Lot 2 DP 196478, Lot 1 DP 191137 and Sec 1 SO 69201. Lot 4 DP187060. Lot 3 DP196479 and Sec 3 SO 41485. Lot 5 DP 187061. Lot 1 DP163736 and Lot 1 DP 196478. The consent holder must contact the Council to initiate the preparation of the covenant. A copy of the updated Computer Register (Record of Title) showing that the covenant has been registered must be provided to the Council prior to operation of the golf course. In the event of undue delay with the registration process that is beyond the consent holder's control, the consent holder may begin operating the golf course prior to the registration of the covenant, with the Council's written approval.

#### The covenant must:

- a) Record the requirements of condition 23 to ensure ongoing compliance with this condition.
- Be drafted by the Council's nominated Solicitor at the consent holder's cost; b)
- c) Be registered against the Record of Title for the affected land by the consent holder at their cost; and
- d) Require the consent holder to:
- i. Be responsible for all legal fees, disbursements and other expenses incurred by the Council in connection with the covenant, and procure its solicitor to give an undertaking to the Council for payment of the same; and

ii. Indemnify the Council for costs, fees, disbursements and other expenses incurred by the Council as a direct or indirect result of the Council being a party to this covenant.

#### Plan of Protected Significant Ecological Areas and Wetlands

#### 24. **Condition 24**

The consent holder must prepare and submit to the Council for certification, a plan/s showing all areas to be protected as identified below prior to registering these protected areas on the record of title.

The areas to be protected are generally depicted on the following figures and plans:

- Significant Ecological Areas shown on Table 10 and Figure 13 of the Ecological a) Effects Assessment, prepared by RMA Ecology, dated December 2021. SEA areas proposed for removal under this consent are not to be included. SEA areas consented for removal are demonstrated on Mackenzie & Co. Plans, subject matter "Clearing" under condition 1.
- b) Wetland Areas shown on Figure 7 of the Ecological Effects Assessment, prepared by RMA Ecology, page 28, dated December 2021.

#### Plan of Ecological Restoration and Enhancement Works

#### **Condition 24A**

Within 5 years following the certification of the ERMP the consent holder must prepare and submit to the Council for certification a plan showing areas for the ecological restoration and enhancement works identified in the ERMP required under conditions 96, 98, 99 and 100.

#### **Condition 24B**

The Council may, following consultation with the Kaitiaki Committee and having regard to the methods and mechanisms proposed under condition 100(f) and (h) to ensure compliance with the consent conditions and protection of the ecological restoration and enhancement areas, require the consent holder to enter into a covenant pursuant to section 108 of the RMA to protect the areas identified in condition 24A.

In the event that the Council requires a covenant, the consent holder must initiate the preparation of the covenant within 5 years following the certification of the ERMP. A copy of the updated Record of Title showing that the covenant has been registered must be provided to the Council.

The covenant must:

a) Record the requirements of condition 23 to ensure ongoing compliance with this condition.

- b) Be drafted by the Council's nominated Solicitor at the consent holder's cost;
- c) Be registered against the records of title for the affected land by the consent holder at their cost; and
- d) Require the consent holder to:
- i. be responsible for all legal fees, disbursements and other expenses incurred by the Council in connection with the covenant, and procure its solicitor to give an undertaking to the Council for payment of the same; and
- ii. indemnify the Council for costs, fees, disbursements and other expenses incurred by the Council as a direct or indirect result of the Council being a party to this covenant.

#### **REGIONAL EARTHWORKS**

#### **Construction Environmental Management Plan**

- 25. Prior to the commencement of any Project Construction Work Component requiring a CEMP, as set out in condition 13, the consent holder must submit a CEMP to the Council for certification. No earthwork activities may commence in relation to any Project Construction Work Component until certification is provided by Council that the CEMP meets the requirements of GD05.
  - The purpose of the CEMP is to set out the management procedures and construction methods to be undertaken to avoid, remedy or mitigate any adverse effects associated with Construction Works as far as practicable.
- To achieve the purpose, the CEMP must be prepared by an appropriately experienced 26. person with specialist input from the project ecologist and include:
  - The roles and responsibilities of staff and contractors; a)
  - Details of the site or Project manager and he Project Liaison Person, including their b) contact details (phone and email address);
  - c) A detailed description of the scope of the activities it covers, including a list of all Project Construction Work Components and all land to be used;
  - d) The Construction Works programmes and staging approach, and the proposed hours of work;
  - The proposed site layouts (including construction yards), locations of refuelling e) activities and construction lighting;
  - A copy of all finalised Management Plans required for the applicable Project f) Construction Works Component forming the CEMP scope;

- Methods for controlling dust and the removal of debris and demolition of g) construction materials from public roads or places;
- h) Methods for providing for the health and safety of the general public;
- i) Measure to mitigate flood hazard effects such as siting stockpiles out of floodplains, minimising obstruction to flood flows, actions to respond to warnings of heavy rain;
- Procedures for incident management; j)
- k) Procedures for the refuelling and maintenance of plant and equipment to avoid discharges of fuels or lubricants to watercourses.
- I) Measures to address the storage of fuels, lubricants, hazardous and/or dangerous materials, along with contingency procedures to address emergency spill response(s) and clean up;
- Procedures for responding to complaints about Construction Works; and m)
- Methods for amending and updating the CEMP as required. n)
- 27. To the extent they are applicable to the Project Construction Work Component, the CEMP must also include:
  - a) Baseline groundwater and surface water monitoring data;
  - Ground and surface water monitoring plans during construction works; b)
  - Clearing plans; c)
  - d) ESCPs; and
  - Cut and fill plans. e)
- 28. To enable sequencing of the Project Construction Works Components, the CEMP may be reviewed and amended over time in accordance with condition 16.

#### **Erosion and Sediment Controls**

29. Prior to the commencement of any bulk earthworks activity on the subject site, a finalised Erosion and Sediment Control Plan (ESCP) must be prepared in accordance with GD05 and submitted to the Council.

No earthworks activity on the subject site may commence until written certification from Council is provided that the ESCP meets the requirements of GD05 and must contain sufficient detail to address the following matters:

- a) Specific erosion and sediment control works (location, dimensions, capacity) including the use of or the decommissioning of existing devices;
- b) Confirmation that the sediment retention ponds have been sized to provide a minimum storage volume of 3.6% (360m<sup>3</sup> of storage for each hectare) of

contributing catchment area and incorporates a forebay that provides a minimum volume of an additional 5% of the pond's volume.

- c) Details of location of the sites stabilised entranceway(s);
- d) Catchment boundaries and contour information;
- Details of construction methods: e)
- f) Timing and duration of construction and operation of control works;
- Details relating to the management of exposed areas (e.g. grassing and mulching); g) and
- h) Monitoring and maintenance requirements.

## **Flocculation Management Plan**

30. Prior to the commencement of any Project Construction Work Component requiring a FMP, as set out in condition 13, the consent holder must submit a FMP to the Council for certification. The Flocculation Management Plan must be prepared by a suitably qualified and experienced person. No earthwork activities may commence in relation to any Project Construction Work Component until certification is provided by Council that the FMP meets the requirements of GD05, and the measures referred to in that plan have been implemented.

The FMP must include:

- Specific design details of the chemical treatment system based on rainfall activated a) devices for sediment retention ponds and decanting earth bunds;
- Monitoring, maintenance (including post storm) and contingency programme b) (including a record sheet);
- Details of optimum dosage (including assumptions); c)
- d) Results of an initial chemical treatment trial based on bench-testing of soils representative of those to be encountered on the site including existing subsoils;
- A spill contingency plan; and e)
- f) Details of the person or bodies that will hold responsibility for operation and maintenance of the chemical treatment system and the organisational structure which will support this system.

To enable sequencing of Project Construction Work Components, the FMP may be reviewed and amended over time in accordance with condition 16.

Chemical treatment of sediment retention ponds, decanting earth bunds and any dirty 31. water pumped from excavations must be undertaken in accordance with the approved FMP.

## **Erosion and Sediment Control Adaptive Management Plan**

Prior to the commencement of any Project Construction Work Component requiring an ESCAMP, as set out in condition 13, the consent holder must submit an ESCAMP to the -Council for certification. The ESCAMP must be prepared by a suitably qualified and experienced person.

The ESCAMP must be generally consistent with Auckland Council's 'Erosion and Sediment Control Adaptive Management Plan Guideline Document' July 2020 and its purpose is to ensure all earthwork activities maintain consistency with GD05 and any other relevant consent conditions, for the duration of works.

### The ESCAMP must include:

- a) Site management structures, practices and procedures;
- b) Weather monitoring procedures including the commissioning of an onsite rain gauge to monitor rainfall and provide alerts to trigger on site erosion and sediment control monitoring for rainfall trigger events as defined in Condition 42;
- c) Control device monitoring plans (frequencies and parameters) including procedures for pre, during and post rain events including;
  - Continuous and automated water quality monitoring (e.g. turbidity) at the inlet and outlet of a minimum of one sediment retention pond within the active earthwork area
  - Additional manual monitoring for all remaining sediment retention ponds and decanting earth bunds.
- d) Sediment control device water quality targets and thresholds including;
  - Treatment efficiency of >90% (up to the 2-year 1hr duration rain event); and
  - Discharge threshold (100mm water clarity or 150 NTU or 100g/m<sup>3</sup> TSS);
- e) Management response measures to be undertaken in the event that the water quality targets are not achieved, or a threshold is breached;
- f) Management response measures to be undertaken in the event that the water quality targets are not achieved, or a threshold is breached; and
- Reporting procedures. g)
- 33. To enable sequencing of Project Construction Work Components, the ESCAMP may be reviewed and amended over time in accordance with condition 16.

#### **Earthworks Pre-commencement**

34. The Council must be notified at least five (5) working days prior to earthwork activities commencing on the subject site.

35. Within ten (10) working days following implementation and completion of the erosion and sediment controls required by an Site-Specific Erosion and Sediment Control Plan and prior to commencement of the earthwork activity in the corresponding area, the consent holder must provide to Council written certification prepared by a suitably qualified and experienced person confirming that the erosion and sediment control measures have been constructed in accordance with GD05 and any additional requirements of this consent.

Certified controls must include super silt fences, dirty water diversions, clean water diversions, decanting earth bunds and sediment retention ponds. Information supplied, if applicable must include:

- a) Details on the contributing catchment areas;
- b) Retention volume of the structure (dead storage and live storage measured to the top of the primary spillway);
- c) Dimensions and shape of structure;
- d) Position of inlets/outlets;
- e) Details regarding stabilisation of the structure;
- f) Confirmation of the alignment and locations of silt fences and super silt fences;
- g) Location of stabilised entranceways; and
- h) Confirmation that the dirty water and clean water diversions have been sized in accordance with GD05.

### **Hours of operation – Construction**

- 36. The construction works must be restricted to between the hours of:
  - 7am and 7 pm Monday to Saturday inclusive. a)
  - No work is permitted on public holidays (and any following Monday on which that b) public holiday is observed).

### Earthworks staging

37. The maximum area of all earthworks being undertaken at the Project Site at any one time must not exceed 30 hectares.

Subject to prior written approval being obtained from the Council, this earthworks area may be increased. Approval will be based on the following factors (but not necessarily limited to):

- Compliance history (if applicable) relative to the earthworks and stream works a) management; and
- b) Monitoring results provided as part of the ESCAMP.

38. The site must be progressively stabilised against erosion at all stages of the earthwork activity and must be sequenced to minimise the discharge of contaminants to groundwater or surface water in accordance with any approved ESCP.

#### Seasonal restrictions

39. No Bulk Earthworks and/or streamworks on the subject site are to be undertaken between 1 May and 30 September in any year without the submission of a 'Request for winter works' for approval to Council. All requests must be renewed annually prior to the approval expiring and no works are to occur until written approval has been received from the Council. All winter works will be re-assessed monthly or as required to ensure that adverse effects are not occurring in the receiving environment and approval may be revoked by the Council upon written notice to the consent holder.

### **During Earthworks**

- 40. All erosion and sediment controls measures must be constructed and maintained in accordance with GD05 except where a higher standard is detailed in the documents referred to in the conditions of consent, in which case the higher standard must apply.
  - The erosion and sediment control measures must be maintained throughout the duration of the earthwork activity, or until the site is permanently stabilised against erosion. A record of any maintenance work must be kept and be supplied to the Council on request.
- 41. All earthworks must be undertaken in accordance with the ESCAMP (and any subsequent revisions) certified by the Council.
- 42. The monitoring required by Condition 43(c) must be undertaken during trigger events as follows:
  - Greater than 25mm of rainfall over any 24 hour period (as measured by the onsite a) rain gauge).
  - b) Greater than 15mm of rainfall within an hour period.
  - Any failure of an erosion and/or sediment control measure leading to an c) uncontrolled discharge of sediment laden water to the receiving environment.
  - d) Spillage/accidents that cause a discharge of sediment or contaminants to the aquatic environment.
  - Obvious degradation of the receiving environment immediately downstream of the e) sediment retention ponds, such as accumulation of sediment, conspicuous oil/grease, scums/foams, floatable matter, fish kills, discolouration of water or significantly increased growth of nuisance algae.

Notification must be provided to Council within 24 hours of a trigger event.

43. Following each trigger event defined by Condition 42, a Trigger Event Report must be provided to Council within 10 working days of the trigger event. The report must include (but is not limited to):

- a) A summary of the trigger event (i.e. rainfall summary, reason for trigger).
- b) The results of the ESCAMP monitoring regime.
- c) Identification of any water quality targets that were not achieved during the trigger event.
- d) Identification of any adaptive management responses that should be undertaken to improve the site's erosion and sediment control measures.
- e) A summary of the performance of the site's erosion and sediment control measures.
- 44. An earthworks catchment which has been reduced (by stabilisation) or stabilised as a result of a trigger level exceedance as defined and required by the ESCAMP and any subsequent revisions approved by the Council must only be re-opened or increased on the written approval of the Council.
- 45. Amendments to the ESCAMP, including cessation of any further monitoring, must be approved by the Council in writing and may be applied for after a period of monitoring which provides sufficient record of site performance and justification for the amendments sought.
- 46. If in the Council's opinion, there are changes required to be made to the ESCAMP as a result of observed inefficiencies on site or identified within the site reporting, Council may request that the ESCAMP be updated to address those inefficiencies. If such a request is made by the Council, the revised plan must be submitted to the Council within ten (10) working days of the request. The revision must not be implemented without the Council's approval.
- 47. The site must be progressively stabilised against erosion in accordance with GD05 as soon as practicable as earthworks are finished over various areas of the site.
- 48. Earthworks must be managed to minimise the deposition of earth, mud, dirt or other debris on any public road or footpath resulting from earthworks activity on the subject site. In the event that such deposition does occur, it must immediately be removed. In no instance shall roads or footpaths be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the stormwater drainage system, watercourses or receiving waters.
- 49. Immediately upon completion or abandonment of earthworks on the subject site, all areas of bare earth must be permanently stabilised against erosion in accordance with GD05.
- All imported fill used within the Project Site must: 50.
  - a) comply with the definition for 'cleanfill material' in the Auckland Unitary Plan (Operative in Part) – (Chapter J1 Definitions);
  - b) be solid material of a stable, inert nature; and
  - c) not contain hazardous substances or contaminants above recorded natural background levels of the receiving site.

All machinery associated with the earthworks activity must be operated in a way, which 51. ensures that spillages of hazardous substances such as fuel, oil, grout, concrete products and any other contaminants are prevented.

#### Advice note

In accordance with this condition, refuelling and lubrication activities associated with earthworks machinery should be carried out away from any water body and using methods so that any spillage that does occur can be contained and does not enter the waterbody.

### Discharges beyond the boundary

52. Beyond the boundary of the site there must be no odour, dust, particulate, smoke, ash or fume caused by discharges from the site which, in the opinion of the Council, is noxious, dangerous, offensive or objectionable.

# Accidental discovery protocol

- 53. If, at any time during any earthworks authorised by these consents, any archaeological features (including human remains, archaeology and artefacts) are uncovered on the subject site, works must cease and the Council and Heritage New Zealand Pouhere Taonga (09 307 9920) must be notified immediately, and the following accidental protocol must be followed:
  - a) All earthworks must cease in the immediate vicinity (at least 10m from the site of discovery) while a suitably qualified archaeologist is consulted on the type of remains;
  - b) If the material is identified by the archaeologist as human, archaeology or artefact, earthworks must not be resumed in the affected area (as defined by the archaeologist). The consent holder must immediately advise the Council, Heritage New Zealand Pouhere Taonga and NZ Police (if human remains are found) and arrange a site inspection with these parties immediately after discovery.
  - c) If the discovery contains koiwi, archaeology or artefacts of Māori origin, representatives from Te Kawerau ā Maki, and Ngāti Whātua o Kaipara are to be provided information on the nature and location of the discovery.
  - d) The consent holder must not recommence works until approved by the Council.
- The consent holder must ensure Te Kawerau ā Maki, and Ngāti Whātua o Kaipara are invited to monitor the earthworks and conduct karakia and other such religious or cultural ceremonies and activities as appropriate.

### **Dust Management Plan**

Prior to the commencement of any Project Construction Work Component requiring a 55. DMP, as set out in condition 13, the consent holder must submit a DMP to the Council. The overall objective of the DMP is to set out the practices and procedures to be adopted to ensure dust emissions from construction activities do not cause an objectionable or offensive effect beyond the boundary of the site.

To enable sequencing of the Project Construction Work Component, the DMP may be reviewed and amended over time in accordance with condition 16.

### Ensure supervision and certification of geotechnical works

56. The construction of Bulk Earthworks, excavations for retaining structures, building foundations and the placement and compaction of fill material must be supervised by a suitably qualified engineering professional.

In supervising the works, the suitably qualified engineering professional must ensure that they are constructed and otherwise completed in general accordance with the geotechnical report recommendations by Lander Geotechnical, Ref No: J01662 (Rev A), dated 11 February 2021 and 30 November, 2021 and for the Water Storage Reservoir area, Riley Consultants, ref 210339-A, dated 18 November 2021.

Certification from a suitably qualified engineering professional responsible for supervising the works must be provided to Council, confirming that the works have been completed in accordance with this condition, within ten (10) working days following completion of any Project Construction Stage. Written certification must be in the form of a geotechnical completion report, a PS 4 or any other form acceptable to the council.

### **Ensure stability**

All earthworks must be managed to ensure that they do not lead to any uncontrolled 57. instability or collapse either adversely affecting the site, neighbouring properties or water courses. If such collapse or instability does occur, it must immediately be rectified.

### **Geotechnical Completion Report**

- 58. Within three months of completion of Bulk Earthworks associated with any Project Construction Stage, or within three months of completion of any buildings, stormwater and wastewater infrastructure constructed as part of any Project Construction Works Component, an Engineer's certificate and Geotechnical Completion Report (GCR) prepared by a suitably qualified and experienced engineering professional responsible for supervising the works must be provided to the satisfaction of the Council, confirming that the works have been completed in accordance with relevant plans contained in the certified CEMP. The GCR is to cover the following (as a minimum):
  - That the works were undertaken in accordance with NZS 4431:1989 Code of a) Practice for Earthfill for Residential Development or NZS4404:2004 Code of Practice for Urban Land Development & Subdivision Engineering and "Section 2 of the Code of Practice: City Infrastructure and Land Development" and the sitespecific designs outlined in the Geotechnical Investigation Report - Muriwai Downs Golf Project. J01662 dated 30.11.21 prepared by Lander Geotechnical.
  - b) Recommendations for specific areas, confirming adequate factors of safety, and including as-built records of earthworks, groundwater levels and drainage;

- c) Include a statement of professional option for the suitability of the site for the intended use;
- d) Details of all earthworks and as-built plans, including the depth, extent of fill and drainage, subsoil drains, shear keys and soil reinforcement (as applicable); and
- Any related matters identified in other conditions of this consent. e)

#### KAURI DIE-BACK MANAGEMENT

## Kauri Die-Back Management Plan

Prior to the commencement of any Project Construction Work Component requiring a KMP, as set out in condition 13, the consent holder must submit a KMP to the Council for certification. The KMP must be prepared by a suitably qualified and experienced person.

The purpose of the KMP is to set out the practices and procedures to be adopted to ensure compliance with consent conditions and also to meet the following objective:

To minimise the risk of spreading kauri dieback disease within and beyond the site throughout the site's construction and during its ongoing maintenance and use.

The KMP must include a detailed description of the scope of activities it covers, including a list of Project Construction Work Components and confirmation of all areas to which it will be applied and over what duration.

To the extent they are applicable to its scope, the KMP must include:

- Details on roles and responsibilities during the construction and operational phases; a)
- b) Site protocols during the construction and operational phases;
- Training and induction information; c)
- Details on the location and extent of Kauri Hygiene Areas, the location of works d) including earthworks, stockpiles, retention ponds and similar structures such as silt fences, kauri hygiene stations, overlaid with buildings, greenways and all other infrastructure;
- Any specific measures or initiatives undertaken at the boundaries, within and (if e) relevant) beyond Kauri Hygiene Areas;
- f) Monitoring details;
- Protocols for maintenance activities in proximity to kauri; and g)
- h) Describe the kauri dieback hygiene protocols that must be followed by all staff, contractors and visitors to the site. This information must also be displayed prominently at key locations, including clear signage noting the presence of kauri on site and the requirement for kauri hygiene measures at the site entry. A master copy of the KMP must be held at the site office and be accessible to all staff and contractors.

- i) Management methods for diseased kauri
- KMP review methods. j)

To enable sequencing of Project Construction Work Components, the KMP may be reviewed and amended over time in accordance with condition 16.

### **During Construction**

- All material (such as weeds and vegetation) and/or any soil excavated within a Kauri 60. Hygiene Area (also referred to as a kauri contamination zone) should be left in the Kauri Hygiene Area. A Kauri Hygiene Area is defined as three times the radius of the canopy dripline of any kauri tree. If removal is necessary, transport off-site must be in secure containment (to prevent loss during transport) and disposal must be to an approved landfill. After the material has been emptied from the vehicle, areas of the vehicle which were exposed to the material (and any tarpaulins etc) must be thoroughly washed with Sterigene (or other suitable agent) prior to the truck or tarpaulin being used for the transportation of any other material.
- 61. All construction activities must be undertaken in accordance with the certified KMP.
- 62. Controls to reduce soil and sediment loss and mitigate surface water run-off must be implemented for any earthworks or exposed soil within a Kauri Hygiene Area.
- 63. All drainage, run-off, or other water discharges from the site must be directed away from kauri and their rootzones.

## **During Operation**

- Access to areas containing kauri must be minimised through: 64.
  - a) Buffer planting (minimum of 3 m wide) to minimise foot and animal traffic from residential areas, and/or
  - b) Suitable fencing.
- 65. Kauri Hygiene protocols must be followed when carrying out planting and/or fencing activities in Kauri Hygiene Areas.
- 66. Permanent Kauri Dieback Disease warning signage that is easily visible must be erected at the entrance to the site and at the forest edges of identified Kauri Hygiene Areas.
- 67. Kauri hygiene facilities must be made available and hygiene protocols must be implemented, in accordance with the approved KMP.

## **TRANSPORT**

### **Construction Traffic Management Plan**

68. Prior to the commencement of any Project Construction Work Component requiring a CTMP, as set out in condition 13, the consent holder must submit a CTMP to the Council for certification. The CTMP must be prepared in accordance with the Council's

requirements for traffic management plans or CTMPs (as applicable) and New Zealand Transport Agency's Code of Practice for Temporary Traffic Management and must address the surrounding environment including pedestrian and bicycle traffic.

Construction activity in relation to any Project Construction Work Component requiring a CTMP must not commence until the CTMP has been certified by the Council and all construction traffic must be managed at all times in accordance with the approved CTMP.

The CTMP must be included in the application for a Corridor Access Request.

To enable sequencing of Project Construction Work Components, the CTMP may be reviewed and amended over time in accordance with condition 16.

## Avoid damaging assets

69. Unless specifically provided for by this consent, there must be no damage to public roads, footpaths, berms, kerbs, drains, reserves or other public asset as a result of the earthworks and construction activity. In the event that such damage does occur, the Council must be notified within 24 hours of its discovery. The cost of rectifying such damage and restoring the asset to its original condition must be met by the consent holder.

## **Engineering Plan Approval**

70. Prior to the commencement of any engineering works, the consent holder must submit for engineering plans (including engineering calculations and specifications) to the Council for approval in writing. The engineering plans must include, but not be limited to, the information regarding the detailed design of all roads and road network activities provided for by this resource consent approval.

#### Advice Note:

As part of the application for the EPA, a suitably qualified and experienced transport engineering must:

- Certify that all public roads and associated structures/facilities or access ways have been designed in accordance with the Auckland Transport's Transport Design Manual.
- Provide a statement that the proposed infrastructure has been designed for the (b) long-term operation and maintenance of the asset.
- (c) Confirm that all practical measures are included in the design to facilitate safe working conditions in and around the asset.
- (d) Design the Road 1 access so that the access is square to Muriwai Road for a distance of at least 10 metres.
- Submit to Auckland Transport a Departure from Standard for review both vehicle (e) crossings not in compliance with Auckland Transport's current code of practice.

If EPA drawings require any permanent traffic or parking restrictions, then the consent holder must submit a resolution report for approval by Auckland Transport Traffic Control Committee (TCC) to legalise these restrictions. The resolutions, prepared by a suitably qualified and experienced traffic engineer, will need to be approved so that the changes to the road reserve can be legally implemented and enforced.

The resolution process requires external consultation to be undertaken in accordance with Auckland Transport's standard procedures. It is the responsibility of the consent holder to prepare and submit a permanent Traffic and Parking Changes report to the TCC for review and approval.

The EPA forms including fees can be found at the following Auckland Council website: https://ww.aucklandcouncil.govt.nz/building-and-cosnents/engineering approvals/Pages/default.aspx

Within three months of completion of the relevant works, an engineering completion certificate, certifying that the widened public road and/or the ancillary structures on the road to be vested in Auckland Council, have been constructed in accordance with the EPA requirements must be provided to the Council.

### Resolutions

New traffic controls on Muriwai Road at both proposed access points (Academy/Service access and Lodge/Clubhouse access) must be provided in accordance with the approved plans prior to first use of those access points.

### **Advice Note**

Permanent traffic and parking controls are subject to a Resolution approval from Auckland Transport. Changes to traffic / parking controls on the road reserve will require Auckland Transport Traffic Control Committee (TCC) resolutions. The resolutions, prepared by a suitably qualified and experience traffic engineer, will need to be approved so that the changes to the road reserve can be legally implemented and enforced. The resolution process requires external consultation to be undertaken in accordance with Auckland Transport's standard procedures. It is the responsibility of the consent holder to prepare and submit a permanent Traffic and Parking Changes report to Auckland Transport TCC for review and approval. No changes to the traffic and parking controls will be allowed before the resolution is approved by the Auckland Transport TCC. All costs must be borne by the consent holder.

Application details can be found from the following Auckland Transport website link: https://at.govt.nz/about-us/working-with-at/traffic-and-parking-controls

- A copy of the Resolution from the Auckland Transport Traffic Control Committee must be 72. provided to the Council within one month of receiving the resolution.
- 73. A minimum of 10 bicycle parking spaces must be provided within the site prior to first operation of the visitor accommodation.

## **Auckland Transport Advice Note**

### **Encroachment Licences**

Encroachment licences are required for any private retaining walls or works within the road corridor. The licence process is managed by Auckland Transport as the road controlling authority. If the consent holder proposes to undertake works which would require a licence, they will need to apply for approval and complete the Road Encroachment Licences Application Form. All applications are dealt with on a case-bycase basis and needs to be in line with the requirements in Road Encroachment Guidelines.

As noted on the application form, the consent holder will be required to pay all costs and disbursements associated with the application and provide detailed plans of the proposed encroachment. The application fees are set out on the Auckland Transport website https://at.govt.nz/about-us/working-on-the-road/road-processes-property-owners/roadencroachment-licences-or-leases/ which include Auckland Transport staff time for processing the application. Additionally, the owner will need to cover all legal fees related to preparing the licence and registration of the encumbrance against the consent holder's Record of Title to the adjoining land. Some encroachment use also attracts an ongoing rental as noted in the guidelines.

## Corridor Access Requests

It will be the responsibility of the consent holder to determine the presence of any underground services that may be affected by the consent holder's work in the road reserve. Should any services exist, the consent holder shall contact the owner of those and agree on the service owner's future access for maintenance and upgrades. Services information ma be obtained from https://www.beforeudig.co.nz

All work in the road reserve must be carried out in accordance with the general requirements of the National Code of Practice for Utility Operators' Access to Transport Corridors https://www.nzuag.org.nz/national-code/ApprovedNationalCodeFeb13.pdf and Auckland Transport Design Manual https://at.govt.nz/about-us/manualsguidelines/transport-design-manual/

Prior to carrying out any work in the road corridor, the consent holder must submit to Auckland Transport a Corridor Access Request (CAR) and temporary traffic management plan, the latter prepared by a NZ Transport Agency qualified person and work must not commence until such time as the consent holder has approval in the form of a Works Access Permit (WAP). The application may be made at <a href="https://at.govt.nz/about-">https://at.govt.nz/about-</a> us/working-on-the-road/corridor-access-requests/apply-for-a-car/ and 15 working days should be allowed for approval.

## **Crossings**

Prior to the occupation of the new buildings, all redundant vehicle crossings must be removed and reinstated as berm to Auckland Transport's Transport Design Manual requirements. This must be undertaken at the consent holder's expense and to the satisfaction of the Council.

#### **Table Drain Easements**

Prior to the vesting of the widened public road (Muriwai Road), the consent holder must provide easements in favour of Auckland Council to allow access to all table drains shown within the consent holder's private land. Plans and documents showing the registration of the easements must be submitted to the Council as part of or in advance of Engineering Plan Approval (EPA).

## **Road Safety Audit**

A stage 3 (detailed design) Road Safety Audit (RSA) must be undertaken by a suitably qualified and experience transport engineer for both the Road 1 and Road 5 access points prior to or during an application for EPA.

#### Advice Note:

Auckland Transport are to complete the Road Safety Engineer and Decision comment boxes in the RSA document.

#### LANDSCAPE AND VISUAL

## Landscape Implementation and Management Plan

77. Prior to the commencement of any Project Construction Work Component requiring LPs, as set out in condition 13, the consent holder must submit a LIMP to the Council for certification.

The purpose of the LIMP is to:

- a) Mitigate adverse visual and landscape and amenity effects associated with the Project;
- b) Integrate the development into the landscape character of the Project Site and wider setting; and
- c) Set out a programme of establishment and ongoing protection and maintenance of plants.

The LIMP must be prepared by a suitably qualified and experienced landscape architect as an overarching document that sets out the objectives and principles of the Project's landscape design and its ongoing management.

The LIMP must be consistent with Landscape Concept and Planting Guidelines prepared by Boffa Miskell in December 2021.

The programme of establishment and post establishment protection and maintenance must include details on fertilising, weed removal/spraying, replacement of dead/poorly performing plants, where required, watering to ensure effective establishment of plants and length of maintenance programme.

The consent holder must update the LIMP throughout the Project's Construction to include any LPs prepared in accordance with Condition 16.

## **Final Detailed Landscape Plans**

78. Prior to the commencement of any Project Construction Work Component requiring LPs, as set out in condition 13, the consent holder must submit relevant LPs to the Council for certification. The LPs must be prepared by a suitably qualified and experienced landscape architect.

All LPs must comply with relevant conditions of this consent, be consistent with the objectives and principles of the certified LIMP and be consistent with the Landscape Concept and Planting Guidelines prepared by Boffa Miskell in December 2022.

To the extent they are applicable to the scope of the LP, they must include:

- a) A landscape plan and specifications including;
  - i. the extent, materiality and finished levels of any paving or roading;
  - ii. the location, materiality, height and design of fencing and retaining walls;
  - iii. the construction details of all hard landscape components (bridges, paving, fencing, gates, signage, lighting, power lines etc); and
  - iv. in relevant locations, stockproof fencing to protect the planting.
- A plan of the planted area detailing the proposed plant species, plant sourcing, plant sizes at time of planting, plant locations, density of planting, and timing of planting; and
- c) Cross sections / design details with key dimensions to illustrate landform modification around the reservoir and carpark area, including earth bunds around the tennis pavilion to demonstrate appropriate integration.
- 79. The specific LP must be consistent with the following:
  - a) Golf course: the golf course example area concept plans included in the Landscape Concept and Planting Guidelines prepared by Boffa Miskell (December 2021);
  - b) Lake Ōkaihau northern margin between the lake and hole 2 (including fairway, bunkers and tees) must be planted with ecologically appropriate vegetation with the purpose of achieving a natural buffer / edge between the lake and the hole;
  - c) Golf and Property Maintenance Complex area: Boffa Miskell Drawing BM210355 SK101;
  - d) Sports Academy area: Boffa Miskell Drawing BM210355 SK102;
  - e) North-eastern site entrance area: Boffa Miskell Drawing BM210355 SK103 while achieving the following outcomes:
    - i. Filtering and maintaining views into the Site and across the broader landscape where applicable; and

- ii. With replacement planting, achieving a vegetative balance on both sides of the road, similar to the existing character.
- f) South-western site entrance area: Boffa Miskell Drawing BM210355 SK104 while achieving the following outcomes:
  - i. Filtering and maintaining views into the Site and across the broader landscape where applicable; and
  - ii. With replacement planting, achieving a vegetative balance on both sides of the road by utilising similar species.
  - iii. If practicable, in the opinion of the Project Manager transplant the existing Pōhutukawa tree that is required to be removed to accommodate the upgraded entrance. Should this not be achievable plant a minimum 300L Pōhutukawa within this entrance area.

#### Advice note:

To achieve the respective outcomes for the north-eastern and south-western site entrance areas, any replacement planting may be located on the consent holder's property to avoid potential future loss of replacement planting located on the road reserve.

- Clubhouse area: Clubhouse concept plan included in the Landscape Concept and g) Planting Guidelines prepared by Boffa Miskell (December 2021);
- Lodge area: Boffa Miskell Drawing BM210355 SK200 and the Lodge concept plan h) included in the Landscape Concept and Planting Guidelines prepared by Boffa Miskell (December 2021); and
- i) Water Storage Reservoir as depicted in Boffa Miskell drawing SK107.
- 80. Each certified LP must be included in the LIMP. Planting depicted within each LP must be implemented in the first planting season following completion of any relevant Project Construction Work Component (unless the Council agrees to delay it until the following planting season due to circumstances beyond the consent holder's control, such as unavailability of plants). All landscaping is to be implemented and maintained thereafter to the satisfaction of the Council at the consent holder's expense.

### Landscape Design

- 81. The landscape design must ensure that all above ground wastewater treatment plant is screened from public view when travelling along Muriwai Road. Any landscape treatments to achieve this requirement must be designed to maintain views of the kumara shed.
- 82. At least 20 working days prior to constructing any part of the Clubhouse car park, the consent holder must engage a suitably qualified and experienced landscape architect and civil engineer to jointly prepare and submit to the Council for certification, a Clubhouse Car Park Re-design Report.

- 83. The re-design presented in the Clubhouse Car Park Re-design Report must be consistent with the LIMP and must achieve, to the satisfaction of the Council, a reduction in adverse visual and landscape effects by softening the expanse of carpark surface area, integration with landform, and inclusion of planting to delineate carpark spaces and edges, and must include the following:
  - a) Land contour plans;
  - b) A Landscape Plan prepared in accordance with condition 78; and
  - c) An assessment of adverse visual and landscape effects associated with the redesign;

Construction of the Clubhouse car park must not commence until the Council has certified the Clubhouse Car Park Re-design Report.

## Signage

- 84. Site signage (excluding any internal wayfinding or other internal site signage that is not legible from the public realm) is limited to:
  - a) One sign near the upgraded western vehicle crossing providing access to the Lodge and the Golf Course and Clubhouse; and
  - One sign near the relocated eastern vehicle crossing providing access to the Golf b) Academy and Golf and Property Maintenance Complex.
- 85. Materiality and scale of each site sign must be in general accordance with the site sign depicted in the Design Statement from Johnstone Callaghan Architects (Appendix 19 of the AEE).

### **Maintenance of Landscape Planting**

Landscape planting must be maintained in accordance with the LIMP and any certified LP 86. and thereafter retain and maintain this landscape planting in perpetuity to the satisfaction of the Council.

## **Buildings**

Sports Academy

- The Sports Academy buildings must be designed and built to comply with the following requirements:
  - a) The gross floor area must not exceed 890 m<sup>2</sup>
  - b) The maximum roof area must not exceed 1580 m<sup>2</sup>
  - The maximum rolling height must not exceed 7m c)
  - d) A maximum Light Reflectance Value (LRV) of 40% for building cladding materials and colours, and 30% for roof materials and colours.

## Indoor Tennis Building

- 88. The Indoor Tennis building must be designed and built to comply with the following requirements:
  - a) The gross floor area must not exceed 2025 m<sup>2</sup>
  - b) The maximum height must not exceed 14 m
  - c) A maximum Light Reflectance Value (LRV) of 40% for building cladding materials and colours, and 30% for roof materials and colours.

# Golf & Property Maintenance Complex

- 89. The Golf & Property Maintenance Complex buildings must be designed as simple rural style structures with visually recessive external materials and colours related to the rural pastoral setting and built to comply with the following requirements:
  - a) The overall layout must be in general accordance with drawing BM210355\_200 prepared by Boffa Miskell (Revision D).
  - b) The use of visually recessive external materials and colours related to the rural pastoral setting and the use of non-reflective glass for glazing of buildings.
  - c) Regarding the Equipment Store and Workshop:
    - i) The gross floor area must not exceed 1000 m<sup>2</sup>
    - ii) The maximum height must not exceed 8.3 m
  - d) Regarding the Office Building:
    - i) The gross floor area must not exceed 510 m<sup>2</sup>
    - ii) The maximum height must not exceed 4.7 m
  - e) Regarding the Operations Building:
    - i) The gross floor area must not exceed 300 m<sup>2</sup>
    - ii) The maximum height must not exceed 4.7 m
  - f) Regarding the Bulk Store:
    - i) The gross floor area must not exceed 300 m<sup>2</sup>
    - ii) The maximum height must not exceed 6.4 m
  - g) Regarding the Washdown Area and Chemicals / Fertiliser Store:
    - i) The gross floor area must not exceed 250 m<sup>2</sup>
    - ii) The maximum height must not exceed 5.5 m
  - h) Regarding the Fuel Store:
    - i) The gross floor area must not exceed 120 m<sup>2</sup>
    - iii) The maximum height must not exceed 4.7 m

### Golf Clubhouse

- The Golf Clubhouse building must be designed and built to comply with the following requirements:
  - a) The entire building must be located such that it sits entirely within the 1.02 hectare development envelope shown in Figure 1 of this resource consent
  - b) The gross floor area must not exceed 2,294 m<sup>2</sup>
  - The maximum rolling height must not exceed 12m c)
  - d) Materiality must be in general accordance with elements set out in the Design Statement from Johnstone Callaghan Architects (Appendix 19 of the AEE).



Figure 1: Clubhouse Development Envelope

# Lodge

- 91. The Lodge buildings must be designed and built to comply with the following requirements:
  - a) All buildings must;
    - i. be located within an are not exceeding 8.0 hectares; and
    - ii. be at least 10 m from the Lake Ōkaihau Escarpment, as denoted in Figure 09 of Appendix 2 of the Lander Geotechnical report provided as Appendix 4C of the AEE, and archaeological site Q11/68;

- b) The combined gross floor area of the lodge and accommodation buildings must not exceed 8,150 m<sup>2</sup>
- The lodge building must have a maximum rolling height of 11 m c)
- d) Accommodation buildings must have a maximum rolling height of 6 m
- The wellness centre building must have a maximum rolling height of 8 m e)
- f) Materiality must be in general accordance with elements set out in the Design Statement from Mason & Wales Architects (Appendix 20 of the AEE).

## **OUTSTANDING NATURAL FEATURES**

- 92. Rock, earth or any other materials from the works must not be disposed of or deposited anywhere within the Outstanding Natural Feature Lake Ōkaihau, ID72.
- 93. Sediment and erosion control devices must be located outside of ONF overlays and any ONF protective fences.
- 94. The lake shore of the Outstanding Natural Feature Lake Okaihau, ID72, must be protected from ground disturbance, vehicles, equipment movements, and storage of materials. This protection must be extended both during works and on a permanent basis upon operation of the development.
- 95. Prior to works commencing in the vicinity of Lake Okaihau a temporary fence must be established to prevent incursion into the lake and must be maintained for the duration of Construction. The location of the fence must take into consideration the changeable level of the lake to ensure that the ONF is adequately protected. If any works within the fenced area are required, then these must be first authorised by the Council before the works take place.

#### Advice note:

Any works required within the fenced area should be discussed with the Council's ONF specialist.

### TERRESTRIAL ECOLOGY

## **Ecology and Restoration Planting**

- 96. The consent holder must implement ecological restoration and enhancement works on the Project Site in general accordance with the Concept Restoration and Enhancement Planting Plan provided in Figure 2 of this consent and, unless otherwise agreed in writing by the Council, following consultation with Te Kawerau lwi Tiaki Trust and Ngā Maunga Whakahii o Kaipara Development Trust, comprising the following minimum requirements:
  - a) Be undertaken in a manner consistent with golf course example area concept plans included in the Landscape Concept and Planting Guidelines prepared by Boffa Miskell (December 2021); and
  - b) Golf course planting:

- 5.7 hectares of riparian planting surrounding wetlands and streams to include low-stature native grasses, rushes, sedges and shrubs for ecological and amenity purposes;
- 4.9 hectares of wetland enrichment planting within the centres of wetlands including low-stature native grasses, rushes and sedges for ecological and amenity purposes;
- iii. 3.2 hectares of other indigenous planting surrounding forest areas including early successional native shrubs and trees for ecological and amenity purposes; and
- c) Non-golf course area planting;
  - 2.4 hectares of restoration riparian planting surrounding wetlands and streams;
  - ii. 2.3 hectares of ecological restoration wetland planting, including a suite of appropriate wetland plants; and
  - iii. 8.4 hectares of ecological restoration forest planting including a full suite of appropriate terrestrial forest plants.

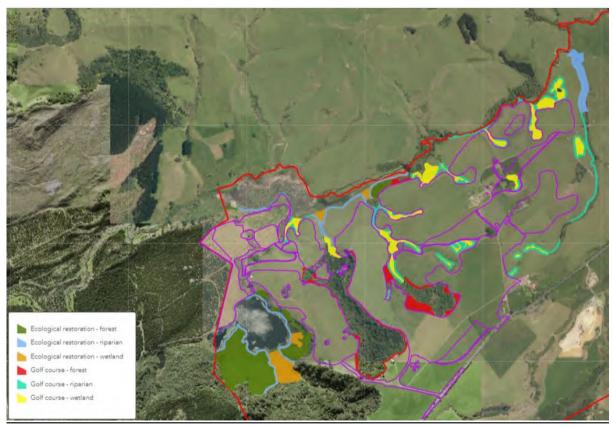


Figure 2: Concept Restoration and Enhancement Planting Plan

97. To ensure the success of ecological restoration and enhancement planting, all planting areas must have ongoing maintenance, environmental weed control, and pest animal control (if needed) until 80% canopy closure is achieved, or a minimum of 5 years of planting maintenance, whichever comes first.

## **Ecological and Restoration Management Plan**

98. No later than six months following the commencement of indigenous vegetation removal associated with any Project Construction Work Component requiring an ERMP, as set out in condition 13, or no less than 20 days prior to commencement of any ecological restoration activities (whichever is sooner), the consent holder must submit an ERMP to the Council for certification. The ERMP must be prepared by a suitably qualified and experienced ecologist.

The consent holder must invite representatives from the following parties to provide input into the ERMP via the Kaitiaki Committee process described in condition 6:

- Te Kawerau lwi Tiaki Trust; and
- Ngā Maunga Whakahii o Kaipara Development Trust.
- 99. The overall objective of the ERMP is to set out the practices and procedures to be adopted to ensure compliance with the consent conditions and also to meet the following objectives:
  - To identify areas where restoration will be undertaken on the Muriwai Downs
     Property, in particular forest and wetland areas, to be managed as mitigation and
     offsets for the Project;
  - b) To identify areas where other voluntary ecological enhancements will be undertaken on the Muriwai Downs Property; and
  - c) To set out specific management methodologies for all identified restoration and enhancement areas.
- 100. The ERMP must be prepared in general accordance with the areas proposed for revegetation, protection and biodiversity enhancement in the Ecological Effects Assessment report prepared by RMA Ecology Ltd (Appendix 11 of the AEE) and must include.
  - a) Details regarding roles and responsibilities;
  - b) Summaries of ecological baseline surveys undertaken on the site;
  - c) Measures for the protection of threatened species
  - d) An objective to remove weeds and remove or suppress animal pests to low levels along with associated methods and targets;
  - e) A Wetland Restoration Plan (prepared in accordance with Schedule 2 of NES-F);
  - f) Methods to ensure compliance with the consent conditions, and in particular;
    - i) Methods and staging details regarding the implementation of ecological restoration and enhancement works:

- Details and methods associated with offsetting the residual losses of ii) ecological values associated with culverting stream P3 and reclaiming a section of stream 19; and
- iii) Details associated with the adaptive management plan for assessing and responding to potential adverse effects on wetland birds in the Okiritoto Wetland and Lake Ōkaihau and forest birds along the forest edge habitat of forest blocks closest to helicopter landing pads;
- g) Details regarding ongoing ecological maintenance and monitoring and wildlife salvage (including any stranded seabirds observed on the Site);
- h) Mechanisms for protection; and
- i) Reporting.

The consent holder must comply with the certified ERMP and Wetland Restoration Plan.

- 101. All plants used in the implementation of the ERMP must be eco-sourced from the Kaipara, Rodney or Waitakere Ecological Districts.
- 102. Ecological restoration and enhancement works must commence in the planting season (May – September for forest, riparian and wetland buffer areas and late summer/autumn for wetlands) immediately following the certification of the ERMP.

## Myrtle Rust

103. Prior to any Myrtaceae species being delivered to the site, a signed Myrtle Rust Nursery Management Declaration that certifies that the plant producer has implemented the New Zealand Plant Producers Incorporated Myrtle Rust Nursery Management Protocol must be obtained by the consent holder. A copy of the declaration must be provided to the Council within 5 days of being obtained.

### **Arboriculture**

104. The consent holder must identify to the Council an Appointed Supervisory (Works) Arborist to be engaged by the consent holder to advise upon, supervise and coordinate all tree removals, crown pruning, and works within the root zones of protected trees and vegetation associated with the project.

### **Tree Management Plan**

105. Prior to the commencement of any Project Construction Work Component requiring a TMP, as set out in condition 13, the consent holder must submit a TMP to the Council for written certification. The TMP must be prepared by a suitably qualified and experienced Arborist.

The purpose of the TMP is to set out the practices and procedures to be adopted to ensure compliance with relevant conditions of consent and also to meet the following objectives:

- To ensure numbers or areas of trees removed does not exceed those identified in a) the tree inventory record provided in Schedule 3 of the Consents.
- b) To minimise any short-term and long-term adverse effects on remaining trees located adjacent to removed trees or areas of removed trees; and
- c) To avoid or minimise any short-term or long-term adverse effects on trees associated with earthworks.

The TMP must include a detailed description of the scope of activities and a list of Project Construction Work Components it covers.

To enable sequencing of the Project, the TMP may be reviewed and amended over time in accordance with condition 16.

### **Tree Works**

- 106. No machinery or equipment or materials must be stored or deposited within the protected root zone of any tree within the site (i.e. no products, fluids, machinery, or tools, etc). Special attention must be paid to any petrol/diesel operated machinery to avoid contaminating the soil in the root zone of the trees.
- 107. Prior to any works commencing on or within close proximity to, any specific protected tree or group of protected trees, the consent holder must erect temporary fences to exclude all access to these trees. The temporary fence must be located to completely enclose the open ground area or berm out to the protected root zone (dripline extent) of the tree, while leaving any existing accessways clear.
- 108. The fence must not be moved by any contractor or site worker at any stage of the construction activities occurring in the vicinity of the tree unless the works arborist determines that the fence needs to be moved to execute consented construction activities.
- 109. All tree removal, pruning works and works within the rootzone of retained trees are to be undertaken by a suitably qualified and experienced arborist.
- 110. Unless otherwise agreed in writing by the Council, all earthworks required to facilitate services and drainage which occur within the root zone of protected trees must be undertaken using trenchless technologies such as pipe drilling and thrusting, and any ground openings necessary to provide machine entry and exit pits, service connections etc, must be sited outside the root zone of protected trees.
- 111. A monthly memo is required for the duration of the tree works covered in this consent. This memo must provide details of each instance that the Works Arborist is present on site to supervise and monitor pruning, removal and works in the rootzone of protected trees. This memo must document (including photographs) all of the activities which have been undertaken upon or within the root zone of protected trees and confirm that the works to date have been in accordance with the conditions of consent while under the direction of the Works Arborist.

112. A completion memo must be provided by the Works Arborist to the Council within one month of the finish of all tree works. The completion memo must confirm (or otherwise) that the works have been undertaken in accordance with the tree protection measures in the conditions of consent and under the direction of the Works Arborist. The completion memo must also confirm (or otherwise) that the impact on the protected trees has been no greater than that afforded under the conditions of consent.

#### Lizards

## **Lizard Management Plan**

113. Prior to the commencement of any Enabling Works involving earthworks and prior to the commencement of any Project Construction Work stage requiring a LMP, as set out in condition 13, the consent holder must submit and have certified by Council, a LMP prepared by a suitably qualified and experienced ecologist/herpetologist.

The purpose of the LMP is to achieve the following two objectives:

- The population of each species of native lizard present within relevant areas of Enabling Works or Project Construction Works must be maintained or enhanced, either on the same site or at an appropriate alternative site; and
- The habitat(s) that lizards are relocated to will support viable native lizard populations for all species present pre-development.

To the extent it is applicable to the scope of work, the LMP must address the following (where relevant):

- a) Credentials and contact details of the ecologist/herpetologist who will implement the plan;
- b) Timing of the implementation of the LMP;
- c) A description of methodology for survey, trapping and relocation of lizards rescued including but not limited to:
  - i. salvage protocols;
  - ii. relocation protocols (including method used to identify suitable relocation site(s));
  - iii. nocturnal and diurnal capture protocols;
  - iv. supervised habitat clearance/transfer protocols;
  - v. artificial cover object protocols;, and
  - vi. opportunistic relocation protocols;
- d) A description of the relocation site(s); including:

- i. provision for additional refugia, if required e.g. depositing salvaged logs, wood or debris for newly released native skinks that have been rescued;
- ii. any protection mechanisms (if required) to ensure the relocation site is maintained (e.g.) covenants, consent notices etc; and
- iii. any weed and pest management to ensure the relocation site is maintained as appropriate habitat.
- e) Monitoring methods, including but not limited to:
  - i. baseline surveying within the site;
  - ii. baseline surveys outside the site to identify potential release sites for salvaged lizard populations and lizard monitoring sites;
  - iii. ongoing annual surveys to evaluate relocation success;
  - iv. pre and post relocation surveys; and
  - v. monitoring of effectiveness of pest control and/or any potential adverse effects on lizards associated with pest control; and
- f) A post-vegetation clearance search for remaining lizards.
- 114. A suitably qualified and experienced ecologist/herpetologist approved to oversee the implementation of the LMP and to supervise all and any habitat removal in order to search for a rescue any native lizards found and relocate them to a suitable alternative location on the site.
- 115. All works on site must comply with the certified LMP.
- 116. To enable sequencing of Project Construction Work Components, the LMP may be reviewed and amended over time in accordance with condition 16.

#### Advice Note:

Please note that it is recommended that the lizard rescue plan is undertaken in conjunction with the vegetation clearance operations (and contractor) for an integrated approach (on the same day), to enable the physical search for lizards following felling of trees, shrubs, ground cover vegetation and terrestrial retreats.

- 117. Within three months of completion of works associated with any relevant Enabling Works or Project Construction Work stage requiring an LMP as set out in condition 13, all findings resulting from the implementation of the LMP must be recorded by a suitably qualified and experienced ecologist/herpetologist approved by the Council on an Amphibian/Reptile Distribution Scheme (ARDS) Card (or similar form that provides the same information) which must be sent to Council and the Department of Conservation.
- 118. A suitably qualified and experienced ecologist/herpetologist approved to oversee the implementation of the LMP must certify that the Lizard related works have been carried

out according to the certified LMP within two weeks of the completion of the vegetation clearance works.

#### Advice Note:

### The Wildlife Act 1953

All native lizards are absolutely protected under the Wildlife Act 1953 under which it is an offence to disturb, harm, or remove them without a permit from the Minister of Conservation.

For further information on lizards that are protected under the Wildlife Act and determination of a suitable new habitat please contact the Council's Ecological Advice team (Team Leader Ecological Advice, on ecologicaladvice@aucklandcouncil.govt.nz)

#### **Timing**

Department of Conservation restricts lizard capture, handling and relocation to between the months of October to April.

### <u>Correspondence</u>

All correspondence relating to Lizard management conditions can be emailed to monitoring@aucklandcouncil.govt.nz and cc'd to ecologicaladvice@aucklandcouncil.govt.nz.

#### **Bats**

## **Bat Management Plan**

119. Prior to the commencement of any Project Construction Work Component requiring a BMP, as set out in condition 13, the consent holder must submit a BMP to the Council for certification. The BMP must be prepared by a suitably qualified and experienced ecologist to outline pre-felling monitoring of high-risk trees.

The BMP must set out the practices and procedures to be adopted to avoid as far as practicable the injury/death of bats during the construction and operation of the Project Site and to the extent they are applicable to its scope, the BMP must include:

- a) A detailed description of the scope of activities it covers, including a list of Project Construction Work Components and/or Operations including confirmation of all areas to which it will be applied and over what duration;
- b) Confirmation of the locations and extents of all High Value Bat Habitats on the Project Site;
- A vegetation removal protocol prepared by a qualified bat ecologist that sets out the c) monitoring procedures to be implemented for the removal of any vegetation and/or trees that are identified as potential bat roosts. This can be achieved through acoustic surveys, direct observation of trees prior to their removal, and by managing the time (month) of removal;

- Details of ongoing monitoring and reporting of bat activity where occupied bat roosts d) are discovered
- Proposal(s) for minimising disturbance from construction activities near any e) discovery of active roosts until the bat ecologist confirms they are vacant;
- f) Methods for the replacement of any actual and potential bat roosts that are removed as part of the proposal;
- Management actions to minimise disturbance to bats from temporary or permanent g) lighting; and
- h) Management actions to minimise disturbance to bats from operational noise and lighting:
- i) To enable sequencing of Project, the BMP may be reviewed and amended over time in accordance with condition 16.
- 120. The vegetation removal protocol set out in the BMP must be implemented for the removal of any vegetation and/or trees that are identified as potential bat roosts by a suitably qualified ecologist.

#### Advice Note:

#### The Wildlife Act 1953

All bats are absolutely protected under the Wildlife Act 1953 under which it is an offence to disturb, harm, or remove them without a permit from the Minister of Conservation.

# **Birds**

- 121. The consent holder must undertake activities on the Project Site in a manner that minimises adverse effects on indigenous bird species associated with:
  - a) the removal or pruning of any vegetation and/or trees;
  - ongoing operational lighting; and b)
  - c) construction and ongoing operational and helicopter noise.
- 122. Prior to any vegetation clearance or alteration occurring in the period September February (inclusive) in any year, the consent holder must engage a suitably qualified and experienced ecologist to undertake a nesting bird survey for the purpose of identifying any vegetation being used by native bird as nesting habitat. This includes both arboreal and ground nests.
- 123. Should the nesting bird survey identify a native bird nest, a 15 metre exclusion zone must be demarcated with flagging tape and avoided until the chicks have fledged.
- 124. A period of no less than two days must elapse between the nesting bird survey and the vegetation clearance / alteration taking place.

#### Advice Note:

Almost all native bird species are absolutely protected under the Wildlife Act 1953. It is an offence to deliberately disturb or destroy them, their eggs or nests. By restricting vegetation clearance to outside of the main native bird breeding season the risk of disturbing nesting birds is significantly reduced, however vegetation should still be checked for obvious signs of nesting activity prior to clearance works being undertaken.

To manage impacts on nesting wetland birds within Ōkiritoto Swamp spectators during golf events held between August and February must not be permitted to gather north of hole 6. Any future application for resource consent for golf events should include measures to this effect.

125. Bulk Earthworks within the area shown in **Figure 3** of this consent, must not be undertaken between 1 August and 28 February to avoid the key breeding season for sensitive wetland bird species (e.g. Australasian bittern).



Figure 3: Bulk Earthworks Exclusion Buffer

- 126. For the purpose of confirming the nature and magnitude of adverse effects on the indigenous bird species population associated with helicopter noise and any appropriate adaptive management response or responses, the consent holder must:
  - a) Engage an appropriately qualified and experienced ecologist to:
    - i. Compile and provide to the Council for certification, a Baseline and Adaptive Management Report presenting data collected over a period of no less than two years prior to the Project Site's use of helicopters and including:

- Bird abundance information on wetland birds in the Okiritoto Swamp and Lake Ōkaihau during representative periods of the day when helicopter flights are likely to occur;
- Bird abundance information on forest birds along the forest edge habitat of forest blocks closest to helicopter landing pads during representative periods of the day when helicopter flights are likely to occur; and
- To provide a non-treatment control not exposed to helicopter noise effects, wetland and forest bird abundance information at appropriate nearby wetland and native forest control sites; and
- A set of "triggers" and a "menu" of potential adaptive management mitigation measures to manage unforeseen effects or effects that are associated with the Project Site's use of helicopters and that, in the opinion of a suitably experienced and qualified ecologist, are more significant than anticipated; and
- Undertake annual monitoring at the Project Site and the control site(s) for five ii. years following the commencement of the Project Site's use of helicopters; and
- b) By the 30<sup>th</sup> of September of each year monitoring is undertaken in accordance with clause (a) (ii) of this condition, engage an appropriately qualified and experienced ecologist to prepare and submit to the Council a report that presents these monitoring results and:
  - i. assesses any adverse effects on birds associated with helicopter flights;
  - ii. assesses whether any adverse effects identified have met any "triggers" developed in accordance with a(i) of this condition; and
  - iii. Makes recommendations on any adaptive management changes to helicopter management; and
  - ίV. makes recommendations on any changes to the monitoring set out in clause (a) of this condition.

#### **Grounded Seabirds**

127. Should the lighting operations result in a grounded seabird (which includes a single recorded instance that a downed seabird corresponds to a likely effect of lighting), the consent holder must cease the lighting of the driving range or outdoor tennis courts for the remainder of the seabird season (1 December to 31 May).

The use of the outdoor lighting may only resume during that seabird season following an assessment by a suitably qualified ecologist and the implementation of any recommended remediation options, or if the ecologist has concluded that the grounded seabird was not caused by lighting.

#### Advice Note:

The purpose of this condition is to reduce the risk to young sea birds when they are most likely to use the North Auckland Flyway.

### LIGHTING

- 128. Prior to commencing construction of any of the main buildings commencing, a detailed lighting design, prepared by a suitably qualified and experienced person, must be submitted with sufficient detail to prove compliance with the conditions of consent. The detailed lighting design must:
  - a) Demonstrate that the lighting design meets the Permitted Activity standards E24.6.1
     (1) (10) outlined in Chapter E24 of the Auckland Unitary Plan (Operative in Part).
  - b) Be designed so that all luminaires are selected, designed, shielded and/or mounted in such a manner to ensure that they emit no direct light above the luminaire.
  - c) For the Academy Driving Range no pole-mounted lighting is allowed.
  - d) Luminaires used for lighting the Academy Driving Range and tennis courts must have a maximum CCT of 3000K.
  - e) All other luminaires must have a maximum CCT of 2700K.
  - f) The added spill light calculated, vertically or horizontally at 1.5m above ground at the site boundaries adjoining other rural zoned land must not exceed 0.1 lux.
  - g) Outdoor security lighting must be sensor controlled to ensure the lights are only on between dusk and dawn and only when presence is detected.
  - h) Bat Spill Light Limit (BSLL): Be designed so that added light spill from any Project related artificial lighting must be no more than 0.3 lux at a distance of 25 m from the margins of any High Value Bat Habitats identified by the BMP.

#### Advice Notes:

The main buildings are the Sports Academy, the Golf and Property Maintenance Complex, the Clubhouse and the Lodge.

'Added' means additional to existing ambient light.

- 129. If the detailed lighting design is unable to achieve the BSSL, then screening vegetation will be designed and implemented at the edge of the High Value Bat Habitat in accordance with the BMP.
- 130. Lighting for the following facilities must be restricted to:
  - a) Between 7am and 8pm for the driving range; and
  - b) Between 7am and 10pm for the outdoor tennis courts.

#### Post-construction

- 131. Within 1 month of the completion of the lighting installation for each of the main buildings, the consent holder must submit a report prepared by a suitably qualified and experienced person confirming that the lighting has been installed in accordance with the detailed lighting design.
- 132. There must be no uplighting of trees.
- 133. Outdoor security lighting must be sensor controlled to ensure the lights are only on between dusk and dawn and only when presence is detected.

#### ARCHAEOLOGICAL AND HISTORIC HERITAGE

### Heritage Management Plan

- 134. Prior to the commencement of trade at the lodge, or the golf course (inclusive of the clubhouse) or the sports academy, and to ensure effective ongoing management of the heritage sites, the consent holder must provide a Heritage Management Plan for certification of Council, that includes, but is not necessarily limited to the following:
  - a) Protocols for the ongoing management of sites Q11/67 (pits) and Q11/68
     (pits/terrace) as part of an operational golf course: including protection mechanisms around public access and ongoing vegetation management.
  - b) Protocols for and ongoing management of Fosters Mill Q11/380, Houghton's Quarry Q11/615 and carving Q11/71.
  - c) Conservation recommendations for managing Houghton's Quarry Q11/615 and carving Q11/71.
  - d) Set timeframes for implementation, review and monitoring of the state and condition of sites Q11/67; Q11/68; Q11/380 Q11/615 and Q11/71 as well as agreed roles and responsibilities.
- 135. All activities on site must be undertaken in in accordance with the certified Heritage Management Plan.

#### Pre-commencement

- 136. Prior to Bulk Earthworks commencing, a site works briefing must be provided by the project archaeologist to all contractors. This briefing must provide information to the contractors proposed to be engaged on the site regarding:
  - a) what constitutes historic heritage materials;
  - b) the legal requirements of unexpected historic heritage discoveries;
  - c) the appropriate procedures to follow if historic heritage materials are uncovered whilst the project historic heritage expert is not on-site, to safeguard materials; and

- d) the contact information of the relevant agencies (including the project historic heritage expert, the Council (including the Auckland Council Heritage Unit) and Heritage New Zealand Pouhere Taonga) and mana whenua.
- 137. Documentation demonstrating that the contractor briefing has occurred must be forwarded to the Council prior to Bulk Earthworks commencing on the site.

Historic Heritage Monitoring and Recording (Construction Phase)

- 138. The consent holder must ensure that all of the proposed works avoid all of the identified features and extent of prehistoric settlement sites Q11/67 (pits) and Q11/68 (pits/terrace).
- 139. Both prehistoric settlement sites Q11/67 (pits) and Q11/68 (pits/terrace) must be provided with a 10m buffer zone to safeguard them throughout development and subsequent use as a golf course.
- 140. All of the identified features and extent of prehistoric Q11/67 (pits) and Q11/68 (pits/terrace) must be temporarily marked/fenced under archaeological supervision prior to the start of works to prevent any accidental damage to the sites.
- 141. All earthworks in the vicinity of the recorded sites prehistoric sites Q11/67 (pits) and Q11/68 (pits/terrace) must be monitored by the project archaeologist.
- 142. All earthworks in the vicinity of and Ingram's boarding house (Q11/616) must be monitored by the project archaeologist and all relevant historic heritage features associated with Ingram's Boarding house Q11/616 (and/or the 1899 sanitorium) exposed by the works must be recorded by the project archaeologist. This must be achieved through on-site monitoring of works in the location of the site identified, and call-in by the contractor if suspected historic heritage remains are exposed when the project archaeologist is not present.

Including Unrecorded Archaeological Sites within the Cultural Heritage Inventory

- 143. In the event that any unrecorded archaeological sites are exposed as a result of consented work on the site, then these sites must be recorded by the consent holder for inclusion within the Auckland Council Cultural Heritage Inventory.
- 144. The consent holder must prepare documentation suitable for inclusion in the Cultural Heritage Inventory and forward the information to the Council (including the Manager: Heritage Unit, <a href="mailto:heritageconsents@aucklandcouncil.govt.nz">heritageconsents@aucklandcouncil.govt.nz</a>) within one calendar month of the completion of earthworks on the site.

Historic Heritage Reporting (Post-Construction Phase)

145. Electronic copies of all historic heritage reports, relating to historic heritage investigations of whatever form (i.e. evaluation, monitoring and excavation) in regard to the consented proposals, must be submitted by the project archaeologist (historic heritage expert) to the Council (including the Manager: Heritage Unit, <a href="heritageconsents@aucklandcouncil.govt.nz">heritageconsents@aucklandcouncil.govt.nz</a>) within 3 months after the completion of onsite works.

146. The consent holder must liaise with the project archaeologist to determine the content and location of a public heritage interpretation panel on the historic heritage features of the property. Details of the content and location of the heritage interpretation panel must be provided to the Council for approval within three months of the completion of earthworks on the site. The approved heritage interpretation panel must be displayed prior to the opening of the golf course and retained in perpetuity, to the satisfaction of the Council.

#### **Advice Notes**

The consent holder must apply for an authority to modify or destroy, unrecorded archaeological features in Lot 2 DP 196478, Lot 1 DP 187507, Lot 1 DP 16373, Lot 4 DP 187060 and Lot 5 DP 187061 from Heritage New Zealand Pouhere Taonga (NZHPT) under section 44 of the Heritage New Zealand Pouhere Taonga Act 2014.

The consent holder must acquire all necessary authorisations from Heritage New Zealand Pouhere Taonga prior to any damage or removal of recorded archaeological sites.

Accidental Discovery Rule

Should the proposed enabling works result in the identification of any previously unknown sensitive materials (i.e., archaeological sites), the requirements of land disturbance -District Accidental Discovery rule [E12.6.1] set out in the Auckland Unitary Plan Operative in part (updated June 2022)) must be complied with.

Heritage New Zealand Pouhere Taonga Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 (hereafter referred to as the Act) provides for the identification, protection, preservation and conservation of the historic and cultural heritage of New Zealand. All archaeological sites are protected by the provisions of the Act (section 42). It is unlawful to modify, damage or destroy an archaeological site without prior authority from Heritage New Zealand Pouhere Taonga. An Authority is required whether or not the land on which an archaeological site may be present is designated, a resource or building consent has been granted, or the activity is permitted under Unitary, District or Regional Plans.

According to the Act (section 6) archaeological site means, subject to section 42(3) –

any place in New Zealand, including any building or structure (or part of a building or structure), that -

- was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
- 2) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- 3) includes a site for which a declaration is made under section 43(1).

It is the responsibility of the consent holder to consult with Heritage New Zealand Pouhere Taonga about the requirements of the Act and to obtain the necessary Authorities under

the Act should these become necessary, as a result of any activity associated with the consented proposals.

For information, please contact the Heritage New Zealand Pouhere Taonga Archaeologist - 09 307 0413 / archaeologistMN@historic.org.nz

Protected Objects Act 1975

Māori artefacts such as carvings, stone adzes, and greenstone objects are considered to be tāonga (treasures). These are taonga tūturu within the meaning of the Protected Objects Act 1975 (hereafter referred to as the Act).

According to the Act (section 2) taonga tūturu means an object that –

- (a) relates to Māori culture, history, or society; and
- (b) was, or appears to have been -
  - (i) manufactured or modified in New Zealand by Māori; or
  - (ii) brought into New Zealand by Māori; or
  - (iii) used by Māori; and
- (c) is more than 50 years old.

The Act is administered by the Ministry of Culture and Heritage. Tāonga may be discovered in isolated contexts but are generally found within archaeological sites. The provisions of the Heritage New Zealand Pouhere Taonga Act 2014 in relation to the modification of an archaeological site should be considered by the consent holder if tāonga are found within an archaeological site, as defined by the Heritage New Zealand Pouhere Taonga Act 2014.

It is the responsibility of the consent holder to notify either the chief executive of the Ministry of Culture and Heritage or the nearest public museum, which shall notify the chief executive, of the finding of the taonga tūturu, within 28 days of finding the taonga tūturu; alternatively provided that in the case of any taonga tūturu found during the course of any archaeological investigation authorised by Heritage New Zealand Pouhere Taonga under section 48 of the Heritage New Zealand Pouhere Taonga Act 2014, the notification must be made within 28 days of the completion of the field work undertaken in connection with the investigation.

Under section 11 of the Act, newly found taonga tūturu are in the first instance Crown owned until a determination on ownership is made by the Māori Land Court. For information, please contact the Ministry of Culture and Heritage - 04 499 4229 / protectedobjects@mch.govt.nz

#### SITE OPERATONS

## Site Operations and Maintenance Plan

147. Prior to the commencement of trade at the lodge, or the golf course (inclusive of the clubhouse) or the sports academy, or prior to the commencement of operating the golf and property maintenance complex, the Consent holder must submit a Site Operations and Maintenance Plan (SOMP) to the Council for certification.

The purpose of the SOMP is to set out the operational practices and procedures to be adopted to ensure compliance with consent conditions. The SOMP has the following overall objective:

To ensure relevant operational conditions of this consent are complied with and adverse effects on neighbours and their property, the wider community and the receiving environment resulting from operational activities within the subject site are appropriately avoided, remedied, mitigated or minimised.

#### The SOMP must include:

- a) To the extent they are in operation, general site operations, monitoring, and maintenance procedures for:
  - İ. The Golf and Property Maintenance Complex;
  - ii. The Golf Course and Clubhouse including:
    - Standard operating procedure for the retrieval of golf balls in general accordance with the details provided in Appendix 3 of the AEE;
    - Standard operating procedures for all golf course maintenance activities including the operation of the Golf and Property and Maintenance Complex:
    - Standard operating procedures for helicopter management;
    - Standard operating procedures for managing irrigation and potable and domestic water;
    - Standard operating procedures for fertiliser and spray application;
  - iii. The Lodge;
  - ίV. The Sports Academy;
  - All stormwater infrastructure; ٧.
  - vi. All wastewater infrastructure and wastewater treatment plant.
- b) Annual reporting procedures; and
- c) Public complaint procedures.

- 148. The SOMP must include or reference (as relevant) the following Management Plans (each of which should be reviewed or amended in accordance with condition 16 to reflect the enduring nature of their respective management objectives in an ongoing site operation context):
  - a) The Ecological and Restoration Management Plan;
  - b) Landscape Planting Plan;
  - c) The Stormwater Management Plan;
  - d) Bat Management Plan;
  - e) The Kauri Die-Back Management Plan;
  - f) Contaminated Land Site Management Plan:
  - g) Stormwater Infrastructure Operation and Maintenance Plan (SIOMP):
  - h) Wastewater Infrastructure Operations & Maintenance Plan (WIOMP); and
  - i) Flight Management Plan.
- 149. To cater for different Project Site components becoming operational at different times the SOMP may be reviewed and amended over time, in accordance condition 16, as each Project Site component commences trade or begins operating.

## Hours of operation

150. The activities authorised by this Consent must be undertaken in accordance with the hours of operation in the table below.

	Activities	Hours
Visitor	Lodge and all associated	24 hours, 7 days a week
accommodation	amenities and services	
Sport	Golf Course	7:00AM to 10:00PM, 7 days a week
	Golf and Property	5:30AM to 8:00PM, 7 days a week
	Maintenance Complex	
	Sports Academy	8:00AM to 8:00PM, 7 days a week
	Sports Academy Driving	7:00AM to 8:00PM, 7 days a week
	Range	
	Sports Academy Tennis	7:00AM to 10:00PM, 7 days a week
Clubrooms	Golf Clubhouse	7:00AM to 10:00PM, 7 days a week
Cafés and	Lodge Restaurant	24 hours, 7 days a week
Restaurants		
	Sports Academy Café	7:00AM – 10:00PM, 7 days a week
	Golf Clubhouse Restaurant	7:00AM – 1:00AM, 7 days a week

Commercial activities	Lodge retail and wellness centre	24 hours, 7 days a week
	Sports Academy hireage and training services	7:00AM – 10:00PM, 7 days a week
	Sports Academy golf and tennis supplies retail store	7:00AM – 10:00PM, 7 days a week
	Sports Academy commercial offices	7:00AM – 10:00PM, 7 days a week
	Golf Clubhouse golf supplies retail store	7:00AM – 10:00PM, 7 days a week

# Lodge occupancy

151. The maximum occupancy of the Lodge must not exceed 89 overnight guests.

# Noise - Operational

Noise Limits (excluding helipad landings and take-offs)

152. The noise (rating) level and maximum noise level arising from activities subject to this consent must not exceed the following noise levels within the notional boundary on any other site in the rural zone when measured in accordance with the provisions of NZS 6801:2008 Acoustics – Measurement of environmental sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental noise.

Time	Noise limits
7am – 10pm Monday to Friday	55 dB L <sub>Aeq</sub>
9am – 6pm Sunday	
All other times	45 dB L <sub>Aeq</sub>
	75 dB L <sub>AFmax</sub>

Noise Limit – Helicopter landings and take-offs

153. The consent holder must ensure that the noise associated with the use of the helipads on the subject site to which this consent applies for helicopter operations must not exceed a noise limit of Ldn 50dBA on any single day measured at or within the notional boundary of any noise sensitive activity not owned or undertaken by the consent holder (e.g. dwelling/visitor accommodation).

#### Monitoring of flights

154. If the consent holder is found to be not complying with the condition covering helicopter noise limits, then operation of the helipads must cease until the consent holder can prove

to Council's satisfaction that the consent can be implemented in compliance within the approved conditions.

When requested by the Council, the consent holder must undertake monitoring of noise levels as received within the notional boundary of the nearest and/or most exposed noise sensitive activity (e.g. occupied dwelling or visitor accommodation not located on the subject site). The monitoring must be commissioned by the consent holder and undertaken by a suitably qualified and experienced acoustic specialist.

A report detailing the measurement procedures, individual sound exposure levels and derived Ldn (average day-night) levels must be supplied to the council within 15 working days of the monitoring being undertaken.

If access to the nearest and/or most exposed noise sensitive activity is not available following reasonable attempts to gain access, a suitable proxy location must be selected with the appropriate adjustments clearly defined in the report.

#### Advice note:

The circumstances when the Council will require this monitoring are following the receipt of a legitimate and reasonable noise complaint, or when the Council suspects that conditions of this consent are not being met.

# **Helicopter Flight Management**

Flight Management Plan

155. The consent holder must submit a Flight Management Plan to the Council for certification. No arrivals or landings on the Project Site occurring in relation to the activities authorised by this consent are to be undertaken until the Flight Management Plan has been certified.

The purpose of the Flight Management Plan is to:

- Confirm helipad locations, flight paths and helipad use protocols for all pilots;
- Inform pilots flying to and from the Project Site of the relevant requirements of this consent;
- Raise the awareness of pilots flying to and from the Project Site of the use of the coastline both north and south of the Project Site by hang gliders and paragliders; and
- Raise the awareness of pilots flying to and from the Project Site of the proximity of high value ecological areas supporting wildlife that can be adversely affected by helicopter noise.

The Flight Management Plan must include:

- Pilot briefing notes including: a)
  - i. The maximum number of helicopter flights as set out in condition 157;

- ii. Relevant information that alerts pilots of the potential presence of hang gliders and paragliders along the coastline to the north and south of the Project Site and to obey the following related protection measures;
  - Remain at an altitude in excess of 1000 feet whenever flying within the Restricted Zone; and
  - Remain at least 3km clear of any observed hang glider and paraglider;
- iii. Relevant information that alerts pilots of high value ecological areas near the Project Site that support wildlife that can be adversely affected by helicopter noise; and
- ίV. Any other helicopter operator instructions required by the consent holder including pre-flight communications to ensure consent and other on-site health and safety or operational procedures or requirements are met.
- A requirement that a site log is to be established and maintained by the consent b) holder together with confirmation of the details required to be included in the site log by condition 167 of this consent;
- Evidence that written agreements have or will be obtained from all helicopter c) operators who intend using the helipads, including requirements on the operators that:
  - i. all helicopters that may use the helipad will have GPS tracking devices. The helicopter operator must agree that the GPS tracking on any helicopter type will be set to the maximum resolution when enroute to or from the subject site and will be sufficient to show that the helicopter has likely complied with condition 162 including altitude;
  - ii. the flight path used for each movement will be accurately recorded; and
  - iii. condition 162 of this consent will be complied with at all times; and
- d) Protocols to ensure that all new operators are informed of the approved Flight Management Plan, including information on the consent conditions, approved flight paths, approved helipad locations and protocols for flying into and out of the helipads;
- e) Flight Management Plan review procedures, including any adaptive management procedures considered to be necessary.

The consent holder must provide a copy of the approved Flight Management Plan to the Civil Aviation Authority and the local (Whenuapai) Air Traffic Controller prior to any helicopter arrivals or landings on the site occur in relation to the activities authorised by this consent.

The approved Flight Management Plan is to be implemented and maintained on a continuing basis by the consent holder for all movements to/from the site and the consent holder must issue annual reminder notices to all helicopter operators to reiterate compliant, safe and courteous flying practices.

#### Advice note:

It is the consent holder's responsibility to collect details of the flight path to be used, and how the information will be retained to confirm this information for each movement.

# Flight Management Plan Review

156. The consent holder must review the Flight Management Plan within 1 month of any Helicopter Effects Monitoring Report being submitted to Council and must provide a copy of any amended Flight Management Plan to the Council for certification. Any amended Flight Management Plan shall have no effect until certification has occurred.

## Maximum number of flights

157. There must be no more than ten (10) helicopter movements per day, and there must be no more than 30 helicopter movements in any seven (7) day period calculated as a rolling average.

#### Advice note

For the avoidance of doubt, a helicopter movement comprises a take-off from any helipad on the Project Site or a landing at any helipad on the Project Site. i.e. One helicopter taking off and landing constitutes two helicopter movements.

## Daytime restriction for flights

158. There must be no helicopter movements at night.

#### Advice note:

The Civil Aviation Authority defines "night" as the time between the end of evening civil twilight and the beginning of morning civil twilight.

# Flight path

- 159. All helicopter trips to and from the site must avoid the No-Fly Zone shown in **Figure 5** of this consent.
- 160. All helicopter trips to and from the site must avoid the Restricted Zones shown in Figure 5 of this consent except when one or more of the following circumstances apply:
  - a) During adverse weather conditions, for example, low cloud or high winds, whereby a pilot decides, at their sole discretion, requires the use of the designated VFR Transit Lane along the western coastline to ensure the health and safety of themselves and any passengers;
  - b) When a pilot has been directed by the Whenuapai control towers, or any other agency possessing the appropriate authority, to use the designated VFR Transit Lane along the western coastline; and

c) In an emergency.

#### Advice Note:

For the avoidance of doubt, the Northern Restricted Zone shown in Figure 4 of this consent extends north of the No-Fly Zone terminating 10km from Muriwai, and the Southern Restricted Zone extends south of the No-Fly Zone terminating at Whatipu (northern headland to the Manukau Harbour Entrance). Both Restricted Zones extend approximately 1km inward and 2km seaward of the coastline.

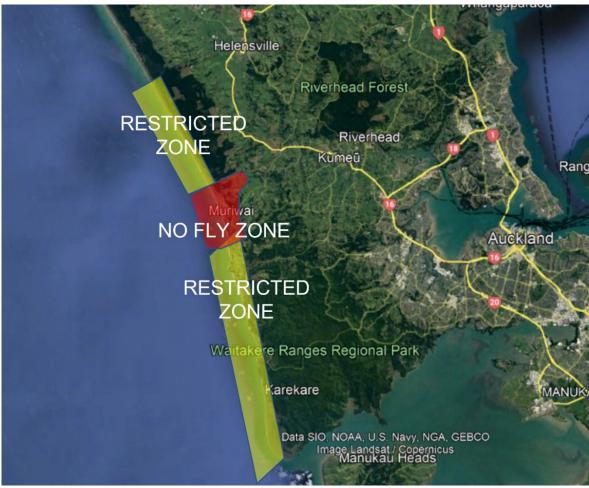


Figure 4: Helicopter No-Fly and Restricted Zones

- 161. The consent holder must ensure that all arriving and departing helicopters remain within the flight path set out in the Flight Management Plan by using the GPS tracking required by condition 155 (c) when flying at altitudes of less than 500 feet, unless required to deviate for safety or to meet CAA requirements.
- 162. The consent holder must ensure that all arriving and departing helicopters remain within the flight path shown in **Figure 5** of this consent by using the GPS tracking required by condition 155 (c) when flying at altitudes of less than 500 feet, unless required to deviate for safety or to meet CAA requirements (as shown below):

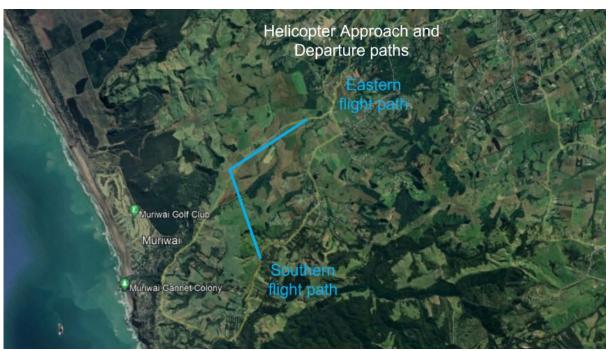


Figure 5: Helicopter Flight Paths

- 163. The consent holder must require that all pilots using the helipads on the subject site fly in accordance with the recommendations of the Helicopter Association International 'Fly Neighbourly' Guide.
- 164. No helicopters are permitted to sit and idle on the ground, except for the periods required for operational purposes immediately prior to take off and immediately after landing.
- 165. The helipads are not to be used for engine testing unless required for demonstrable safety or emergency reasons.
- 166. No helicopter flight training or major helicopter/aircraft maintenance is permitted on the subject site.

#### Site Log

- 167. The consent holder must ensure at all times that a complete and accurate log of all helicopter movements to and from the site is maintained. The consent holder is to keep the following information:
  - a) The date and time of each flight;
  - b) Whether the consented flight vector was deviated from below 500 feet and if so, provide written confirmation from the pilot to detail the safety reason for the departure from the approved flight vector;
  - c) Altitude data (including GPS details);
  - d) Records of the helicopter owner, operator or helicopter transit company undertaking the helicopter flight;
  - e) Tail number and the helicopter model type; and

- f) The helicopter model type or Civil Aviation Authority registration number visiting the site.
- 168. The logs (including GPS tracking data set to its finest resolution) must be made available to Council officers within ten (10) working days of a written request.
- 169. Under s128 of the RMA, Auckland Council may review condition 157 (number of flights), based on the reporting required by this consent regarding the monitoring of effects associated with helicopter noise on threatened or at risk birds.

#### Advice Notes:

The consent holder is reminded of their general obligation under section 16 of the Resource Management Act 1991 to adopt the best practicable option to ensure that the emission of noise does not exceed a reasonable level.

Notional boundary is defined AUP (OP) J1 as: - "A line 20m from any side of a building containing an activity sensitive to noise, or the legal boundary where this is closer to the building."

Activity sensitive to noise is defined as: - "Any dwelling, visitor accommodation, boarding house, marae, papakāinga, integrated residential development, retirement village, supported residential care, care centres, lecture theatres in tertiary education facilities, classrooms in education facilities and healthcare facilities with an overnight stay facility."

#### Hazardous substances

- 170. All agrichemicals must be stored in a purpose built above ground, ventilated shed (room) in accordance with Auckland Council. NZS 8409:2004 Management of Agrichemicals and Health and Safety at Work (Hazardous substances) Regulations 2017.
- 171. Fuel storage of diesel and unleaded fuels would be stored in above ground tanks in accordance with the Hazardous Substances Regulations. Both fuel storage tanks will be made by a registered tank manufacturer. Diesel fuel will be stored in a WorkSafe approved double skin tank, and the unleaded fuel tank will be stored within a 110% concrete bunded structure.

#### SITE OPERATIONS REPORT

- 172. The consent holder must prepare and provide to the Council, Te Kawerau lwi Tiaki Trust and Ngā Maunga Whakahii o Kaipara Development Trust, a Site Operations Report by the end of September that presents relevant monitoring and operational information relating to the following preceding reporting periods:
  - The yearly period between 1 July and 30 June each year for the first five years following the commencement of operating any Project Site component described in the SOMP; and
  - 5-yearly periods thereafter (each beginning 1 July and ending 30 June).

The report must be to the satisfaction of the Council and must contain at least the following:

- a) A general description of the Project Site operations including any operational issues;
- b) A description of any landscape planting works undertaken in accordance with LPs;
- A description of any ecological and restoration works and any associated reporting or monitoring undertaken in accordance with any ecological and restoration planting the culverting stream P3 (if undertaken) and reclaiming 16m of stream I9;
- Results of ongoing ecological monitoring and any associated reporting set out in the ERMP including any ongoing ecological monitoring associated with Wetland Restoration Plans;
- e) Result of any bird monitoring and any associated reporting undertaken in accordance with the ERMP and/or condition 126 (adaptive management of bird effects from helicopter noise);
- f) The result of any lizard monitoring undertaken in accordance with the LMP;
- g) The result of any bat monitoring undertaken in accordance with the BMP;
- h) Details of any monitoring or activities undertaken in accordance with the MMEMP;
- i) Results of any other operational information required in accordance with the SOMP;
- j) Details associated with any public complaints received and actions undertaken with respect to them; and
- k) Details of any future significant changes to the Project Site or its operations.

# Specific conditions - streamworks consent LUS60393759

# **Duration of consent**

173. Resource consent LUS60393759 expires five (5) years from the date of issue unless it has been surrendered or cancelled at an earlier date pursuant to the RMA.

# **Streamworks Management Plan**

174. Prior to the commencement of any streamworks, including upstream flows being dammed or diverted, a Streamworks Management Plan (SMP) must be prepared and submitted by the consent holder to the Council for certification.

The SMP must be prepared in general accordance with GD05 (section G4 Works within a watercourse) and include:

a) Site specific construction methodology for each culvert, design details and erosion and sediment control measures.

- b) Details of any stream diversion methodologies, including location, type, and capacities designed in accordance with GD05;
- c) Supporting calculations and design drawings as necessary;
- d) Monitoring and maintenance requirements; and
- Confirmation of fish protection measures at any pump inlets. e)
- 175. The SMP must be prepared by a suitably qualified and experienced person.

#### Native Freshwater Fish Relocation Plan

176. Should the streams contain flow upon the commencement of streamworks, the consent holder must submit a NFFRP to the Council for certification prior to any streamworks commencing.

The NFFRP must be prepared by a suitably qualified and experienced freshwater ecologist.

The NFFRP must set out the practices and procedures to be adopted to avoid loss of native freshwater fish during any streamworks undertaken on the Project Site.

The NFFRP must include, as a minimum:

- The timing and duration of fish capture; a)
- b) The methodologies to capture fish;
- Methodologies to ensure effects on fish from any streamworks, including c) dewatering, are minimised;
- d) The transportation methodology;
- e) Fish relocation release sites; and
- f) A qualified ecologist to undertake the capture and relocation;
- g) Details of the relocation site;
- h) Storage and transport measures including prevention of predation and death during capture;
- i) Euthanasia methods for diseased or pest species; and
- j) Copies of all relevant permits and permissions.

## Water take structure for Raurataua Stream

177. Prior to the commencement of any streamworks, the consent holder must submit a Water Take Structure Design (WTSD) for the structure proposed on Raurataua Stream to the Council for certification. The final design must include:

- a) Final detailed drawings of the structure;
- b) Final Location details of the structure;
- c) Design on its installation in to one stream bank of the Raurataua Stream and demonstrate a maximum of 5m of bank disturbance;
- d) Designs showing the location of the 1.5mm mesh fish exclusion screen;
- e) Any erosion and scour features that must not exceed 5m in parallel to stream flow or 5m<sup>2</sup> of stream bed disturbance; and
- f) Any proposed planting, including any riparian planting required by Condition 190.
- 178. Once certified, the consent holder must comply with the final WTSD, the SMP and the NFFRP.

# **Pre-commencement meeting**

- 179. Prior to the commencement of any streamworks, the consent holder must arrange and hold a pre-commencement meeting at the Project Site with the Council and Kaitiaki Monitors not less than five working days before the anticipated commencement of any streamworks.
- 180. The pre-commencement meeting must include, at a minimum, a representative of the consent holder, the Council, a representative from the contractor(s) who will undertake the streamworks and any suitably qualified and experienced person(s) who are required to supervise any part of the streamworks.
- 181. The following must be covered at the meeting:
  - a) Scheduling and staging of the works, including the proposed start date;
  - b) Responsibilities of all relevant parties;
  - c) Contact details for all relevant parties;
  - d) Expectations regarding communication between all relevant parties;
  - e) Any relevant cultural safety training or tikanga protocols;
  - f) Site inspections;
  - g) Erosion and sediment control measures;
  - h) Confirmation that all relevant parties have copies of the relevant Consent documents and all relevant management plans including the Streamworks Management Plan and NFFRP.
- 182. The pre-commencement meeting for streamworks may form part of a pre-commencement meeting required for any Project Construction Work Stage required under the Consents.

#### **Native Freshwater Fish Relocation Plan**

- 183. A suitably qualified and experienced freshwater ecologist is required to:
  - Conduct the fish relocation in accordance with the certified NFFRP; and a)
  - Be on site during any dewatering to rescue and relocate any native fish present. b)

# Timing of works

- 184. Streamworks must only be carried out during periods when all flows, normal for the time of year the works are undertaken can be diverted around the area of works up to the 5% annual exceedance probability (AEP) storm event, plus 300mm freeboard, unless an alternative approach is approved by Council.
- 185. No streamworks are to be undertaken between 01 May and 30 September in any year, without the submission of a 'Request for winter works' for approval to Council.
- 186. All requests for winter works must be renewed annually prior to the approval expiring and no works must occur until written approval has been received from Council. All winter works will be re-assessed monthly or as required to ensure that adverse effects are not occurring in the receiving environment and approval may be revoked by Council upon written notice to the consent holder.

# **During Works**

- 187. Should dewatering of streams be required prior to streamworks commencing, a suitably qualified freshwater ecologist must undertake native fish salvage in accordance with the approved NFFRP prior to dewatering.
- 188. No machinery shall enter the wetted cross section of the bed of any live stream at any
- 189. All machinery associated with any streamworks must be operated (including maintenance, lubrication and refuelling) in a way, that ensures no hazardous substances such as fuel, oil or similar contaminants are discharged.

#### Advice note:

Refuelling, lubrication, and maintenance activities associated with any machinery should be carried out away from any water body with appropriate methods in place so if any spillage does occur that it will be contained and does not enter the water body.

### Riparian planting

- 190. Where construction of the surface water intake structure results in disturbance of the bank margin of the Raurataua Stream, the bank margin must be planted in native riparian vegetation to no less than 10m upstream and downstream of the intake structure to promote bank stabilisation.
- 191. All instream enhancement works must be constructed under the supervision of a suitably qualified and experienced, project engineer and freshwater ecologist.

#### **NES-F Conditions - Stream P3 Culvert**

- 192. If the culvert structure in Stream P3 is installed, within twenty (20) working days following completion of the culvert structure, the consent holder must submit to the Council the information required by regulations 62 and 63 of the National Environmental Standard for Freshwater (2020), specifying the time and date of the collection of this information.
- 193. If the culvert structure in Stream P3 is installed, within twenty (20) working days following completion of the culvert structure, the consent holder must submit a Fish Passage Monitoring and Maintenance Plan (FPMMP) to the council for certification. The FPMMP must specify the ongoing monitoring and maintenance measures proposed in respect of the culvert structure to ensure fish passage is maintained and does not reduce over its lifetime, and include the following detail and processes:
  - Specific aspects of the structure to be monitored to ensure that the structure's a) provision for the passage of fish does not reduce over its lifetime.
  - Programme and frequency of routine monitoring and maintenance. b)
  - c) Method of visual inspection of the structure within five (5) working days following a significant natural hazard, or events that may otherwise affect the structure's provision for fish passage.
  - Record keeping of monitoring results including photos. d)
  - e) Follow up actions including the preparation of as-built plans and supporting information, further steps, and remediation measures.
- 194. If any of the routine monitoring or visual inspections identify that provision for fish passage has been reduced, or the culvert structure is damaged, the consent holder must undertake maintenance or remediation works as soon as practicable to remedy the issues identified.
- 195. If the culvert structure in Stream P3 is installed, the consent holder must maintain a record of:
  - a) All placement, alteration, extension and reconstruction works for the culvert structure, including when the works commence, how long they take, and when the works are completed; and
  - b) Details of all monitoring and maintenance works undertaken on the culvert structure. including photos and evidence of any maintenance works undertaken.
  - If requested by the Council in writing, the consent holder must provide this record to the Council within ten (10) working days of the date of request.
- 196. If the culvert structure in Stream P3 is installed, fish passage must be maintained through the culvert structure, and monitoring, maintenance and remediation measures must be undertaken in accordance with the FPMMP.

#### **Offset Works**

- 197. Prior to commencement of any streamworks, the consent holder must prepare and submit an Offset Management Plan (OMP) to the Council for written certification. The OMP must generally be in accordance with "Auckland Regional Council Riparian Zone Management Strategy for the Auckland Region" Technical Publication 148 June 2001 (or any subsequent addition) and must provide planting detail for all riparian planting, instream and bank planting. The OMP must include, but not be limited to:
  - a) Mapping of the restoration of 326 m of existing permanent stream P2;
  - b) Mapping of the extent of re-creation and restoration of 35.7 m of intermittent stream 12 (through daylighting);
  - c) Details of the proposed plant species, plant eco-sourcing, density of plantings, and timing of planting;
  - d) Pest animal and plant maintenance measures including a programme of establishment and post establishment protection and maintenance (fertilising, weed removal/spraying, replacement of dead/poorly performing plants); and
  - e) Plant and animal pest management and maintenance measures as detailed within the OMP, must be implemented for a period of no less than 5 years or until canopy closure of the riparian planting is achieved.
- 198. The consent holder must carry out the ecological off-set works by the end of the following planting season (1 May to 31 August) following commencement of the I9 or P3 stream works, as detailed within the OMP (unless the Council agrees to delay it until the following planting season due to circumstances beyond the consent holder's control, such as the unavailability of plants).
- 199. The offset works must include stock removal, planting of 20 m wide riparian margins, weed control and fencing.
- 200. If the final design of the Project does not involve culverting of stream P3, or results in a shorter or longer stream P3 culvert, or results in an altered length of stream I9 being reclaimed, the consent holder must engage a suitably qualified and experienced ecologist to recalculate the scope of off-set works required to achieve a no-net loss of stream length and ecological function for the final Project design. The recalculated proposed off-set work scope must be set out in a report and submitted to the Council for certification. Any certified amendments to the off-set works must be carried out by the consent holder.
- 201. The consent holder must engage a suitably qualified freshwater ecologist to undertake a Stream Ecological Valuation (SEV) after 5, 7 and 10 years following completion of the offset works required by condition 197. The purpose of the SEV is to confirm whether the offset works have achieved the SEV score predicted in the AEE.
- 202. Where the monitoring concludes that the SEV value of the offset works has not reached the predicted SEV value, a Further Mitigation and Offset Works Plan must be prepared by a suitably qualified ecologist, within 2 months following the SEV. The Further Mitigation and Offset Works Plan must propose repair or improvement of offset works and further

monitoring at two yearly intervals, until such time that the requirements of the Further Mitigation and Offset Works Plan are achieved. A report detailing the outcome of any further two-yearly monitoring surveys must be made available to Auckland Council upon request.

203. The consent holder must contact the Council to initiate the preparation of covenants for the perpetuity protection of the offset works (as set out in **Figure 6** of the Consents). A copy of the updated Computer Register (record of title) showing that the covenants have been registered must be provided to the Council prior to completion of the respective offset and enhancement works.

#### The covenants must:

- Require the ongoing protection of the offset works and covenanted ecological enhancement works in perpetuity;
- b. Be drafted by the council's nominated Solicitor at the consent holder's cost; and
- Be registered against the Computer Register(s) (record of title) to the affected land C. by the consent holder at their cost; and require the consent holder to:
  - i. be responsible for all legal fees, disbursements and other expenses incurred by the council in connection with the covenant, and procure its solicitor to give an undertaking to the council for payment of the same; and
  - indemnify the council for costs, fees, disbursements and other expenses ii. incurred by the council as a direct or indirect result of the council being a party to this covenant.

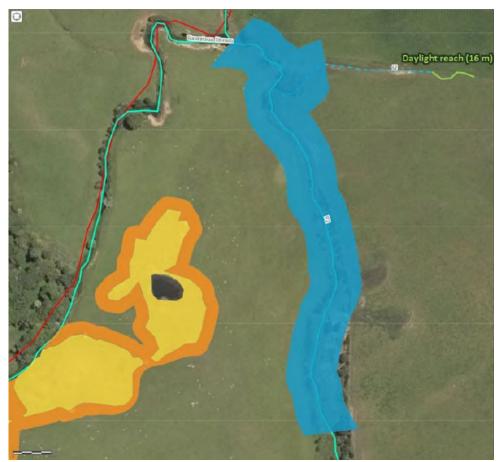


Figure 6: Offset Works

# Specific conditions - Discharge permit DIS60393756 (stormwater discharge)

# **Stormwater Management Plan**

204. Prior to the commencement of any Project Construction Work Element requiring a SWMP, as set out in condition 13, the consent holder must submit a SWMP to the Council for certification. The SWMP must be prepared by a suitably qualified and experienced engineer.

The overall objective of the SWMP is to set out the practices and procedures to be adopted to ensure compliance with consent conditions and meet the following design objectives:

- As much as practicable, achieve no increase in the volume and rate of runoff as a) compared to the pre-developed site; and
- b) As much as practicable, achieve an improvement in water quality within and downstream of the Project Site.

The SWMP can be in general accordance with the DRAFT SWMP prepared by McKenzie and Co and provided to the Council on 19 May 2022 and must include a detailed description of the scope of activities it is designed to cover, a list of Project Construction Work Elements it covers and all catchments to which it will apply to.

To the extent they are applicable to its scope, the SWMP must;

- i) Outline appropriate stormwater control measures to support the development of the Project Site;
- ii) Set out the key design elements that achieve the objectives;
- iii) Summarise geotechnical parameters for stormwater disposal, including ground soakage information, and address procedures to address potential poor ground soakage;
- iv) Outline any departures from regulatory design codes and provide details on the alternatives to be used and their anticipated performance;
- Provide information on erosion management; v)
- Present stormwater calculations; and vi)
- Provide final stormwater design drawings that have been certified by an vii) appropriately qualified geotechnical engineer.

To enable sequencing of Project Construction Work Elements, the SWMP may be reviewed and amended over time in accordance with condition 16.

# Stormwater mitigation

- 205. The consent holder must ensure that stormwater runoff from is managed in accordance with the certified SWMP to ensure that, as much as practicable, hydrological neutrality mitigation requirements are achieved.
- 206. The stormwater management devices or system must be installed or built generally in accordance with the design specifications by a suitably qualified service provider and must be fully operational before the use of the impervious areas.

#### **Advice note**

The stormwater management devices or systems must be operated and maintained in accordance with best practice for the device or system.

Details of all inspections and maintenance for the stormwater management system, for the preceding three years, must be retained by the consent holder.

These records must be provided to the Council on request.

## **Stormwater Management Works**

207. The following stormwater management works are to be constructed in general accordance with the table below, the engineering plans that form part of the application and in compliance with the SWMP for the following catchment areas and design requirements, and must be completed **prior** to discharges commencing from respective catchments comprising the works (as relevant). Any departures from the management approach below are to be made in compliance with the SWMP.

Work	Catchment area - impervious	Design guidelines
Vegetated swales	Lodge roading (Road 2, Road 8). Club house roading (Road1 Road 4, and Road 7). Club house 2 car park Portion of the sport academy Road 5 Sport academy car parking Golf Property & Maintenance Complex Road 5 Ch(110-Ch580)	75% TSS removal, on long term average basis (GD01). GD01 stormwater management approved devices. To dispose of 10-year ARI storm event To be approved during the building plan approval stage
Rain gardens x 5	Lodge RG1 Carpark (visitors) and Car park (staff) & RG2 Club house 1 car park RG3 = Club house 1 car park	75% TSS removal, on long term average basis (GD01).  Peak flow attenuation for the 2 and10 ARI storm event to predevelopment levels.  Details at building plan approval stage

	RG4 = Golf Property & Maintenance Complex + GPMC yard (north) RG5 = Golf Property & Maintenance Complex yard (South)	
Green living roof	Lodge main building Club house	
Re-use rain tanks	Operation equipment store, GMC office, materials bay	Detention and retention/ As per manufacture specification To be approved during the building plan approval stage
Vegetated infiltration soakage's	Main lodge and external buildings within the lodge	Subject to confirmation for the Details and specific design calculations of the infiltration To dispose of 10-year ARI storm event.
Sheet flow (to existing pasture)	Helicopter Pad	Nominal cross-fall for non- concentrated flow
Outlets	Site impervious areas	Erosion protection (rock rip rap) measures to minimise scour and erosion potential and accordance with Auckland Council TR2013/018. Details of the proposed outlet will be provided with the Building Consent application.
Roof material	All	No exposed unpainted metal surfaces

# **Modifications Approval**

- 208. In the event that any modifications to the stormwater management system are required, that will not result in an application pursuant to section 127 of the RMA, the following information must be provided:
  - a) Plans and drawings outlining the details of the modifications; and
  - b) Supporting information that details how the proposal does not affect the capacity or performance of the stormwater management system.

All information must be submitted to, and approved by "the Council", prior to implementation.

#### Advice Note:

Any changes to the proposal which will affect the capacity or performance of the stormwater management system will require an application to Council pursuant to section 127 of the RMA.

209. Within 30 days of Practical Completion of any Project Construction Stage, a post construction site meeting must be arranged and conducted between the Council, including the site stormwater engineer.

# Certification of stormwater management works (As-Built Plans)

210. A combined as-Built certification and plans of the stormwater management works, which are certified (signed) by a suitably qualified registered surveyor as a true record of the stormwater management system, must be provided to the Council for approval following any Project Construction Stage.

#### **Contents of As-Built Plans**

211. As-Built Plans must be provided to the Council five (5) working days prior to the postconstruction meeting required by this consent.

The As-Built plans must display the entirety of the stormwater management system for any relevant Project Construction Stage, and must include:

- a) location and dimensions of stormwater treatment devices:
- b) location, dimensions, and levels of any overland flow paths including cross sections and long sections;
- c) plans and cross sections of all stormwater management devices, including confirmation of the storage volumes and levels of any outflow control structure;
- d) documentation of any discrepancies between the design plans and the As-Built plans approved by the Modifications Approval condition.

# Stormwater Infrastructure Operation & Maintenance Plan

212. A combined Stormwater Infrastructure Operation and Maintenance Plan (SIOMP) must be submitted to the Council for approval five (5) working days prior to the post-construction meeting required by this consent.

The SIOMP must set out how the stormwater management system is to be operated and maintained to ensure adverse environmental effects are minimised. The plan must include:

- details of who will hold responsibility for long-term maintenance of the stormwater a) management system and the organisational structure which will support this process;
- a programme for regular maintenance and inspection of the stormwater b) management system;

- a programme for the collection and disposal of debris and sediment collected by the c) stormwater management devices or practices;
- d) a programme for post storm inspection and maintenance;
- a programme for inspection and maintenance of the outfalls; e)
- f) general inspection checklists for all aspects of the stormwater management system, including visual checks;
- 213. The stormwater management and treatment system must be managed in accordance with the approved SIOMP.
- 214. Any amendments or alterations to the SIOMP must be submitted to, and approved by the Council, in writing prior to implementation.
- 215. The SIOMP must be updated and submitted to the Council for approval, upon request.
- 216. Details of all inspections and maintenance for the stormwater management system, for the preceding three years, must be retained.
- 217. A maintenance report must be provided to the Council within on request.

# Specific conditions – Discharge permit DIS60400308 (WW discharge)

#### Wastewater volume

218. The wastewater discharge volume to land must not exceed 51 m<sup>3</sup>/day.

# Discharges during wet weather conditions

- 219. The consent holder must determine a soil moisture threshold which will ensure that the requirements of Condition 233 can be complied with.
  - The threshold must be specified in the Wastewater Infrastructure Operations & a) Maintenance Plan (condition 240).
  - b) Soil moisture must be measured prior to irrigation (preferably in real time, or using a method which does not require laboratory analysis) in accordance with the National Environmental Monitoring Standard: Soil Water Measuring, Processing and Archiving of Soil Water Content Data (NEMS, 2016).

#### Advice Note:

Compliance with the soil moisture threshold does not excuse non-compliance with the requirements of Condition 233.

220. The quality of treated wastewater immediately before it is discharged to the land application system must not exceed the standards specified below.

Parameter	Units	Discharge standard – Main WWTP	Discharge standard – On- course AWTS (Toilets 1 & 2)
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	g/m³	<15	<15
Total suspended solids (TSS)	g/m³	<15	<15
Faecal coliforms (FC)	MPN / 100ml	< 200	< 200

# Nutrient Loading Rate for Land Application

- 221. The annual nutrient load (Total Nitrogen and Total Phosphorus) from treated wastewater applied to land at each of the three land application areas must not exceed a rate of 150 kg N/Ha/year.
- 222. Annual nutrient load must be calculated using a method including the following components as a minimum (with details specified in the Wastewater Infrastructure Operations & Maintenance Plan). The method must enable for adequate representation of annual nutrient loads, and results must be reported annually (i.e. compiled in the annual Site Operations Report):
  - Monitor the concentration of nutrients in treated wastewater prior to discharge to a) land
  - b) Monitor the flow volume through the WWTP prior to discharge to land during the same period
  - Calculate mass load of nutrients in accordance with the method detailed in the Site c) **Operations Management Plan**
  - Determine the ratio of annual nutrient load to entire as-built land application area d)
  - Confirm whether the ratio calculated is equal to or less than 150:1 (kg N per Ha per e) vear)
- 223. In the event of any exceedance of the nutrient loading rate, the consent holder must report the event annually to the Council along with a plan to remedy the situation.

#### **Pre-construction Certification**

- 224. Prior to the commencement of the construction of wastewater infrastructure, the consent holder must provide the following information to the Council for certification:
  - Detailed design specifications for all wastewater collection, distribution, treatment a) and land application systems to be commissioned
  - b) Site plans showing wastewater treatment and land application systems

- Where the land application area locations and/or spatial extent have changed from c) those proposed in the consent application and subsequent supporting information (listed above), such adjustments must be communicated and depicted on site plans.
- d) A report(s) outlining the methodology used to undertake a risk assessment of the final detailed design with respect to flood hazards (and any other relevant risks identified), which must demonstrate that the land application areas will not be subject to flooding in an event of 1% Annual Exceedance Probability or greater as per Chapter E36 of the Auckland Unitary Plan (Natural Hazards and Flooding).
- Timeframes for key stages of the works authorised under this consent (for example, e) commissioning of different parts of the site complex and the wastewater treatment systems and land application area)
- f) A Wastewater Infrastructure Operations & Maintenance Plan which includes management measures in relation to the operation and maintenance of the wastewater systems on site.

The above information must be certified (signed) by a suitably qualified and experienced wastewater professional as a true record of the wastewater system, before being made available to the Council for certification.

## Wastewater system design

- 225. The key components of the wastewater treatment and land application system must be consistent with those described in the application, unless specifically revised by the conditions of this consent and must comprise at least the following minimum, or additional, components, dimensions and standards:
  - Wastewater treatment system Main WWTP: a)
    - (4x) 30,000 litre septic tank with outlet filters.
    - Septic Tank Effluent Pumps at sufficient numbers and capacity to allow for a minimum of 24 hours' storage at each connection location.
    - (1x) 30,000 litre recirculation tank/aeration tank with hydraulic residence time (HRT) of 3.5 days at minimum.
    - (4x) 5 m x 2.5 m (12.5 m<sup>2</sup>) textile filter (85 m2 total)
    - (1x) Final wastewater holding tank/chamber with 24 hours' storage capacity  $(51 \text{ m}^3)$ .
    - (1x) Ultra violet disinfection system
    - (1x) Meter for Wastewater discharge to the land application systems (with an accuracy of +/- 5% or better) installed at the main WWTP outlet.
    - (1x) An audio and visual alarm system located in a prominent location on the site that detects pump failure or high wastewater levels.

- (1x) Emergency storage volume, equivalent to 24 hours peak flow volume, above the high water alarm levels, within the wastewater treatment system.
- b) Wastewater treatment system – at each on-course toilet block:
  - (1x) 1500 litre septic tank with outlet filters.
  - (1x) 1500 litre recirculation tank/aeration tank.
  - (1x) Pre-packaged Aerated Wastewater Treatment System (AWTS) or recirculating textile filter with 5 m<sup>2</sup> textile filter.
  - (1x) Final wastewater holding tank/chamber with 48 hours' storage capacity (1  $m^3$ ).
  - (1x) Meter for Wastewater discharge to each land application systems (with an accuracy of +/- 5% or better) installed at Toilet 1 and Toilet 2
  - (1x) Audio and visual alarm system located in a prominent location on the site that detects pump failure or high wastewater levels.
- (1x) Emergency storage volume, equivalent to 48 hours peak flow volume, above c) the high water alarm levels, within the wastewater treatment system
- Wastewater land application system (Main WWTP): d)
  - i) At least 15,100 m<sup>2</sup> land application area with pressure compensated drip irrigation (PCDI) system consisting of 25,150 m of line, line spacing of 0.6 m, emitter spacing of 0.5 m and with clearly marked flush valves at the end of each line. The PCDI lines must be installed subsurface within the topsoil at a depth of approximately 200 mm.
  - ii) Unless otherwise agreed by the Council, at least 50% reserve land application area (>7,550 m<sup>2</sup>).
  - iii) The primary and reserve wastewater land application areas must be located in accordance with the approved plans and must be:
    - a minimum distance of 5 m from roadside drains
    - 30 m from surface water
    - 100 m from natural wetlands
    - 5 m from subsurface drains
    - 10 m from property boundaries and
    - 3 m from retaining walls/embankments
    - Depth to groundwater of at least 0.9 metres (from the PCDI lines).

- e) Wastewater land application system (at each on-course toilet block):
  - i) At least 250 m² land application area with pressure compensated drip irrigation (PCDI) system consisting of 415 m of line, line spacing of 0.6 m, emitter spacing of 0.5 m and with clearly marked flush valves at the end of each line. The PCDI lines must be installed subsurface within the topsoil at a depth of approximately 200 mm.
  - ii) At least 50% reserve land application area (>125 m<sup>2</sup>).
  - iii) The primary and reserve wastewater land application areas must be located in accordance with the approved plans and must be:
    - a minimum distance of 5 m from roadside drains
    - 30 m from surface water
    - 100 m from natural wetlands
    - 5 m from subsurface drains
    - 100 m from property boundaries and
    - 3 m from retaining walls/embankments.

#### **Certification of minor modifications**

- 226. In the event that any minor modifications to the wastewater treatment and land application system are required, such that these will not result in an application under section 127 of the RMA or a new application, then the following information must be provided:
  - a) Plans and drawings outlining the details of the modifications; and
  - b) Supporting information that details how the proposal does not affect the capacity or performance of the wastewater treatment and land application system.

All information must be submitted to, and certified by Council prior to implementation.

#### Advice Note:

All proposed changes must be discussed with Council, prior to implementation.

#### **Certification of wastewater treatment and land application system (as-built plans)**

227. As-built certification and plans of the wastewater treatment and land application system, which are certified (signed) by a suitably qualified and experienced wastewater professional as a true record of the wastewater system, must be provided to Council for certification.

# Contents of as-built plans

228. As-built plans must be provided to Council within 5 days of the discharge commencing.

- 229. The as-built plans must display the entirety of the wastewater system, and must include:
  - a) location, dimensions and levels of any land application area and reserve land application area;
  - b) plans, descriptions and dimension of all wastewater devices, including confirmation of the storage volumes and levels of any outflow; and
  - c) details of any other structures or works required by this consent (e.g. a fence or a stormwater diversion drain upslope of the land application area).

# **Post-construction inspection**

230. The consent holder must contact Council within 3 months of the completion of works relating to the wastewater treatment and land application system so that a post-construction inspection can be undertaken by Council.

The post construction meeting must be:

- a) located on the subject area;
- b) include representation from Council; and
- include representation from the applicant's wastewater specialist or maintenance operator or contractors who have undertaken the works and any other relevant parties.

#### Advice Note:

To arrange the post-construction meeting required by this consent, please contact Council.

# Water saving devices

- 231. Water reduction fixtures must be installed in the facilities serviced by wastewater treatment and land application systems excluding the Clubhouse and the Lodge and associated accommodation. Water reduction fixtures could include, but are not limited to, the following:
  - a) Dual flush (6/3 litre) toilet cisterns
  - b) Shower flow restrictors
  - c) Low water use dishwasher
  - d) Water flow restrictors to provide maximum flows of 9L/min for kitchen and shower fixtures, 6L/min for bathroom faucets, and 10 L/min for laundry faucets.
  - e) In addition, no extra wastewater producing fixtures including garbage grinders, baths and multi-head showers should be installed.

232. The consent holder must provide to the Council written certification from a registered plumber of the installed water reduction fixtures within twenty (20) working days of the discharge commencing.

# Land application area vegetation coverage

- 233. All land application areas must be planted as soon as reasonably practicable and no later than six months from the completion of pressure compensating drip irrigation (PCDI) line installation. A dense vegetative cover of clover and rye pasture must be established and maintained that achieves at least 75% ground coverage within one year of completion of PDCI line installation to the satisfaction of Council. In addition:
  - a) All pasture on land application areas must be maintained at sward height of no more than 150 mm.
  - b) The main land application area must be maintained using golf course mowing equipment and/or grazed by small or light stock only (such as sheep) during periods of low moisture only.

# Land application area performance

- 234. The discharge of wastewater to land must not result in:
  - a) ponding of wastewater within or adjacent to the land application area;
  - b) channelling of wastewater that results in overland runoff of wastewater beyond the land application area;
  - c) surface seepage (breakout) of wastewater beyond the land application area.
  - d) The depth to groundwater from the PCDI lines being less than 0.9 metres.

# Use of reserve wastewater application areas

- 235. Written confirmation from Council must be obtained prior to the use of all or part of the reserve land application area. In order to assist Council to determine whether or not to approve use of all or part of the reserve wastewater application area the following information must be provided:
  - a) The reason why the reserve land application area is needed;
  - b) An assessment of the condition of the primary land application area and any maintenance or other mitigation measures required to allow its continued use;
  - c) An assessment of discharge flow volumes on the site and an assessment of options to manage or reduce flows; and
  - d) An updated site plan showing the proposed layout of the irrigation lines within the reserve land application area.

# Protection of the reserve wastewater application area

236. The reserve wastewater land application area must be protected and maintained so that it remains available for future wastewater application should it be required. Retaining walls, buildings, or other permanent structures (including but not limited to vehicular access ways) that may compromise the future use of the reserve land application area for wastewater application must not be established in the reserve land application area and any earthworks carried out within the reserve land application area must be limited to minor disturbances of the top soil and gardening.

#### Maintenance standard

237. The wastewater treatment and land application system must be maintained in good working order at all times.

#### **Maintenance of STEP Units**

- 238. All Septic Tank Effluent Pump (STEP) units connected to on-site wastewater systems must be inspected and any residual solids removed every five years for the duration of the consent or in accordance with manufacturer's specifications (whichever is more frequent).
- 239. Solids removed from the sumps of STEP units must be collected and transported off site by an appropriately qualified and certified service provider, for disposal at an appropriate waste receival facility.

#### Wastewater Infrastructure Operations & Maintenance Plan

- 240. As part of Pre-construction Certification, a Wastewater Infrastructure Operations & Maintenance Plan (WIOMP) for the on-going operation and maintenance of the wastewater treatment and land application system must be submitted to Council for certification. The WIOMP must include:
  - Details of a 6 monthly inspection programme (or more frequent if required by the a) system's manufacturer) to be undertaken by a suitably qualified wastewater professional to inspect and maintain the key components of the wastewater treatment and land application systems.
  - A schedule, instructions, checklist and forms for all operation and maintenance b) tasks required for the satisfactory operation of the wastewater treatment and land application systems, including:
    - i) solids removal;
    - ii) filter cleaning;
    - iii) pump maintenance;
    - iv) flushing of PCDI lines (without discharging flushings off site or into surface water);
    - V) inspection of the land application areas and vegetation management within them:

- vi) replacement of UV lamps in accordance with manufacturers guidelines;
- vii) monitoring of soil moisture within land application areas (with a specified soil moisture threshold)
- flow meter readings; viii)
- ix) taking, handling and transportation of samples (if required);
- X) method to calculate the annual nutrient loads applied to land;
- xi) actions to be implemented if the application area is flooded;
- xii) 10 yearly audits (if applicable); and
- the checklist must clearly specify who is responsible for completing the required maintenance (for example the consent holder may be responsible for monthly cleaning of the outlet filter monthly and the maintenance contractor for the inspection and maintenance of other treatment system components).
- Names of appropriate people to contact in the event system malfunctions occur c) including contact telephone numbers.

The wastewater treatment and application system must be managed in accordance with the WIOMP.

#### **Maintenance Contract**

241. A written maintenance contract for the on-going maintenance of the key components of the system(s) must be entered into with an appropriate wastewater treatment system operator, prior to the operation of the system(s). A written maintenance contract must be in place at all times for the duration of the consent.

A copy of the current maintenance contract and any replacement contract(s) must be provided to Council within three months of a contract being entered into.

#### Advice Note:

If a wastewater professional that the consent holder has entered into a maintenance contract with (original provider) becomes unable to fulfil the obligations of the contract, for any reason, then the consent holder will need to enter into a maintenance contract with another suitably qualified wastewater professional as soon as possible after becoming aware that the original provider will no longer be able to fulfil their contractual obligations.

# Flow meter readings

242. An automatic wastewater/water flow meter must be installed and the meter reading recorded continuously (with logging at a maximum of 15 minute intervals) for the life of the consent when the wastewater system is being used. Meter readings must be recorded on a form that contains the following information: the consent number, site address, consent holder's name, the date the flow reading was recorded, the meter reading, and the calculated daily discharge flow volume.

Council may decrease or cease the frequency of flow monitoring (after the system has been operating for a minimum of 12 months) if requested by the consent holder. Council may require flow meter readings to recommence at any stage to assist in monitoring compliance with this consent.

# Discharge quality monitoring

243. Samples of treated wastewater must be collected and analysed for the following parameters, according to the schedule outlined below.

Parameter	Units
5-day Biochemical Oxygen Demand (BOD₅)	g/m³
Total suspended solids (TSS)	g/m³
Faecal coliforms (FC)	MPN / 100ml
Total nitrogen (TN)	g/m³
Total phosphorus (TP)	g/m³

- a) Sampling of the above parameters must be undertaken:
  - Quarterly for the first five years following the exercising of this consent (or until commissioning of The Lodge and associated infrastructure, as described in the On Site Wastewater Disposal Assessment Report (July 2022)); and
  - ii) Every two months for two years following commissioning of the entire site (i.e. full inflow to all WWTPs); and
  - iii) Annually thereafter (for the duration of the consent term) providing that the discharge quality limits outlined in Condition 220 are consistently met.
- b) All samples must be collected on a Monday, to capture the peak weekend flows.
- c) Annual monitoring must be undertaken during the peak season for the facility based on staff and visitor numbers (i.e. peak flow conditions during busy summer period).
- d) All samples must be collected and analysed in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", a joint publication of the American Public Health Association, Water Environment Federation and the American Water Works Association; or an alternative method that has been approved in writing by Council.
- e) The consent holder may, at any time, propose in writing to the Council, amendments to the monitoring required by this condition.
- f) Any proposed amendments to the monitoring set out in this condition must be accompanied by:
  - i) Details of the reasons for proposing the monitoring changes; and
  - ii) Details of the views of the KC regarding the proposed changes.

g) The consent holder must have received written approval from the Council authorising the proposed monitoring changes before the consent holder makes any changes to the monitoring set out in this condition.

# **Groundwater Monitoring Programme**

244. Prior to the installation of the land application infrastructure for the main WWTP, the consent holder must prepare and submit a Groundwater Monitoring Programme (GMP) to the Council for certification. The GMP must be designed to ensure compliance with the requirements of this consent.

The land application infrastructure for the main WWTP must not be used until written certification of the GMP has been obtained from the Council.

In the event the Council does not provide a response within 10 working days of receiving the GMP, it must be deemed to be certified and the consent holder must be entitled to proceed with implementing the GMP.

## Groundwater monitoring - sampling

245. Quarterly (in January, April, July, and October), representative samples must be taken or overseen by a suitably qualified contamination professional from the groundwater monitoring wells required in accordance with the condition above. All samples must be collected in accordance with AS/NZS 5667.11:1998, with groundwater levels in the bore recorded in metres above sea level before sampling.

Groundwater level must be recorded, and all groundwater samples must be analysed for the following parameters:

- pH (pH units)
- Electrical conductivity (µS/cm)
- Ammoniacal-nitrogen (NH4-N)
- Total Nitrogen (g/m3)
- Total Oxidised Nitrogen (nitrate as NO3-N + Nitrite as NO2-N; g/m3)
- Total Phosphorus (g/m3)
- Faecal coliforms (FC; MPN / 100mL)

In addition, in January and July, groundwater samples must be analysed for the following parameters:

- Major anions (bromide, chloride, sulphate, nitrate as N) and cations (sodium, calcium,
- magnesium and potassium)
- Dissolved bicarbonate alkalinity (as HCO3)

- Dissolved carbonate alkalinity (CaCO3)
- Total Dissolved Alkalinity (as CaCO3).

## Groundwater monitoring – testing

246. The results of all samples taken in accordance with the condition above at the down-gradient monitoring wells must be compared to concentrations in the corresponding upgradient well annually based upon annual median results for each parameter.

Should the contaminants in the down-gradient bore be more than 15 percent greater than the concentrations in the up-gradient bore, an assessment, including further groundwater sampling, must be undertaken to determine whether the exceedance(s) are attributable to the discharge of wastewater to land, and identify any potential adverse effects on groundwater quality associated with the exceedance(s). Council must be made aware of the exceedance(s) within five (5) working days of them being identified, and must be provided with a copy of the assessment within one month.

#### Advice Note:

In accordance with the condition above any assessment to determine the excessive levels of contaminants that does not identify the exceedance as attributable to discharges from the discharge of wastewater to land, should assess whether they are a result of:

- a) Up-gradient sources;
- b) Existing on site;
- c) Natural or seasonal variations; or
- d) Laboratory limitations;

For more guidance on this assessment, please contact the council's monitoring officer. Please email monitoring@aucklandcouncil.govt.nz to identify your allocated officer.

# **Groundwater monitoring – actions**

- 247. Should the results of the assessment undertaken in accordance with condition(s) of this consent identify that the exceedance(s) in contaminant concentrations are attributable to discharges from the discharge of wastewater to land and adverse effects on groundwater quality are occurring, then within two (2) working days Council must be notified, and then provided confirmation, that the following actions have been undertaken:
  - a) Notify bore owners down-gradient as required
  - b) Reduce the rate of land application and/or adjust the treatment process(es) as relevant to the issue identified
  - c) Take any other reasonable action deemed necessary to remedy the effects.

# Actions if discharge quality standards are exceeded

- 248. In the event of any exceedance of the consented discharge quality standards the consent holder must:
  - Advise Council of the exceedance within 2 working days of the exceedance being a) detected;
  - Advise Council of the actions taken/being taken to address and remedy the cause of b) the exceedance within five (5) working days of the exceedance being detected;
  - Undertake additional sampling and analysis at the request of Council to verify the c) wastewater treatment and land application system is being operated in accordance with the consent discharge standards.

# Reporting

- 249. The following information must be submitted to Council by 30 September of each year:
  - Maintenance service records for the preceding period of 1 September to 31 August; a)
  - b) Flow monitoring records for the preceding period of 1 September to 31 August;
  - Results and analysis of the Discharge Quality Monitoring samples for the preceding c) period of 1 September to 31 August; and
  - Results of the determination of the applied nutrient load for the preceding period of 1 d) September to 31 August.

#### Audit

- 250. An audit of the condition, operation, and performance of the wastewater treatment and land application system must be undertaken by a suitably qualified wastewater professional in 2032 (or 10 years after commencement of this consent), and every 10 years thereafter for the duration of the consent term. The audit must include:
  - An assessment of the condition of the wastewater treatment and land application a) systems.
  - An assessment of the adequacy of the systems to treat and apply the consented b) wastewater volume.
  - An up-to-date list of the components of the wastewater treatment and land c) application system.
  - d) Recommendations including timeframes for any changes, upgrades or remedial works to the treatment and land application system or process.
- 251. A copy of the assessment report must be provided to Council by no later than 30 September of the year in which the assessment is undertaken.

# Compliance with audit

252. All recommendations specified in the audit report must be implemented to the satisfaction of Council.

#### Advice Note:

#### Contact Details

All information requirements of this consent including the engineer's certificates, as-built plans, maintenance contract, operations and maintenance plan, annual flow monitoring records, copies of maintenance service records, audit reports any other monitoring requirements of this consent can be emailed to Auckland Council at monitoring@aucklandcouncil.govt.nz

Please include the consent number in the email title.

## Flushing of PCDI Lines

Flushing of pressure compensating drip irrigation (PCDI) lines should be conducted in a manner that does not result in discharges of flushed water off of the property or into surface water.

# Wastewater management during major events

The consent holder must seek a separate consent for the discharge of wastewater to land or water where that wastewater is generated during a major event on the site, such as a golf tournament where the consented maximum daily flow rate is likely to be exceeded.

# Specific conditions – Discharge permit DIS60400370 (discharge of contaminants)

# Discharges to air, land and water

#### 253. This Consent authorises:

- a) The discharge of incidental residual flocculant chemical (or similar agents) to land (including circumstances where they may enter groundwater via soakage from sediment control devices) and/or surface water associated with earthworks undertaken on the Project Site.
- b) The discharge of water and/or contaminants (including wash water) to land (including circumstances where it may enter groundwater and surface water) and/or to surface water from building and bridge maintenance activities; and
- c) Discharges of contaminants into air, or into water, or onto or into land from disturbing soil on land containing elevated levels of contaminants.

# **Incidental Residual Flocculant Chemical Discharges**

- 254. To minimise incidental residual flocculant chemical discharges from sediment control devices, the consent holder must ensure that all construction earthworks are undertaken in accordance with the certified CEMP, ESCPs and ESCAMP.
- 255. To minimise any adverse effects on natural wetlands associated with the diversion and discharge of stormwater, the consent holder must ensure that:
  - all construction earthworks are undertaken in accordance with the CEMP, ESCPs a) and ESCAMP;
  - b) all stormwater generated from impervious surfaces is managed in accordance with the certified SWMP and the certified SIOMP; and
- 256. The consent holder must take all practicable steps to minimise the discharge of contaminants to the environment during any building or bridge maintenance activities.

#### Contaminated Land

257. Prior to the commencement of soil disturbance activities occurring within areas on the site where HAIL activities have occurred and Contaminants of Potential Concern have been detected in soil samples at concentrations above the published background concentrations of non-volcanic soils in the Auckland Region (being the Former Boarding House, Sheep Spray Shower and Woolshed and Treated Timber Storage areas as detailed in the Detailed Site Investigation Report (Appendix 6B of the AEE), the consent holder must submit a CLSMP to the Council for certification.

The CLSMP must be prepared by a suitably qualified and experienced contaminated land specialist.

The overall objective of the CLSMP is to set out the practices and procedures to be adopted to ensure compliance with consent conditions and it must;

- Detail soil handling and disposal measures that must be implemented to protect a) human health associated with contaminants observed at the Former Boarding House, Sheep Spray Shower and Woolshed and Treated Timber Storage areas;
- b) Set out procedures to manage any unexpected discovery of previously unidentified contamination.

The consent holder must comply with the certified CLSMP.

- 258. Prior to the commencement of earthworks within the vicinity of the sheep spray shower area as identified in the report titled "Muriwai Downs Golf Project: Detailed Site Investigation", prepared by Pattle Delamore Partners (Appendix 6B of the AEE), an investigation including soil sampling must be undertaken.
- 259. A least ten working days prior to the commencement of earthworks within the vicinity of the sheep spray shower area as identified in the report titled "Muriwai Downs Golf Project: Detailed Site Investigation", prepared by Pattle Delamore Partners (Appendix 6B of the

- AEE), the results of the investigation required by Condition 257 must be submitted to the Council for review and approval. Should the results of the investigation identify levels of contamination requiring remediation, a remediation action plan prepared by a Suitably Qualified and Experienced Professional (SQEP) in accordance with the Contaminated Land Management Guidelines Nos. 1 and 5 (Ministry for the Environment, 2011) and the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) must also be provided with the investigation results.
- 260. The disturbance of any identified contaminated soils during any Project Construction Work Component must be carried out in accordance with the approved remediation action plan.
- 261. Any contaminated soils identified for off-site disposal must be disposed of at a site that holds a consent to accept the relevant level of contamination identified at the site.
- 262. The consent holder must ensure that any imported soil complies with the definition of 'Cleanfill material', as per the AUP. Any imported material must be solid material of an inert nature and must not contain hazardous substances or contaminants above natural background levels of the receiving site.
- 263. In the event of the accidental discovery of contamination during earthworks which has not been previously identified, the consent holder must immediately cease the works in the vicinity of the contamination, notify the Council and engage a SQEP to assess the situation (including possible sampling and testing) and decide in conjunction with Council's compliance officer on appropriate actions.

#### Advice Note:

Where unanticipated contamination is discovered during the works, a revision of the CLSMP may be required to ensure that the contamination is appropriately managed. Any revision of the CLSMP is required to be submitted to Council for certification prior to its implementation.

- 264. Should remediation be required, off site soil disposal be undertaken during the works, or should any action be taken due to Condition 259 of this consent, the consent holder must provide within 3 months of completion of earthworks associated with the relevant Project Construction Work Component, a Site Completion Report (SCR) to the Council, for review and approval. The SCR must include the following:
  - Details of the remediation and validation undertaken, if required; a)
  - b) The volume/weight of soil excavated and removed from site, with copies of disposal documentation;
  - Details and results of all testing undertaken and interpretation of the results in the c) context of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health and the AUP permitted activity soil acceptance criteria (if any undertaken);
  - d) Confirmation that any soils imported to site meets the requirements of Condition 261 above; and

Details of the contingency events during the earthworks e)

#### Washwater

265. The consent holder must ensure all activities authorised by this consent are undertaken in a manner that avoids as far as practicable, and otherwise minimises, the discharge of any substance that is likely to cause the production of conspicuous oil, or grease films, scums or foams, or floatable suspended materials in water receiving water bodies after reasonable mixing.

# Specific conditions – Water permit WAT60400304 (groundwater diversion around the reservoir)

266. The take (dewatering) and diversion of groundwater associated with the construction of the reservoir at 451 and 697 Muriwai Road must be carried out in accordance with the plans, recommendations and information submitted with the application, and all referenced by the council as consent number BUN60393755 and WAT60400304.

## **Ground Dewatering (Take) and Groundwater Diversion Conditions**

267. The Council must be advised in writing at least 10 working days prior to the date of the Commencement of Dewatering.

#### Advice Note:

For the purpose of compliance with conditions of consent, "the Council" refers to the council monitoring inspector unless otherwise specified. To identify your allocated officer please email monitoring@aucklandcouncil.govt.nz

# Design of reservoir and associated excavations and drainage

268. The design and construction of the reservoir and associated drainage must be undertaken in general accordance with the specifications contained in the report entitled "GEOTECHNICAL INVESTIGATION REPORT MURIWAI DOWNS RESEVOIR MURIWAI VALLEY" prepared by Riley Consultants, 18 November 2021.

## **Excavation Limit**

269. The Bulk Excavation for the construction of the reservoir must not extend below 64.5 mRL and the finished base level of the reservoir must not extend below 65.0 mRL.

#### **Performance Standards**

#### **Damage Avoidance**

270. All excavation, dewatering and drainage systems, and other works associated with the diversion or taking of groundwater, must be designed, constructed and maintained so as to avoid Damage to Services (including Muriwai Road) unless otherwise agreed in writing with the asset owner.

# **Contingency Actions**

- 271. If the consent holder becomes aware of any Damage to services (including Muriwai Road) potentially caused wholly, or in part, by the exercise of this consent, the consent holder must:
  - a) Notify the Council and the asset owner within two working days of the consent holder becoming aware of the Damage.
  - b) Provide a report prepared by a SQEP (engaged by the consent holder at their cost) that describes the Damage; identifies the cause of the Damage and if due to the project identifies methods to remedy and/or mitigate the Damage that has been caused; identifies the potential for further Damage to occur and, describes actions that will be taken to avoid further Damage.
  - c) Provide a copy of the report prepared under (b) above, to the Council and the asset owner within 10 working days of notification under (a) above.

#### **Advice Note:**

It is anticipated the consent holder will seek the permission of the damaged asset to access the property and asset to enable the inspection/investigation. It is understood that if access is denied the report will be of limited extent.

# **Notice of Completion**

272. The Council must be advised in writing within 10 working days of when excavation and dewatering has been completed.

# **Advice Note:**

The consent holder is advised that the discharge of pumped or diverted groundwater to a stormwater system or waterbody will need to comply with any other regulations, bylaws or discharge rules that may apply.

273. The design and construction of the water storage reservoir must be undertaken in accordance with the specifications contained in the report titled "Geotechnical Investigation Report Muriwai Downs Reservoir - Muriwai Valley" dated 18 November 2021 provided as Appendix 4B of the AEE.

# Provide for a review under section 128

- 274. Under section 128 of the RMA the conditions of this consent (WAT60400304) may be reviewed by the Manager Resource Consents at the consent holder's cost, within six months of Commencement of Dewatering and subsequently at intervals of not less than five years thereafter in order to;
  - vary the monitoring and reporting requirements, and performance standards, and a)
  - b) in order to take account of information, including the results of previous monitoring and changed environmental knowledge on:

- ground conditions;
- aquifer parameters;
- groundwater levels; and
- ground surface movement.

## Specific conditions – Water permit WAT60400305 (for water take at bore 31108 (E1730277 N5926160))

## Activity in accordance with reports

- 275. The take and use of groundwater from the bore at map reference NZTM 1730277 mE, 5926160 mN on land legally described as Lot 2 DP 196478 to supply golf course irrigation, domestic, maintenance, stock and potable water to the Muriwai Downs Property, must be carried out in accordance with the plans and all information submitted with the application, and all referenced by the Council as consent number WAT60400305.
- 276. Servants or agents of the Council must be permitted access to the relevant parts of the property at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking of samples whilst adhering to the consent holder's health and safety policy.

## **Authorised quantities**

- 277. The cumulative abstraction from WAT60400305 and WAT60400306 must comply with the following:
  - The total daily abstraction must not exceed 1,728 cubic metres. a)
  - b) The total volume of water abstracted in each 12-month period, commencing 1 June of any year and ending 31 May of the following year, must not exceed 180,000 cubic metres.

#### **Bore Details**

278. Bores and monitoring points, to be used for pumping and monitoring purposes are specified in Schedule A. Those bores are to be maintained to ensure ongoing monitoring data can be obtained. Should the monitoring bore be damaged, become inaccessible, or become inoperable, then the Council is to be informed and a new monitoring bore is to be drilled as soon as practicably possible (dependent on drilling company availability) at a nearby location in consultation with and subject to approval of the Council to confirm that the location and trigger levels remain appropriate.

SCHEDULE A: BORES FOR MONITORING					
Name ID		NZTM	Total	Casing	
		Easting (mE)	Northing (mN)	Depth (m)	Depth (m)
Production bore	PB1	1730277	5926161	228.0	119.0

Production bore	PB2 at or about	1730005	5925985	-	-
MW1-Awhitu	MW1	1730283	5926146	4.8	1.8
MW2-Nihotupu	MW2	1730276	5926145	10.8	7.8
MW3-Nihotupu	MW3	1730408	5926428	59.0	42.0
MW4-Nihotupu	MW4	1730573	5925738	14.0	11.0
Wetland water level	P8	1730250	5926150	1.5	1.0-
MW7-Ōkaihu shallow	MW7	1728387	5925455	4.5	1.5
MW8-Ōkaihu deep	MW8	1728387	5925453	14.0	11.0

279. Prior to exercise of consent, the elevation of the top of the casing of the production bores and the monitoring bores must be measured and recorded to an accuracy of 0.01 m and must be submitted in writing to Council.

#### Bore maintenance for water level measurements

280. The consent holder must make and maintain provision for water level measurements at the top of the production bore and any monitoring bores. Provision must be made such that a probe can be lowered vertically into the bore (between any riser tube, if applicable and casing) to measure the static water level in the bore.

#### Advice Note:

This can be achieved by having an access hole of at least 2 cm in diameter at the top of the bore and by strapping a 25 mm dip tube to the rising main (if fitted) extending from the surface to below pumping water level. To keep out foreign matter, the hole should be fitted with an easily removed plug.

### Bore maintenance for water quality sampling

281. If required in writing by the Council, within 20 working days of the requirement, provision at the top of each production bore for water quality sampling must be made and maintained so that a sample of water can be taken from the bore for water quality analysis.

A tap or hand valve must be fitted as close to the pump outlet as possible and before the groundwater resource enters any storage tank or filter. This tap or valve must have at least 0.3 metre clearance above ground level or any other obstruction to allow a sample bottle to be filled.

#### Installation of a water meter

- 282. Prior to exercise of this consent, the consent holder must install a water meter with an electronic pulse output at the outlet of the pump. The water meter must:
  - a) be fit for the purpose and water it is measuring;
  - b) measure the volume of water taken, with an accuracy of +/- 5% of the actual volume taken;

- c) be tamper-proof and sealed;
- d) be installed in accordance with the manufacturer's specifications
- be maintained in accordance with the manufacturer's specifications for the duration e) of this consent (WAT60400305).

#### Certification of the water meter

- 283. The water meters, and any device or system used to record water take volume, must be certified as accurate by a suitably qualified professional at the following times:
  - Prior to the exercise of this consent; a)
  - b) Within 5 working days of the water meter being serviced or replaced;
  - c) By the 30th day of June, starting from the commencement of consent, and thereafter at five yearly intervals.

The water meter, its certification and evidence of its accuracy must be conducted in accordance with the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020 (or any equivalent regulations that may replace them).

Within 10 working days of the meter/devices being certified as accurate, the consent holder must provide a written copy of the meter certification to the Council.

#### Installation and maintenance of electronic meter devices

284. The installation and maintenance of the water meter and associated electronic devices must be performed in accordance with manufacturer's specifications and to New Zealand Quality Standard ISO 4064.

The consent holder must ensure that the water meter, its associated devices and data can be safely accessible by the Council and their contractors at all times.

## Water meter readings

285. The consent holder must take a water meter reading once every 15 minutes. The date, time and the water meter reading must be recorded and provided to the council in accordance with the Water Reporting condition below.

If no water is taken during any time period, the current meter reading must still be recorded and reported.

#### Advice Note:

As per the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020, a water permit holder (resource consent holder) is required to record measurements of their water abstraction at 15-minute intervals and electronically provide to council daily records of the measurements by the end of the next day (unless otherwise agreed by Council) starting on the following date for a water permit that allows water to be taken at the rate specified:

- 3 September 2022 for a water permit for ≥20 litres/second:
- 3 September 2024 for a water permit for ≥10 but <20 litres/second:
- 3 September 2026 for a water permit for ≥5 but <10 litres/second.</li>

## Monitoring bore water level readings

286. Groundwater levels in the monitoring bores listed in Schedule A (WAT60400305) must be measured and recorded from the date at which exercise of this permit commences, in accordance with the frequencies set out in Schedule B.

SCHEDULE B: MONITORING FREQUENCY				
Name	Bore ID	Monitoring Frequency		
		Irrigation season	Non-irrigation season	
Production bore	PB1	15 minutes	15 minutes	
Production bore	PB2	15 minutes	15 minutes	
MW1-Awhitu	MW1	Daily	Quarterly	
MW2-Nihotupu	MW2	Daily	Quarterly	
MW3-Nihotupu	MW3	Daily	Quarterly	
MW4-Nihotupu	MW4	Daily	Quarterly	
Wetland water level	P8	Daily	Quarterly	
MW7-Ōkaihu shallow	MW7	Daily	Quarterly	
MW8-Ōkaihu deep	MW8	Daily	Quarterly	

- 287. The groundwater level must be:
  - a) measured from the top of the casing
  - b) must be recorded to an accuracy of +/- 1 cm.

The consent holder must record the time, date and the water level measurement(s) and supply these measurements to the Council in accordance with the Water Reporting condition below.

## Water reporting

288. The consent holder must enter the following information, at the frequency and date specified, into the Council's Water Use Data Management System or into any replacement database identified in writing by the Council.

•	Information	Due Dates for reporting
•	Water use water meter reading and date.	Every 15 <sup>th</sup> day of March, June, September and December.
•	Water level reading including time and date.	Annual, by 15 <sup>th</sup> September

#### Advice Note:

The web address for council's on-line Water Use Data Management System is: <a href="http://aklc.hydrotel.co.nz/hydrotel/cgi-bin/WudmsWebServer.cgi">http://aklc.hydrotel.co.nz/hydrotel/cgi-bin/WudmsWebServer.cgi</a>

Your WUDMS customer number is P######## for consent WAT60400305 and WAT60400306 and the password is 1234. For the link to work properly you need to ensure that Council has your up-to-date email address for contact purposes. An on-line manual explaining how to enter and submit your water readings is available at the web address specified above.

## **Emergency power**

289. The water meter and associated devices must be operative with uninterrupted power source or backup power source or backup data storage at all times.

#### Advice note:

The reason for this condition is to ensure that any saved data is not lost, particularly in the event that pumps are operated with an emergency power source during an outage.

## Water Use Efficiency Report

- 290. A water use efficiency report must be provided to the Council by 15 June 2027 and subsequently at intervals of not more than five years thereafter. The report must assess the water use over the reporting period against best practice in respect of the efficient use of water for the purpose consented. This report must include, but not be limited to;
  - a) Total area irrigation;
  - b) Annual summary of water usage (month by month);
  - c) Reasons why annual water use may have varied from previous years aside from climatic variability (if applicable);
  - d) Information demonstrating irrigation equipment and decision making (e.g., soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming five years; and
  - e) Water conservation steps taken (e.g., leak detection).

## **Reporting Conditions**

291. A report which provides analysis of the water use (actual used volumes vs. predicted) and a trend analysis of monitored water levels (actual levels vs. predicted) required by Conditions of this resource consent must be submitted to the Council by 15th September each year. The report must be prepared to a standard acceptable to the Council and consider all data collected from the date of the commencement of this consent and in particular evaluate any effects on the environment during the previous year.

#### **Groundwater Level Trigger Levels**

292. The exercising of this consent must be subject to the maintenance of aguifer conditions which do not indicate on-going declining groundwater levels or increased risk of impacts on wetland water levels. Trigger levels representative of a water level decline are outlined in Schedule C.

SCHEDULE C: TRIGGER LEVELS				
Name	Bore ID	Drawdown (m) below seasonal low level		
		Alert	Alarm	
Groundwater Level Triggers				
MW1-Awhitu	MW1	0.3	0.5	
MW2- Nihotupu	MW2	0.3	0.5	
MW3-Nihotupu	MW3	2.6	4.0	
MW4- Nihotupu	MW4	0.3	0.5	
MW7-Ōkaihu shallow	MW7	0.3	0.5	
MW8-Ōkaihu deep	MW8	0.3	0.5	
Wetland Water Level Triggers				
Wetland level	P8	0.03	0.05	

#### **Advice Note:**

The wetland water level triggers are based on the approach outlined in WWLA, 2021, whereby the change in surface water level is assumed to be 10% of the change in the shallow aquifer. The suitability of this trigger level may need to be reviewed and amended following baseline monitoring.

There are conditions below that must be complied with when the Alert and Alarm Level triggers are exceeded. These include actions that must be taken immediately including seeking the advice of a Suitably Qualified and Experience Person (SQEP).

### Water Level Alert Trigger Exceedance Response

- 293. If monitoring in accordance with conditions of this consent indicates that any of the alert water level triggers specified are exceeded, then the consent holder must:
  - Notify the Council within five (5) working days; and a)
  - b) Commission a Suitably Qualified and Experience Person (SQEP) to prepare an Alert Trigger Exceedance Report.
- 294. The Alert Trigger Exceedance Report must be submitted to the Council for certification acting in a technical capacity within one month of the exceedance. As a minimum, the Alert Trigger Exceedance Report must include (but not necessarily be limited to) the following:
  - a) the number, duration and cause of the exceedance(s);

- b) in the event that the exceedance is attributed to the excise of this consent, the report must also include (but not necessarily be limited to) the following:
  - i) an assessment of the adverse environmental effects of the drawdown and where appropriate effects on other groundwater users and dependent surface water bodies;
  - ii) any further work required to better understand the adverse effects identified, including increased monitoring of groundwater or surface water levels;
  - iii) any proposed mitigation measures that may be required in the event that adverse environmental effects are identified, such measures should include increased frequency of monitoring and the reduction of the pumping rate;
  - iv) any recommended monitoring of the effectiveness of the mitigation measures; and
  - v) timeframes for the implementation of mitigation measures and the monitoring of the effectiveness of the mitigation measures determined to be required by the Report.
- c) An approved Alert Trigger Exceedance Report which meets the criteria above must be in place to manage any drawdown identified and, once the Report has been certified by the Council, any mitigation measures recommended by the SQEP must be implemented within the timeframes required by the approved report.

#### Water Level Alarm Trigger Response

- 295. If monitoring in accordance with conditions of this consent indicates that any of the alarm groundwater level triggers specified are exceeded, then the consent holder must:
  - a) Take advice from the author of the Alert Trigger Exceedance report (if there was one) on actions required to avoid, remedy or mitigate adverse effects on other groundwater users and dependent surface water bodies that may occur as a result of the exceedance.
  - b) Notify the Council within 3 working days of the Alarm Level exceedance being detected and provide details of the measurements taken and actions proposed (if required) to avoid, remedy or mitigate adverse effects; and
  - Commission a SQEP to prepare an Alarm Trigger Exceedance Report, covering the c) same matters as identified in Condition 294, to be submitted within one month of the exceedance.
- 296. If monitoring in accordance with conditions of this consent indicates that the wetland water level alarm trigger is exceeded, and it is more likely than not caused by the exercise of this consent, then the consent holder must immediately reduce the bore pumping rate until the observed wetland water level stabilises.

The reduced groundwater abstraction must continue until the wetland water level recovers to within its baseline range.

#### **Review condition**

- 297. Pursuant to Section 128 of the RMA, the conditions of this consent (WAT60400305) may be reviewed by the Council at the consent holder's cost, in June 2024 and subsequently at intervals of not less than five years thereafter in order:
  - a) To vary the quantities, monitoring and reporting requirements and performance standards in order to take account of information, including the results of previous monitoring and changed environmental knowledge, on;
    - i) water availability, including alternative water sources;
    - ii) actual water use, efficiency of use and potential water requirements; and
    - iii) groundwater levels including drawdown effects on neighbouring bores; and groundwater quality;
  - b) To deal with any significant adverse effect on the environment arising or potentially arising from the exercise of this consent.

#### Advice Note:

Under section 128 of the RMA the conditions of this consent may be reviewed by the Manager Resource Consents at the consent holder's cost in the following circumstances:

- To provide compliance with rules in any regional plan relating to use of water, water or air quality etc. (refer section 128(1) (b) of the RMA) that have been made operative since the commencement of consent.
- To provide compliance with any relevant national environmental standard that has been made since the commencement of consent.
- At any time, if it is found that the information made available to the council in the
  application contained inaccuracies which materially influenced the decision and the
  effects of the exercise of the consent are such that it is necessary to apply more
  appropriate conditions.

# Specific conditions – land use consent LUC60399652 (new bore at or about E1729833, N5925837)

#### Bore location and construction

298. The bore is to be generally (within 10m of the specified location) located and constructed as detailed below:

Name	Bore ID	NZTM Easting (mE)	NZTM Northing (mN)	Depth(m)
The Bears Home Project Management Ltd	31319	17298433	5925837	~230

Bore Diameter (mm)	Aquifer	Casing depth(m)	Casing material	Grouting
-	Waitakere Volcanic	-	-	-

## Bore completion date

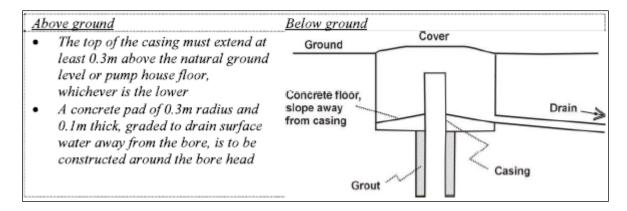
299. Unless otherwise agreed with the Council, the bore must be completed within 60 days of commencement of the construction of it.

### Bore design, construction, maintenance and record keeping

300. The bore must be constructed, maintained (periodically check the integrity of the headworks), tested, and records kept (drilling log), in accordance with the application submitted standard describer in NZS 4411:2001, Environmental Standard for Drilling of Soil and Rock. Adequate provisions for groundwater water level measurement and water sampling must be provided at the bore head.

#### Advice note

Bore headworks constructed in accordance with the diagram and explanation provided below will be considered to meet the NZS 4411:2001 Section 2.5.5.3-5. Refer to further advice notes below for sanitary bore head requirements for drinking water.



NZS 4411:2001 Section 2.5.5.7 (water level measurement) can be met by strapping a 20mm diameter (minimum) tube (polypipe) to the main riser, power and support stay for the pump, the provision of a hold in the headworks of a minimum of 20mm diameter and a removable screw-type cap. Provision at the top of the bore for water quality sampling can be achieved by fitting a tap or hand valve as close to the pump outlet as possible and before the water enters any storage tank or filter. It should have at least 0.3 meter clearance above ground level or other obstruction to allow a sample bottle to be filled.

#### **Bore identification**

301. The bore identification number must be permanently affixed, in a clearly visible location and in a form that will remain legible, to the bore head structure.

## Information to be supplied to the council

- 302. The following information must be supplied to the Council, within 20 working days of completion of the bore:
  - The drilling log. a)
  - b) A digital photograph(s) legibly showing:
    - The bore number affixed to the bore head structure;
    - The length of the casing protruding above the concrete pad; and,
    - The concrete pad around the bottom of the bore head.
  - c) An annotated map, or aerial photograph, that accurately and clearly shows the physical location and coordinates for the bore.
  - d) The following as built details for the bore –

Name	Bore ID	NZTM Easting (mE)	NZTM Northing (mN)	Depth (m)	Screened or open hole interval (m)
Bore Diameter (mm)	Aquifer	Casing Depth (m)	Casing Material	Grouting	Static groundwater level (m bgl)

#### Advice note

An aerial map can be downloaded from Auckland Council's website if an aerial photograph is required.

All information required by the council in this consent can be sent to monitoring@aucklandcouncil.govt.nz

## **Advice note: Drinking Water standards**

The consent holder is advised that groundwater supplied for human consumption should meet the requirements of the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 and any other Ministry of Health or Taumata Arowai requirements.

Bore construction must meet the requirements for sanitary bore heads set out in Drinking Water Quality Assurance Rules (25 July 2022).

#### Advice note: Avoiding Contamination of Aquifer

The consent holder is advised to install a non-return valve of acceptable NZ Standards on the proposed bore to prevent the backflow of water into the bore.

## Specific conditions – Water permit WAT60400306 (for water take at bore being consented under LUC60399652 at or about E1729833, N5925837)

## Activity in accordance with reports

- 303. The take and use of groundwater from the bore at or about map reference NZTM 1729833 mE, 5925837 mN on land legally described as Lot 2 DP 196478 to supply golf course irrigation, domestic, maintenance, stock and potable water to the Muriwai Downs Property, must be carried out in accordance with the plans and all information submitted with the application, and all referenced by the Council as consent number WAT60400305.
- 304. Servants or agents of the Council must be permitted access to the relevant parts of the property at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking of samples whilst adhering to the consent holder's health and safety policy.

#### **Authorised quantities**

- 305. The cumulative abstraction from WAT60400305 and WAT60400306 must comply with the following:
  - The total daily abstraction must not exceed 1,728 cubic metres. a)
  - b) The total volume of water abstracted in each 12-month period, commencing 1 June of any year and ending 31 May of the following year, must not exceed 180,000 cubic metres.

#### **Bore Details**

306. Bores and monitoring points, to be used for pumping and monitoring purposes are specified in Schedule A. Those bores are to be maintained to ensure ongoing monitoring data can be obtained. Should the monitoring bore be damaged, become inaccessible, or become inoperable, then the Council is to be informed and a new monitoring bore is to be drilled as soon as practicably possible (dependent on drilling company availability) at a nearby location in consultation with and subject to approval of the Council to confirm that the location and trigger levels remain appropriate.

SCHEDULE A: BORES FOR MONITORING						
Name	ID	NZTM Total Casir				Casing
		Easting (mE)	Northing (mN)	Depth (m)	Depth (m)	
Production bore	PB1	1730277	5926161	228.0	119.0	
Production bore	PB2	1730005	5925985	-	-	
MW1-Awhitu	MW1	1730283	5926146	4.8	1.8	
MW2-Nihotupu	MW2	1730276	5926145	10.8	7.8	
MW3-Nihotupu	MW3	1730408	5926428	59.0	42.0	

MW4-Nihotupu	MW4	1730573	5925738	14.0	11.0
Wetland water level	P8	1730250	5926150	1.5	1.0-
MW7-Ōkaihau shallow	MW7	1728387	5925455	4.5	1.5
MW8-Ōkaihau deep	MW8	1728387	5925453	14.0	11.0

307. Prior to exercise of consent, the elevation of the top of the casing of the production bores and the monitoring bores must be measured and recorded to an accuracy of 0.01 m and must be submitted in writing to Council.

#### Bore maintenance for water level measurements

308. The consent holder must make and maintain provision for water level measurements at the top of the production bore and any monitoring bores. Provision must be made such that a probe can be lowered vertically into the bore (between any riser tube, if applicable and casing) to measure the static water level in the bore.

#### Advice Note:

This can be achieved by having an access hole of at least 2 cm in diameter at the top of the bore and by strapping a 25 mm dip tube to the rising main (if fitted) extending from the surface to below pumping water level. To keep out foreign matter, the hole should be fitted with an easily removed plug.

#### Bore maintenance for water quality sampling

309. If required in writing by the Council, within 20 working days of the requirement, provision at the top of each production bore for water quality sampling must be made and maintained so that a sample of water can be taken from the bore for water quality analysis.

A tap or hand valve must be fitted as close to the pump outlet as possible and before the groundwater resource enters any storage tank or filter. This tap or valve must have at least 0.3 metre clearance above ground level or any other obstruction to allow a sample bottle to be filled.

### Installation of a water meter

- 310. Prior to exercise of this consent, the consent holder must install a water meter with an electronic pulse output at the outlet of the pump. The water meter must:
  - a) be fit for the purpose and water it is measuring;
  - b) measure the volume of water taken, with an accuracy of +/- 5% of the actual volume taken;
  - c) be tamper-proof and sealed;

- d) be installed in accordance with the manufacturer's specifications
- be maintained in accordance with the manufacturer's specifications for the duration e) of this consent (WAT60400305).

#### Certification of the water meter

- 311. The water meters, and any device or system used to record water take volume, must be certified as accurate by a suitably qualified professional at the following times:
  - Prior to the exercise of this consent; a)
  - Within 5 working days of the water meter being serviced or replaced; b)
  - By the 30th day of June, starting from the commencement of consent, and c) thereafter at five yearly intervals.

The water meter, its certification and evidence of its accuracy must be conducted in accordance with the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020 (or any equivalent regulations that may replace them).

Within 10 working days of the meter/devices being certified as accurate, the consent holder must provide a written copy of the meter certification to the Council.

#### Installation and maintenance of electronic meter devices

312. The installation and maintenance of the water meter and associated electronic devices must be performed in accordance with manufacturer's specifications and to New Zealand Quality Standard ISO 4064.

The consent holder must ensure that the water meter, its associated devices and data can be safely accessible by the Council and their contractors at all times.

## Water meter readings

313. The consent holder must take a water meter reading once every 15 minutes. The date, time and the water meter reading must be recorded and provided to the council in accordance with the Water Reporting condition below.

If no water is taken during any time period, the current meter reading must still be recorded and reported.

#### Advice Note:

As per the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020, a water permit holder (resource consent holder) is required to record measurements of their water abstraction at 15-minute intervals and electronically provide to council daily records of the measurements by the end of the next day (unless otherwise agreed by Council) starting on the following date for a water permit that allows water to be taken at the rate specified:

- 3 September 2022 for a water permit for ≥20 litres/second:
- 3 September 2024 for a water permit for ≥10 but <20 litres/second:
- 3 September 2026 for a water permit for ≥5 but <10 litres/second.

## Monitoring bore water level readings

314. Groundwater levels in the monitoring bores listed in Schedule A (WAT60400305) must be measured and recorded from the date at which exercise of this permit commences, in accordance with the frequencies set out in Schedule B.

SCHEDULE B: MONITORING FREQUENCY				
Name	Bore ID	Monitoring	Frequency	
		Irrigation season	Non-irrigation season	
Production bore	PB1	15 minutes	15 minutes	
Production bore	PB2	15 minutes	15 minutes	
MW1-Awhitu	MW1	Daily	Quarterly	
MW2-Nihotupu	MW2	Daily	Quarterly	
MW3-Nihotupu	MW3	Daily	Quarterly	
MW4-Nihotupu	MW4	Daily	Quarterly	
Wetland water level	P8	Daily	Quarterly	
MW7-Ōkaihu shallow	MW7	Daily	Quarterly	
MW8-Ōkaihu deep	MW8	Daily	Quarterly	

- 315. The groundwater level must be:
  - a) measured from the top of the casing
  - b) must be recorded to an accuracy of +/- 1 cm.

The consent holder must record the time, date and the water level measurement(s) and supply these measurements to the Council in accordance with the Water Reporting condition below.

## Water reporting

316. The consent holder must enter the following information, at the frequency and date specified, into the Council's Water Use Data Management System or into any replacement database identified in writing by the Council.

•	Information	Due Dates for reporting
•	Water use water meter reading and date.	Every 15 <sup>th</sup> day of March, June, September and December.
•	Water level reading including time and date.	Annual, by 15 <sup>th</sup> September

#### Advice Note:

The web address for council's on-line Water Use Data Management System is: http://aklc.hydrotel.co.nz/hydrotel/cgi-bin/WudmsWebServer.cgi

Your WUDMS customer number is P######## for consent WAT60400305 and WAT60400306 and the password is 1234. For the link to work properly you need to ensure that Council has your up-to-date email address for contact purposes. An on-line manual explaining how to enter and submit your water readings is available at the web address specified above.

## Water Use Efficiency Report

- 317. A water use efficiency report must be provided to the Council by 15 June 2027 and subsequently at intervals of not more than five years thereafter. The report must assess the water use over the reporting period against best practice in respect of the efficient use of water for the purpose consented. This report must include, but not be limited to;
  - a) Total area irrigation;
  - b) Annual summary of water usage (month by month);
  - c) Reasons why annual water use may have varied from previous years aside from climatic variability (if applicable);
  - d) Information demonstrating irrigation equipment and decision making (e.g., soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming five years; and
  - e) Water conservation steps taken (e.g., leak detection).

#### **Reporting Conditions**

318. A report which provides analysis of the water use (actual used volumes vs. predicted) and a trend analysis of monitored water levels (actual levels vs. predicted) required by Conditions of this resource consent must be submitted to the Council by 15th September each year. The report must be prepared to a standard acceptable to the Council and consider all data collected from the date of the commencement of this consent and in particular evaluate any effects on the environment during the previous year.

#### **Groundwater Level Trigger Levels**

319. The exercising of this consent must be subject to the maintenance of aquifer conditions which do not indicate on-going declining groundwater levels or increased risk of impacts on wetland water levels. Trigger levels representative of a water level decline are outlined in Schedule C.

SCHEDULE C: TRIG	GER LEVELS	
Name	Bore ID	Drawdown (m) below seasonal low level

		Alert	Alarm							
Groundwater Level Triggers										
MW1-Awhitu	MW1	0.3	0.5							
MW2- Nihotupu	MW2	0.3	0.5							
MW3-Nihotupu	MW3	2.6	4.0							
MW4- Nihotupu	MW4	0.3	0.5							
MW7-Ōkaihu shallow	MW7	0.3	0.5							
MW8-Ōkaihu deep	MW8	0.3	0.5							
Wetland Water Level Triggers										
Wetland level	P8	0.03	0.05							

#### Advice Note:

The wetland water level triggers are based on the approach outlined in WWLA, 2021, whereby the change in surface water level is assumed to be 10% of the change in the shallow aquifer. The suitability of this trigger level may need to be reviewed and amended following baseline monitoring.

There are conditions below that must be complied with when the Alert and Alarm Level triggers are exceeded. These include actions that must be taken immediately including seeking the advice of a Suitably Qualified and Experience Person (SQEP).

## Water Level Alert Trigger Exceedance Response

- 320. If monitoring in accordance with conditions of this consent indicates that any of the alert water level triggers specified are exceeded, then the consent holder must:
  - Notify the Council within five (5) working days; and a)
  - Commission a Suitably Qualified and Experience Person (SQEP) to prepare an b) Alert Trigger Exceedance Report.
- 321. The Alert Trigger Exceedance Report must be submitted to the Council for certification acting in a technical capacity within one month of the exceedance. As a minimum, the Alert Trigger Exceedance Report must include (but not necessarily be limited to) the following:
  - the number, duration and cause of the exceedance(s); a)
  - in the event that the exceedance is attributed to the excise of this consent, the b) report must also include (but not necessarily be limited to) the following:
    - i) an assessment of the adverse environmental effects of the drawdown and where appropriate effects on other groundwater users and dependent surface water bodies;

- ii) any further work required to better understand the adverse effects identified, including increased monitoring of groundwater or surface water levels;
- iii) any proposed mitigation measures that may be required in the event that adverse environmental effects are identified, such measures should include increased frequency of monitoring and the reduction of the pumping rate;
- iv) any recommended monitoring of the effectiveness of the mitigation measures; and
- v) timeframes for the implementation of mitigation measures and the monitoring of the effectiveness of the mitigation measures determined to be required by the Report.
- c) An approved Alert Trigger Exceedance Report which meets the criteria above must be in place to manage any drawdown identified and, once the Report has been certified by the Council, any mitigation measures recommended by the SQEP must be implemented within the timeframes required by the approved report.

## Water Level Alarm Trigger Response

- 322. If monitoring in accordance with conditions of this consent indicates that any of the alarm groundwater level triggers specified are exceeded, then the consent holder must:
  - a) Take advice from the author of the Alert Trigger Exceedance report (if there was one) on actions required to avoid, remedy or mitigate adverse effects on other groundwater users and dependent surface water bodies that may occur as a result of the exceedance.
  - b) Notify the Council within three (3) working days of the Alarm Level exceedance being detected and provide details of the measurements taken and actions proposed (if required) to avoid, remedy or mitigate adverse effects; and
  - c) Commission a SQEP to prepare an Alarm Trigger Exceedance Report to be submitted within one month of the exceedance.
- 323. If monitoring in accordance with conditions of this consent indicates that the wetland water level alarm trigger specified is exceeded, and it is more likely than not caused by the exercise of this consent, then the consent holder must immediately reduce the bore pumping rate until the observed wetland water level stabilises.

The reduced groundwater abstraction must continue until the wetland water level recovers to within its baseline range.

## **Review condition**

324. Pursuant to section 128 of the RMA, the conditions of this consent (WAT60400306) may be reviewed by the Council at the consent holder's cost, in June 2024 and subsequently at intervals of not less than five years thereafter in order:

- a) To vary the quantities, monitoring and reporting requirements and performance standards in order to take account of information, including the results of previous monitoring and changed environmental knowledge, on;
  - iv) water availability, including alternative water sources;
  - v) actual water use, efficiency of use and potential water requirements; and
  - vi) groundwater levels including drawdown effects on neighbouring bores; and groundwater quality.
- b) To deal with any significant adverse effect on the environment arising or potentially arising from the exercise of this consent.

#### Advice Note:

Under section 128 of the RMA the conditions of this consent may be reviewed by the Manager Resource Consents at the consent holder's cost in the following circumstances:

- To provide compliance with rules in any regional plan relating to use of water, water or air quality etc. (refer section 128(1) (b) of the RMA) that have been made operative since the commencement of consent.
- To provide compliance with any relevant national environmental standard that has been made since the commencement of consent.
- At any time, if it is found that the information made available to the council in the application contained inaccuracies which materially influenced the decision and the effects of the exercise of the consent are such that it is necessary to apply more appropriate conditions.

# Specific conditions – Water permit WAT60400307 (for surface water take at Raurataua Stream)

#### Activity in accordance with reports

325. The take of surface water to supply golf course irrigation, domestic, maintenance, stock and potable water to the Muriwai Downs Property must be from a location at or about the proposed water take location denoted in **Figure 7** of the Consents.



Figure 7: Surface Water Take Location

#### Intake Screen Device

326. The intake screen device must be installed and maintained so as to limit the intake velocity across the screen to less than 0.3 metres/second and has no holes or slots with a diameter or width greater than 1.5 millimetres.

### Monitoring

- 327. Stream flow is continuously monitored at a location near to the surface water take as a means to assess the allowable high-flow take rate. Flow monitoring should be aligned with industry accepted practice, including but not limited to, site location, routine check and maintenance of site and equipment, and when necessary, flow gaugings to establish suitable rating curve(s), as much as practicable.
- 328. The high-flow take is not permitted until the measured stream flow at the surface water take site exceeds the median stream flow. The median stream flow at the proposed water take location is set at 131 L/s at the time of this consent approval.
- 329. A water meter is required on the water take to ensure the consented maximum take rate does not exceed 30 L/s or 10% of the flow in the stream at the time of abstraction. The water meter and associated infrastructure must be appropriately maintained to provide reasonable confidence in data and minimal adverse effects on the stream bed and banks.

- 330. The surface water take pump must be configured with a telemetry system to enable the pump(s) to be remotely operated (started/stopped). The SCADA system will have a connection to the reservoir, that will stop the pumps from operating when the reservoir is full.
- 331. Any erosion or scour attributed to the works as a result of the intake structure must be remedied by the consent holder, to the satisfaction of Auckland Council within 10 working days.
- 332. The applicant must analyse the measured stream flow data and high-flow take rate and report to Auckland Council on an annual basis, the following:
  - a) compliance to the high-flow take rate, clearly comparing the monitored stream flow to the measured water take:
  - b) analysis of the hydrological flow regime, clearly identifying the minimum, median, mean and maximum stream flows.
- 333. Prior to any abstraction of surface water, the consent holder must implement the Monitoring Plan contained in Schedule 2 of the Consents.

## **Surface Water Monitoring Plan**

- 334. If the consent holder considers the Surface Water Monitoring Plan set out in Schedule 2 of the Consents is no longer appropriate or necessary, but a decrease in the type, frequency and location of any part of the Surface Water Monitoring Plan is appropriate, the consent holder may, at any time, propose to the Council changes to the Monitoring Plan set out in Schedule 2.
- 335. Any proposed alteration to the Surface Water Monitoring Plan set out in Schedule 2 of the Consents must be accompanied by details of the reasons for proposing the monitoring changes and the details, and any evidence, of the views of the KC regarding the proposed changes. Written approval from the Council authorising the proposed monitoring changes must be received by the consent holder prior to making any monitoring changes.

#### Water Use Efficiency Report

- 336. A water use efficiency report must be provided to the Council by 15 June 2027 and subsequently at intervals of not more than five years thereafter. The report must assess the water use over the reporting period against best practice in respect of the efficient use of water for the purpose consented. This report must include, but not be limited to;
  - a) Total area irrigation:
  - b) Annual summary of water usage (month by month);
  - c) Reasons why annual water use may have varied from previous years aside from climatic variability (if applicable);
  - d) Information demonstrating irrigation equipment and decision making (e.g., soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming five years; and

- e) Water conservation steps taken (e.g. leak detection).
- 337. Under section 128 of the RMA, Auckland Council may review the median flow as stipulated in condition 328, based on analysis of the hydrological flow regime as reported in condition 332(b).

# Specific conditions – Water permit WAT60393758 (off-stream water storage reservoir construction and maintenance)

## Design

- 338. The design and construction of the water storage reservoir and associated drainage must be undertaken in general accordance with the specifications contained in the report titled "Geotechnical Investigation Report Muriwai Downs Reservoir Muriwai Valley" dated 18 November 2021 provided as Appendix 4B of the AEE.
- 339. Within 20 working days of completion of the Water Storage Reservoir (off-stream dam) Project Construction Works Element, confirmation/certification from a suitably qualified and experienced engineering professional must be supplied to the Council confirming/certifying that the engineer has supervised the construction works, that the construction works have been satisfactorily completed and that the design intent of the construction works has been met.

#### Structure Integrity and Safety

- 340. The Water Storage Reservoir (off-stream dam) and associated structures must be operated and maintained to ensure that, at all times, they are structurally sound, pose no undue risk to human life, property, or the natural environment, and are able to perform satisfactorily to their approved design standard.
- 341. In the event of any damage to the Water Storage Reservoir (off-stream dam) or any associated structure that results in a significant risk to safety or functioning of the dam, then works to repair that damage must be completed as soon as possible.
- 342. The Water Storage Reservoir (off-stream dam) and associated structures must be inspected by a suitably qualified and experienced engineering professional in September of each fifth year following its use to check the structural integrity and functioning of the reservoir and associated structures, and to advise on any upgrade or maintenance works that are required. A copy of the inspection report is to be provided to Council within 30 days of the inspection.

#### **Advice notes**

- 1. Any reference to number of days within this decision refers to working days as defined in section 2 of the RMA.
- 2. For the purpose of compliance with the conditions of consent, "the Council" refers to the council's monitoring officer unless otherwise specified. Please email <a href="monitoring@aucklandcouncil.govt.nz">monitoring@aucklandcouncil.govt.nz</a> to identify your allocated officer.

- 3. For more information on the resource consent process with Auckland Council see the council's website: <a href="www.aucklandcouncil.govt.nz">www.aucklandcouncil.govt.nz</a>. General information on resource consents, including making an application to vary or cancel consent conditions can be found on the Ministry for the Environment's website: <a href="www.mfe.govt.nz">www.mfe.govt.nz</a>.
- 4. If you disagree with any of the above conditions, and/or disagree with the additional charges relating to the processing of the application(s), you have a right of objection pursuant to sections 357A and/or 357B of the Resource Management Act 1991. Any objection must be in writing to the council within 15 working days of your receipt of this decision (for section 357A) or receipt of the council invoice (section 357B).
- 5. The consent holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2002, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.

#### **Schedule 1: Project Description**

The Project includes the construction, operation and maintenance of a golf course, sports academy and luxury accommodation complex (the "**Project**") on the Muriwai Downs Property (as defined in <u>DEFINITIONS AND EXPLANATION OF TERMS table within the Consents)</u> located roughly 17 km southwest of Kumeu and approximately 3km northeast of Muriwai Beach Township (**Figure 8**).

The Project layout is shown in **Figure 9**. More specifically, it comprises the following main physical components:

- An international, marquee standard 19-hole golf course with warm-up fairway and short game practice area;
- A clubhouse;
- A sports academy including; an academy building, office space, academy driving range, practice green, 9-hole short course, and indoor and outdoor tennis facilities;
- A golf and property maintenance complex;
- A luxury lodge which includes accommodation, a wellness centre and retreat;
- Dining facilities including clubhouse and lodge restaurants and a café at the sports academy;
- Groundwater and surface water abstraction facilities:
- An off-stream water storage reservoir;
- Significant ecological restoration and enhancement works; and
- Various supporting infrastructure associated with the above.

The consent holder's overall vision is to deliver a "Marquee Golf Course" and luxury lodge accommodation, in a high-quality environmental setting, that the local community, mana whenua and other New Zealanders will be proud of. This vision is focussed on catering for a growing level of international and domestic demand for golf-related tourism in Auckland and New Zealand once pandemic related travel restrictions are relaxed.

To achieve this vision, all elements of the Project will be designed, constructed and operated, to meet exceptionally high-quality standards, and offer superior golf, tourism, accommodation and training experiences in the Auckland area that will sit alongside the existing inventory of premium golf courses of international standing across the country.

Currently, the Muriwai Downs Property is dominated by farmed pasture, however, it also includes SEA areas, other areas of indigenous vegetation, wetlands and ONF's. These natural resources and features are of variable quality. Their restoration and enhancement are a fundamental part of the consent holder's vision for the Property, and is integral to delivering a golf course with Marguee status.

The proposed restoration and enhancement will also result in significant net environmental gains for both the Property and the wider area, provide opportunities for mana whenua to be directly involved in restoring the whenua, enable opportunities to educate patrons about the Site's natural, historical and cultural features, and enhance the golf and accommodation experiences to be offered.

The Project vision also seeks to provide the New Zealand golf fraternity, and the wider community, with a sports academy that incorporates state-of-the-art training and playing facilities to support and promote the game of golf and tennis at all levels.

Finally, the Project will also provide additional local accommodation, restaurant and café options for tourists and locals alike. In doing so, this not only provides additional facilities for those visiting the area to eat and stay in Muriwai, but will also increase and enhance social connection opportunities for locals.



Figure 8: Muriwai Downs Property Location

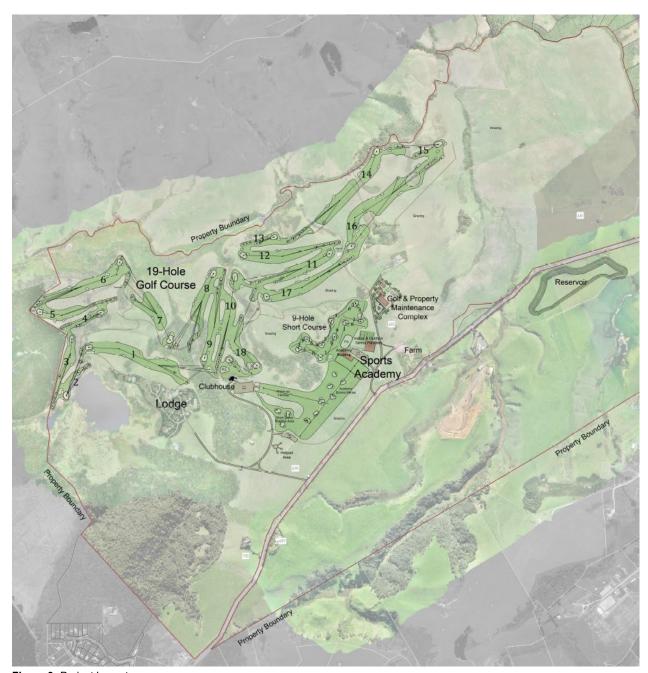


Figure 9: Project Layout

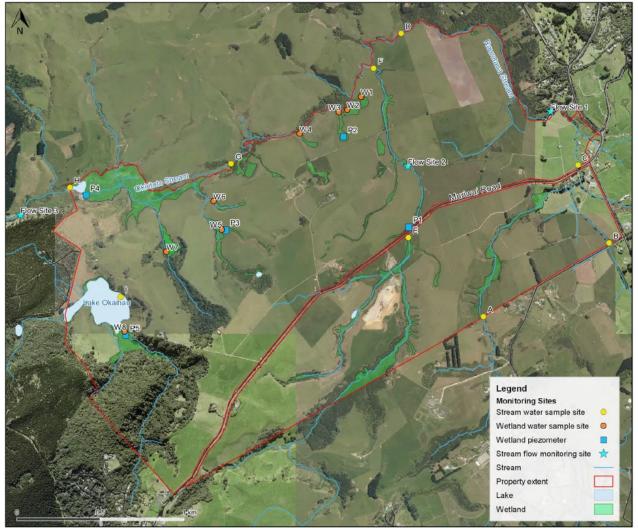
## Schedule 2: Surface Water Monitoring Plan

Monitoring Location	Parameter	Monitoring	Frequency
		Irrigation Season	Non-Irrigation Season
Surface Water Take	Rate (L/s)	Continuous	Continuous
	Volume (m³)	Daily	Daily
Point of take - Raurataua Stream	Flow (L/s)	Continuous (15- minute interval)	Continuous (15- minute interval)
Flow Site 2 (to monitor for groundwater pumping effects on streamflow)	Flow (L/s)	Continuous (15- minute interval)	Continuous (15- minute interval)
Water Sampling Sites C, D, F (Upstream of golfing activity)	Quality*	Monthly	Quarterly
Water Sampling Site G, H (Within and downstream of golfing activity)	Quality*	Monthly	Quarterly
Water Sampling Site I (Lake Okaihau)	Quality*	Monthly	Monthly
Wetland Sampling Sites W3, W4, W5, W6, W7	Quality*	Monthly	Quarterly
Wetland Monitoring Site P2 (piezometer)	Level (m amsl)	Daily	Quarterly

<sup>\*</sup> Water quality parameters to be tested include:

General								
рН	pH units							
Temperature	Degrees							
Total Suspended Solids	mg/L							
E. Coli	CFU/100 mL							
Nutr	ients							
Nitrite-N (NO <sub>2</sub> -N)	mg/L							
Nitrate-N (NO <sub>3</sub> -N)	mg/L							
Ammonia (NH <sub>3</sub> -N)	mg/L							
Total Nitrogen	mg/L							

Dissolved Reactive Phosphorus (DRP)	mg/L
Total Phosphorus	mg/L
Potassium	mg/L



Monitoring Locations

## **Schedule 3: Tree and Vegetation Inventory**

## Categories

The following categories have been used within the tree survey tables and, where appropriate, the criterion used to define each category is defined.

- **Tree No.**: refers to the number or letter assigned to a tree or group of trees, also identified as such on the accompanying tree location plan located in Appendix B of this assessment
- **Botanical Name**: The genus and species, and cultivar or variety where known, is given. Where the species is unknown the tree is identified as: (Genus) sp.
- **Tree Name**: The generally accepted common, or Māori, name of the tree is given.
- Location: Location within the project area
- Protected Status: refers to protected status of each tree and whether the tree is either Protected (P) (within near proximity to a wetland, lake or stream), Protected within an SEA overlay Area (SEA) or Not Protected (NP)
- **Height**: refers to the height of the tree in metres (approximate).
- Girth: approximate in metres
- **Crown Spread (Radius)**: refers to the radius of crown spread of the tree in metres (approximate).
- **Condition**: Refers to the overall physical appearance of the tree compared to that typical for the species.

The condition is described as:

- **Good** Good branch structure, full healthy canopy but possibly including some suppressed or damaged branches.
- **Fair** Average branch structure, slightly reduced leaf cover, minor dead wood or isolated major dead wood.

**Poor** – Poor structure, overall sparse leafing and/or extensive dieback. In decline.

- **Comments:** Any comments relating to each specific tree.
- Trees for removal red text
- Trees for retention black text

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
T1	Metrosideros excelsa	Pōhutukawa	Lodge	NP	12	2000+	8+	F	Mature specimens, subject to stock damage and compaction to be retained in lodge area.
T2	Metrosideros excelsa	Pōhutukawa	Lodge	NP	10	2000+	8+	F	Mature specimens, subject to stock damage and compaction to be retained in lodge area.
G1	Mixed indigenous vegetation dominated by Metrosideros excelsa Kunzea ericoides	Mixed Natives	West of Lodge	SEA					Mature trees and vegetation. Currently fenced. To be protected as part of project. Works in accordance with Section 12.0.
G2	Mixed indigenous WF11 vegetation	Mixed Natives	West of Lodge	SEA					Mature trees and vegetation. Currently fenced. To be protected as part of project. Works in accordance with Section 12.0 on both sides of gulley area.
G3	Metrosideros excelsa x 7 (larger than 250m2)	Pōhutukawa	1 <sup>st</sup> Fairway	Р	10-18	2000+	8+	F	Mature specimens, subject to stock damage and compaction. To be retained and worked around.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
G4	Kunzea ericoides (group)	Kānuka	1 <sup>st</sup> Fairway	P SEA	6-8	400- 800	2-4	F	Young to semi-mature specimens. Remove to fill gulley head for fairway.
G5	Cupressus macrocarpa Lupinus arboreus Ficus carica (group)	Macrocarpa Tree Lupin	Between 1 <sup>st</sup> & 2 <sup>nd</sup> Fairways	NP	3-18	200- 2000+	2-14	F	Predominately exotic vegetation. To be removed and replanted with native restoration plantings.
G5a	Ficus carica (group)	Edible Fig	Between 1 <sup>st</sup> & 2 <sup>nd</sup> Fairways	NP	3-6	200- 800	2-6	F	Edible Fig grouping to be retained and protected. Protection Measures (refer TMP).
T6	Metrosideros excelsa	Pōhutukawa	Between 1 <sup>st</sup> & 2 <sup>nd</sup> Fairways	NP	15	2000+	10	F	To be retained and worked around. Removal of deadwood and broken branches proposed.
G7	Eucalyptus sp. Lupinus arboreus	Blue Gum x 10- 15 Tree Lupin (Pest plant)	South of 2 <sup>nd</sup> Green	P (NP)	2-18	450- 2000+		F	Gum trees subject to protection as they stand on the edge of the wetland. Remove for green construction. Replacement planting proposed.
G8	Eucalyptus sp.	Blue Gum (remainder of row)	South of 2 <sup>nd</sup> Green	Р	10-18	1-2m+		F	Gum trees subject to protection as they stand on the edge of the wetland. This portion of the stand is to be retained.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
G9	Metrosideros excelsa (group) (larger than 250m2)	Pōhutukawa	South of 4 <sup>th</sup> Fairway	Р	8-12	1-2m+	8+	F	Semi mature specimens, subject to stock damage and compaction to be retained and worked around.
G9a	Ficus carica (group)	Edible Fig	Southeast edge of 4 <sup>th</sup> Fairway	NP	3-8	200- 1000	2-6	F	Edible Fig grouping to be retained and protected. Protection Measures (refer TMP).
T10	Dysoxylum spectabile	Kohekohe	South of 7 <sup>th</sup> green adjacent to access track	SEA	8	1200	8	G	Pruning required to clear access track.
G11	Leptospermum scoparium (group)	Mānuka	Western side of 7 <sup>th</sup> Green (for sight line)	Р	2-6	350- 600	1-2	ш	Removal required for sight lines.
G12	Kunzea ericoides Leptospermum scoparium Beilschmiedia tawa Melicytus ramiflorus (group)	Kānuka Mānuka Tawa Māhoe	Northeast of 7 <sup>th</sup> Green. Pedestrian bridge link to 8 <sup>th</sup> Tee	P SEA	3-8	250- 800	-	F	Cluster of small pioneer vegetation to be removed for pedestrian bridge and associated earthworks. Pruning of remaining vegetation.
G13	Kunzea ericoides Leptospermum scoparium (shrubs and small trees)	Kānuka Mānuka	8 <sup>th</sup> Tee area adjacent to pedestrian bridge line and footprint of Tee area.	NP SEA	2-8	100- 800	1-4	F	Clusters of Mānuka/Kānuka scrub to be removed for Tee construction. Works to be undertaken within the protected root zones of vegetation surrounding the Tee area.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
T13a	Dacrycarpus dacrydioides	kahikatea	South of 8 <sup>th</sup> Tee	SEA				G	
G13 a	Regenerating indigenous vegetation including: Corynocarpus laevigatus Rhopalostylis sapida Beilschmiedia tarairi	Karaka Nikau Taraire	Existing farm track from 8 <sup>th</sup> Tee to 8 <sup>th</sup> Fairway	SEA				G	Mixture of mature native overhanging trees and vegetation. Larger trees to be pruned for access and Nikau to be transplanted off the footprint.
G14	Kunzea ericoides Leptospermum scoparium (shrubs and small trees)	Kānuka Mānuka	Footprint of 8 <sup>th</sup> Fairway.	SEA	2-8	100- 800	1-4	F	Clusters of Mānuka/Kānuka scrub to be removed for Fairway construction. Works to be undertaken within the protected root zones of vegetation surrounding the Fairway.
G15	Metrosideros excelsa x5	Pōhutukawa	Ridgeline above 8 <sup>th</sup> Fairway	SEA	8-15	1000+	-	G	Mature Pōhutukawa on ridgeline area. Setback to be provided for earthworks. Supervision of works within PRZ.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
G16	Kunzea ericoides x2 Leptospermum scoparium Phormium tenax x2 (shrubs and small trees)	Kānuka Mānuka Harakeke	Hole 9 side of new pedestrian bridge (between Hole 1 & 9)	SEA	2-8	100- 800	1-4	F	Clusters of Mānuka/Kānuka scrub to be removed for bridge pier construction. Works to be undertaken within the protected root zones of vegetation surrounding the bridge and Pier.
G16	Metrosideros excelsa	Pōhutukawa	Limbs within the footprint of the proposed pedestrian bridge	SEA	12	1000+		G	Mature Pōhutukawa on ridgeline area. Limb to be pruned for bridge clearance. Supervision of works within PRZ.
G17	Kunzea ericoides x4 Leptospermum scoparium Phormium tenax x2 (shrubs and small trees)	Kānuka Mānuka Harakeke	Hole 1 side of new pedestrian bridge (between Hole 1 & 9)	SEA	2-8	100- 800	1-4	F	Clusters of Mānuka/Kānuka scrub to be removed for bridge pier construction. Works to be undertaken within the protected root zones of vegetation surrounding the bridge and Pier.
G17	Kunzea ericoides	Kānuka	Limb within the footprint of the proposed pedestrian bridge	SEA	12	1000+	-	G	Mature Kānuka on lower ridgeline area. Limb to be pruned for bridge clearance. Rata vine on trunk. Supervision of works within PRZ.
G17 a	Mixed indigenous vegetation (recently planted) largely	Mainly Kānuka	North of Hole 8, to west of Hole 12 & 13	SEA					Already fenced. To be retained and protected. No works within this area.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
	Leptospermum scoparium								
G18	Salix sp. Populus sp.	Willow Poplar	Standing in footprint of new 13-14 pedestrian bridge	NP	5-8	400- 1000	2-6	F	Remove selected trees for bridge crossing. Remaining trees removed for new indigenous plantings.
G19	Mixed Native species	Totara Kauri Rimu Kauri	Northern side of Hole 14	SEA ONF	6-20	1000+	-	G	Group of native trees on the northern boundary. Some minor shaping in PRZ. Works to be supervised and trees fenced.
G20	Acacia mearsii Populus sp.(Group)	Wattle Poplar	Northern side of the existing causeway/wetl and within Hole 16	Р	4-10	400- 1200	1-2	F	Group of semi-mature specimen trees to be removed for Hole 16 construction.
G21	Cordyline australis Coprosma robusta Populus sp.	Tī Kōuka Karamu Poplar	Eastern side of Wetland area adjacent to Hole 16. Pedestrian bridge abutment location	Р	2-12	200- 1400	2-6	F	Group of mixed indigenous and exotic vegetation. Proposed removal to enable bridge abutment construction.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
T22	Quercus palustris	Pin Oak	Eastern side of proposed pedestrian bridge (Hole 16)	P	10	1500	6	G	To be retained and protected during bridge construction. Works within PRZ.
G23	Cordyline australis Coprosma robusta (other weed species vegetation)	Tī Kōuka Karamu	western side of Wetland area adjacent to Hole 16. Pedestrian bridge abutment location	P	1-3	>500	1-3	F	Group of mixed indigenous and exotic vegetation. Proposed removal to enable bridge abutment construction.
G24	Mixed native and exotic vegetation	Black Wattle Totara English Oak	South of the proposed Hole 16 bridge	NP P	4-15	400- 2000+	2-10	G	Group of mixed mature trees and vegetation. To be retained and fenced during earthworks.
G24 a	Mixed exotic vegetation including: Pinus radiata Quercus robur	Monterey Pine English Oak (other mixed species)	Northwest of Maintenance complex						Group of mixed mature trees and vegetation. To be retained and fenced during earthworks.
G25	Mixed natives Corynocarpus laevitgus Knightia excelsa	Karaka Rewarewa Kahikatea Pūriri Totara	Area of degraded stream system adjacent to Hole 18	Р	4-15	400- 1200+		P- G	Heavily grazed stream gulley with mixture of tree species in poor - good condition. To be retained and enhanced with new trees.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
	Dacrycarpus dacrydioides Vitex lucens Podocarpus totara								
G26	Mixed natives Corynocarpus laevitgus Knightia excelsa Dacrycarpus dacrydioides Vitex lucens Podocarpus totara Agathis australis	Karaka Rewarewa Kahikatea Pūriri Totara Kauri	Area of mixed native vegetation adjacent to sports academy and 9 hole course.	P NP	4-15	400- 1200+		P- G	Vegetated area with stream in centre. Not subject to overlay but some protection adjacent to stream in centre. To be retained and protected.
T25	Agathis australis	Kauri	South of Hole 18 through shot and north of proposed pedestrian bridge	NP					Tree is dead and to be removed in accordance with Kauri dieback protocols.
T26	Corynocarpus laevitgus	Karaka	North of the proposed Hole 18 through shot to green	Р	8.0	1760	6.0	G	Remove tree to enable sight lines through to 18 <sup>th</sup> Green. Mitigation proposed.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
T27	Corynocarpus laevitgus	Karaka	North of the proposed Hole 18 through shot to green	Р	8.0	1.74	6.0	G	Intended to prune tree in first instance and confirm if level of view is adequate. Otherwise, this tree will be removed. Mitigation proposed. through to 18 <sup>th</sup> Green.
G28	Knightia excelsa Dacrycarpus dacrydioides x2 Agathis australis	Rewarewa Kahikatea Kauri	Grouping of trees north of the proposed pedestrian bridge.	Р	14.0- 18.0	1000+	4.0- 14.0	G	Proposed pedestrian bridge to be constructed to the south of the stand. Some pruning required on low hanging branches.
G28 a	Agathis australis x4 (2 dead) Podocarpus totara,	Two (2) mature Kauri trees, two (2) dead kauri trees, one (1) mature totara tree,	Adjacent to the SEA boundary (Clubhouse location)	NP	10-18	1000+	2.5- 5.0	P- G	Proposed removal to enable construction of Clubhouse facility.
G28 b	Cordyline australis x4	four (4) mature Tī Kōuka	Directly south of Hole 18 bridge	NP	6.0- 8.0	1000+	1.5- 3.0	P- G	Proposed removal for new Clubhouse and associated earthworks.
G29	Podocarpus totara Metrosideros excelsa	Totara Pōhutukawa	Pair of trees growing adjacent to the existing accessway to the lodge area	NP	15-17	2000+	8.0- 12.0	G	Proposed upgrade of current accessway to concrete to be used as lodge access. Works within PRZ.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
G30	Podocarpus totara Metrosideros excelsa	Totara Pōhutukawa	Pair of trees growing adjacent to the existing accessway to the lodge area	SEA	15-17	2000+	8.0- 12.0	G	Proposed upgrade of current accessway to concrete to be used as lodge access. Works within PRZ.
G31 a	Kunzea ericorides x6	Two (2) semi- mature Kānuka trees and four (4) small Kānuka trees	Grouping of Kānuka trees growing on the northern side of Muriwai Road adjacent to an existing farm entry (to be relocated and upgraded)	Р	3.8 - 6.0	250 - 1200	2.0 – 4.0	G	Proposed for removal to enable the construction of a new entry and intersection upgrade.
G31 b	Kunzea ericorides x1 Coprosma robusta x2 Cordyline australis x1	(Western side) One (1) semi- mature Kānuka, One (1) Karamu and the eastern grouping comprising of a (Eastern side)semi- mature Tī	Grouping of vegetation on the southern side of Muriwai Road adjacent to an existing farm entry (to be relocated and upgraded)	Р	1.0 - 8.0	200 – 1000	1.0 – 4.0	P- G	Proposed for removal to enable the construction of a new entry and intersection upgrade.

Tree No.	Botanical Name	Common Name	Location	Protection	Height (m)	Girth (mm)	Crown Spread	Condition	Comments
		Kōuka and Karamu.							
G32	Kunzea ericorides (clusters) Coprosma robusta (various) Cordyline australis (various) Metrosideros excelsa x1 Muehlenbeckia complexa	Kānuka, Karamu, Tī Kōuka, Pōhuehue, Pōhutukawa x1 (various groups in clearance area)	Northern side of Muriwai Road adjacent to the new western entranceway and intersection	P	0.5 – 10.0	>100 - 1000	0.5- 4.0	P- G	Proposed for removal to enable the construction of a new entry and intersection upgrade.
G33	Metrosideros excelsa	Pōhutukawa	Northern side of Muriwai Road adjacent to existing driveway	NP	15.0	2000+	10.0	G	Private tree – to be removed to construct access.

## TREE AND VEGETATION LOCATION PLANS

