Item 1

Department of Conservation
*Te Papa Atawhai*

# AUTHORITY TO REMAIN ON OR ENTER CONSERVATION LAND CLOSED TO THE PUBLIC UNDER SECTION 13 CONSERVATION ACT 1987



BACKGROUND

1. On 27 September 2024, the Operations Manager – Hauraki for the Department of Conservation, under delegated authority and pursuant to section 13(1)(b) Conservation Act 1987 ('the Act'), closed to public entry the conservation area identified in the plan attached as ***Appendix I*** to this Authority ('the closed area plan') for kauri protection reasons within the Wharekirauponga catchment of the Coromandel Forest Park. A copy of the closure notice issued under section 13(1)(c) of the Act is attached as ***Appendix II***.

2. Oceana Gold Limited (OGL) holds a mining permit - MP 60541. MP 60541 was granted on 05 August 2020 by New Zealand Petroleum and Minerals (NZPAM) for a term of 40 years. The Mining Permit is within the Wharekirauponga catchment. The boundary of the MP area is outlined in red in ***Appendix III***.

3. Under section 13(1)(c) of the Act no person, not authorised by the Director-General of Conservation, shall remain on or re-enter the Public Conservation Land identified on the closed area plan.

4. The purpose of this Authority is for the Director-General of Conservation to authorise entry by OGL and their contractors to the conservation area identified on the closed area plan for the purpose of environmental monitoring (outlined in 8.1) as required under OGL's existing resource consents and DOC permissions.

AUTHORITY

5. Pursuant to section 13(1)(b) of the Act the Director-General of Conservation, through his delegate, authorises OGL together with its employees, agents, contractors and authorised visitors involved with OGL's environmental monitoring requirements as described in paragraph 8.1, to remain on or enter the Wharekirauponga Track subject to the conditions stipulated in paragraph 8 of this Authority.

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8. OGL must adhere to the following conditions:

8.1 OGL is authorised to remain on or enter the Wharekirauponga Track for the purposes stated below:

- Access to the 7 monitoring equipment sites located in the upper catchment of the Wharekirauponga Stream (shown on map attached as ***Appendix IV***).
- Access to the Wharekirauponga Track in the case of emergencies.

8.2 Access to the sites stated above is authorised for visits on a quarterly basis, with an agreed term in place aligning with the duration of each visit.

8.3 To enter the closed land, OGL must contact the Hauraki District Office (thames@doc.govt.nz) and outline the dates for entry, number of people required and duration of each visit at least 5 working days prior.

8.3 OGL must notify the Hauraki Operations Manager of any emergency use of the track as soon as feasible following the emergency use. Notification must include the date, time, circumstance of the emergency and the number of people involved.

8.4 On a half-yearly basis, OGL must send the Hauraki District Office a log/report outlining their use of the closed section of Wharekirauponga track including number of people, number of visits and the purpose for each visit.

8.4 Those who are authorised to enter Wharekirauponga Track must comply with any and all Health and Safety regulations and Standard Operating Procedures as advised by OGL.

8.5 Those who are authorised to enter, must adhere to OGL's Kauri Management Plan and hygiene protocols.

8.6 As OGL has committed to in the request for an Authority to Remain, OGL must undertake the following within 1 month of receiving this authority.

- Add a register to wash stations located at all entry and exit points to record staff and contractors using the stations. This includes the mine facilities areas, helipads and point of entry/exit of the closed track.

- Appoint a site hygiene supervisor whose role it is to implement, maintain, supervise and compile documentary evidence that hygiene measures are being implemented. Compliance records must be provided to DOC on request.

- Upgrade camp, drill site, and south helipad wash stations to use pumped, pressurised water to clean and sterilise equipment and gear onsite. Water supply must be either

potable water or pumped from streams under existing water take consents. Wash water from these sites must be collected and removed offsite for disposal.

- Install an upgraded hygiene facility at the mine facilities helipad area and the drilling contractor's yard to clean and sterilise gear and equipment going into or coming out of Wharekirauponga. The cleaning facility must include pressurised water, a collection facility, and a hard stand area to dry machinery and gear.

8.7 This authority, and the conditions associated will be reviewed by the Hauraki District Office annually. If deemed necessary, the agreement may vary upon communication with OGL.

8.8 If at any time the Department deems necessary and with notification outlining the reason, this agreement may be ceased.

Signed on behalf of the Director-General of Conservation

By Avi Holzapfel, Operations Manager – Hauraki,

Acting under delegated authority

Date 20 November 2024



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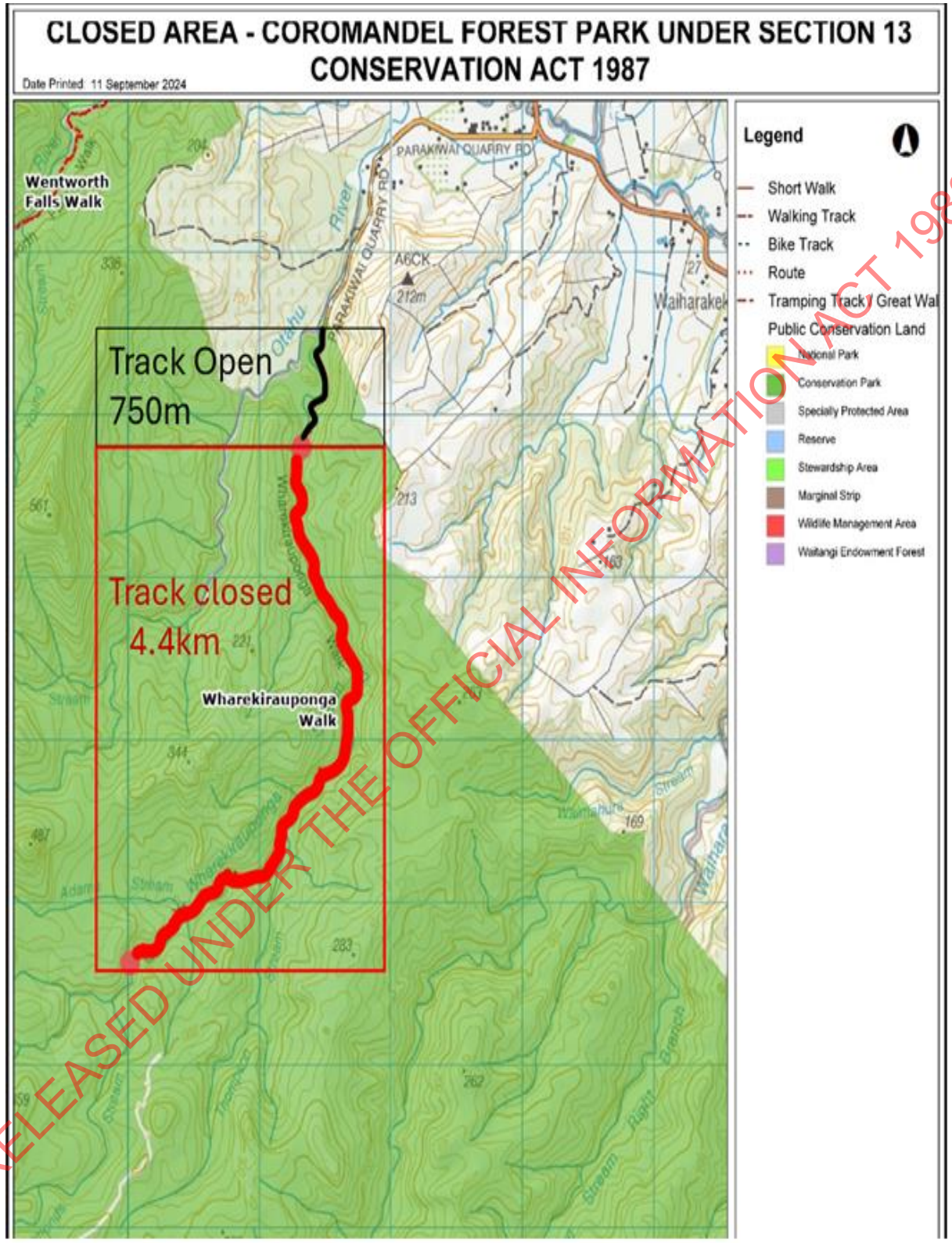
**Appendix I** – Areas to be closed to the public



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**Appendix II** - Closure notice under S13(1)(c)

Department of Conservation
*Te Papa Atawhai*

TIAKINA KAURI
KAURI PROTECTION

## NOTICE OF CLOSURE OF CONSERVATION AREA UNDER SECTION 13 CONSERVATION ACT

Pursuant to section 13 (1) (b) of the Conservation Act 1987, Wharekirauponga Track being part of the Coromandel Forest Park, specifically from the Ghulam Bridge onwards will be closed indefinitely from the 27th of September 2024 to prevent the spread of kauri dieback disease.

The closed area is part of Wharekirauponga Track totalling approximately 4.4 kilometres of public conservation land being Conservation Park, as indicated on the below plan.

The first 750m of track is open to the public (from the road end carpark to the wooden footbridge) and the remaining 4.4km of track is closed (from the wooden foot bridge to, and including, the swing bridge at the waterfall).

During the closure it is an offence for a person who is not authorised by the Director-General to remain on, or enter, the area indicated on the below plan.

The closed site will be clearly demarcated by signage.

For further information on the conservation land closure contact:

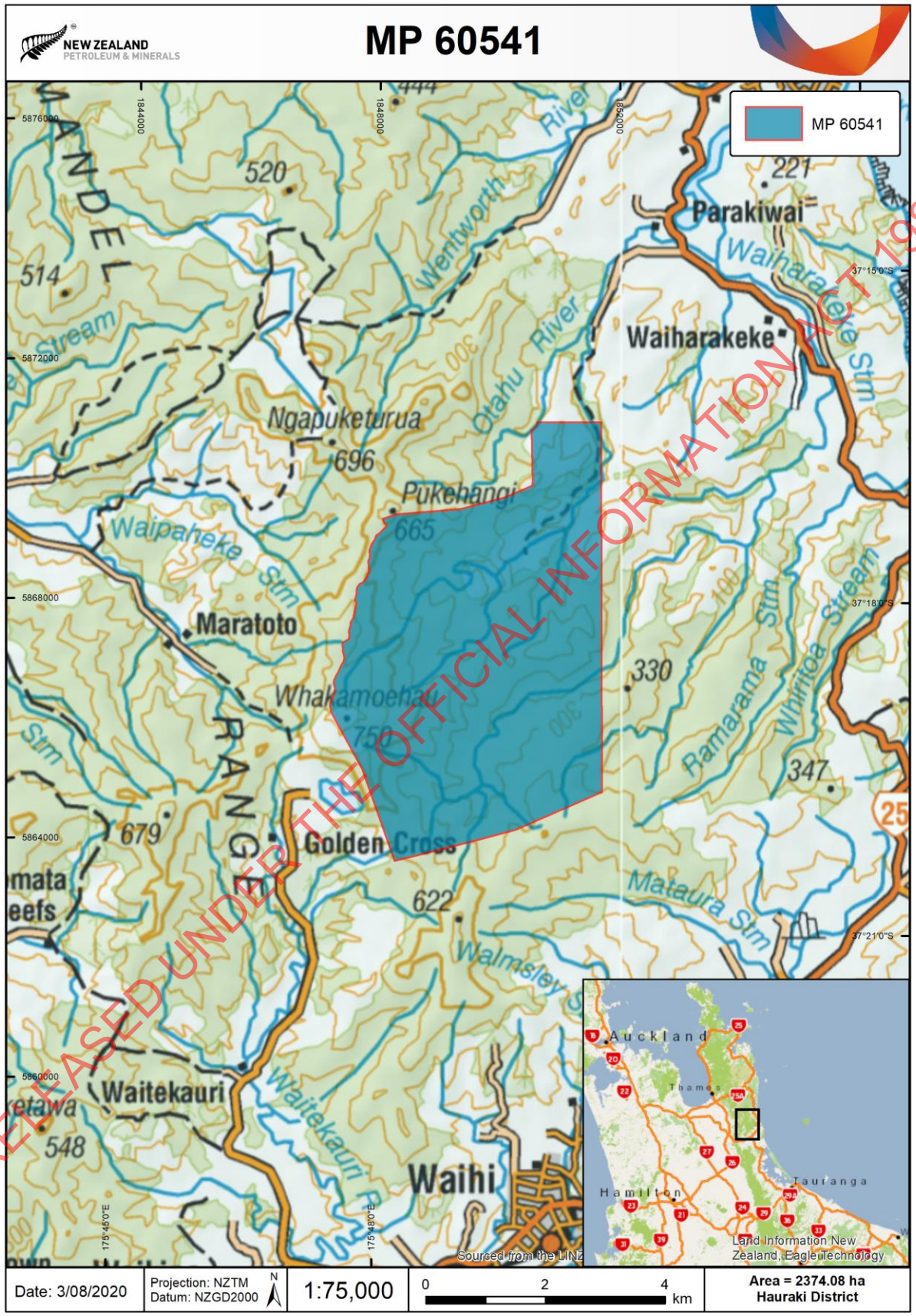
Department of Conservation Hauraki Office

PO Box 343

Thames 3540

Phone: 0800 ASK DOC (0800 275 362

**Appendix III** – OGL Mining Permit Area



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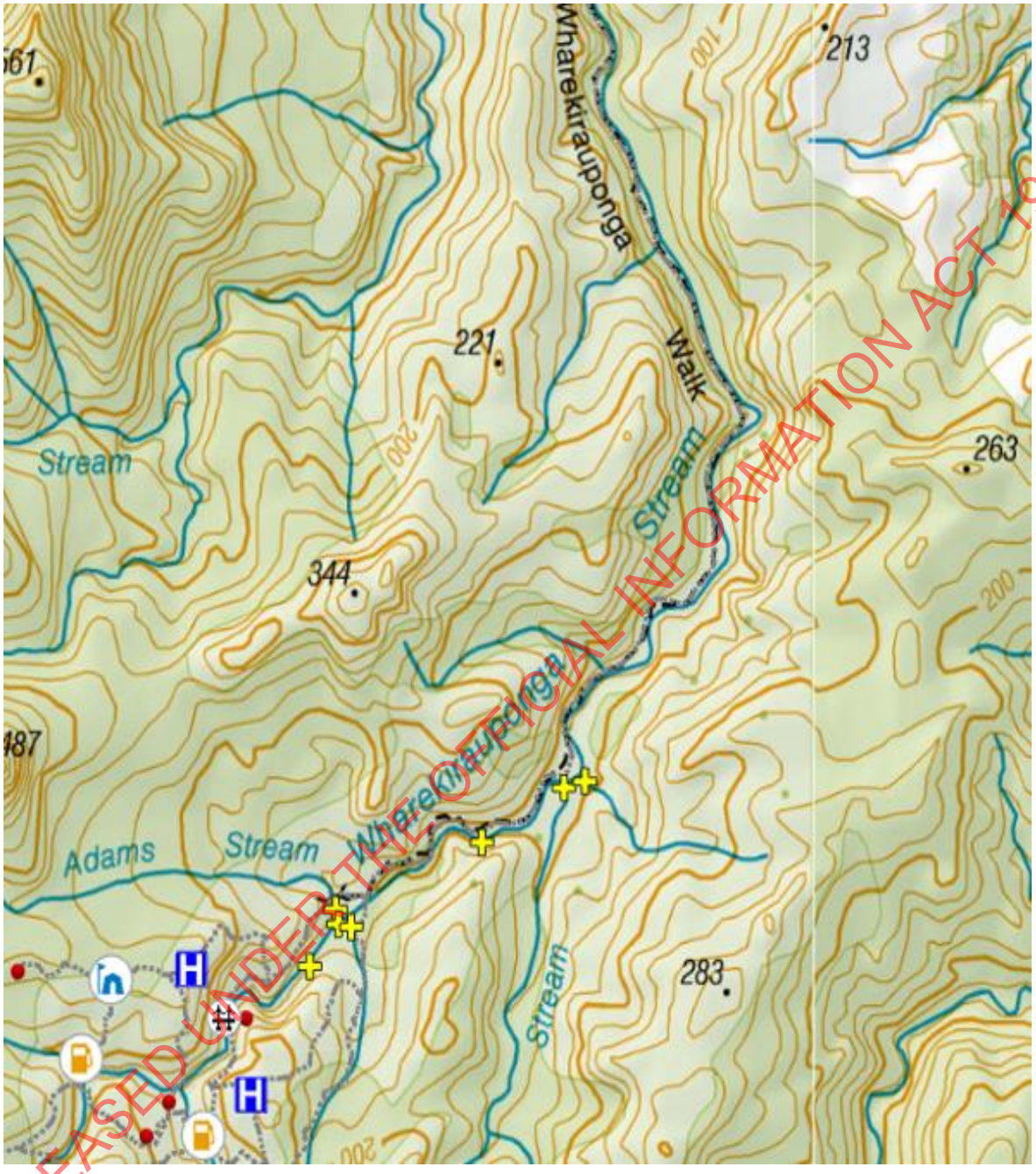
**Appendix IV** – Approved monitoring sites (shown as yellow cross)



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## ACCESS ARRANGEMENT

THIS AGREEMENT for an Access Arrangement pursuant to section 61 of the Crown Minerals Act 1991 dated 2nd Dec. 2016 between Her Majesty the Queen in Right of New Zealand ("**Crown**") acting by and through the Minister of Conservation and the Minister of Energy and Resources (hereinafter referred to as "the Ministers") and **OCEANA GOLD (NEW ZEALAND) LIMITED** (hereinafter referred to as the "Permit holder").

WHEREAS

(a) The Land described in the First Schedule is administered by the Department of Conservation pursuant to section 19 of the Conservation Act 1987 and the Minister of Conservation is responsible for that Department;

(b) The Minister of Energy and Resources, through the Ministry of Business, Innovation and Employment, administers the Crown Minerals Act 1991. The purpose of the Act is to promote prospecting for, exploration for, and mining of Crown owned minerals for the benefit of New Zealand;

(c) The Permit holder has been granted a minerals permit (**Exploration Permit 40598**) by the Minister of Energy and Resources pursuant to section 25 of the Act to undertake exploration operations in and on the Land;

(d) Exploration Permit 40598 is classified as Tier 1 permit pursuant to section 2B of the Crown Minerals Act 1991.

(e) The Permit holder pursuant to section 59 of the Crown Minerals Act 1991 has requested an Access Arrangement in respect of the Land described in the First Schedule to conduct exploration operations.

(f) Pursuant to section 61(1AA) of the Crown Minerals Act 1991 the decision of whether or not to enter into an initial Access Arrangement in relation to a Tier 1 permit is with the Ministers.

(g) Although this Access Arrangement is entered into by the Ministers, on behalf of Her Majesty the Queen, the administration of the Access Arrangement together with matters relating to the Permit Holder's access to, and use of the Land is the responsibility of the Department. The Ministry of Business, Innovation and Employment is responsible for matters relating to the minerals permit.

IT IS AGREED between the Ministers of the first part and the Permit holder of the second part that the Permit holder may enter the Land described in the First Schedule subject to the terms and conditions set out below and in the Second Schedule hereto:

## 1. INTERPRETATION

"Access Arrangement" means this agreement for an access arrangement.

"Act" means the Crown Minerals Act 1991.

"Annual Work Programme" and "Work Programme" means the Work Programme referred to in Condition 7(b).

"Department" means the Department of Conservation.

"Diameter at breast height" means the diameter of a tree when measured 1.4 metres above ground level. On sloping ground, the 'above ground level' reference point is the highest point on the ground touching the trunk. If the diameter at breast height falls on a swelling in the trunk the measurement should be taken directly below the swelling at the point where the diameter is the smallest.

"Dusk" and "Dawn" means 0.5 hours either side of the closest official sunrise and sunset time (http://www.linz.govt.nz/sea/nautical-information/astronomical-information).

"Exploration" has the meaning as defined in section 2 of the Crown Minerals Act 1991.

"Exploration operations" means operations in connection with exploration for any Crown owned mineral and authorised under this Access Arrangement.

"Exploration permit" means an exploration permit granted under the Crown Minerals Act 1991.

"Kauri Contamination Zone" means any area within 3 times the radius of the canopy drip line of a kauri (*Agathis* australis) tree.

"Land" means the land described in the First Schedule.

"Manager" means the person for the time being holding the office of Operations Manager, Hauraki District, Hauraki – Waikato - Taranaki Region of the Department of Conservation and includes any person authorised by the Operations Manager to act on his or her behalf in respect of this agreement.

"Ministers" means the Minister of Conservation and the Minister of Energy and Resources.

"Parties" means the Minister of Conservation, the Minister of Energy and Resources and the Permit holder.

"Permit holder" has the meaning as defined in section 2 of the Crown Minerals Act 1991 and includes its servants, agents, contractors and assignees.

"Potential bat roost trees" means any native or exotic trees measuring greater than 15 cm diameter at breast height (DBH) that have roosting habitat features (hollows, cavities, knot holes, splits, cracks and peeling/flaking bark).

**ASSIGNMENT**

2. The Permit holder will not assign, transfer or sublet any rights herein granted or any part thereof without the prior written consent of the Ministers, and such consent will not be unreasonably withheld. Any change in the Permit holder's shareholding altering the effective control of the Permit holder shall be deemed to be a proposed assignment requiring the consent of the Ministers.

**COMPENSATION**

3. Pursuant to section 76 of the Act, the Permit holder will pay the Minister of Conservation the following compensation:

   (a) $6,000.00 + GST per annum for the intrusion of an industrial operation on the Land as a result of Exploration operations, to be paid at the time of presentation of an Annual Work Programme for the succeeding 12 months; and

   (b) $75.00 + GST per drill rig per day on the Land (regardless of whether or not it is being used); and

   (c) $1,000.00 + GST as a one off fee per campsite and/or helicopter landing area utilised on the Land; and

   (d) $5,000.00 + GST per drill site; and

   (e) $1,000.00 + GST per reuse of any drill site authorised under this Access Arrangement; and

   (f) $100.00 + GST per drill site where all vegetation cleared/felled at that site is equal or less than 10cm diameter at breast height; and/or

   (g) $250.00 + GST per drill site where any vegetation cleared/felled at that site is equal to or less than 15cm diameter at breast height; and/or

   (h) $500.00 + GST per drill site where any vegetation cleared/felled at that site is equal to or less than 30cm diameter at breast height; and/or

   (i) $875.00 + GST per drill site where any vegetation cleared/felled at that site is equal to or less than 40cm diameter at breast height; and/or

   (j) $1,500.00 + GST per drill site where any vegetation cleared/felled at that site is equal to or less than 50cm diameter at breast height; and





9(2)(a)

(k) An additional $500.00 + GST per drill site where Exploration operations commence more than 3 weeks after the full ecological survey required by special condition 74; and

(l) An additional $2,000.00 + GST per drill site where any Archey's frog (*Leiopelma archeyi*) are found:

(i) prior to use of the drill site; and/or
(ii) during use of the drill site; and/or,
(iii) in the 20x20m ecological survey area (referred to in special condition 74) surrounding the drill site; and

(m) An additional $500.00 + GST per drill site where any Hochstetter's frog (*Leiopelma hochstetteri*) or 'At Risk' or 'Threatened' lizards are found:

(i) prior to use of the drill site; and/or
(ii) during use of the drill site; and/or,
(iii) in the 20x20m ecological survey area (referred to in special condition 74) surrounding the drill site; and

(n) $500.00 + GST per day, or any part thereof, where helicopters are used in association with the Exploration operations in the period from 23rd December to 6th February (inclusive).

(o) Additional compensation should any dead or injured bat(s) be found. Such compensation will include, but will not be limited to, the actual and reasonable costs of storing, transporting, rehabilitating, releasing and euthanizing any dead or injured bat(s) found.

Compensation will be paid by the Permit holder upon receiving an invoice from the Department or at the time of presentation of an Annual Work Programme, prior to commencing Exploration and Exploration operations, with 3 (a) being paid in advance and 3 (b) to (o) being paid in arrears.

Compensation is payable into Department of Conservation administered bank account to be used by the Department for biodiversity and recreation purposes in the Hauraki – Waikato – Taranaki Region.

3A. Upon expiry of each Annual Work Programme, the Permit holder will submit to the Manager a summary of all compensation payable for the Annual Work Programme Period. The summary will include a description of all instances when situations identified in Condition 3(b) to (o) have occurred.

**COMPENSATION FOR ANY UNAUTHORISED DISTURBANCE**

4. The Minister of Conservation may require the Permit holder to pay additional compensation for any breaches of this Access arrangement and/or Exploration operations carried out by the Permit holder on the Land or on other adjoining or proximate land administered by the Department outside of the Land **NOT** authorised by this Access arrangement. Such additional compensation will be

for an amount solely determined by the Minister of Conservation and should be paid by the Permit holder upon receiving an invoice.

**ADMINISTRATION COSTS**

5. Pursuant to section 76 of the Act the Permit holder will also pay to the Minister of Conservation, upon receiving an invoice:

   (a) all actual and reasonable costs to cover the administrative costs of processing this Access arrangement; and

   (b) the actual and reasonable costs of administering this Access arrangement; and

   (c) The actual and reasonable costs of monitoring compliance of the conditions in this Access arrangement including all associated inspections of the Land by the Department.

6. The Permit holder will pay to the Minister of Conservation a Management Fee of $250.00 +GST per annum for administration and file management associated with the Exploration operations and/or management of this Access Arrangement. The Management Fee will be paid in arrears on a pro rata basis for the previous 12 months, upon receiving an invoice.

**PRECONDITIONS BEFORE ENTRY TO LAND FOR MINING**

7. The Permit holder will not enter in or on to the Land for the purpose of commencing Exploration operations until:

   (a) The documents referred to in Condition 9 have been supplied to the Manager; and

   (b) The Permit holder has submitted to the Manager an Annual Work Programme in accordance with Condition 62 in the Second Schedule; and

   (c) Any payments referred to in Conditions 3, 4, 5, 6,17 and 21 which are due and owing have been paid; and

   (d) The Manager has approved the plans required to be submitted by Condition 7(b) and has issued the Permit holder with an Authority to Enter and Operate as provided by Condition 10.

8. The Manager may require the Permit holder to vary the proposed Annual Work Programme to ensure the Exploration operations are not inconsistent with the conditions of this Access arrangement. Where required by the Manager the Permit holder will amend the proposed Annual Work Programme accordingly.

9. The Permit holder will seek an Authority to Enter and Operate from the Manager. At the time of seeking an Authority to Enter and Operate, the Permit holder will submit to the Manager:

   (a) A copy of the insurance policies and the premium payment receipts and guarantees or bonds as required in Conditions 20 and 21; and

   (b) A copy of the Exploration permit granted pursuant to section 25 of the Act; and

   (c) A copy of all resource consents granted under the Resource Management Act 1991, and a copy of any reports that the Permit holder has been required to submit to the consent authority as a requirement of any resource consent relating to the exploration permit, as defined in Whereas clause (c).

   (d) If new resource consents are granted a copy will be submitted to the Manager before exercise of that consent.

10. Upon the Manager being satisfied that the requirements of Conditions 7, 8 and 9 have been met, the Manager will issue the Permit holder with a written "Authority to Enter and Operate" permitting the Permit holder to enter in or on to the Land to commence Exploration operations for a period of 12 months provided the Exploration Permit continues in force for the term, or longer, of any Authority to Enter and Operate issued.

11. A breach or failure to comply with the requirements of the documents referred to in Condition 7(d), as approved by the Manager, shall be deemed to be a breach of this Access arrangement, and shall entitle the Ministers to exercise any rights or powers which arise from a breach of or failure to comply with the terms of this Access arrangement.

12. Prior to the expiry of the first Authority to Enter and Operate, and each subsequent Authority to Enter and Operate thereafter, the Permit holder will submit to the Manager for approval a further Annual Work Programme and any other plans or amended plans as required by Condition 7(b) and any other requirements of Conditions 7, 8 and 9 for the succeeding 12-month period (or a lesser period if considered appropriate by the Permit holder).

13. Except as permitted by the Manager, the Permit holder will not after the expiry of an Authority to Enter and Operate, undertake any work prior to each subsequent Authority to Enter and Operate has been issued by the Manager pursuant to Condition 10.

14. The Manager will not unreasonably fail to grant a subsequent Authority to Enter and Operate where the Permit holder has supplied all the required documentation and made all the payments required by Condition 12 , and the further Annual Work Programme is consistent with the project description contained in the application for this Access arrangement or any variation(s) to this Access Arrangement and the conditions of this Access arrangement or any authorised variations to this Access Arrangement.

15. Pending the granting of a subsequent Authority to Enter and Operate the Manager may in his or her discretion, issue an interim Authority to Enter and Operate providing the documents and payments required by Condition 12 have been submitted.

**INDEMNITIES**

16. The Permit holder will indemnify and keep indemnified the Ministers against all claims by any person in respect of any injury, loss or damage (including fire damage) caused or suffered as a result of or arising out of any act or omission of the Permit holder, or otherwise caused as a result of the Exploration operations on the Land.

17. If due to the Permit holder's Exploration operations the Land or any part of it is assessed as rateable land under the Local Government (Rating) Act 2002, or any amendment to that Act, or the introduction of a new Act in substitution for it, the Permit holder is to pay any of the rates which may be struck in respect of the Land and/or the Exploration operations; but the Permit holder and the Minister of Conservation expressly agree that such payment is not to constitute an acknowledgement of exclusive possession by the Permit holder of the Land.

18. The Ministers will not be liable for and do not accept any responsibility for damage or interference to the Exploration operations, equipment, buildings or structures, held or erected on the Land due to any cause whatsoever including (without restriction) any acts or omissions by the Ministers, their servants, agents, or contractors (other than acts or omissions arising from the wilful misconduct of the Ministers, their servants, agents or contractors), natural disaster, vandalism, sabotage, fire, exposure to the elements or any other cause whatsoever.

19. The Permit holder will take all reasonable steps to protect the safety of persons present on the Land during Exploration operations and between work periods and will, when required by the Minister of Conservation, erect protective fencing or erect signposts warning the public of any dangers that may be encountered as a result of the Exploration operations. The Permit holder will take all reasonable steps to mitigate any dangers to the public and will clearly mark any that remain.

    (a) Where the Permit holder, to ensure the safety of the public, employees, plant and equipment, requests the Manager (acting under delegated authority from the Minister of Conservation) to close public access to the Land the Manager may do so if he or she considers it appropriate.

    (b) The Permit holder will give the Manager reasonable notice of its request so that the Manager can ensure that all reasonable steps are taken to ensure members of the public are made aware of the closure and the reasons for it.

    (c) The Permit holder will be responsible for the costs of ensuring that the public is made aware of the closure.

## INSURANCE

20. Prior to commencing Exploration Operations the Permit holder will effect and maintain, during the term of this Access arrangement, insurance cover for an amount of **$2,000,000.00** for aviation legal liability, **$1,000,000.00** for public liability, and for a further amount of **$500,000.00** for any costs arising out of any necessary action to put out or contain any fire caused by the Exploration Operations whether negligently, or otherwise, and which may extend beyond the Land to the adjoining Land whether held by the Minister of Conservation, or otherwise. The Manager may from time to time require the cover of any insurance to be increased to such an amount as considered reasonably necessary.

## BONDS

21. Prior to commencing Exploration operations, the Permit holder will provide a bond to ensure compliance by the Permit holder with the conditions of this agreement. The bond will be in a form approved by the Manager and the initial amount of the bond will not be less than **$20,000.00**.

22. Notwithstanding Condition 19 the Manager may during consideration of any Annual Work Programme or variation to any Annual Work Programme require the bond amount to be increased or decreased provided however at no time shall the amount of the bond be less than $5,000.

23. The bond will not be released and will remain effective until such time as all conditions of this agreement have been complied with, notwithstanding the completion of Exploration operations. In the event that there is an adverse effect to the Land and its natural resources whether during or after the completion of the Exploration operations which is not permitted by this agreement and could not have reasonably been foreseen, the Permit holder will take all action necessary to mitigate or remedy those adverse effects. If the Permit holder fails to mitigate or remedy those adverse effects to the Manager's satisfaction, the Manager may undertake any necessary action to do so and recover the costs associated with undertaking the work by calling on the bond.

24. If the Permit holder breaches any condition of this arrangement the Manager may revoke the Authority to Enter and Operate and call on the bond, or any portion thereof to ensure compliance with the conditions of this Access arrangement. If the Manager calls on the bond, or any portion thereof, the Permit holder must submit a new Annual Work Programme or amended Annual Work Programme for approval by the Manager before re commencing any further Exploration operations.

## FIRE PRECAUTIONS

25. The Permit holder will:

(a) Take all reasonable precautions to ensure no fire hazard arises from the Exploration operations;

(b) Not light any fire except by permit issued by the Manager;

(c) Not store or permit to be stored fuels or other combustible materials on the Land without the prior written permission of the Manager;

(d) Comply with the Manager's requirements for fire safety equipment and for fire-fighting equipment to be kept on the Land, as described in Special Conditions 153 and 154.

## PROTECTION OF THE ENVIRONMENT

26. The Permit holder will ensure that in respect of all Exploration operations under this Access arrangement:

(a) Environmental disturbance is minimised and land affected by Exploration operations is kept stable and free from erosion.

(b) There is no land disturbance other than that authorised under this Access arrangement.

(c) All indigenous flora and fauna are protected except for disturbance authorised under this Access arrangement.

(c) No debris, rubbish or other dangerous or unsightly matter will be deposited in or on the Land, or any pollution will occur of any water body, except as permitted by this Access arrangement and any resource consent granted under the Resource Management Act 1991.

(e) There will be no destruction, damage or modification to any archaeological site in the area (as defined by the Heritage New Zealand Pouhere Taonga Act 2014) without the authority of Heritage New Zealand Pouhere Taonga obtained under section 44 of that Act. The Permit holder will produce such authority to the Manager.

(f) Any *protected New Zealand object, or taonga tūturu* (as defined by the Protected Objects Act 1975), or object of historic significance found in the area or on the Land will be left *in situ*, and the Manager and Secretary of Internal Affairs notified as soon as reasonably practicable.

(g) Every person under the Permit holder's control entering on to the Land complies with the provisions of this Condition (Condition 26).

## SUPPLY OF INFORMATION

27. The Permit holder will lodge with the Manager copies of the renewal of or substitution for any insurance policies including receipts for payment of premiums, any variations to bonds and evidence that the bonds are in force.

28. The Permit holder will provide to the Minister of Conservation all information required from time to time by the Minister of Conservation in respect of the use of the Land and any buildings or equipment thereon including any details concerning the Exploration operations and details concerning the numbers of people employed by the Permit holder or permitted or allowed by the Permit holder to come onto the Land provided that, subject to the requirements of the Official Information Act 1982, the Minister of Conservation will not release that information to any third party.

29. The Permit holder will submit to the Minister of Conservation a copy of any application lodged with the Minister of Energy and Resources to vary the exploration permit covering the Land including any application to transfer the exploration permit to another person provided that, subject to the requirements of the Official Information Act 1982, the Minister of Conservation will not release that information to any third party.

## MONITORING

30. The Permit holder will allow the Manager or any other person authorised by the Manager to enter in or on to the Land at any time:

    (a) To inspect the Land or to consider approval of any Annual Work Programme or other plans, or to monitor compliance with the conditions of this Access arrangement.

    (b) To undertake any work necessary for the exercise of the Minister's functions and powers in respect of the Land provided that such work will not unnecessarily interfere with the Permit holder's rights under this Access arrangement.

31. Monitoring may include but is not limited to, the taking of soil and water samples, and the taking of a photographic record of activities occurring on the Land subject to the Access arrangement.

## BANKRUPTCY OR INSOLVENCY

32. If the Permit Holder becomes bankrupt, insolvent or has a receiving order made against it or is wound up or otherwise ceases to function or carries on its business under a receiver for the benefit of creditors the Ministers may either:

    (a) Terminate this Access arrangement forthwith by notice in writing to the Permit holder or to the receiver or liquidator or to any person in whom the Access arrangement may become vested; or

(b) Give such receiver or liquidator or other person the option of continuing the Access arrangement subject to the provision of a guarantee by one or more guarantors of any bond given, on terms acceptable to the Ministers for the due and faithful performance of the Access arrangement up to an amount to be determined by the Ministers.

(c) Any notice under Condition 39 does not release the Permit holder from liability in respect of any breach of this Access arrangement prior to the termination of the Access arrangement or which survive termination.

**TERM**

33. The term of this Access arrangement will be from the date of execution of this Access Arrangement until the expiry of Exploration Permit 40598.

**TERMINATION**

34. If the Permit holder is in breach, or fails to observe any of the conditions contained herein or the requirements of any approved Annual Work Programme or any other approved plan, the Ministers will give written notice to the Permit holder specifying the default and requiring it to be remedied within 21 consecutive days. If the Permit holder fails to comply with such notice, then the Ministers may by notice in writing terminate this Access arrangement.

35. Notwithstanding Condition 34, termination of this Access arrangement will not release the Permit holder from liability in respect of any breach of this Access arrangement.

36. Upon termination or expiry of this Access arrangement the Ministers will not be liable to pay any compensation to the Permit holder whatsoever for any buildings, structures or improvements erected by the Permit holder. If requested by the Manager and prior to the completion of Exploration operations the Permit holder will remove all such buildings and structures and improvements. The Permit holder will repair at its own expense all damage which may have been done by such removal and will leave the Land in a clean and tidy condition for restoration as set out in the second schedule of this Access Arrangement. If the Permit holder fails to remove any buildings within a reasonable time of the request, the Minister of Conservation may undertake this work and recover the costs from the Permit holder or from the bond referred to in Condition 21.

37. The Permit holder is responsible for the acts and omissions of its employees, contractors, agents, clients and invitees (excluding other members of the public accessing the Land). The Permit holder is liable under the Access arrangement for any breaches of the terms of the Access arrangement by its employees, contractors, agents, clients and invitees (excluding other members of the public accessing the Land), as if the breach had been committed by the Permit holder.

## MISCELLANEOUS

38. If the Permit holder has:

(a) Not paid any compensation payment as provided by Condition 3; or

(b) Not submitted an Annual Work Programme to the Manager

Within two years of the date of execution of this Access arrangement, this Access arrangement will terminate and cease to have any effect.

39. Any notice required to be addressed by any of the parties will in the absence of proof to the contrary be sent by ordinary post, facsimile or email during normal business hours and will be deemed to have been received by the other parties;

(a) In the case of posting by ordinary mail, on the second working day following the date of posting to the address for service; and

(b) In the case of facsimile transmission, when sent to the facsimile number for service provided in this agreement; and

(c) In the case of email, when acknowledged by the party orally or by return email or otherwise in writing, except that return emails generated automatically shall not constitute an acknowledgement of receipt of the email.

40. The Minister of Conservation's address, phone and fax number, and email for service will be C/- The Manager, The Department of Conservation, 10 Sewell Street, Private Bag 701, Hokitika; Ph. (03) 756 9100; Fax (03) 756 9188, Email: permissionshokitika@doc.govt.nz

41. The Minister of Energy and Resources' address, phone and fax number for service will be C/- The National Manager Minerals, Energy & Resource Markets Branch, Ministry of Business, Innovation and Employment, 33 Bowen Street, Wellington 6140, P O Box 1473; Ph. 0508 263 782; Fax (04) 471 0187.

42. The Permit holder's phone number and address for service will be: c/- Exploration and Geology Manager, 43 Moresby Avenue, Waihi 3610, Ph. (07) 863 8192; Fax (07) 863 8924, email: waihi.info@oceanagold.com

## DISPUTE RESOLUTION

43. The parties agree to negotiate in good faith to resolve any differences which arise in connection with this Access arrangement.

44. Failing resolution in accordance with Condition 43, any differences and disputes between the parties concerning this Access arrangement, its interpretation, effect or implementation or any act or thing to be done in pursuant thereof (except as otherwise expressly provided) is to be referred to arbitration in New Zealand by a single arbitrator who is to be mutually agreed upon and, failing agreement, is to be appointed by the President of the New Zealand Law Society. In all other respects the provisions of the Arbitration Act 1996 shall apply.

**GENERAL**

45. Except where inconsistent with this Access arrangement, the Permit holder will comply with the provisions of any conservation management strategy or conservation management plan pursuant to Part IIIA of the Conservation Act 1987, together with any amendment or review of any strategy or plan.

46. The Permit holder will at all times comply with all statutes, ordinances, regulations, by-laws or other enactments affecting or relating to the Land or affecting or relating to the Exploration operations including the Health and Safety at Work Act 2015, the Forest and Rural Fires Act 1977, the Hazardous Substances and New Organisms Act 1996, the Crown Minerals Act 1991, the Resource Management Act 1991 and the Conservation Act 1987 and all Acts included in its First Schedule.

47. The Permit holder will comply with all conditions contained in this Access arrangement and within three working days of a request in writing by the Ministers supply the Ministers with evidence of such compliance.

48. A breach or contravention by the Permit holder of any legislation affecting or relating to the Land or affecting or relating to the Exploration operations will be deemed to be a breach of this Access arrangement.

49. The Permit holder will only operate within the boundaries of the Land. Any Exploration operations carried out by the Permit holder outside the boundary of the Exploration Permit is unlawful and constitutes an offence under the Act.

50. The Permit holder will not use any Land subject to this Access arrangement for any purposes other than those specified in this Access arrangement. Unless otherwise authorised by this Access arrangement, or otherwise approved by the Minister of Conservation, the Permit holder will not erect, install or operate anything on the Land other than that described in the approved Annual Work Programme or any other approved plans submitted in accordance with Condition 7(b).

51. Any transfer of the Land to a purchaser transfers to that purchaser subject to this Access arrangement provided it has not expired.

52. The headings set out in this Access arrangement have been inserted for convenience and will not in any way limit or govern the construction of this Access arrangement.

53. Nothing in this Access arrangement including Special Conditions in the Second Schedule will prevent the Ministers from participating in any statutory process in respect of any matter relating to Exploration operations in or on the Land defined in this Access arrangement.

54. If any conditions attached to any resource consent obtained by the Permit holder are in the opinion of the Minister of Conservation, or the Ministers, as the case may be, inconsistent with this Access arrangement the Minister of Conservation or the Ministers, as the case may be, may review the provisions of this Access arrangement and this Access arrangement may be varied accordingly.

55. If, in the opinion of the Ministers, the Exploration operations of the Permit holder are having, or may have an adverse effect on the natural, historic or cultural values of the Land, which are not permitted by this Access arrangement and could not have reasonably been foreseen, the Ministers may:

(a) suspend the Exploration operations or any part of the Exploration operations, until the Permit holder remedies or mitigates such adverse effects to the extent satisfactory to the Minister of Conservation; and/or

(b) review the conditions of this Access arrangement and impose any further conditions necessary to avoid, remedy or mitigate such adverse effects; and/or

(c) call on the Bond required under Condition 21 or any portion thereof to ensure such adverse effects which have occurred are remedied or mitigated.

56. The Ministers may suspend the Exploration operations or any part of the Exploration operations while the Ministers or any other enforcement agency investigates any of the Exploration operations authorised by this Access Arrangement. The Ministers may also suspend this Access arrangement while the Ministers or any other enforcement agency investigates any:

(a) Potential breach of the terms and conditions of this Access arrangement, or

(b) Possible offence by the Permit holder, its directors, employees, servants, agents, contractors or assignees under the Crown Minerals Act 1991; Conservation Act 1987, or any of the Acts listed in the First Schedule of that Act, or any other Act relevant to the Exploration operations.

57. Any temporary suspension may, at the sole option of the Ministers be either in whole or in part, and be either immediate or after such time as the Ministers allow. Notice of such suspension will be given to the Permit holder in writing.

58. During any period of suspension all Exploration operations on the Land will cease, other than activities necessary for the purposes of saving or protecting life or health, or preventing serious damage to property or avoiding an actual or likely adverse effect on the environment. The Permit holder will remain responsible for the health and safety, and environmental protection of the Land, and will continue to have access to the Land for these purposes during the term of any suspension, subject to any directions issued by the Ministers. The Permit holder will remain liable for all fees and payments required to be paid under this Access arrangement during the term of any suspension.

59. The Ministers will not be liable to the Permit holder for any loss sustained by the Permit holder by reason of the suspension of the Access arrangement under Conditions 55 and 56 including loss of profits or consequential loss.

60. The Permit holder must pay in full immediately on demand all costs and fees (including solicitor's costs and fees of debt collection agencies engaged by the Minister of Conservation) arising out of and associated with steps taken by the Minister of Conservation to enforce or attempt to enforce the Minister of Conservation's rights and powers under this Access arrangement including the right to recover outstanding money owed to the Ministers.

61. Any failure by the Ministers to exercise any right or power under this Access arrangement does not operate as a waiver and the single or partial exercise of any right or power by the Ministers does not preclude any other or further exercise of that or any other right or power by the Ministers.

Signed for and on behalf of Her Majesty the Queen in Right of New Zealand ("**Crown**") acting by and through the Minister of Conservation by:

**Avi Holzapfel**
Operations Manager,
Hauraki District,
Hauraki-Waikato-Taranaki Region,
Department of Conservation,
pursuant to a written delegation from the Minister of Conservation under the Crown Minerals Act 1991

in the presence of:

Name: Cassandra Cairns

Signature: [redacted]

Address: [redacted]

Occupation: Ranger

Signed for and on behalf of Her Majesty the Queen in Right of New Zealand ("**Crown**") acting by and through the Minister of Energy and Resources by:

**Marcos Pelenur**
Acting National Manager Minerals,
Energy & Resource Markets – Building, Resources & Markets Group,
Ministry of Business, Innovation and Employment,
pursuant to a written delegation from the Minister of Energy and Resources under the Crown Minerals Act 1991 and the State Sector Act 1988

in the presence of:

Name: 9(2)(a)

Signature: 9(2)(a)

Address: 15 Stout Street
Wellington

Occupation: Solicitor

Signed on behalf of **Oceana Gold (New Zealand) Limited**

Name: 9(2)(a)

Signature: 9(2)(a) ..... (Director)

in the presence of:

Name:..... 9(2)(a) ....

Signature:..... ....

Address:.....

.....

Occupation:.....

9(2)(a)

Level 14, 357 Collins Street, Melbourne VIC 3000

*An Australian Legal Practitioner within the meaning of the Legal Profession Uniform Law (Victoria)*

Name: 9(2)(a)

Signature: ..... (Director)

in the presence of:

Name:..... 9(2)(a) .

Signature:..... .

Address:.....

.....

Occupation:.....

9(2)(a)

Level 14, 357 Collins Street, Melbourne VIC 3000

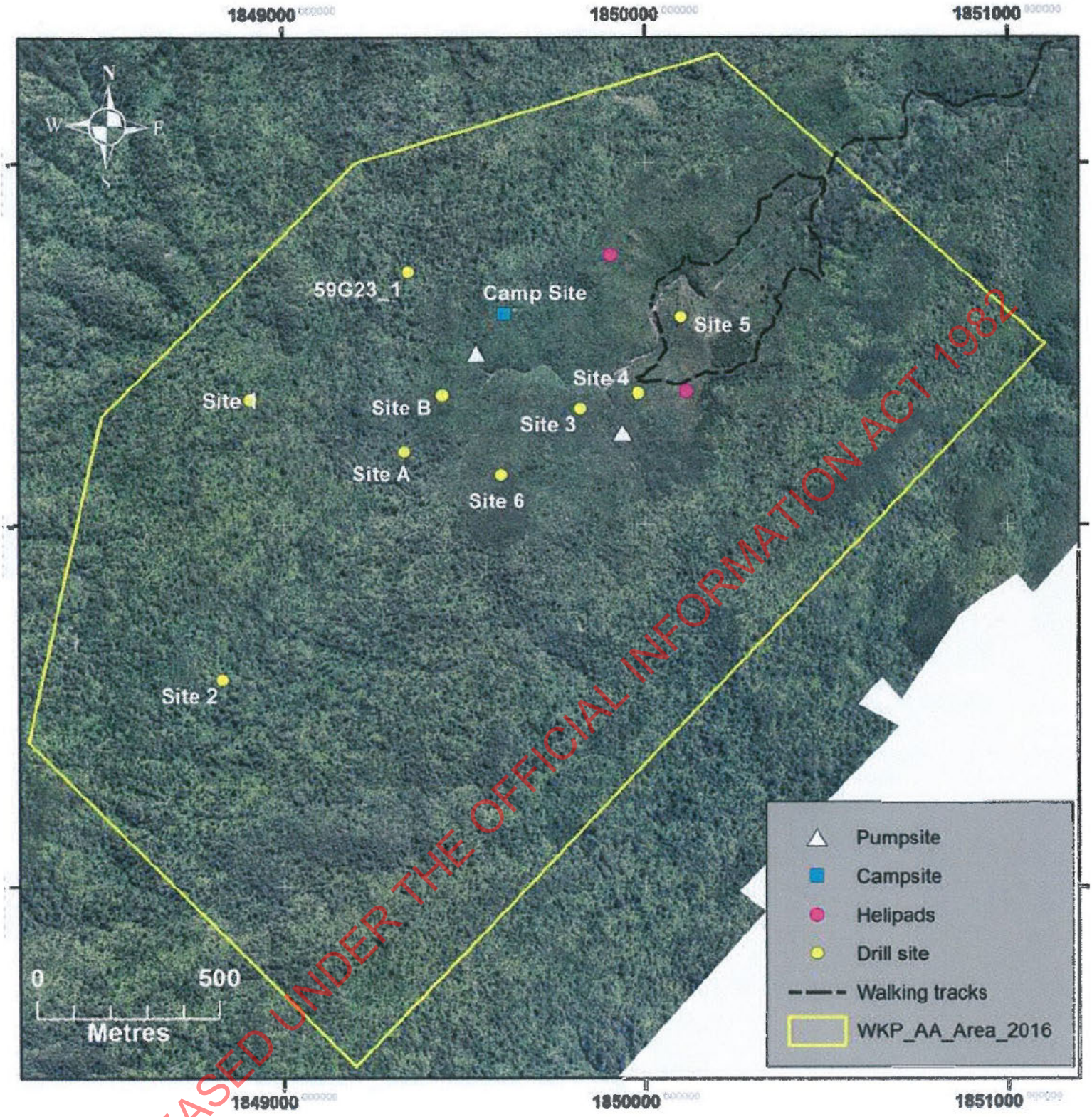
*An Australian Legal Practitioner within the meaning of the Legal Profession Uniform Law (Victoria)*

## FIRST SCHEDULE

The Permit holder, subject to the conditions contained in this Access arrangement, will have access to the Land, that being 428.44 hectares (ha) of Coromandel Forest Park within Exploration Permit 40598 in the Wharekirauponga catchment, specifically:

1. The 9 drill site locations shown in the attached Map/Plan and listed in Table 1 or those alternative locations as described in Condition 71 which comprise a maximum total disturbed area of 0.135 ha; and
2. The camp site shown in the attached Map/Plan and listed in Table 1 which comprises a total disturbed area of 0.015 ha, and situating one additional camp site at drill sites Site 1, Site 2, Site A, Site B, Site 6 or Site 59G23-1; and
3. The helicopter landing areas (helipads) in the attached Map/Plan and listed in Table 1
4. Situate water pumps and associated pipes, hoses and tanks at any location(s) within the attached Map/Plan.

The location of the Land is shown in the attached Map/Plan.








9(2)(a)

Table 1: Approved drill site locations

| Site Name | NZTM E | NZTM N |
|---|---|---|
| Site 1 | 1848913 | 5868347 |
| Site 2 | 1848833 | 5867572 |
| Site 3 | 1849819 | 5868321 |
| Site 4 | 1849981 | 5868363 |
| Site 5 | 1850098 | 5868574 |
| Site 6 | 1849602 | 5868137 |
| Site A | 1849338 | 5868204 |
| Site B | 1849444 | 5868361 |
| Site 59G23-1 | 1849348 | 5868698 |
| Southern helipad | 1850113 | 5868369 |
| Campsite | 1849610 | 5868584 |
| Northern helipad | 1849905 | 5868746 |

## SECOND SCHEDULE

## SPECIAL CONDITIONS:

## ACCESS ARRANGEMENT FOR EXPLORATION PERMIT 40598

NOTE: These conditions are in addition to the conditions in the main body of the Access arrangement and do not in any way affect the generality of those conditions.

## ANNUAL WORK PROGRAMME CONDITIONS

62. Before undertaking any Exploration operations under this Access arrangement, the Permit holder will submit to the Manager for approval the first Annual Work Programme and thereafter annually submit for approval a new Work Programme for the succeeding 12-month period.

The Annual Work Programme will include:

(a) A recent aerial photograph or plan at an appropriate scale showing the Exploration permit boundary and the conservation land boundary and the location of all proposed Exploration operations for the forthcoming 12 months.

(b) A description of all Exploration related activities including operations, mitigation measures, rehabilitation, weed control, access, monitoring and reporting carried out in the previous 12 months including a table of completed and uncompleted drill sites.

(c) A detailed description of all Exploration related activities including operations, mitigation measures, rehabilitation, weed control, access, monitoring and reporting intended to be carried out in the following 12 months with an approximate timetable of events.

(d) A description and analysis of any unexpected adverse effect on the environment that has arisen as a result of activities within the last 12 months and the steps taken to mitigate or remedy any effects that resulted.

(e) The type, colour and registration (if known) of all aircraft to be used for Exploration operations.

(f) A detailed description of safety procedures to be put in place to ensure the safety of staff and members of the public at drill sites and helicopter landing/hover sites.

(g) Any other information required by other conditions of this agreement or that is required by any resource consent held by the Permit holder relating to this Exploration operation.

The Permit holder will submit to the Manager, for approval, an amended Work Programme if required by the Manager.

63. The Permit holder will undertake all work in accordance with the approved Annual Work Programme.

64. The Permit holder may, at any time, submit to the Manager for approval an amended Annual Work Programme, provided that no work may occur under that amended Annual Work Programme until it is approved in writing by the Manager.

## EXPLORATION OPERATIONS CONDITIONS

### Authorised Activities

65. Subject to these Special Conditions and approval of the current work programme the Permit holder may undertake the following exploration operations on the Land:

(a) Undertake exploration drilling at those 9 sites specified in Table 1 of the First Schedule (or as otherwise approved by condition 71);

(b) Situate a temporary camp at the location shown in Plan A of the First Schedule and at any of the drill sites;

(c) Use helicopters to enter the Land; and

(d) Use helicopters to move equipment between drill sites.

(e) Situate water pumps and associated pipes, hoses and tanks at any location(s) within the Plan attached to the First Schedule of this Access arrangement.

66. The Permit holder will undertake all exploration operations in accordance with the Access arrangement application lodged by the Permit holder, this Access arrangement approved by the Ministers, and an Authority to Enter and Operate issued by the Manager in accordance with Condition 10. In the event of inconsistency, the Access arrangement and Authority to Enter and Operate shall prevail over the application for Access arrangement.

### Exclusion Conditions

67. The Permit holder **will not** undertake the following activities on the land:

(a) Undertake any Exploration operations at any drill site(s) within 400m of the Wharekirauponga track during the high visitor period of 23rd December – 6th February (inclusive) excepting those activities required to maintain the security and safety of the drill site(s);

(b) Undertake any Exploration operations within 400m of the Wharekirauponga track between 7am and 7pm on Public Holidays excepting those activities required to maintain the security and safety of the camp and drill sites;

(c) Undertake any Exploration operations at historic site T12/681

(d) Undertake any Exploration operations on any drill site(s) within a 20 X 20 m plot survey, referred to in condition 75, where one or more Coromandel striped gecko (*Toropuku "Coromandel"*) and/or 5 or more 'At Risk' or 'Threatened' frogs or lizards are present and/or found;

(e) Undertake any Exploration operations, excepting those activities provided for under the Authority to Undertake Minimum Impact Activities on Public Conservation Land Under Exploration Permit 40598 dated 6 July 2016, or its replacement, and any ecological surveys required under this Access Arrangement, within a Kauri Contamination Zone until the Manager has approved the Kauri Dieback Management Plan required by special condition 143.

(f) Disturb or hinder public use, access or enjoyment of the Land otherwise unaffected by the authorised exploration operations under this Access arrangement;

(g) Conduct onsite processing using any chemicals, other than chemicals required for the safe use of the portable toilets as long as any chemicals required for portable toilets are not separately stored, or discharged on the Land or any other public conservation land.

(h) Construct drains or ponds (temporary sumps may be constructed);

(i) Construct permanent mast or aerial structures including power lines or poles;

(j) Use paint on vegetation or rock for marking purposes;

(k) Construct any new tracks;

(l) Clear any vegetation outside of the 9 drill sites, campsite, and helicopter landing areas specified in the First Schedule; and

(m) Damage any vegetation equal to or greater than 50 cm diameter at breast height.

**Hauraki District staff engagement**

68. Prior to the commencement of Exploration operations at a subsequent authorised drill site, the Permit holder will confirm with the Manager the location of the subsequent authorised drill site and the expected duration of the operations at that authorised drill site no less than five working days prior to the commencement of Exploration operations on the Land.

69. The Manager may require the Permit holder to have on site a Department of Conservation employee, liaison person, agent or contractor appointed by the Manager to oversee any operation or activity on the Land the Manager considers appropriate. Any such appointment and oversight will be at the expense of the Permit holder.

70. The Permit holder will have the right to request the Department in writing to remove and replace any of its personnel if the Permit holder can show reasonable grounds for such removal. The Department shall make the final decision in respect to the removal of such person or persons.

**Minor changes to site locations**

71. In a situation where the exact camp site and/or drill site locations listed in Table 1 of the First Schedule are unsuitable for drilling due to unforeseen circumstances or specific matters set out in this Access arrangement, the Permit holder will request approval of an alternative location (via the submission of an Annual Work Programme or an amendment to an Annual Work Programme) from the Manager. Alternative sites will be located within the Land and will be within proximity and as close to the originally listed location as possible. Approval of the alternative site may require a site visit from Department staff.

**Buffer with Wharekirauponga Track**

72. The Permit holder will ensure that a minimum buffer of 30 m is imposed between the location of any drill site and Wharekirauponga Track. For the avoidance of doubt no drill sites will be located within this buffer.

**Drill and Pump Site Plot Surveys**

73. Prior to setting up any pump site, the Permit holder will ensure an ecological survey will be undertaken by one or more suitably qualified ecologist(s) (including a herpetologist), approved by the Manager (such approval will not be unreasonably withheld or delayed). The survey(s) will be undertaken over 10 X 10 m plot(s) centred on the pump site, at least 3 times (e.g. over 3 nights) during appropriate climatic conditions for native frogs (warm and moist – e.g. after rain). The purpose of the ecological survey(s) is to locate any native frog(s) that may be present. Best practice survey methods will be employed by the suitably qualified ecologist(s) (including a herpetologist).

74. Prior to undertaking vegetation removal at any site proposed for drilling or setting up a camp site, the Permit holder will ensure that a full ecological survey will be undertaken by one or more suitably qualified ecologist(s) (including a herpetologist), approved by the Manager (such approval will not be unreasonably withheld or delayed). The survey(s) will be undertaken over 20 m X 20 m plot(s) centred on the approximately 12 m X 12 m site(s), at least 3 times (e.g. over 3 nights for frogs and lizards and 3 days for lizards) during appropriate climatic conditions for native frogs (warm and moist – e.g. after rain) and lizards (fine weather). The purpose of the ecological survey(s) is to provide a general description of the wildlife and vegetation present, including all species present and the number, size (height and diameter at breast height) and estimated age of mature canopy and emergent trees. Best practice survey methods will be employed by the suitably qualified ecologist(s) (including a herpetologist).

75. If ecological survey(s) required by special conditions 73 and/or 74 are carried out between 1st October and 15th April (inclusive), then unless condition 76 applies, any subsequent setting up of the pump site(s) and/or vegetation removal or exploration operations as referred to in special conditions 73 and/or 74 will commence no later than three weeks following the ecological survey(s).

76. If setting up of the pump site(s) and/or vegetation clearance or exploration operations cannot be undertaken within three weeks of the ecological survey(s) required by special condition 73 and/or 74, then within three weeks of the ecological survey(s) the permit holder will erect a sheer polythene fence around the proposed site(s) and remove potential refuges (wood debris, leaves, grasses and sedges etc.) until the pump site(s) is set up and/or vegetation clearance or exploration activities as described in special condition 73 and/or 74 can commence. For the avoidance of doubt, it is preferred that the setting up of the pump site(s) and/or vegetation clearance or exploration operations occurs within three weeks of the ecological survey(s) required by special condition 73 and/or 74

77. If five or more 'At Risk' or 'Threatened' frogs or lizards are found during any ecological survey(s) required by special condition 73 and 74, or one or more Coromandel striped gecko (*Toropuku "Coromandel"*) is found during any ecological survey(s) required by special condition 74, setting up the pump site and/or vegetation removal and exploration operations will not take place and alternative site(s) may be assessed for suitability, in accordance with Condition 71 for locating a pump site and/or drilling.

78. If four or less 'At Risk' or 'Threatened' frogs are found during any ecological survey(s) required by special conditions 73 and/or 74, the Permit holder will mark and record their location with biodegradable flagging tape and GPS to give an error of no more than ± 20 m.

79. The permit holder will impose a minimum buffer of 6m around any 'At Risk' or 'Threatened' frog found during the ecological survey(s) required by conditions 73 and/or 74 and select pump site(s) and/or drill site(s) accordingly.

80. Within 20 working days of the ecological survey(s) being undertaken, the Permit holder will provide the Manager with written report(s) detailing the:

(a) findings of the full ecological survey(s) required by special condition 74, including the GPS information and/or NZTM coordinates of any Archey's frog (*Leiopelma archeyi*) and/or Hochstetter's frog (*Leiopelma hochstetteri*), and/or Coromandel striped gecko (*Toropuku "Coromandel"*) found; and

(b) findings of the ecological survey(s) required by special condition 73, unless zero 'At Risk' and/or 'Threatened' frogs or lizards are found; and

(c) The details of the species and individuals found and the NZTM coordinates of the ecological survey site(s) in any situation where 10 or more 'At Risk' or 'Threatened' lizards are found during any ecological survey(s) required by special condition 73 and/or 74 and/or found at any drill site.

**Vegetation clearance and site disturbance**

81. The Permit holder will ensure that the camp site and each drill site will not exceed a total disturbance area of 150 square metres (allowing for the stockpiling of all topsoil, locating the drilling rig, all facilities and other equipment) and will minimise ground disturbance and damage to vegetation.

82. Vegetation clearance will be minimised at all times and only undertaken where necessary to accommodate the required equipment, machinery, apparatus and drilling rig.

83. All topsoil, felled trees, slash and other leafy materials will be kept on the Land and stockpiled in such a manner that they can be restored to the Land upon completion of drilling.

84. When removal of vegetation occurs, the Permit holder will ensure that it is undertaken in a manner that minimises the impacts on the surrounding vegetation and that best practice tree felling techniques are used at all times, including:

(i) No felling of trees into waterways

(ii) Where possible, vegetation should be trimmed or tied back in such a way that the removal of trees is minimised.

**Management of 'At Risk' and/or 'Threatened' Flora**

85. If any *Pterostylis puberula, Pretrostylis tasmanica* or king fern *Ptisana salicina* individuals are found during ecological surveys required by special condition 74, then they will be translocated to a suitable alternative site containing similar light, soil and vegetation community characteristics as determined by a suitably qualified botanist, as approved to by the Manager (such approval will not be unreasonably withheld or delayed). The Manager will be notified of GPS

information and/or NZTM coordinates of the transfer location within 5 working days of the transfer occurring.

86. The transfer of any *Pterostylis puberula* and/or *Pterostylis tasmanica* will include a minimum 30 cm diameter 'clump' of soil around the roots (to protect root structure and to retain any mycorrhizal associations).

87. If during any ecological survey required by special condition 74 any other 'At Risk' and/or 'Threatened' plants as listed in the Department of Conservation's Threat Classification List (http://www.doc.govt.nz/Documents/science-and-technical/nztcs3entire.pdf) are discovered, then the Manager will be notified for direction(s) on further action and the Permit holder will comply with such direction(s). Alternatively, an alternative site may be selected in accordance with Condition 71 and assessed for suitability to drilling.

**Management of 'At Risk' and/or 'Threatened' Herpetofauna**

88. A suitably qualified herpetologist will be present onsite during vegetation clearance to survey habitat refugia within the camp site and drill site(s) for native lizards and frogs.

89. If one or more Coromandel striped gecko (*Toropuku "Coromandel"*) or five or more 'At Risk' or 'Threatened' frogs or lizards are found immediately prior to, or during vegetation clearance then all Exploration operations at the camp site and/or drill site(s) will immediately cease and alternative site(s) may be selected in accordance with Condition 71 and assessed for suitability for locating a camp site and/or drilling.

90. If four or less 'At Risk' or 'Threatened' frogs or lizards are found on the proposed camp site and/or drill site(s) immediately prior to, or during vegetation clearance then they will be salvaged and moved to suitable habitat as assessed by the onsite herpetologist. The release site(s) will be at least 100 m away from the camp site and/or drill site(s) and a sheer polythene fence will be erected around the camp site and/or drill site(s) to prevent herpetofauna from returning to the site(s). The sheer polythene fence will remain erected until the camp site and/or drill site is rehabilitated and abandoned.

91. The Permit holder will provide the Manager with the details of any Coromandel striped gecko (*Toropuku "Coromandel"*) found and any other 'At Risk' or 'Threatened' frogs or lizards found and relocated and the NZTM coordinates of the release site(s) within 20 working days.

92. The Permit holder will not reduce the connectivity of the habitat at the location where any 'At Risk' or 'Threatened' frog(s) are found with adjacent undisturbed habitat by more than 25%.

93. The Permit holder will erect sheer polythene fence(s) around any sump(s) or site(s) containing sump(s). The sheer polythene fence(s) will remain erected until the sump(s) have been removed and the sump site(s) rehabilitated.

94. The Permit holder will minimise trampling and disturbance of herpetofauna and their habitat by using the same marked access routes for access to, within and between the Land.

**Management of Bats**

95. Prior to clearing any vegetation measuring greater than 15 cm DBH (diameter at breast height), the Permit holder will engage a suitably qualified Chiropterologist (the bat expert), as approved to by the Manager (such approval will not be unreasonably withheld or delayed), to survey an area twice the size of the vegetation clearance site for any potential bat roost trees.

96. All potential bat roost trees will be marked with biodegradable flagging tape.

97. If potential bat roost trees cannot be avoided by selecting an alternative site, all potential bat roost trees will be surveyed by the bat expert to determine whether they have been, or are being used as bat roosts.

98. Whilst undertaking any survey of potential bat roost trees:

(a) Potential bat roost trees should be climbed and inspected as soon as possible to determine if they are being used or likely to be used by bats, potentially allowing trees to be dismissed as being potential bat roosts.

(b) If cavities are confirmed as potential bat roosts and/or if any trees that are going to be felled cannot be checked and dismissed as potential bat roost trees, then the Permit holder will follow the pre-felling special conditions 99 to 105.

99. All surveys and pre-felling checks will be undertaken by the bat expert.

100. All remaining potential bat roost trees will be inspected for the presence of bats immediately preceding felling.

101. Surveying will occur between sunrise and sunset for three consecutive nights prior to felling using an Automatic Bat Monitor (ABM) between September and April (inclusive) and when overnight temperatures are greater than 7 degrees Celsius (°C).

102. ABM data will be reviewed prior to 12 pm (noon) each day to identify if bats are present at the site.

103. If no bat activity at potential bat roost trees is identified the trees may be felled. Felling will occur prior to sunset on the day of the last survey (Day 3).

104. If any short-tailed bat roost is detected, then the tree will not be felled and an alternative site may be selected for assessment. The occupied tree will be marked with biodegradable flagging tape, its location recorded and the Manager immediately notified of the location of the tree.

105. If long-tailed bats (*Chalinolobus* tuburculatus) are present, then felling will not occur until bats have vacated the site.

106. Bat roost trees will not be felled between:

(a) 1 May to 30 September (inclusive) (to avoid felling trees where bats may be in torpor and therefore not active); or

(b) 1 October and 30 April (inclusive) if temperatures between dusk and dawn on the previous night dropped below 7°C at the vegetation clearance site.

107. The bat expert, using a bat detector, will be present when bat roost trees are felled.

108. If any bats are detected while felling is in progress, felling will stop until the bats have vacated the site.

109. If a tree is partially felled when bats are detected, once the tree has been vacated, every effort will be made to relocate the tree or the section of trunk/branch before felling may recommence.

110. The bat expert will determine if bats are still present by monitoring the roost for 3 days using ABMs.

111. The Permit holder will ensure that reporting includes a record of any trees that contain bat roosts and details the size, location (NZTM coordinates) and type of tree.

112. Where no bats are detected within potential bat roost trees within the vegetation clearance areas then survey data will be attached to the Annual Work Programme.

113. Where bats are detected within 12 m of any vegetation clearance site but the bat roost trees are being avoided then the Permit holder will provide the Manager with a written report detailing the survey(s), including the GPS information and/or NZTM coordinates of any bat roost found, within 20 working days of the bat survey being undertaken.

114. In the event of finding dead or injured bat/s at the site the Permit holder will:

(a) Take injured bats immediately to the below named location for assessment by a vet:

Hamilton Zoo
Brymer Road
Hamilton
07 838 6720

(b) Between 8am and 4:30pm Contact the Hauraki District Office on 07 867 9180 no longer than 2 hours after an injured or dead bat is found. After these hours call the DOC hotline: 0800 DOCHOTline (0800 362 468).

(c) Bats should be placed in a cool dark material-lined box/bag by or under the direction of the bat expert to ensure the animal is handled appropriately.

(d) Once the vet has made an assessment the bat expert and vet will determine any rehabilitation action required and the longer term future for the bat/s.

(e) If the animal is dead or euthanized by the vet, it will be taken to the Hauraki District Office at the corner of Pahau and Kirkwood Street, Thames 3500, as soon as possible.

(f) The dead bat/s will be stored in a fridge at less than 4°C

(g) Pay any associated costs (refer to Condition 3).

115. Any bats found during felling (dead, injured or otherwise) will be inspected by the bat expert should handling and short-term retention be required. The bat expert will determine on site if the bat is able to be released immediately or the most appropriate method for the safe release of the animal. The Manager will be notified immediately of each such event.

116. The Permit holder will seek advice from the Manager with regards to the rehabilitation requirements of any injured bats (for example legislative requirements will need to be considered).

117. Any rehabilitated bat will be released in the same general location in which it was found, following completion of rehabilitation at any release site.

**Management of Terrestrial Invertebrates**

118. If any Paua slug (*Schizoglossa novoseelandica*) and/or 'At Risk' or 'Threatened' invertebrates listed in the Department of Conservation's Threat Classification Lists (http://www.doc.govt.nz/nztcs) are discovered during any ecological survey(s) required by special condition 74 or during any vegetation clearance, then they will be salvaged prior to and/or during any vegetation clearance and released into similar habitat assessed by a suitably qualified ecologist at a distance no less than 50 m beyond the site.

**Water Management**

119. The Permit holder will ensure that no more than 20% of the water flow of any waterway is taken for Exploration operations.

120. The Permit holder will ensure that intake pipes used for water abstraction are fitted with screens with a maximum slot size of 3mm.

121. The Permit holder will ensure that all drill water used for Exploration operations is filtered to remove drill cuttings prior to being discharged to the Land.

122. The Permit holder will ensure that all drill cuttings filtered from water are buried, pumped down the drill hole or removed from the Land.

123. The Permit holder will ensure that any water discharge from Exploration operations is monitored to ensure it does not enter any waterways.

124. The Permit holder will ensure that all sewage is collected and stored in containers and removed from the Land.

**Wildlife Act Authority**

125. Prior to the commencement of Exploration operations at any drill site, the Permit holder will obtain an authority under the Wildlife Act 1953 to disturb and accidentally kill absolutely protected lizards, frogs and bats that may be present at drill sites.

126. The Permit holder will ensure that any suitably qualified Herpetologist and/or Chiropterologist hold an adequate Wildlife Act Authority for searching for, handling and releasing herpetofauna and/or bats.

**Rehabilitation**

127. The Permit holder will provide a detailed summary of proposed rehabilitation methods within the Annual Work Programme.

128. The Permit holder will ensure that each disturbed site is rehabilitated progressively as the drilling programme is undertaken and that rehabilitation of each site includes:

(a) removal of all drilling structures and equipment unless otherwise approved by the Manager in writing;

(b) capping or plugging each drill hole;

(c) re-contouring and stabilisation of any disturbed land; and

(d) re-spreading any disturbed topsoil, duff, humus and vegetation across the surface of the re-contoured drill sites.

(e) any requirement to rehabilitate helipads will be at the discretion of the Manager

All rehabilitation shall be completed to the satisfaction of the Manager.

129. All trees, at all times, remain the property of the Manager. No trees may be removed from the land as they shall be used by the Permit holder for the purposes of onsite restoration.

130. All drill core samples and core sample material will be removed from the Land in their entirety, i.e. not only that aspect of the sample that is useful to the identification of the mineral resource.

**Public Access, Awareness and Safety**

131. Prior to the commencement of drilling at each site clear signage and/or markers will be erected around the drill site to avoid members of the public accidentally accessing the site while drilling operations are occurring.

132. The permit holder will ensure that all visitors to the Wharekirauponga Track are fully aware of the hazards associated with the Exploration operations by placing track notices approved by the Manager at the entrance to the Wharekirauponga Track and at the Kauaeranga Visitor Centre at least two days prior to the commencement of Exploration operations.

**Aircraft**

133. The Permit holder will ensure that aircraft landing/hovering zones are maintained to ensure public safety. If the Permit holder cannot have personnel present on the Land during helicopter hovers and/or landings, then notices advising the public of the hazards associated with the helicopter hovers and/or landings must be erected on the Land

134. The Permit holder and any pilot of the aircraft authorised by this Access arrangement will hold the applicable aviation document and privileges to conduct the Exploration operations under the Civil Aviation Rules and will comply with Civil Aviation law.

135. The Permit holder will ensure that aircraft idle times on the ground are kept to a practicable minimum.

136. The Permit holder will not refuel, leave any fuel drums or construct any fuel dumps on the Land, unless in an emergency situation.

137. During the term of this Access arrangement, where the Manager believes that the effects of aircraft noise should be further reduced, the Manager may, by notice, require the Permit holder to either undertake measures to minimise the effects of noise on conservation values or become accredited to a recognised noise abatement and disputes resolution programme. If such notice is given by the Manager, the Permit holder will:

(i) if required to, undertake measures to minimise the effects of noise on conservation values and within 3 months from receiving the notice undertake those measures to the satisfaction of the Manager until the Access arrangement has expired; and/or

(ii) if required to, become accredited to a recognised noise abatement and disputes resolution programme within 3 months from receiving the notice and provide proof to the Manager that such accreditation has been completed, and will keep their participation in that programme or training current until the Access arrangement has expired.

The Manager may, at any time, issue a subsequent notice(s) requiring the Permit holder to implement the other option.

**Weed and Pest Control**

138. The Permit holder will ensure that all equipment to be used in all Exploration operations allowed for by this Access arrangement are clean and free of any exotic weed and seed material prior to entry to the Land.

139. The Permit holder will control any exotic weeds present within the drill sites, camp site(s) and helicopter landing areas subject to this Access Arrangement, to the satisfaction of the Manager, during the term of this Access Arrangement and for a period of two years following the completion of Exploration operations under this Access Arrangement.

140. The Permit holder will supply an annual memo/report describing rehabilitation progress and weed control within the drill sites, camp site(s) and helicopter landing areas subject to this Access Arrangement, for a period of two years following the completion of Exploration operations under this Access Arrangement.

**Kauri Dieback Disease**

141. The Permit holder will comply with all guidelines and notices issued by the Kauri Dieback Programme (lead by Ministry for Primary Industries) to prevent and avoid the spread of the pest organism Phytophthora taxon Agathis (PTA) Kauri Dieback Disease as specified by the website www.kauridieback.co.nz/. The Permit holder will comply with the general guidelines as specified on www.kauridieback.co.nz/publications. The Permit holder will update itself on these websites on a regular basis.

**Kauri Dieback Management Plan (KDMP)**

142. Prior to entering the Land for the purpose of commencing Exploration and Exploration operations within any Kauri Contamination Zone, the Permit holder will submit a Kauri Dieback Management Plan (KDMP) to the Manager for approval. The KDMP will apply to all areas of the Land within a Kauri Contamination Zone(s). The purpose of the KDMP is to set out the procedures to be used to prevent the introduction and/or spread of Kauri Dieback Disease. The KDMP will:

(a) be prepared in consultation with the Manager

(b) be approved by the Manager prior to Exploration and Exploration operations commencing within any Kauri Contamination Zone

(c) describe methods for establishing and demarcating Kauri Contamination Zone(s)

(d) describe methods for holding, cleaning and treating the collected soil from personnel and equipment in Kauri Contamination Zone(s) and releasing personnel and equipment from Kauri Contamination Zone(s)

(e) describe methods for ensuring soil is removed from all footwear, tools, clothing and equipment when:

(i) entering or exiting a Kauri Contamination Zone; or

(ii) moving from one Kauri Contamination Zone to another Kauri Contamination Zone; or

(iii) entering a stream system in a Kauri Contamination Zone

This requirement does not apply to any equipment or personnel movements passing through a Kauri Contamination Zone that are separated from the bare or vegetated earth by height, or a compacted soil free surface

(f) describe the express circumstances (if any) where an exemption to any of the above requirements applies

(g) describe methods for updating the Plan in the event of significant changes in scientific knowledge relating to the effective management of Kauri Dieback Disease that occur after the Plan is approved

143. The Permit holder will implement and comply with the KDMP approved by the Manager, at all times.

144. The Manager may request a review of the KDMP and may require the Permit holder to amend the KDMP at any time. The Permit holder will implement and comply with any amendments to the KDMP approved by the Manager.

**Chytrid fungas**

145. The Permit holder will adhere to the current national Frog Hygiene Protocol (attached as Appendix 1) to minimise the possible spread of chytrid fungas and other pathogens to, within and between the Land.

**Storage and Structures**

146. The Permit holder will not erect/place on the Land any sheds, containers or similar structures not authorised in the Annual Work Programme.

**Fuel and lubricants**

147. All fuel will be stored in safe, secure containers/tanks that have secondary containment.

148. The Permit holder will comply with all Hazardous Substances and New Organisms Act 1996 (HSNO) regulations and requirements for the storage of hazardous substances, including fuel (http://www.hazardoussubstances.govt.nz/).

149. A spill kit will be held on site at all times and used immediately should a fuel or lubricant spill occur.

150. Any fuel or lubricant spill greater than one litre will be reported to the Manager at the earliest opportunity including the amount spilled, remedial action undertaken and any further actions required to fully remediate the site.

151. Only biodegradable drill fluids and lubricants may be used for Exploration operations.

**Fire risk and management**

152. The Permit holder will avoid and minimise the risk of fire at all times, including when "at camp".

153. A fire extinguisher will be on site during Exploration operations at any drill site and "at camp" at all times.

**Waste disposal and toilets**

154. Self-contained toilets/ "portaloos" will be provided for drilling staff at all times to ensure the containment of human waste.

155. All waste and effluent will be removed from the Land and disposed of at an appropriate facility during and upon the completion of Exploration operations.

**Public Access**

156. The Permit holder will not prevent public access to the Land or parts of the Land unless written approval to do so has been obtained from the Manager.

**Removal of Material**

157. Without changing the effect of Condition 36, at the completion of the Exploration operations the Permit holder will remove from the site all materials including rubbish, pipelines, equipment and structures associated with the exploration operation, unless the Manager has given prior written approval for the item(s) to remain.

**Historic and Cultural Sites**

158. The Permit holder will protect from damage any historic site.

159. Upon the discovery of any historical or archaeological object or artefact not authorised for destruction, damage or modification by the Heritage New Zealand Pouhere Taonga, the Permit holder will immediately cease Exploration operations and protect from damage any such object or artefact, and will forthwith notify the Manager. Conditions protecting the historical or archaeological object or artefact, will be defined by the Manager and/or the Heritage New Zealand Pouhere Taonga, and will be adhered to by the Permit holder.

160. The Permit holder will be required to record the location and details of any historic site and object/artefact found on, in or under the Land. The Permit holder will protect from damage any historic site and object/artefact, and contact the Manager on finding any such sites and objects/artefacts.

161. The Permit holder will be required to record the location and details of any cultural site and/or object/artefact found on, in or under the Land including Koiwi Tangata (human bones) or Taonga (artefacts/middens). On finding such site or object/artefact the Permit holder will cease work immediately and contact the Hauraki District Office on 07 867 9180.

**Appendix 1: Native frog hygiene and handling protocols**

# Native frog hygiene and handling protocols



## Background

Over the past 25 years' amphibian populations have declined throughout the world and disease is considered to play a major role. One disease we have in New Zealand which is thought to be a major threat to frogs is the amphibian chytrid fungus. Given the transmission risk of the fungus and other diseases, strict hygiene and handling protocols are required to ensure the safety of our native frog populations. This document provides information on how to:

- Minimise any possible spread of the amphibian chytrid fungus and other pathogens.
- Avoid artificially increasing contact between frogs.
- Achieve the highest level of hygiene protocol that is effective and practical in the field.
- Safely handle frogs for research purposes.

## Principles

- Transmission risk can be managed/reduced through good hygiene practices.
- New or disinfected equipment /footwear should be used at every new site.
- New or disinfected equipment should be used for each frog, where practicable.

### What should I do before entering known frog habitat?

Before you enter known frog habitat ensure all your foot wear, gaiters and equipment are clean, e.g. free of dirt/mud and dry. Foot wear, gaiters and equipment will also be disinfected. You can ensure that your clothing and equipment is safe to take into frog areas by following simple hygiene protocols.

## Site hygiene

- Remove all dirt/mud from footwear, gaiters and field equipment. Pay particular attention to field gear likely to come in contact with amphibians, soil/ground, freshwater, and/or that is already dirty e.g. boot soles.
- Disinfect all field gear. Mud/dirt etc. will be cleaned off first before disinfecting.
- Wash and dry everything. *Important* Chytrid fungus cannot survive drying out so it is very important that cleaned items are dried.
- Store gear in a clean dry area away from soil to avoid recontamination.
- *Important* If you have been to an area infected with the amphibian chytrid fungus you will clean and disinfect all your gear. Gear will also be cleaned between each field trip into the same native frog area, regardless of whether you are going in the same way or not.

## Tips

- Clean ahead to allow time for drying and consider having multiple sets of high use items if no time is available to clean between field trips.
- Wear different footwear when driving between areas and change into clean footwear at the point of entry into frog habitat.

**These hygiene protocols are subject to change in the event of new amphibian diseases emerging in New Zealand. Always check with your local Department of Conservation office for the most up to date hygiene information.**

## What disinfectant should I use and how much?

| Purpose | Disinfectant | Concentration | Time | Rinse |
|---|---|---|---|---|
| Disinfecting footwear/gaiters | Sodium hypochlorite (bleach) | 1% | 1 min | Yes |
| | Hot Wash | 4% | 15 mins | Yes |
| Disinfecting collection equipment, instruments and containers | Trigene/ SteriGene | 1% | 1 min | Yes |
| | F10 | 1% | 1 min | Yes |
| | Virkon (NB: corrosive) | 1:100 | 10 mins | Yes |
| | Sodium hypochlorite (bleach) | 1% | 1 min | Yes |
| | Virkon (NB: corrosive) | 4% | 15 mins | Yes |
| | Trigene | 1% | 1 min | Yes |
| | F10 | 1% | 1 min | Yes |
| | Ethanol | 70% | 1 min | Air dry |
| | Complete drying | | 3+ hrs | No |
| | Heat | 37°C | 4 hours | No |
| | Heat | 60°C or greater | 15 mins | No |
| | Sterilising UV light | | 1 min | No |

Trigene/SteriGene and Virkon and can be purchased from your local vet clinic.

## Frog handling hygiene

- A new plastic bag or new powder-free nitrile gloves will be used for each frog when they are caught or handled. Within a local area (deemed as a continuous population) the same gloves may be used for searching for frogs and need to be changed if they come into contact with a frog. It is important to ensure that new gloves are used when moving between areas. Also if a frog displays signs of ill health or looks compromised in some way please ensure a separate glove is used to handle these individuals.
- Each frog should be housed in a separate plastic bag.
- For researchers working in native frog habitat – please ensure all frog handling/measuring equipment that comes into direct contact with the frog is disinfected prior to use, between frogs and between sites.
- Each frog will be weighed and measured in the plastic bag to reduce unnecessary contact.
- Ensure the frogs are kept cool at all times; avoid keeping frogs in the cupped hand if possible to allow proper thermoregulation.
- Minimise handling times to reduce stress and to avoid the side effects of stress.
- Sick or dead frogs should be collected and held separately from all other frogs until delivered to the appropriate recipient. All equipment should be cleaned and disinfected after use.
- Although hind-leg handling is a common technique used while measuring and weighing other species of frogs this technique will never be used with any native frog (*Leiopelma*) species.

If you find a sick or dead frog please take it to or contact your local Department of Conservation office.

Boffa Miskell

# Wharekirauponga Exploration

## Kauri Dieback Management Plan

Prepared for OceanaGold (NZ) Ltd

26 September 2023

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| | | |
|---|---|---|
| Prepared by: | 9(2)(a)<br>Senior Principal Ecologist<br>Boffa Miskell Limited | 9(2)(a) |
| Reviewed by: | 9(2)(a)<br>Senior Principal Ecologist<br>Boffa Miskell Limited | 9(2)(a) |
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# Appendices

# Figures

# 1.0 Introduction

## 1.1 Purpose

OceanaGold (NZ) Limited (OGNZL) holds an Access Arrangement[1] for exploration activities in the Wharekirauponga (WKP) catchment in the Coromandel. The Access Arrangement includes conditions relating to the management of Kauri Dieback Disease (*Phytophthora agathidicida,* PA) throughout the life of the Access Arrangement. OceanaGold also holds resource consents[2] for mining exploration activities at two sites on legal road reserve[3] in Wharekirauponga Valley, the conditions of which require a Kauri Dieback Management Plan (KDMP). This management plan was prepared in response to these requirements.

The purpose of this management plan is to provide practical guidance on reducing the risk of *Phytophthora agathidicida* spread as a result of exploration works associated with the Wharekirauponga Exploration Project, and to ensure that these activities are undertaken in a way that does not infringe legislative requirements with respect to the Biosecurity Act 1993 and associated regulations.

Movement of machinery, equipment and people between sites is identified as a key pathway for the spread of kauri dieback and the methods proposed here are specific to this project and its constraints. This plan includes a description of recommended hygiene procedures and how these could be applied to the Wharekirauponga Exploration Project, as well as monitoring and site management recommendations. In particular, this report considers:

- Machinery, equipment and personnel movement of contaminated soil as a vector.
- Practical techniques and hygiene practices to contain the spread of Kauri Dieback Disease at each stage of exploration activities.
- Baseline monitoring, surveillance and reporting.
- Detection and escalation procedures.

This plan supersedes the previous Kauri Dieback management Plan (Boffa Miskell, 2017). This plan is consistent with the Biosecurity (National PA Pest Management Plan) Order (2022) and addresses the ten National PA Pest Management Plan (NPMP) rules set out in the Order. This plan is also consistent with guidance documents provided by Waikato Regional Council (Appendix 1) and Tiakina kauri (Kauri Protection) Management Agency.

## 1.2 Plan Objectives

The objectives of this plan are to provide practical methods to:

- minimise the risk of PA spreading into and (if present) within the Wharekirauponga catchment by reducing movement of soils; and

[1] Administered by the Department of Conservation (DOC).

[2] LUSE – 202.2022.00001609.001

[3] The consent conditions (LUSE – 202.2022.00001609.001) referenced in this report do not apply outside of the paper road boundaries.

- monitor the health of kauri within the Wharekirauponga catchment along walking tracks and within Sites; and

- facilitate controlled access to kauri forests where it does not compromise the future or protection of kauri within the context of the Wharekirauponga Exploration Project works.

## 1.3 Legal Status

National and regional legal recognition of pests and unwanted organisms plays a key part in their management and containment. *Phytophthora agathidicida* (PA) was declared an 'Unwanted Organism' under the Biosecurity Act (1993) in 2008.

In 2022, the Government confirmed a NPMP to provide consistency to manage the impact of *Phytophthora agathidicida*. The NPMP is the strongest form of regulation that the Ministry of Primary Industries (MPI) can put in place for an established pest. Tiakina kauri is the management agency for the NPMP, which applies in its entirety in Waikato, Bay of Plenty, Coromandel, Auckland and Northland.

The NPMP contains 10 rules to manage PA, these are briefly provided below and provided in full in Appendix 1 (bold rules are relevant to the activities in Wharekirauponga and are referenced where appropriate in this report):

**Rule 1: Obligation to report**

**Rule 2: Provision of information**

Rule 3: Restriction on the movement of kauri

**Rule 4: PA risk management plans**

**Rule 5: Earthworks PA risk management plan**

Rule 6: Stock exclusion notice

Rule 7: Restriction on the release of animals

**Rule 8: Obligation to clean items before entering or exiting kauri forest**

**Rule 9: Obligation to use cleaning stations**

**Rule 10: Open tracks and roads in kauri forest**

## 1.4 Kauri Dieback Disease Characteristics

*Phytophthora agathidicida* is the pathogen regarded as a primary causal agent of dieback disease in otherwise healthy kauri, while other *Phytophthora* species (in particular, *P. cinnamomi* and *P. multivora)* may also have a role in the expression and severity of disease symptoms.

*Phytophthora* infects trees through their roots, and spreads primarily through the movement of contaminated soil and water, as well as by root-to-root contact between trees.

Previous surveillance work (Hill et al., 2017) identified that *P. agathidicida* infections showed a strong association with tracks and watercourses, and human activity and disturbance is assumed to be a key vector of the disease.

The kauri dieback pathogen has two types of propagule. The oospore is formed within infected tissue and released into the soil where it can remain latent for an indefinite period. Soil movement is a key mode of dispersal of this type of propagule. The oospore is resistant to sterigene and other disinfectants.

Ultimately, the oospore germinates and produces zoospores which can 'swim' through micropores in saturated soil, and in this way actively disperse themselves. In this form, the pathogen finds and infects tree roots. The zoospores can be destroyed with disinfectant.

Sources and locations of kauri dieback pathogen are:

- Infected tree roots of kauri;
- Parts of the forest floor and waterbodies where oospores have been dispersed;
- Moist, porous soil layers where motile zoospores have emerged and dispersed.

Mineral sub-soil layers below the root zones of vegetation are at lower risk of contamination relative to organic soil layers, as inorganic parts of the substrate are not porous and do not contain living plant material.

# 2.0 Wharekirauponga Project

## 2.1 Kauri Dieback within the Project Area

In 2014 Kauri Dieback Disease was confirmed present in the Coromandel Peninsula, in the Whangapoua catchment and the Hukarahi Conservation Area (Thames-Coromandel District Council, n.d.). Upon these discoveries both the Thames Coromandel District Council and the Waikato Regional Council have joined DOC and other agencies as partners in the Kauri Dieback Programme. In 2023, provisional test results detected PA in samples collected in Kaimai Mamaku Conservation Park, southeast of Coromandel. A large area of the park has since been closed to the public. There are no records for PA, or observations of infected trees in the vicinity of the Wharekirauponga catchment.

## 2.2 Consent and Access Arrangement Conditions

Prior to undertaking any activities associated with the consented exploration, OceanaGold is required to submit for certification a Kauri Dieback Management Plan to Hauraki District Council (Conditions 38 – 41). In addition, because the Project Area is within Coromandel Forest Park, which is administered by DOC, access and activities are also subject to an Access Arrangement. This Access Arrangement also has conditions relating to kauri dieback management (Conditions 141 – 144). The wording and requirements of the conditions are very similar to each other, and the consent conditions are provided below[4]:

*38. At least 20 working days prior to undertaking any activities within any Kauri Contamination Zone(s), the Consent Holder shall submit a Kauri Dieback Management Plan*

[4] The Access Arrangement conditions are provided in Appendix X for reference.

*(KDMP) to the Hauraki District Council for certification that it contains actions and methods designed to meet the objective specified in Condition 39 below and includes the information required by Condition 40.*

*Except for ecological surveys undertaken in accordance with Condition 9, the Consent Holder may not undertake any activities within a Kauri Contamination Zone prior to Hauraki District Council certifying the Kauri Dieback Management Plan in accordance with this condition.*

*39. The objective of the KDMP is to set out the procedures to be used to prevent the activities authorised under this consent in the Coromandel Forest Park causing the introduction and/or spread of Kauri Dieback Disease.*

*40. The KDMP must:*

*(a) Describe methods for establishing and demarcating Kauri Contamination Zone(s);*

*(b) Describe methods for holding, cleaning and treating the collected soil from personnel and equipment in Kauri Contamination Zone(s); and releasing personnel and equipment from Kauri Contamination Zone(s);*

*(c) Describe methods for ensuring soil is removed from all footwear, tools, clothing and equipment when:*

*(i) entering or exiting a Kauri Contamination Zone; or*

*(ii) moving from one Kauri Contamination Zone to another Kauri Contamination Zone; or*

*(iii) entering a stream system in a Kauri Contamination Zone.*

*(d) Describe the express circumstances (if any) where an exemption to any of the above requirements applies;*

*(e) Describe surveillance methods for detecting kauri dieback at a worksite before it manifests in trees; and*

*(f) Describe methods for updating the Plan in the event of significant changes in scientific knowledge relating to the effective management of Kauri Dieback Disease that occur after the Plan is approved.*

*41. The Consent Holder shall implement the certified KDMP. However, in the event of any inconsistency between the conditions of this consent and the KDMP the conditions of this consent shall prevail.*

**Note, this document uses the terminology of the Tiakina Kauri – Kauri Protection Operational Plan (2022), where 'kauri contamination zone, KCZ' is now 'kauri hygiene zone, KHZ'. References to a kauri hygiene zone means 3 times the maximum radius of the canopy dripline of a kauri tree.**

## 2.3 Roles and Responsibilities under the KDMP

The roles and responsibilities of the key personnel are described below.

### 2.3.1 Site Supervisor

- Adhere to hygiene protocols before entering the Project site, when moving around the site and before exiting site [Rule 8, 9].
- Training all personnel on their responsibilities under the KDMP.
- Signing off on hygiene checks, conducting and documenting random inspections. Ensuring cleaning equipment (soap, water, brushes, plastic containers, Sterigene etc.) are fully stocked and cleaning stations are set-up at the campsite and operational work sites [Rule 8, 9].
- Primary point of contact for contractors (i.e., contractors will report to the Site Supervisor if they observe kauri with symptoms of Kauri Dieback Disease) [Rule 1].
- If symptoms of Kauri Dieback Disease are observed, contact the Geological Support Coordinator and Superintendent - Environment as soon as possible [Rule 1].

### 2.3.2 Superintendent - Environment

- If symptoms of Kauri Dieback Disease are reported, the Site Supervisor will collaborate with the 'Manager'[5] , MPI / Tiakina Kauri and the Project Ecologists to produce and implement an adaptive management plan [Rule 1, Rule 2].

### 2.3.3 Project Ecologists

- Adhere to hygiene protocols before entering the Project site, when moving around the site and before exiting site [Rule 8, 9].
- Mark out kauri along tracks and ensure tracks avoid KHZ [Rule 10].
- Undertake baseline visual kauri health assessment, describing the baseline condition of kauri within sites and along tracks between sites using standard surveillance documentation. This documentation can then be updated by trained staff throughout subsequent phases of the project.
- Mark out KHZ (3 x radius of dripline) for trees within sites.
- Remaining up-to-date with any advances in Kauri Dieback Disease research and legislation.
- Preparing and updating the KDMP and clearly communicating these with the Superintendent - Environment to ensure changes are implemented on the site [Rule 4, 5].

[5] The "Manager" as referred to in the Access Agreement i.e. "… the person for the time being holding the office of Operations Manager, Hauraki District, Hauraki – Waikato - Taranaki Region of the Department of Conservation and includes any person authorised by the Operations Manager to act on his or her behalf in respect of this agreement."

- If symptoms of Kauri Dieback Disease are observed, it is the role of the Project Ecologist to inform the Superintendent - Environment [Rule1].

### 2.3.4 Exploration Contractors

- Adhere to hygiene protocols before entering the Project site, when moving around the site and before exiting site [Rule 8, 9].
- Report any occurrences of suspected Kauri Dieback Disease to the Site Supervisor [Rule1].

# 3.0 Wharekirauponga Exploration Drill Site Works

## 3.1 Work Phases

There will be four stages of work undertaken at each drill site and different stages may be occurring concurrently at different drill sites within the wider Project area (Figure 1). These four stages are: pre-exploration (survey phase), vegetation clearance phase, exploration operations phase and site rehabilitation. Applicable rules from the NPMP are noted in the text where appropriate. Procedural details are provided in Section 4.0.

### 3.1.1 Pre-exploration Phase (Sites)

The pre-exploration phase includes establishing sites and walking tracks between sites. Initially, all potential sites are briefly assessed to identify ecological features that may preclude their use as a drill site (e.g. large trees (e.g., > 50 cm DBH) or trees with obvious bat roosts). For sites without these features, a full ecological survey (required under Conditions 9 – 10) will be carried out to assess suitability. The ecological surveys required will involve working off track and within the root zone of kauri and other native trees. Kauri Hygiene Zones (KHZs) will be avoided except where these need to be specifically surveyed, and contractors will work downslope of kauri where possible. Hygiene procedures will be undertaken at catchment boundaries, or where areas of bare/ disturbed soil within KHZs are encountered.

The objective of the KDMP in this phase is to:

- Record the presence of kauri trees within and adjacent to potential exploration drill sites;
- Visually assess the health of kauri trees;
- Avoid using sites with kauri present, and avoid contact with kauri where possible;
- Carry out hygiene procedures at wash stations and where areas of bare/ disturbed soil within KHZs are encountered.

6(c), 9(2)(c)



Figure 1: Wharekirauponga Exploration Area

### 3.1.2 Pre-exploration Phase (Walking Tracks)

The pre-exploration phase will also include visual health assessment (baseline survey) of any kauri at the sites or on/adjacent to the tracks between sites (Figure 1, Appendix 2).

All footwear and gear must be decontaminated at wash stations or using portable hygiene kits. If symptoms of infection are observed during surveillance surveys, or incidental observations, Section 4.5 of this plan will be invoked and this practice may be reviewed.

Demarcation of KHZs are described in Section 4.2.2.

The objective of the KDMP in this phase is to:

- Survey for kauri along tracks and within sites with the purpose of avoiding KHZ and groves of kauri where possible [Rule 10].
- Flag, georeferenced, and assess health of kauri adjacent to tracks for future surveillance.

### 3.1.3 Vegetation Clearance Phase

The vegetation clearance phase will be carried out at each site as required and will include OceanaGold field personnel/contractors moving around and between sites to prepare the site for exploration operations. Vegetation will be felled by hand and stacked immediately outside of the site being cleared. Equipment will be cleaned before and after completion of felling at each site using cleaning stations kept at the site. Large equipment will be flown in and out by helicopter and cleaned offsite, at the Baxter Road facility.

If kauri are present within the area to be cleared, felled trees will be stockpiled and retained with the site boundary, on the inside of a silt fence (required to prevent frogs and/other fauna from moving into the site). All felled vegetation will remain at the site for rehabilitation purposes.

The objective of the KDMP in this phase is to ensure that:

- Machinery and equipment is clean before entering the site and before leaving the site [Rule 8],
- Contractors adhere to hygiene protocols as specified in this document [Rule 5, 8, 9].

### 3.1.4 Exploration Operations Phase

To prepare a drill site, site is fenced with a silt fence[6], the vegetation on the site is felled, and a drill rig platform is constructed (Figure 2). Earthworks within sites are minimised by selecting flat sites and / or using piles to create a level platform. If earthworks are required to level the site, then any earth moved will be stockpiled within the site and managed so it cannot erode offsite and will ultimately be used for rehabilitation of the site. If the site is in a KHZ then strict KDMP hygiene protocols will be required for personnel and equipment carrying out this activity. Equipment and cabins will be placed on the platform to avoid contact with soil.

[6] The silt fence is used to prevent native frog access to the site, but also reduces the risk of soil movement from the site.

Following the vegetation site preparation, drilling contractors will be on the site with a range of drilling machinery and related equipment.

The objective of the KDMP in this phase is to ensure:

- Machinery is clean before entering the Wharekirauponga catchment [Rule 8],
- Contact with soil is avoided or minimised, and that
- Contractors adhere to hygiene protocols [Rule 5, 8, 9].

### 3.1.5 Site Rehabilitation Phase

Upon the completion of exploration operations at each drill site, the equipment will be flown out and the drill platform will be dismantled. The site will be re-contoured and disturbed topsoil and cleared vegetation will be laid over the site to promote regeneration. If the site is in a KHZ, recontouring will be minimised to avoid soil disturbance as far as practicable and bed logs (untreated ~ 0.2 x 0.2m thick rough sawn pine logs placed beneath the drill rig and platform to raise above the ground) will remain on site to decompose.

The objective of the KDMP in this phase is to ensure:

- Hygiene standards are maintained and soil exposure is minimised [Rule 5, 8, 9].
- Machinery is cleaned to remove all soil before being flown out of the Wharekirauponga catchment, or after flying in to the Baxter Road compound. Site Supervisor signoff is required before removing any tools or equipment from the site [Rule 5, 8, 9].

## 3.2 Machinery and Personnel

The principal machinery involved in exploration operations is the drill rig and associated equipment; photos of this equipment are shown in Figure 2 below.

Operation of this machinery requires 3-5 personnel to be on site during exploration operations. Section 4.4 describes the hygiene protocols these personnel will undertake to ensure both their personal equipment (e.g. footwear) and the machinery they are operating are free of soil and decontaminated.

Other personnel working on the Project site may include ecologists, OceanaGold staff or other contractors. These personnel will comply with the same hygiene protocols to ensure their equipment does not become a vector for soil movement. As stated above, this will be particularly important for personnel such as ecologists and weed control operators whose tasks require working off track.



Figure 2: Operational drill rig and rod storage.

# 4.0 Kauri Dieback Management in Wharekirauponga Operation

## 4.1 General Principles

*Phytophthora agathidicida* produces both motile waterborne spores (zoospores) and resting soil-borne spores (oospores). The primary purpose of this management plan is to prevent the introduction of PA to the Wharekirauponga area or contain the spread of PA within the Wharekirauponga area (if present) through the movement of spores through soil and water. Fundamental to the success of this management plan is ensuring the proposed approach is practicable during the activities described in Section 4.0. This will be achieved by employing the general principles identified below:

- Implement decontamination procedures whereby all soil is removed from footwear, equipment, tools and machinery that may have come into contact with soil, prior to entering the site.
- Avoid areas with kauri present where possible, and plan routes to avoid kauri, using established tracks where possible (see Section 3.1.2).
- Survey drill sites and walking tracks for trees with symptoms of Kauri Dieback Disease prior to project commencement.
- Avoid infected sites and report any potentially infected trees immediately (Section 4.5).
- Avoid activities upslope of kauri and avoid muddy areas.
- Keep soil disturbance to a minimum and prevent the deposition of soil into watercourses.
- When vegetation felling is required, all vegetation should be retained on site in the immediate locality of the works.
- Implement ongoing surveillance throughout the life of the project.

## 4.2 Kauri Dieback Disease Surveillance and Monitoring

There is little known about the timeframe between the initial PA infection and the onset of Kauri Dieback Disease symptoms. The regular surveillance recommended in this Management Plan is intended to provide an opportunity to detect any evidence of PA infection in the Project site.

Staff and contractors are also trained to recognize the symptoms of kauri dieback disease and report that observation for follow-up assessment. These measures will facilitate a rapid management response to any suspected infections.

### 4.2.1 Approach

Condition 40 of the consent requires procedures to be put in place when working within, and moving between, KHZs[7]. However, previous surveys indicate that isolated kauri and small stands of kauri are present throughout the wider project area. For this reason, kauri dieback management procedures will apply to the Project site as a whole, and all kauri will be treated as at risk of infection and avoided where possible.

For the purposes of this management plan, a KHZ includes any area within 3 times the radius of the canopy drip line of any kauri tree (Figure 3). Ecologists will undertake baseline surveys for the presence of kauri across all work areas within the site (i.e. drill sites, campsites, pump sites and along the tracks connecting these areas, including within 5 m of the tracks). KHZs will be delineated on sites in order to ensure decontamination measures are implemented wherever soil disturbance occurs within one of these zones, and to enable routing of any new access points so as to avoid or minimise contact with KHZs. The KHZ of kauri along tracks will not be delineated, but the track will be rerouted to avoid contact with the KHZ.

For practical purposes, wash stations and written hygiene protocols will be provided at the entrance to the public DOC Wharekirauponga Loop Track, on the helipads and the entry/exit points of field tracks that service the exploration operation sites from the main public track (Figure 1). Personal cleaning kits are to be carried when conducting surveys off the tracks and in the first instance personnel will endeavour to avoid kauri. The location of any kauri that display symptoms of Kauri Dieback will be noted and reported and if they cannot be avoided then hygiene measures will be undertaken with the personal cleaning kit upon exit of the KHZ.

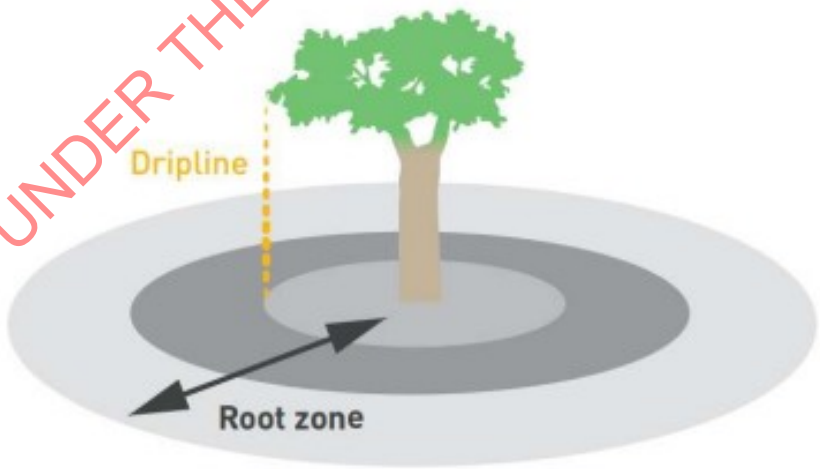



Figure 3: Kauri hygiene zone of a kauri tree.



[7] "Kauri Contamination Zone" is defined in the Access Arrangement agreement as any area within 3 times the radius of the canopy drip line of a kauri (*Agathis australis*) tree.

### 4.2.2 Baseline Surveys

#### Baseline Survey Methodology

- During the pre-exploration ecological surveys required under Conditions 8 - 9, ecologists will identify, GPS and also visually assess all kauri trees for symptoms of Kauri Dieback Disease in each 20 m X 20 m survey plot covering drill, camp sites, and pump sites (10 m X 10 m). Kauri locations will be mapped for reference for all staff working on the project.
- All trees will be flagged and their GPS coordinates will be recorded, along with a description of the severity of their conditions (if any) using the kauri surveillance form (Appendix 1). Information about any tree displaying symptoms will be forwarded onto the Superintendent - Environment who will inform the DOC 'Manager', MPI and the Kauri Dieback Hotline (0800 69 52874).
- Further to the survey plots required under Conditions 8 - 9, Kauri Dieback Disease visual assessments will be undertaken along the edges of the tracks that will be used to move between sites. As above, kauri trees will be flagged and marked with GPS.

#### Establishment of Kauri Hygiene Zones

- During the baseline surveys described in Section 4.2.2, measurements will be taken from the widest point of the canopy drip line to the trunk for all kauri trees within the drill and camp sites surveys where exploration operations will be undertaken. These measurements will be multiplied by three and this number will be marked down on flagging tape[8] and attached the relevant tree. This number is the radius in metres of the contamination zone that will to be established around each kauri tree before the commencement of exploration operations.
- Before exploration operations commence at each working area, any KHZs present will be demarcated by biodegradable flagging tape around the kauri trees at the distance indicated on the flagging tape described above. Where there are groups of kauri that have KHZs that overlap, the flagging tape marker flags will only be set up around the outside of the kauri stand to avoid confusion.
- For clarity it will be assumed that all public walking tracks will traverse KHZs, and therefore boot wash stations will be established at the helipads, campsite, drill sites, and at the entry/ exit points of any field tracks off the public walking track that are used to access the aforementioned sites ( Figure 1). It is recognised that the area is subject to moderate public use on the Wharekirauponga loop track and significant off track hunting throughout the area traversing many KHZs with no biosecurity measures in place.
- All workers on site will be informed about what the flagging tapes indicate and the correct hygiene procedures to be undertaken before entering, and after exiting, a KHZ.

### 4.2.3 Ongoing Surveillance

Little is known about the timeframe of the onset of Kauri Dieback Disease symptoms and it is likely that symptoms of new infections will not become visible during the life of the project.

Monitoring the efficacy of hygiene protocols is the best means of identifying and minimising risks of PA spread throughout the duration of works. Included in this protocol is the requirement to conduct and document routine random equipment checking (audits) throughout all aspects of the work programme. This method will not only track potential movements of PA but also ensure compliance with hygiene protocols.

Routine random Kauri Dieback hygiene checks will be undertaken by the Site Supervisor and will involve:

- Approaching contractors at random in situations when hygiene procedures should have recently been undertaken i.e., when leaving a work site or the campsite.
- Inspecting footwear and/or equipment being moved for remnant soil.

Adaptive management may be required depending on the outcome of the review, adaptive procedures could include but are not limited to:

- New cleaning equipment, methods, or substances.
- The requirement for all hygiene procedure to be supervised by specifically appointed personnel to ensure the protocols are being properly adhered to.

Routine random checks will occur a minimum once a fortnight during exploration works and will not be limited to contractors operating drill rig equipment.

## 4.3 Soil Removal Procedures

### 4.3.1 Personnel, PPE and Handheld Equipment

#### Prior to Entering Project Site

All equipment and personnel will undergo decontamination procedures prior to entering the wider Project site and will be signed off by the site supervisor prior to entry. The priority for decontamination is to ensure that equipment and personal gear is free of soil, and ideally, dry (sunlight and temperatures above 45 degrees are most effective).

The currently approved disinfectant is 2% Sterigene however it is recognised that oospores are not killed by disinfectants and should not be relied upon to sterilise residual soil.

Protocols for gear and small equipment include:

- Wash all hand held equipment with warm soapy water to ensure it is completely soil free.
- Dry gear and/ or spray with 2% Sterigene.
- Footwear will be cleaned to ensure it is free of soil and left to dry in the sun before use (if possible).

  Once free of soil, footwear will be washed at wash stations containing 2% Sterigene located at the helipads and the main office in Waihi (Figure 4). If personnel plan to enter the Project site on foot they will use the office wash station prior to leaving Waihi and then spray their boots with 2% Sterigene at the carpark immediately prior to entering the forest park. The wash station solution will be changed on a monthly basis, or more frequently if heavy useage requires, by placing the waste solution and solids into a sealed container for removal from site and disposal at an approved waste site and recharge of the station with fresh 2% Sterigene.

- The wash station will be set up a minimum of 20 m from waterways and native bush.

Figure 4 Example of wash station

## On-site Hygiene Procedures

**Before land disturbance:**

- Define on the ground the individual KHZs comprising either individual kauri trees or kauri management stands (a kauri management stand is a group of kauri where radii of 3 times the drip lines of individual trees overlap and is treated as one kauri hygiene zone) that will be affected by the land disturbance (*Figure 5*).
- Establish wash stations at the access point(s) on the immediate margin of each KHZ.
- Establish the onsite infrastructure necessary to ensure that all equipment and boots can be cleaned to be free of soil and organic material and sprayed with 2% Sterigene before they enter/exit the KHZ.

Soil removal and decontamination will be undertaken whenever personnel are entering or exiting the drill site / camp site KHZ.

Personnel moving between sites will remain on designated tracks, designed to avoid KCZs as far as practicable, to reduce the risk of spreading potentially contaminated material. Wash stations will be established at the helipads, the campsite, the drill site and at the entry/ exit points from the public Loop track on any field tracks servicing the aforementioned sites as illustrated in Figure 1.

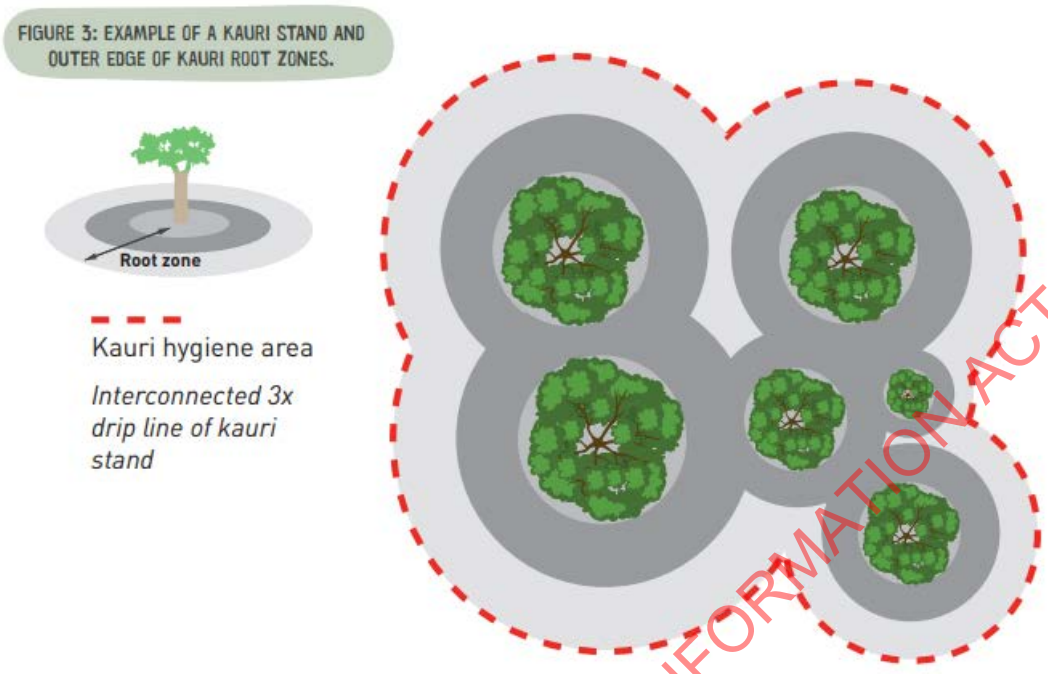



Figure 5: Example of a kauri stand and outer edge of kauri root zones.

**After sites become operational/soil disturbance begins:**

- Once on site, before heading to work areas personnel will undergo soil removal procedures at the campsite. These same procedures will also be repeated before exiting work areas.
- Soil from PPE and handheld equipment will be cleaned off into wash stations. Solution from the wash stations is buried in a sump at least 20m from any watercourse.

### 4.3.2 Procedures for Large Equipment and Machinery

#### Prior to Entering Project Site

The two approved helipads in the project area are not within KHZs. Should further helipads be approved that lie within a KHZ a protocol will be developed for ensuring the hygiene of helicopter skids.

All previously used machinery will be cleaned off site in an area where water will be going directly into a storm water drainage system without coming into contact with native vegetation, particularly kauri. Off-site hygiene protocols include:

- Machinery will be sprayed down with a water blaster to remove all soil.
- All cleaned machinery will be inspected by the Site Supervisor and if they are satisfied that it is soil free it will then be sprayed with 2% Sterigene.

### On-site Hygiene Procedures

If a site is within a KHZ then cleaning with water onsite should be minimised to reduce the potential for spread of waterborne PA spores. On site hygiene protocols within a Kauri Contamination Zone include:

- The drilling rig and other pieces of large equipment will be placed on clean untreated pine bed logs that will remain on the work site after the rig has been removed, meaning the rig will not come into contact with the ground (see Figure 6 and 7).
- All equipment will still be put through the soil removal and decontamination process when leaving each work site.
    - Moveable equipment brushed down with a stiff brush to remove excess dirt.
    - The equipment will be inspected by the Site Supervisor and if they are satisfied that it is soil free it will then be sprayed with 2% Sterigene and signed off for moving by the Site Supervisor.
    - Where possible we will set up areas for changing out of and into area specific footwear (camp and the rig sites) and leaving footwear in labelled lockers/bags. This will minimise the amount of cleaning that we will need to do during the operation and keep the camp and rig areas clean from wet footwear.
- The equipment can then be airlifted to the next work site where it will be placed on new wooden bedlogs.

Figure 6: Example of equipment shed elevated from ground on wooden slabs.

Figure 7: Drill rig with wooden platform.

### 4.3.3 Pumps and Other Equipment Entering Waterways

At present, no pump sites are located within KHZs, but if a new pump site is required within a KHZ, then any equipment movement will be minimised. Equipment that comes into contact with stream systems will undergo decontamination procedures prior to their use and will stay in situ for as long as possible to reduce the risk of spreading potentially contaminated material.

- Prior to entering the Project site, pumps, water lines and associated equipment will be cleaned as described in Section 4.4.2.
- If the pump site lies within a KHZ, prior to moving equipment:
    - Pump hose fittings will be cleaned and washed with a stiff brush.
    - The pump and pipe fittings will be inspected by the Site Supervisor and if they are satisfied that it is soil free it will then be sprayed with 2% Sterigene, left to stand for at least 1 minute and then signed off for moving by the Site Supervisor.
- Should the pipeline traverse a KHZ and come into contact with the soil within that zone then that section of pipe will be scrubbed with a stiff brush, washed and sprayed with 2% Sterigene and left to stand for at least 1 minute before moving it. Where possible, the pipe should be elevated to avoid contact with the ground.

## 4.4 Detection and Escalation Procedures

*Phytophthora agathidicida* is not known to be present in the vicinity of the Wharekirauponga catchment, and surveys of kauri trees within the project site have detected no evidence of infected trees. Protocols outlined in this plan are a precautionary measure to prevent the disease being introduced into the area, and to prevent its further spread if it is present but not detected. However, the Superintendent - Environment (in liaison with DOC and/ or MPI) may revise or expand management provisions if PA is confirmed within the locality.

Clear communication pathways will be key to a rapid response. Upon identification of changes in tree condition (identified in baseline assessment), the tree(s) will be photographed, and its condition updated including a description of the severity of its condition. This information will be forwarded onto the Superintendent - Environment who will inform the DOC 'Manager', MPI and Tiakina Kauri as soon as possible.

"Adaptive management" procedures will be context specific and be dependent on advice received from the 'Manager' and other expert parties (i.e., MPI / Tiakina Kauri) who can trigger a requirement for any or all of the following management actions that could include:

- Review of hygiene procedures.
- Review of soil disposal procedures.
- Stopping works and placing a quarantine over contaminated drill sites while hygiene procedures are reviewed.

## 4.5 Training Communication and Signage

### 4.5.1 Training

Ensuring all contractors are aware of the potentially severe impacts of kauri dieback disease and how it is spread is a critical aspect of this KDMP. All contractors will be trained before entering the site. Training should be carried out by the Site Supervisor and should include the following:

- The background of Kauri Dieback disease; the organism that causes it and how it infects kauri.
- The impacts of Kauri Dieback Disease on kauri and the wider forest ecosystem.
- How the disease is spread with particular emphasis on how only the smallest amount of contaminated soil could create a widespread infection in the long term.
- That there is no known cure for Kauri Dieback Disease and that if PA is introduced to the area it is not currently possible to eradicate it.
- How to identify kauri trees and the symptoms of kauri dieback.
- Where mapped kauri are located relative to tracks and sites within the project area.
- The appropriate escalation procedure if they find evidence of Kauri Dieback Disease.

The goal of this training is to engage with contractors about the potential and irreversible impacts of Kauri Dieback Disease and to ensure that they are fully aware that their actions are the primary defence against the spread of Kauri Dieback Disease. The training will focus on how each individual making sure their equipment is completely clean of soil is crucial and if procedures are not adhered to the potential outcomes will be irreversible. This aim of this approach is to facilitate contractors to understand that they have a key role in protecting the environment they are working in rather than just following instructions with little context as to why the protocols have been put in place.

Training will be undertaken at the beginning of the project and will be repeated for any new personnel before they enter the site. Refresher training will be undertaken as required should there be changes to the KDMP for example. This can be incorporated into the mandatory pre-checks carried out by the Site Supervisor to ensure all equipment is clean before entering the site (see Section 4.4.1).

### 4.5.2 Signage

Signage will be placed around the campsite and active exploration sites to reinforce the hygiene procedures outlined in the training and to provide clear instructions on the escalation procedures if they find kauri with symptoms of dieback.

# 5.0 Updates to the plan

It is the responsibility of the Project Ecologist to stay up to date with advances in the research of Kauri Dieback Disease.

If new information is supplied, the Project Ecologist will assess the need to update the KDMP, update it accordingly and send it to the Superintendent - Environment for review before sending onto the 'Manager' for approval. Once approved, the updated plan will be sent to the Site Supervisor who will implement it on the Project site.

# 6.0 Reporting

As indicated in multiple sections of the document, all suspected sightings of Kauri Dieback Disease, will be reported to the Superintendent - Environment who will report it to the DOC 'Manager', MPI and Tiakina Kauri.

Further to these case by case reports, an annual memo will be issued to the 'Manager' which consolidates these reports and provides information on the ongoing condition of infected trees as well as adaptive management procedures undertaken to contain the spread of the disease.

Reports will also be provided whenever new tracks are established to document any kauri near the track that should be included in surveillance monitoring.

Reports will accompany the Annual Work Programme summary report.

# 7.0 Conclusion

Kauri Dieback Disease is a currently untreatable infection caused by the fungus-like organism (PA) that is having large scale impacts on forest ecosystems containing kauri throughout the Auckland and Northland regions. It is believed that people moving contaminated soil on their footwear and various other equipment is the primary long range vector of PA. To date Kauri Dieback Disease is contained to just two areas on the Coromandel Peninsula, and strict hygiene measures for anyone entering forested areas are pivotal in the containment of the disease in the Coromandel. This is particularly the case for projects such as the Wharekirauponga Exploration operation as it consists of multiple personnel and equipment/machinery of various sizes entering and moving around a forest site containing kauri on an ongoing basis.

Consent Conditions 38 - 41 of the consent outlines the requirements of a Kauri Dieback Disease Management Plan with the purpose "set out the procedures to be used to prevent the activities authorised under this consent in the Coromandel Forest Park causing the introduction and/or spread of Kauri Dieback Disease". The KDMP achieves this by following the NPMP for PA and guidance from available supporting documents.

The plan outlines a set of simple principles (Section 4.1) and proposes achievable but effective hygiene procedures that minimise the risk of PA being introduced and/or spread around the Project site. Further to these procedures a rapid adaptive management response is provided for should the disease be identified in the area.

The management plan will be reviewed as new information relating to Kauri Dieback Disease comes to hand to ensure the plan provides the best known methods for preventing the introduction and/or spread of the disease to the Project area.

# Appendix 1: National Pest Management Plan for PA – Rules that Apply to the Wharekirauponga Exploration Project

### Plan rule 1: obligation to report

(1) An occupier of land who recognises that a kauri on the land is exhibiting any symptoms of PA must, as soon as is reasonably practicable, report the symptoms and the location of the kauri to the management agency, an inspector, or an authorised person.

(2) Subclause (1) does not apply to an occupier who knows that the management agency is aware that the tree is or may be exhibiting symptoms.

### Plan rule 2: provision of information

1) A person must provide the management agency, an inspector, or an authorised person with any information of a kind described in subclause (3) that is requested in writing by the management agency, inspector, or authorised person.

2) The person must provide the information within the time specified in the request, which must be reasonable and not less than 48 hours from the time the request is made.

3) The information is any information about—

(a) kauri trees, including dead kauri trees, or any alternative PA host plant material; and

(b) soil or growing medium that has or may have come into physical contact with a kauri tree or alternative PA host plant material; and

(c) machinery, equipment, or persons that may have come into physical contact with—

(i) any kauri tree or alternative PA host plant material; or

(ii) any soil or other growing medium that has been in physical contact with any kauri tree or alternative PA host plant material.

### Plan rule 4: PA risk management plans

(1) An occupier of land must have, and operate in accordance with, an approved PA risk management plan if a management agency, an inspector, or an authorised person gives the occupier written notice that the land is at risk of PA.

(2) The occupier must submit a PA risk management plan for approval by the management agency, an inspector, or an authorised person within a time that is reasonable and not less than 90 working days after the notice is given.

(3) The objective of a PA risk management plan is to detail how—

(a) the spread of PA will be controlled, including how it will be contained to exclude it from any kauri forest; or

(b) the effects of PA will be limited.

(4) A PA risk management plan must contain—

(a) the objective of the plan; and

(b) the actions to achieve the objective of the plan; and

(c) a map of the land identifying any kauri tree locations and other significant features such as roads, other trees, tracks, and cleaning stations; and

(d) procedures and practices to ensure that the actions in paragraph (b) meet the objective of the plan; and

(e) procedures for reporting to the management agency, inspector, or authorised person on the implementation of, and compliance with, the plan.

(5) In subclause (1), land is at risk of PA if—

(a) there is a risk of kauri trees on the land being infected by PA; or

(b) the land—

(i) has kauri or alternative host material that is infected by PA; or

(ii) is a pathway from land on which kauri or alternative PA host plant material is infected by PA to other land

**Plan rule 5: earthworks PA risk management plan**

1) An earthworks risk management plan must contain—

(a) the objective of the plan; and

(b) the actions to achieve the objective of the plan; and

(c) a map of the land (which may include areas outside the kauri hygiene zone) identifying—

(i) kauri tree locations; and

(ii) the boundary of any earthworks; and

(iii) points from where the earthworks site may be accessed; and

(iv) signs identifying from where the earthworks site may be accessed; and

(v) where kauri hygiene protocols are displayed; and

(vi) where vehicles may be parked (if applicable); and

(vii)where items contaminated with soil may be washed down; and

(d) procedures for cleaning all vehicles and equipment to prevent PA entering or leaving the site; and

(e) procedures for—

(i) the management of any soil, sludge, or organic material that is retained within a kauri hygiene zone; and

(ii) transportation of that soil, sludge, or organic material to a landfill approved by the management agency, inspector, or authorised person for that purpose; and

(f) procedures to limit the risk of water potentially contaminated with PA entering—

(i) a kauri hygiene zone; or

(ii) a kauri forest; or

(iii) a water course connected to a kauri hygiene zone or kauri forest; and

(g) procedures to ensure that all persons entering the earthworks site are provided with a copy of the plan; and

(h) procedures for reporting to the management agency, inspector, or authorised person on the implementation of, and compliance with the plan, which must include—

(i) annual reporting on compliance with the plan; and

(i) immediate reporting when there is significant non-compliance with the plan; and procedures to ensure that the management agency, inspector, or authorised person is notified of the start and end of each earthworks

### Plan rule 8: obligation to clean items before entering or exiting kauri forest

(1) Immediately before entering or exiting a kauri forest, a person must clean any risk item that is in

their possession.

(2) The person must clean the risk item so that visible soil and organic matter is removed.

### Plan rule 9: obligation to use cleaning stations

(1) A person who uses a track or road in a kauri forest must clean applicable items at each cleaning station they pass.

(2) The item must be cleaned so that visible soil and organic matter has been removed.

(3) An applicable item is an item that the cleaning station is designed to clean.

### Plan rule 10: open tracks and roads in kauri forest

1) This rule—

(a) applies to an owner of land in a kauri forest if a track or road passes through that land; but

(b) does not apply in respect of a track of which the owner is unaware or that is not intended for public use.

(2) The owner must comply with 1 or more of the following requirements:

(a) ensure all tracks and roads avoid the kauri hygiene zone:

(b) install 1 or more cleaning stations to remove visible soil and organic matter from risk items:

(c) install track surfacing to minimise the risk of—

(i) the spread of soil or organic matter into, within, or from a kauri hygiene zone; and

(ii) contact with kauri fibrous roots by risk items.

(3) If the owner complies with subclause (2)(b) or (c) the owner must ensure that groundwater and surface water drain away from kauri trees.

# Appendix 2: Kauri health assessment form

## Individual sampling tree Version 5

**Sample Reference number _____**

**Site Name** **Tree point number** **Date**

Soil temperature __C Soil moisture Saturated/Wet/Moist/Dry

**Collection Members** _____

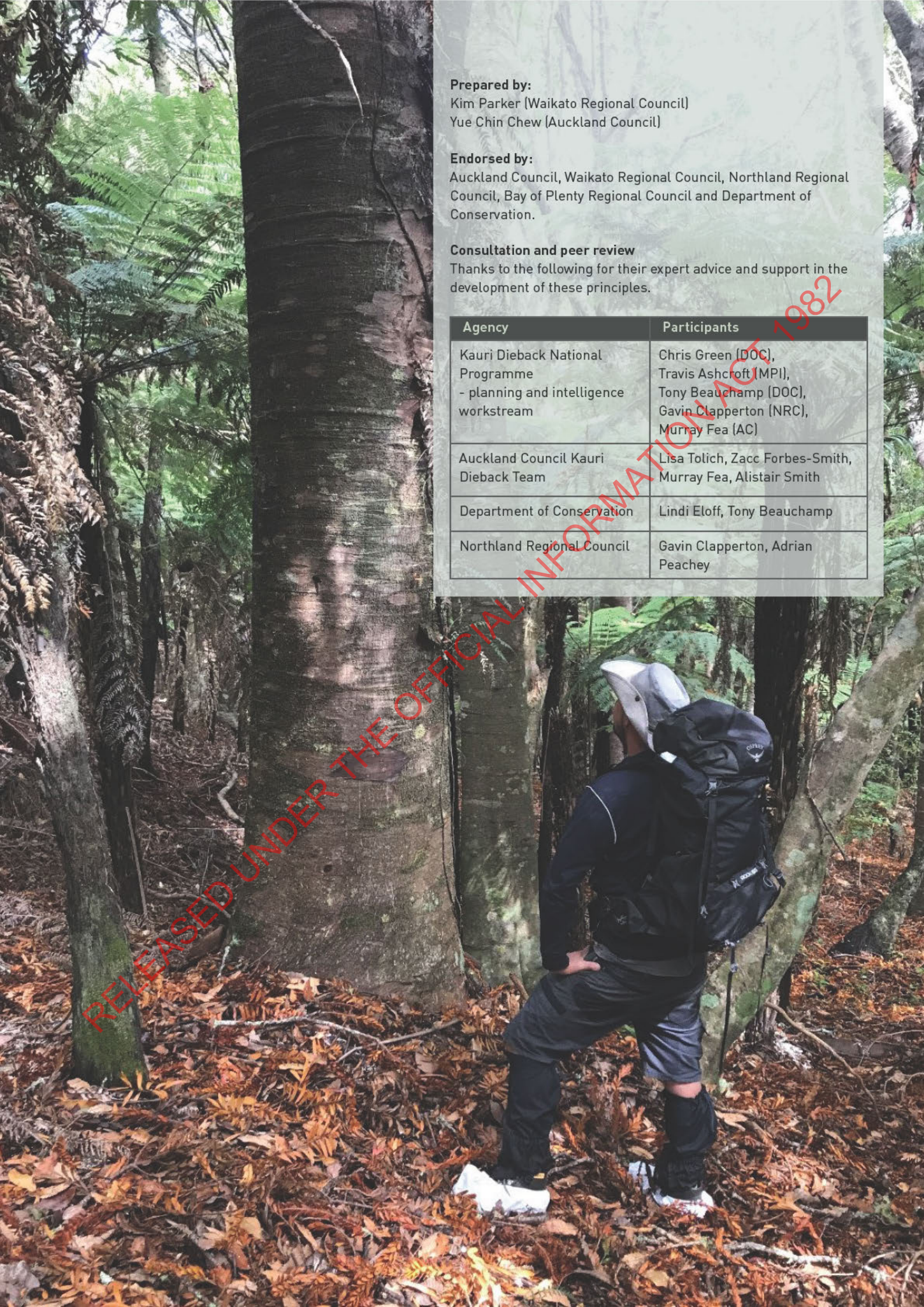
| | | | | | |
|---|---|---|---|---|---|
| NZMGE | MZMGN | Altitude | Aspect (compass) | Tree location | |
| | | | | Plateau / Ridge / Spur / Gully | |
| HEIGHT CLASS | Canopy/emergent | Ricker/pole >4m | Sapling 1-4 m | Seedling 0.1 <1 m | |
| Trunk diameter (m) | | | | | |
| MANAGEMENT and IMPACTS | Distance to track/road or disturbance (m) | Tree has insect damage to trunk (**if yes add comments back of sheet**) | Plantation or management (**if yes add comments back of sheet**) | Potentially swamped with<br><br>water during the year | Lichens or epiphytes on trunk (**if yes take photo and comments on back of sheet**) |
| | | yes / no | yes / no | yes / no | yes / no |
| CANOPY | Good condition (1) | Foliage thinning (2) | Some branch dieback (3) | Severe dieback (4) | Dead (5) |
| CIRCUMFERENCE OLD BLEEDS | None | <10% | 10-50% | 51-80% | 81-100% |
| CIRCUMFERENCE NEW BLEEDS | None | <10% | 10-50% | 51-80% | 81-100% |
| TOP HEIGHT OF FRESH RESIN BLEED | None | <20 cm | 20-50 cm | >50-100 cm | |
| and PHOTOS | Trunk / Bleeds | Canopy shot | Insect damage photo<br><br>Yes / no | Fungal bodies photo<br><br>Yes / no | |
| PIG ROOTING | None | Few holes | Moderate (>10-<50%) | Extensive (>50%) | |

# Appendix 3: Protecting kauri: Principles of hygiene.



# PROTECTING KAURI: PRINCIPLES OF HYGIENE

**Preventing the spread of kauri dieback disease with best practice hygiene guidelines**



**Prepared by:**
Kim Parker (Waikato Regional Council)
Yue Chin Chew (Auckland Council)

**Endorsed by:**
Auckland Council, Waikato Regional Council, Northland Regional Council, Bay of Plenty Regional Council and Department of Conservation.

**Consultation and peer review**
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| Agency | Participants |
|---|---|
| Kauri Dieback National Programme - planning and intelligence workstream | Chris Green (DOC), Travis Ashcroft (MPI), Tony Beauchamp (DOC), Gavin Clapperton (NRC), Murray Fea (AC) |
| Auckland Council Kauri Dieback Team | Lisa Tolich, Zacc Forbes-Smith, Murray Fea, Alistair Smith |
| Department of Conservation | Lindi Eloff, Tony Beauchamp |
| Northland Regional Council | Gavin Clapperton, Adrian Peachey |

# PRINCIPLES OF HYGIENE

The following six principles are fundamental truths when it comes to the best actions to protect kauri from kauri dieback disease. They have been developed for people who are operating off track and serve as the foundation for behaviours to aid in protecting kauri. They are based on best current scientific information available.

Kauri dieback disease is caused by a microscopic soil-borne organism called *Phytophthora agathidicida* (*P. agathidicida*). This organism enters the tree through its root system and affects the tree's ability to transfer nutrients and water, in effect starving the tree.

For further information on kauri dieback and for best practice guidelines around specific activities, visit **kauriprotection.co.nz.**

*This is an interim document while the National Kauri Protection Programme establishes the National Kauri Dieback Pest Management Plan and management agency. Once established, the National Kauri Protection Programme will create materials for the implementation of the plan which will include principles of hygiene for kauri protection and other supporting materials for activity type.*


# 1. AVOID KAURI FORESTS

Choose to undertake your activity or event away from forests with kauri in them, where possible. This is the best action you can take to protect kauri as it wholly stops human-mediated movement of dirt into kauri areas.

*For further information on kauri locations or kauri dieback sites on public land, contact your local Department of Conservation (DOC) office. Regarding kauri in regional parks or private land, contact Auckland Council, Northland, Waikato or Bay of Plenty regional councils or the Ministry for Primary Industries. Visit kauriprotection.co.nz/kauri-maps to view a kauri dieback locations map (note not all sites are marked on this map due to Privacy Act requirements).*

# 2. AVOID KNOWN INFECTED SITES

a) No activities should take place in areas contaminated with *P. agathidicida*.

b) Avoid activities downslope of known infected areas.

c) If activities are required within a contaminated area, get advice from the appropriate land management agency or regional council kauri dieback team prior to undertaking them.

Hygiene considerations will include, but are not limited to, not moving footwear, clothing and equipment from contaminated areas to other sites.




LIFE STAGES OF KAURI

# 3. IF IN KAURI FORESTS, AVOID KAURI

It is best to avoid contact with kauri as far as possible. Therefore, planning your activities prior to undertaking them is critical.

In situations where it is not possible to avoid kauri, and hygiene measures can be undertaken, the following procedures must be performed.

a) Undertake your activities away from kauri. Plan routes to avoid kauri.

b) Structure work procedures to take place in low-risk locations first, for example, work on-track before working off-track.

c) Stay outside the kauri root zone (see figure 1). This includes all vehicle, machinery and equipment.

d) When selecting a route to avoid kauri, stay downslope of healthy kauri and upslope of infected kauri where possible (see figure 2). This further reduces the likelihood of the pathogen entering healthy stands through downward soil movement.

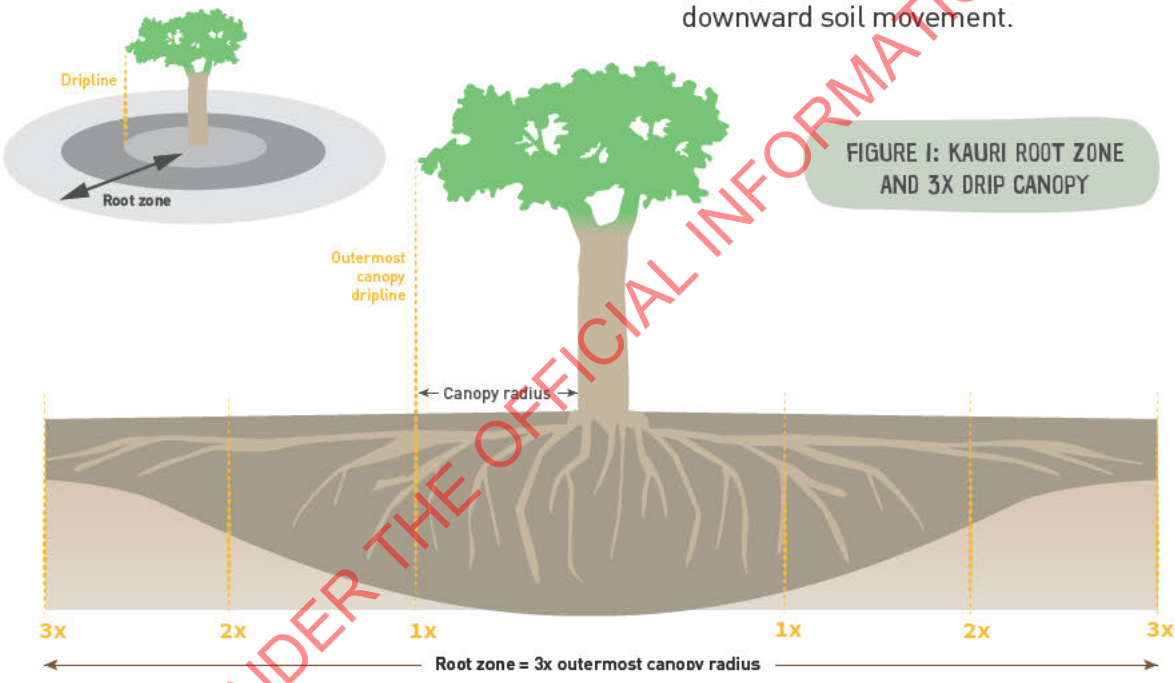



FIGURE 1: KAURI ROOT ZONE AND 3X DRIP CANOPY

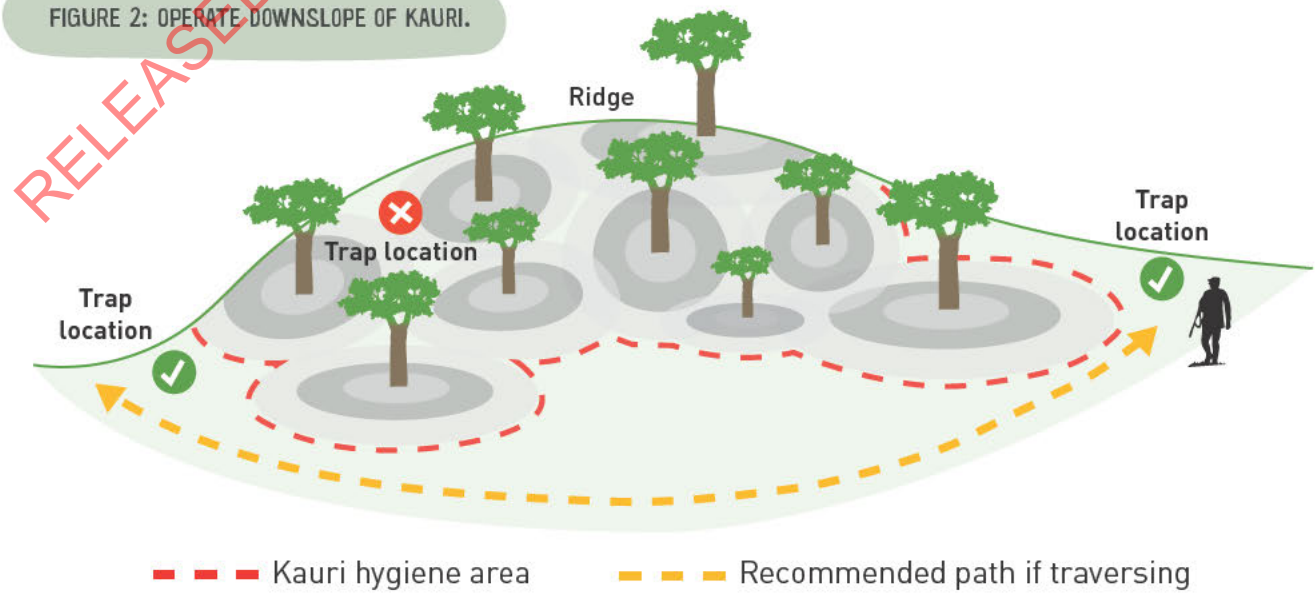



FIGURE 2: OPERATE DOWNSLOPE OF KAURI.

# 4. KEEP AWAY FROM KAURI IN WET CONDITIONS

Carry out your activities in dry conditions and avoid muddy areas. Reschedule activities when weather forecasts are for rain and underfoot conditions will be or are wet.

*P. agathidicida* spores are more active when it is wet, and muddy conditions make it more difficult to manage dirt movement. Working when it is dry underfoot is much better for protecting kauri.

# 5. ELIMINATE DIRT MOVEMENT.

## ARRIVE CLEAN, CLEAN WITHIN, AND LEAVE CLEAN

If it is not possible to avoid operating near kauri, you must apply stringent hygiene procedures. These must be undertaken **before** heading into kauri areas, **within** kauri areas and **after** leaving kauri areas.

a) Prior to arrival, ensure that you, your footwear, clothing and equipment are dirt-free and disinfected.

b) Keep all equipment off the ground.

- Consider using carabiners or ropes to keep items off the ground or use single-use tarpaulin (to be disposed of) to keep items off the ground.

c) When moving between kauri trees or stands, ensure you remove all dirt from footwear, clothing and equipment, then apply disinfectant and leave on for at least one minute. Do these actions outside the root zone of kauri (see figure 3).

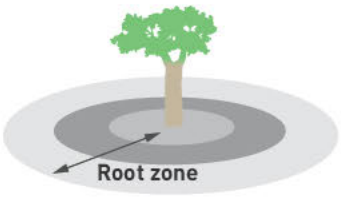
- Use disposable overshoe booties. They are an effective means of stopping dirt transfer from footwear as they provide a barrier between footwear and dirt.

- Use disposable gloves when working with dirt within kauri root zones.

- Do not reuse booties or gloves unless they can be heat-treated. If so, treat at a minimum temperature of 50 degrees Celsius for 24 hours. (See **kauriprotection.co.nz/how-to-guides**.)

DISPOSABLE OVERSHOE BOOTIE EXAMPLE

FIGURE 3: EXAMPLE OF A KAURI STAND AND OUTER EDGE OF KAURI ROOT ZONES.




Kauri hygiene area

*Interconnected 3x drip line of kauri stand*

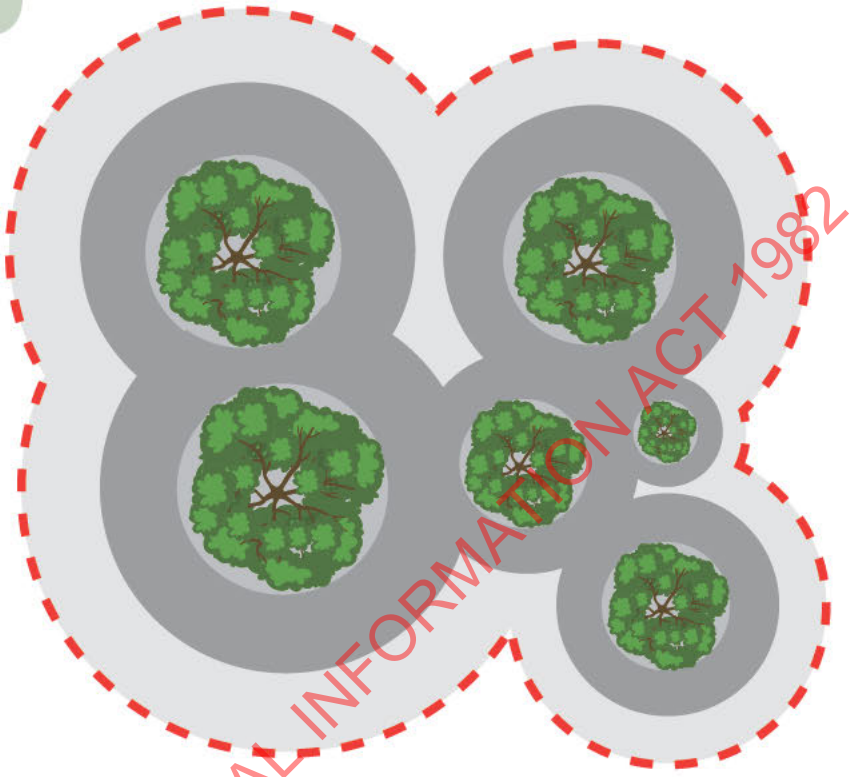
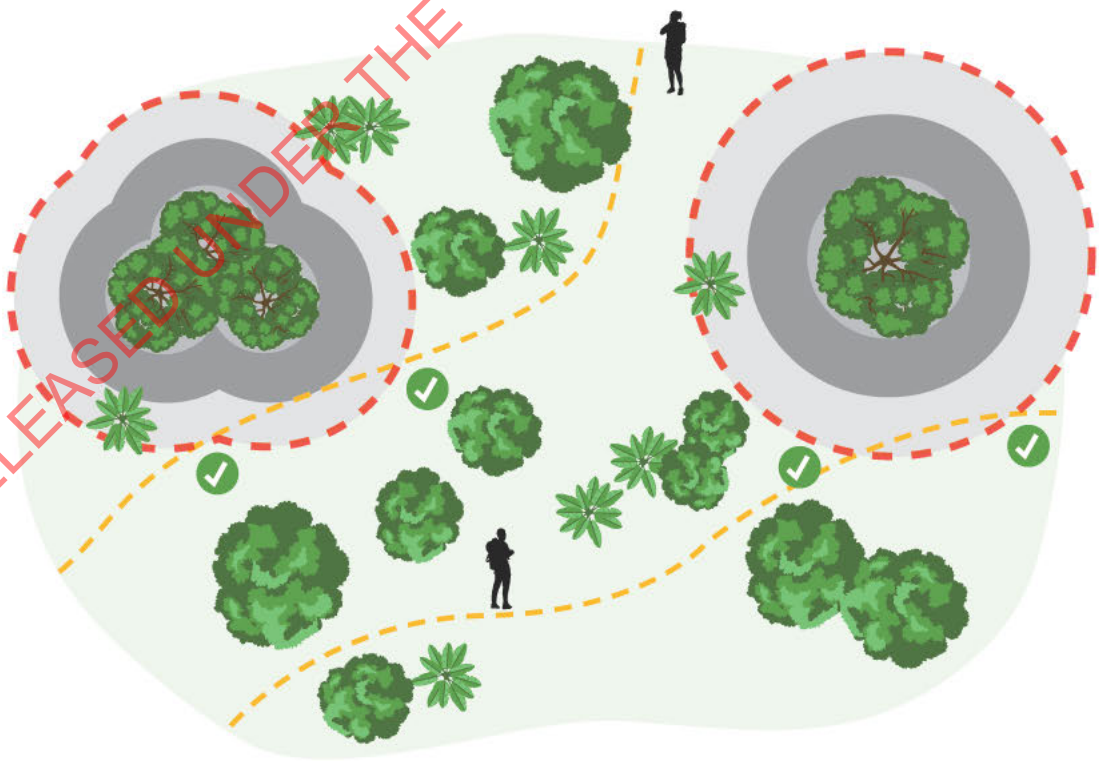




FIGURE 4: EXAMPLE OF CLEANING AREAS, FOR WHEN IT IS NOT POSSIBLE TO AVOID KAURI.



Point to clean gear and/or put on overshoe booties

Kauri hygiene area

Path you are taking

# 6. REMOVE ALL DIRT THEN DISINFECT

a) Clean/remove all dirt from all gear, equipment, machinery and people.

b) After all dirt is removed, apply disinfectant* and leave on for at least one minute.

c) Where possible, use heat to sterilise equipment at a minimum temperature of 50 degrees Celsius for 24 hours (see **kauriprotection.co.nz.how-to-guides**).

*The disinfectant approved by the National Kauri Protection Programme is SteriGene at 2 per cent for broad-spectrum use. Methylated spirits (minimum concentration of 70 per cent) can also be used for spot treatment and cleaning of small equipment (i.e. handheld tools).

## CARRY A HYGIENE KIT. USE HYGIENE STATIONS.

Always use hygiene stations where available and carry a hygiene kit. A hygiene kit should include:

- a hard brush to remove all dirt from footwear
- overshoe booties and/or disposable gloves for when working within kauri root zone (if not possible to avoid)
- a spray bottle containing disinfectant
- a disposable sealable bag to store dirty items.

Ensure there is separation between areas where you store dirty items and clean items. For example, in your backpack, have set areas for clean equipment and dirty items.

DIRTY SHOES VS DIRT-FREE SHOES.




**FOR MORE INFORMATION ON PROTECTING KAURI HEAD TO KAURIPROTECTION.CO.NZ**

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