Assessment of Environmental Effects

Land-Use consent application

as a Discretionary activity under Section 88 of the Resource Management Act 1991

Prepared for

Auckland Shooting Club Incorporated

287 Tuhirangi Road, Kakanui/ Lot 2 DP 365701

Northland

DOCUMENT CONTROL RECORD

Version History

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1.0	15/5/2023	Draft for internal review
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This document and its contents have been prepared and are intended solely for the information and use of our client, Auckland Shooting Club Inc, their professional advisers and the relevant Territorial Authorities in relation to the specified project brief described in this report.

Terra Consultants assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

1.0 INTRODUCTION

This application has been prepared by Terra Consultants on behalf of the applicant, Auckland Shooting Club Incorporated, for the property at 287 Tuhirangi Road, Kakanui. The purpose of the application is to obtain land use consent to operate an organised sport and recreation activity in the form of a Shooting Range. This includes the construction of a new shooting bay to replace one existing bay, making a total five shooting bays, upgrading parts of the existing accessway and parking area, and stormwater treatment, conveyance and discharge infrastructure and associated earthworks in the Rural Production Zone.

It is important to note that the site has been substantially modified by past activities including the formation of a motocross track pre-2017(x-game motorcycle racing). The modifications included accessway, earth bunds, excavations, and ramps. Construction activity has been carried out on site to establish the existing shooting bays, these works were partially completed in August 2017 when works were stopped by Council trough issuance of an abatement notice.

A resource consent application for a shooting rage was lodged in 20th July 2017, the proposal was for obtaining land use consent to construct and excavate thirty shooting bays for a high capacity, world-class shooting range for competitive events. The resource consent application progressed up to Council's notification decision. The resource consent application did not move forward.

The application includes the following:

- The details of the proposal.
- A relevant statutory assessment.
- An assessment of environmental effects.

The supporting information attached in the appendix includes:

- Appendix A: Certificate of Title
- Appendix B: Auckland Council – Locality Plan
- Appendix C: Infrastructure Assessment Report and Plans (Terra)
- Appendix D: Acoustic Assessment and Memo (Marshall Day Acoustics)
- Appendix F: Ecology Assessment Report (Wild Ecology)
- Appendix G: Traffic Engineering Memorandum (Terra)
- Appendix H: Assessment Table (Objectives, Policies Assessment)
- Appendix J: Adaptive Environmental Management Plan (EnGeo)
- Appendix K: Preliminary Site Investigation (EnGeo)
- Appendix L: PSI Addendum (EnGeo)
- Appendix M: Up-Flo Filter Specification
- Appendix N: Geotechnical Addendum (EnGeo)
- Appendix P: Geotechnical Plan Review (EnGeo)
- Appendix Q: Revised Geotechnical Plan Review (EnGeo)

Overall, it is considered that any actual or potential adverse effects of the activity on the environment will be **less than minor**, and under the request of the applicant this resource consent application should be **publicly notified.**

2.0 APPLICATION AND PROPERTY DETAILS

Applicant/Proprietor:	Auckland Shooting Club Incorporated
Physical address:	287 Tuhirangi Road, Kakanui 0984
Legal Description:	Lot 2 DP 365701
Total Site Area:	37.91 hectares
Zoning and Overlay	**Zone** • Rural - Rural Production Zone **Precinct** • N/A **Overlays** • N/A **Controls** • Controls: Macroinvertebrate Community Index – Exotic • Controls: Macroinvertebrate Community Index – Native • Controls: Macroinvertebrate Community Index - Rural

3.0 LOCALITY PLANS

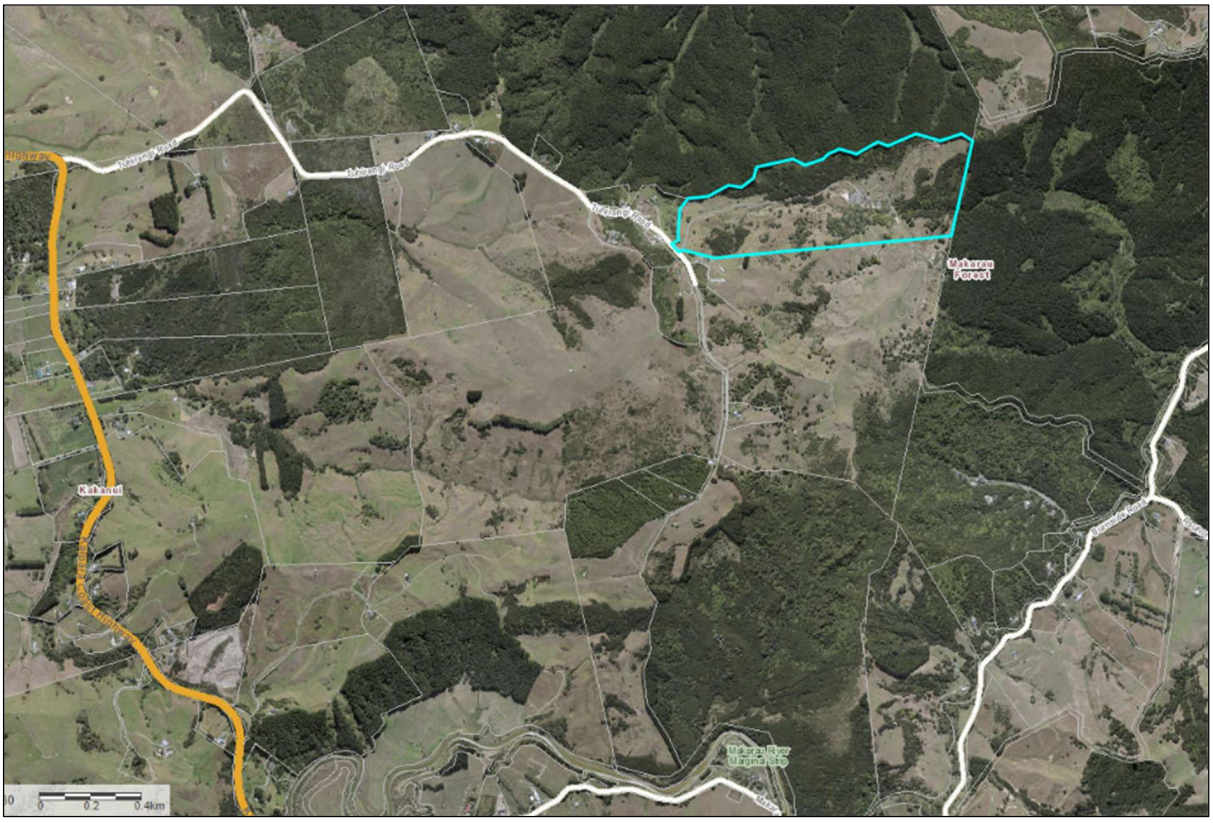

Figure 1 - Wider Aerial photograph – 287 Tuhirangi Road & SH16 (Kaipara Coast Highway). Source Google Maps.

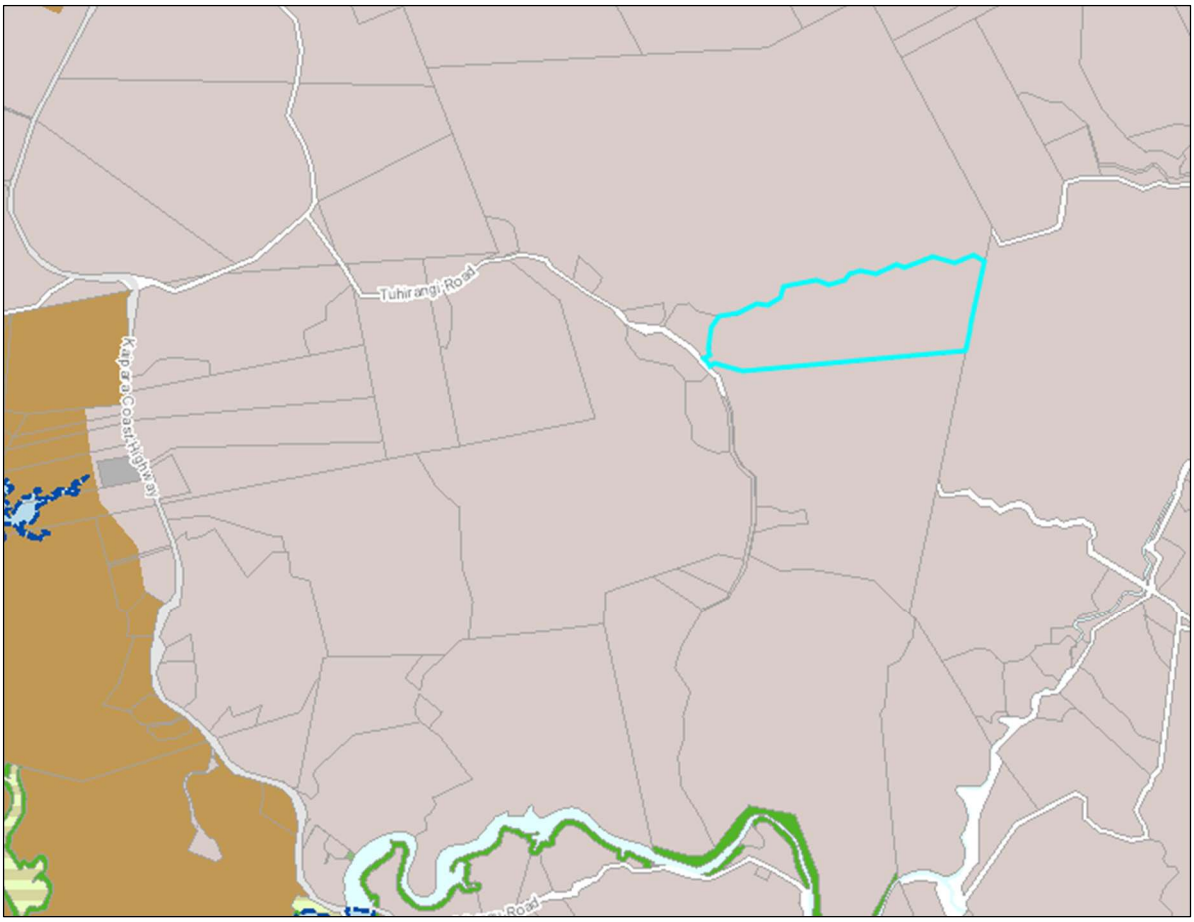

Figure 2 - Operative District Plan - Rural Production Zone

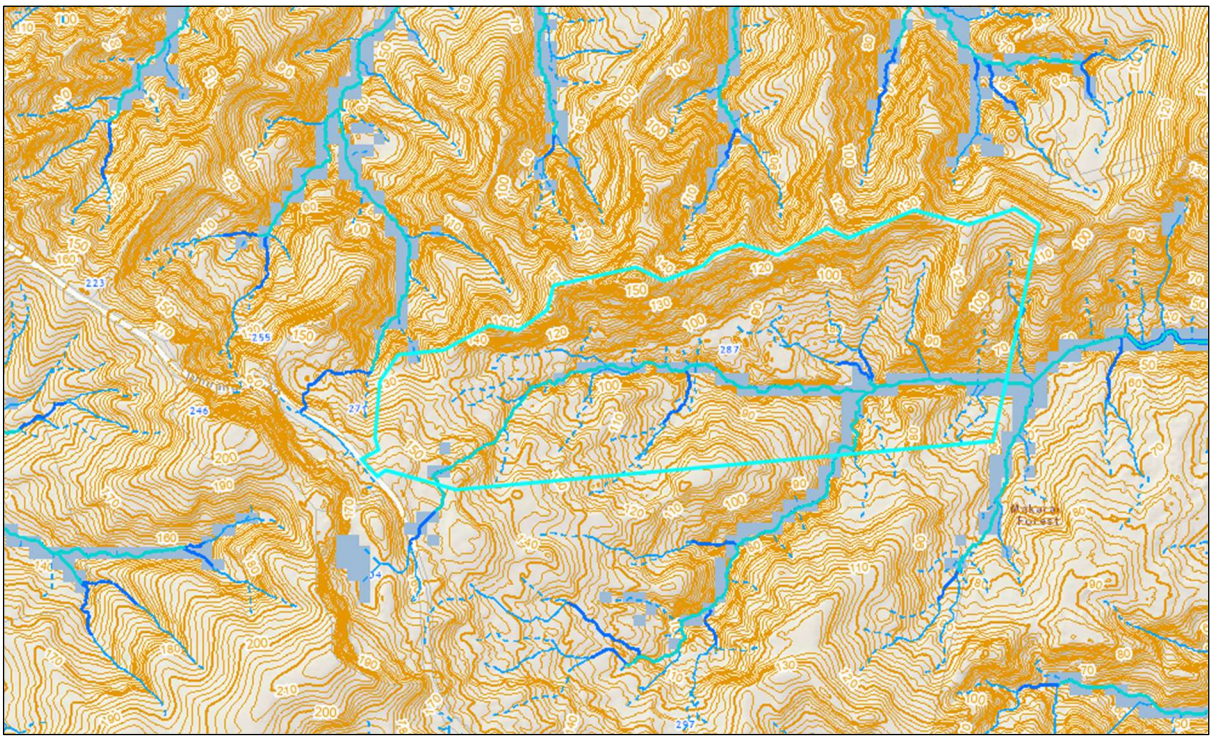

Figure 3 – Catchments and Hydrology – Auckland Council GIS

4.0 SITE DESCRIPTION

4.1 Locality Description

The subject site is located 65km from Auckland city centre and can be accessed using the nearest motorway (State Highway 16). It is located at 287 Tuhirangi Road, the site comprises one lot of 37.91 hectares and is located in the remote rural area of Kakanui, some 10 kilometres north of the closest township of Kaukapakapa. Kaway Parua Inlet is approximately 6km to the east of the site.

4.2 Site Description

The subject site is legally identified as Lot 2 DP 365701 at 287 Tuhirangi Road, (here referred to as the **Site/Subject site**) forms an approximate trapezium shape with dimensions of just over 1,100m in length (east to west) by a width (north to south) of 400m that tapers down to 250m towards the western boundary. Vehicle access to the Site is via Tuhirangi Road – a typically quiet 3-kilometre-long rural road of formed, but unsealed, aggregate. The operational and legal extent of this road ends shortly beyond the Site entrance, approximately 140 metres south.

The topography is a unique feature of the site, rolling high and steeper in the northern portion (peaking at 165m RL) before sloping downwards in an undulating manner across a distance of 160 meters to the lowest point of approximately 50m RL in a creek environment in the centre of the site. Further down south where the site adjoins the neighbouring site (Lot 1 DP 397668), peaks and troughs characterise the terrain with the watercourses in the lowest elevations. Overall, the contour forms a natural valley-like atmosphere which promotes the privacy of subject site and adjoining properties.

The majority of the site is covered by grass or scrub, however there are several clusters of regenerating species spread across the property and dense bands of bush and trees are located along the northern and western aspects of the site that adjoin the forestry blocks. The sparseness of vegetation cover is typical of land within the Rural Production Zone.

Due to the large sizes of land parcels in the area, residential development is sparse and generally maintains a minimal building footprint (relative to lot size) within the context of the surrounding landscape. In all, at least 16 dwellings have their primary access from Tuhirangi Road. Five of these are within the general vicinity of the site (within one kilometre), with the exception of the dwelling on Lot 1 DP 397668 (297 Tuhirangi Road) which adjoins the southern boundary of the Site. The registered owner of the subject site is also the registered owner of 297 Tuhuirangi Road. It is also noted that the Vipissana Mediation Centre (153 Burnside Road at Lot 5 DP 207880) is situated southeast of the subject site, over one kilometre from the existing shooting bays and the proposed shooting bay and beyond several hills and a ridgeline.

Existing structures mainly cluster in the centre of the site, including four completed and two unfinished shooting bays, two metaled car parking areas, admin office, access track to the centre of the site, portaloos, two rainwater tanks, a container, and a wooden gate structure at site entrance.

Photos of the site have been included in the following section.

Figure 4.1 – Entrance to the site at 287 Tuhirangi Road

Figure 4.2: Tuhirangi Road, looking north from site entrance

Figure 4.3: Existing landscape amenity beyond the entrance of the subject site

Figure 4.4: Metal access driveway from Tuhirangi Road

Figure 4.5: Existing retaining wall of 2m height

Figure 4.6: Existing 25,000L rainwater tanks

Figure 4.7: Existing shooting bay

Figure 4.8: Existing ancillary structures including administrative box, waiting area and port-a-loos

5.0 PROPOSAL DESCRIPTION

5.1 Project rationale

While there are already a number of pistol ranges within the wider Auckland area, the majority of these are indoor shooting ranges which were typically located inside an enclosed building. The walls and celling of these structures are made of materials that are designed to absorb sound and prevent bullets from escaping. They often have a ventilation system to remove smoke and lead particles generated from shooting. However, as the location are adjacent to residential neighbours and in a compacted atmosphere, these indoor shooting ranges facing issues with regards to noise sensitivity, safety concerns and lead exposure hazards when inhaling or ingesting airborne lead particles to employers and members of the club. The type of shooting activities provided in indoor ranges are often restricted with handgun and target shooting.

Comparing outdoor shooting ranges and indoor ranges, outdoor ranges are located in an open fields which can accommodate longer distances shooting and wider ranges of guns used. In Auckland, most outdoor shooting range clubs are located in rural zoned sites, distance away from residential areas (i.e: Waitemata Clay Target Club, NZ Deerstalkers Rifle Range, Carodale Country Estate, Auckland Pistol Club, etc.). Given the increasing demand of the shooting community for outdoor shooting, to that end the Auckland Shooting Club location is appropriately remote in terms of its distance from residential development clusters, is large enough to provide a sufficient buffer zone between neighbouring properties and has topography that provides natural noise attenuation. The subject site fulfils these locational and operational criteria while remaining within reach of Auckland at just under an hour's drive from central Auckland.

The applicant considers it is essential to firstly acquire resource consent for the on-going activity on-site as *organised sport and recreation activity* and maximise the efficient use of the site in order to best cater for community needs while do not compromise environmental prospects. Such an approach will enable the social and economic wellbeing, and health and safety, of people and communities in accordance with Section 5(2) of the Resource Management Act 1991. It also constitutes an efficient use of natural and physical resources in accordance with Section 7(b) of the same Act.

5.2 Description of the Proposal

The purpose of this application is to obtain land use consent to establish outdoor shooting ranges (Auckland Shooting Club) at 287 Tuhirangi Road, Kakanui. Consent is sought for proposed and retrospective works, the consents sought are differentiated in the following sections.

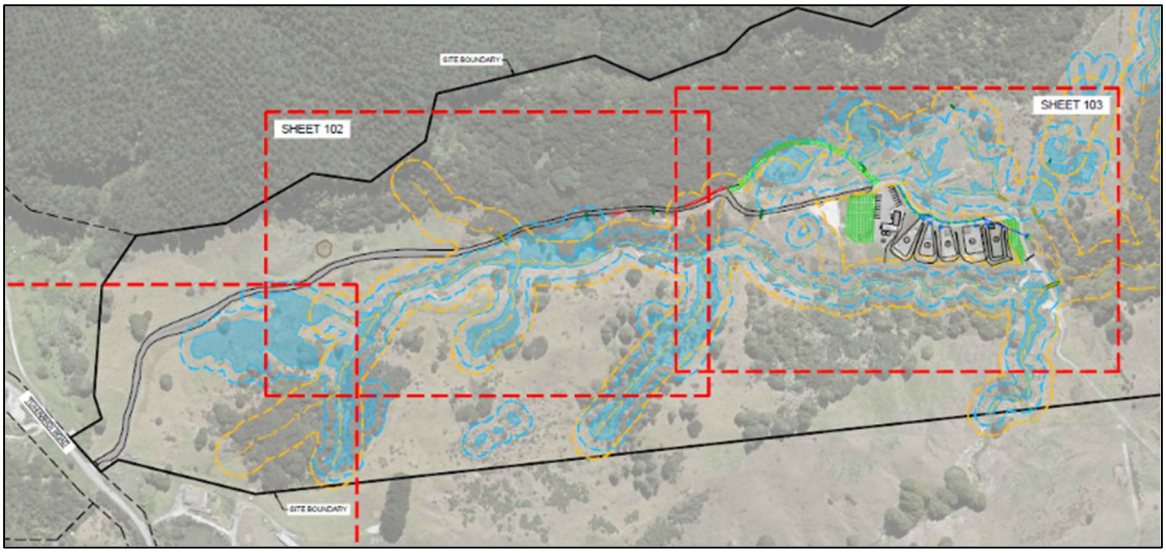

Figure 5 - Overall demonstration of the proposal

Existing activities for which retrospective consent is applied for under this application include:

- Four active shooting bays;
- Two parking areas;
- Ancillary structures to support the proposed shooting range:
    - Administrative shed,
    - Waiting area (weather protection),
    - One container for equipment (targets) storage,
    - Two port-a-loos, and
    - Two rainwater tanks of 25,000L;
- Vehicle accessway and four (04) culverts under the formed accessway from Tuhirangi Road to the centre of the site;
- Earthwork to construct shooting bays and a retaining wall and ballistic fence on the retaining wall of maximum 2m in height to separate shooting bay 01 and the ancillary structures.

Proposed works under this resource consent application include:

- No changes to shooting bays 1-4;
- Existing shooting bay 5 to be abandoned, revegetated and replaced by a new shooting bay;
- Parking area 1 to be abandoned and vegetated;
- Parking area 2 to remain and 15 parking spaces to be provided;
- Earthwork and sediment control to support the construction of shooting bay 5;
- Earthwork and sediment control to develop one (01) passing bay and one (01) road widening area;
- Stormwater infrastructure to convey, treat and discharge stormwater runoff:
    - An approximately 100m vegetated swale to treat storm water from car parking, ancillary structure area, driveway and discharge through two (02) new culverts and stone riprap structure to a stream;
    - A system of five contamination treatment and monitoring devices to collect and treat stormwater runoff from shooting bays before discharge to vegetated swale.

For reference to existing and proposed works, please refer to Figure 9 on page 15 below.

Figure 6 - Shooting bay #5 to be abandoned and re-vegetated

Figure 7 – Existing bay #3 with associated range shelter to continue operation under this proposal

In a more descriptive text, the Auckland Shooting Club is a five-shooting-bays facility at the centre of a Rural Production Zoned site with associated ancillary structures, earthworks and infrastructure (Figure 7 and 8). Earthworks will be required to excavate and build the passing bay and road widening section of the accessway, a new shooting bay (shooting bay 5) as it is proposed that this bay will be excavated and formed with soil embankments, in order to avoid the use of hard materials such as concrete or timber that would reflect or echo the noise created by gunshots.

While the new shooting bay is of a similar design with existing bay, to be 7m wide and 35m in length with an earth bund of at least 3.5m compacted clay perimeter for bullet catchment and acoustic protection. The use of earth for the barriers between and at the end of each of the shooting bays effectively contain any projectiles that are not captured by bullet catchers or targets and help to prevent the potential migration of contaminants to ground water or streams. This enables the operation of a safe, controlled, specialized venue for firearm usage.

To sum up, the development will provide an outdoor shooting range facility which cater for the growing popularity of competitive shooting as a sport in New Zealand and associated services to support this primary function.

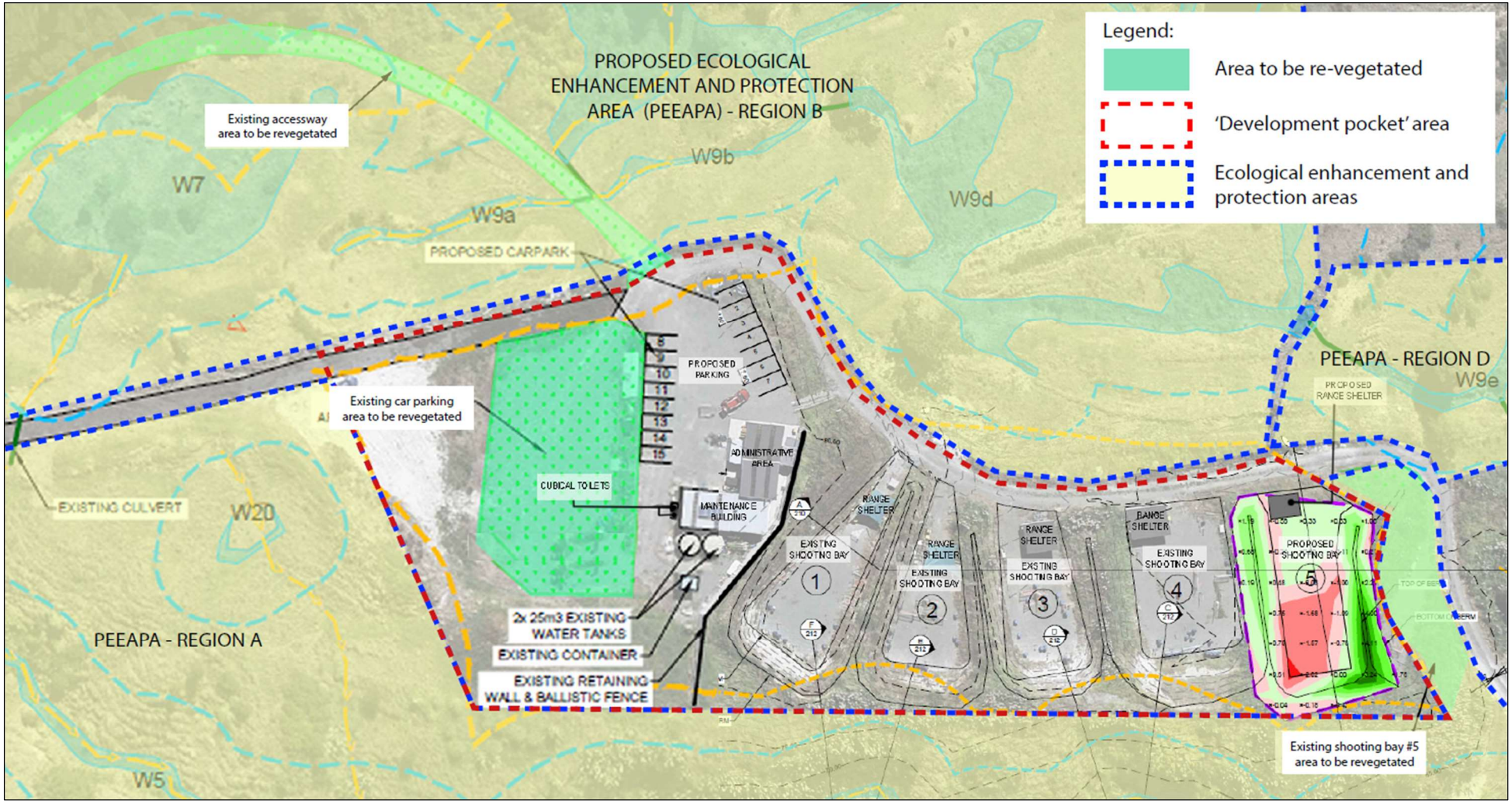

Figure 8 – Overall layout of the area of activity including administrative area with ancillary structures, 5 shooting bays, access track and three revegetated areas

5.3 Operational safety

Firearms use in New Zealand is subject to the Arms Act 1983 and the Arms Regulations 1992. Amendments to Arms Act 1983 have been made and came into force in December 2020, June 2021 and June 2022. Further changes relating to the establishment of a firearm registry will become operative in June 2023. Registry requirements under Arms Act will require gun owners to register their possession of arms items including ammunition, firearms, firearm parts, conversion kits and even prohibited magazines. Additionally, the Arms Code issued by the New Zealand Police functions as an important safety manual for firearms use and forms the basis of the mandatory minimum training required by the Arms Act. As defined in the Arms Code:

> *"A pistol is any firearm that is designed or adapted to be held and fired with one hand, and includes any firearm that is less than 762 mm in length.*
>
> *If you wish to possess a pistol you are required by law to hold an endorsement on your firearms licence. You are required to either belong to a Pistol Club recognised by the Commissioner of Police (B endorsement), or, be a bona fide collector (C endorsement). Pistols can only be fired on an approved Pistol Club range. You need to obtain a special permit, known as a 'permit to procure', from the Police so you can buy a pistol."*

A rigorous process is involved with an application for a firearms licence which includes studying the Arms Code, attending and passing a firearms safety training course, and an interview of the applicant and two persons close to the applicant by a member of the New Zealand Police.

The range itself must also be certified by the New Zealand Police, and this involves a similarly thorough process. It is noted that the Auckland Shooting Club will apply for certification of the facility. There are New Zealand Police and Pistol New Zealand approved Range Inspecting Officers, charged with ensuring best practice construction and management of pistol ranges. They follow a Police approved procedure, that includes the development of Range Standing Orders that will specify safety and use aspects. The resulting Range Standing Orders do not necessarily limit the use of the pistol ranges to pistols only – pistols are the highest standard and depending on the range construction and surrounding topography many pistol ranges may also be used by rifles and shotguns, ensuring the same safety and containment is achieved as for pistols.

It will be possible for newcomers to the sport to enter the site, observe the activities carried out and participate in structured training sessions. However, there are limitations on the extent to which visitors may interact with the range, including the maximum number of times (three occasions) a visitor may attend a pistol range before being obliged to join a pistol club. Additional to this are the aforementioned Range Standing Orders, which are range specific rules that apply to all persons using each range, as well as overarching club rules that apply to all persons entering the site. Both the RSOs and the club rules are regularly reviewed and updated during the year based on the use of each range and what is occurring on site.

Bearing in mind the restrictions and strict legal framework within which range operators and pistol shooters must comply, it is not anticipated that the proposal will encourage day-to-day traffic from

casual or new participants as compared to activities such as paintball or airgun ranges which can more easily accommodate inexperienced groups or individuals. The sport is a very high participation sport, with a negligible number of non-competing spectators, and the majority of participants will be experienced members of the Auckland Shooting Club, Pistol N.Z. or the New Zealand Police.

5.4 Proposed Earthworks

Historically, unconsented earthworks were carried out by previous owners of the site to establish a motocross track including associated accessway to the centre of the site, parking areas, culverts circa 2010 (See Figure 9 and 10 below). Further earthworks were commenced by the applicant to establish the five shooting bays around 2017 but then stopped due to an Auckland Council's abatement notice in August 2017.

Under this application, earthworks consent is sought for completed earthworks (retrospective) and for proposed earthworks. Retrospective earthwork is for the development of five shooting bays and associated administrative area (ancillary structures), whilst proposed earthwork is to establish new shooting bay 5, road widening and passing bay along existing access track.

The total volume and area of earthworks are as follows:

- Retrospective earthworks:
    - An amount of earthwork of more than 2,500m^3.
    - In an area of more than 2,500m^2.
- Newly proposed earthworks:
    - Earthwork cut: 250m^3;
    - Earthwork fill: 640m^3;
    - Earthwork area: 2,212m^2.

New earthworks will be carried out on land that is primarily covered by grass, and minor areas of exotic scrub species. While some sections of the road widenings and establishment of passing bays will encroach the riparian yards area, these works have been located as far as practicable from the immediate stream environment. None of the proposed earthworks, or the operation of the activity overall, will affect any native bush nor existing natural inland wetlands within the site.

Further details have been provided within the **Engineering Plans and Infrastructure Assessment Report - Appendix C** and **Appendix F - Ecological Assessment** by Wild Ecology.

Figure 9 - Aerial photography of the site 2010 and 2011 when the site served as a motorcross track (Source: Council Geomaps)

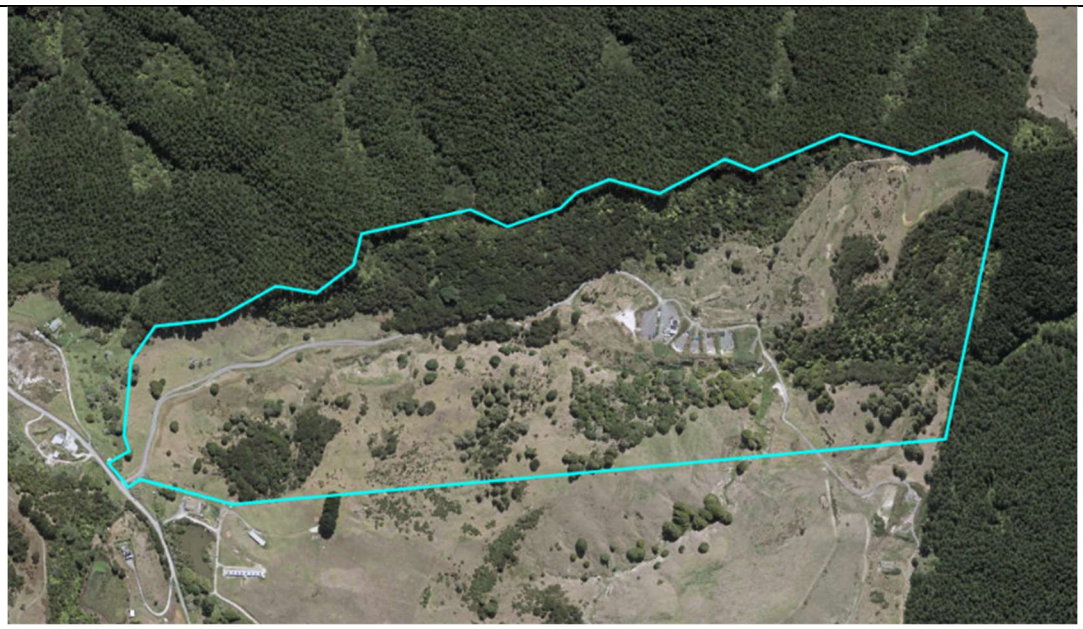

Figure 10 - Aerial photography of the site 2019 - 2020 (Source: Council Geomaps).

5.5 Shooting bays & Ancillary Structures

There are five existing bays on site, including four active and one partially completed shooting bay (bay 5) as mentioned in Section 5.4. All of the shooting bays are in use. It is proposed to replace the partially completed shooting bay (shooting bay 5) and develop a new shooting bay in between existing bay 4 and partially completed bay 5 for operational optimisation (relocation of shooting bay 5). The location of existing and proposed shooting bay 5 are shown in Figure 6 and 8 above. Dimensions of the new shooting bay will be approximately 3.6m in width by 7m in length with a height of 3.5m (berm height) above ground level.

Ancillary structures are supporting buildings including any structures that support the operation of the Shooting Range. In this case, all ancillary structures are clustered in the centre of the site. It is noteworthy that there is an established **maintenance shed** (flat roof, metaled cover with two garage doors) on site, which was used as a workshop and storage of equipment and small all-terrain vehicles for the continuity of farming activity on site and adjoining lot at 297 Tuhirangi Road (same owner). There is no intention to extend or improve this maintenance structure to support activities of the Shooting Range. This single-storey structure is of approximately 84m^2 in area and is established as a Permitted Activity under the zone.

Ancillary structures which existing on-site, serve the proposed activity and require retrospective consent under this application are:

- **A - Administrative shed** (administrative box) is a small administrative wooden box where shooting club visitors who seek for shooting range services firstly need to register before being allowed to use the services.

- **B - Waiting & relax area** is a roofed area where shooting club visitors sit and wait for their turn after registration in the administrative shed, the structure also offers weather protection.

- **C - Two port-a-loos** are located to the western side of the maintenance building to provide amenity for the club users. As port-a-loos are used no wastewater treatment and disposal is required or proposed on-site. The portable toilets are cleaned weekly.

- **D – Two water tanks** of 25,000L and a storage **container** to store plastic tanks for shooting targets are located behind the maintenance shed. Water is used the shooting club and for farming activities.

Figure 11 – Administrative shed, waiting & relaxing area, portaloos to support proposed activity.

- **E - Four shooting bay shelters** are existing on site (no shelter on existing bay 5). These structures will provide moderate protection for up to 10 participants and their equipment. Shelters can also be used as a temporary storage area for range targets and props. Shelters in bays 1 and 2 are of a simplistic design created by four wooden columns in four corners and a polyethylene tarpaulin sheet which act as a roof, providing shelter for players in unfavourable weather conditions. Range shelters in bays 3 and 4 are built by timber framing on top of a concrete- platform of approximately 25m^2, roofed with colorsteel corrugated metal. All shelters are equipped with solar panels to power lighting. Each shelter is numbered to easier pathway finding.

- **F - Retaining wall and ballistic fence** is a structure of approximately 2m in height built between maintenance shed and shooting bay 1. This structure is established to reinforce existing soil, provide extra support to prevent erosions. Since the retaining wall is recognised as a building under chapter J and was built within 20m from the edge of a permanent stream it triggers a non-compliance which is demonstrated in section 7.1.1 below.

New ancillary structure:

- A new **shooting bay shelter** is proposed in the new shooting bay number 5. The new shelter will be at a similar designed with existing shelters in shooting bays 3 and 4. Individual area of the shelter will be approximately 25.8m^2. The shelter will be constructed from timber framing, to be naturally weathered, and roofed with colorsteel corrugated iron which similar to existing shelters in bay 3 and 4 (See Figure 8).

5.6 Proposed Stormwater & Wastewater

The site does not have access to public stormwater and wastewater reticulation networks. In terms of servicing, stormwater conveyance, treatment and disposal infrastructure are proposed.

Compared with existing situation, the total impervious area will be reduced from 8,891m^2 to 7,452m^2 (a reduction of 1,452m^2), this is due to proposed replanting of part of the of the parking area and approximately 150m length accessway, refer to drawing RC100 in **Appendix C: Infrastructure Assessment Report and Plans** for the Impervious Areas summary. It is noted that the impervious areas calculations is based on the definition for Impervious areas (AUP Chapter J). Stormwater run-off from the existing accessway will be of negligible volume sheet flow. **Stormwater runoff** from the remained car park areas, administrative area and maintenance shed will flow to a proposed swale and two underground culverts. This swale is a shallow, open channel located to the north of the access track adjoining the shooting bays, refer to RC410 and RCR11 **of Appendix C Infrastructure Assessment Report and Plans** for swale and culvert details. To treat stormwater before discharging, the applicant proposes three mitigation methods including (i) vegetated swale, (ii) contaminant treatment devices and (Up-Flo filters) (iii) an Adaptive Environmental Management Plan – EMP.

The applicant proposes to vegetate the swale as a method to slow down and treat stormwater runoff before the water is discharged to an existing stream system. The swale is typically planted with a mix of native grasses, shrubs and trees which will assist in several functions. First, it helps to absorb water

and reduce the volume of water runoff that enters local waterway. Secondly, the roots of the plants will help to stabilise the soil and prevent erosion. Third, the plants will help filter out pollutants from the stormwater runoff, such as sediment.

It is not anticipated that any contaminants will be discharged on site from spent ammunition, however a total of two monitoring, contamination treatment devices will be placed over the total of five shooting bays (one filter for shooting bay 1, 2, 3 cluster and the other for shooting bay 4, 5 cluster) to ensure should any contamination occur, it will be appropriately treated before discharge to the vegetated swale. The treatment devices proposed is Up-Flo Filters which operates as a fluid hydraulics system to capture pollutants (sediments, metals, oils, trash, organics and organic trapped bacteria) from the stormwater surface run-off and minimise the chance of contamination. This filtering technology has been reviewed and approved by Auckland Council and Christchurch City Council. More details can be found in **Appendix C: Infrastructure Assessment Report and Plans.**

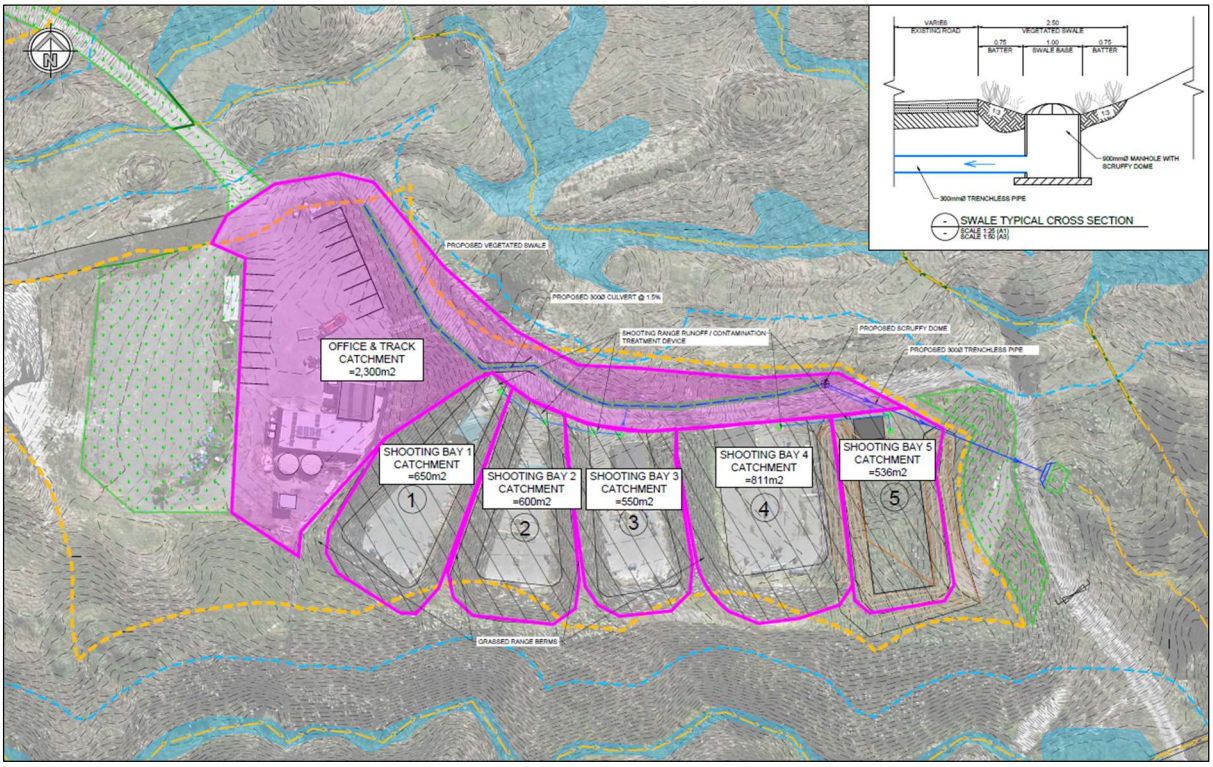

Figure 12 - Proposed stormwater catchment plan for the Centre area

An Adaptive Environmental Management Plan has been prepared by ENGEO and can be found in lodgement documents. This document has demonstrated an integrated contaminant program that consider the role and responsibilities of stakeholders (range owner, range operator, contaminant land specialist) and prepare monitoring and maintenance programme for each shooting ranges component (bullet catchers, earth berms, drainage, surface water monitoring, groundwater monitoring, EMP applicability). To further restrict any potential of leaching of contaminants, ENGEO has recommended a Shooting Range Best Management Practice (BMP) which has been tailored made for the proposed range operation. This can be found in **Appendix J: Adaptive Environmental Management Plan.**

The vegetated swale will collect stormwater from office and track catchments (Figure 12), treated stormwater runoff from five shooting bays, before conveying stormwater to a green outfall to the east

of proposed bay 5. The outlet will be constructed as green outfall standard including erosion/scour protection measures. Details of the swale section, size, slope gradient and type and density of vegetation within the swale can be found in **Appendix C: Infrastructure Assessment Report and Plans, Appendix J: Adaptive Environmental Management Plan.**

Two existing port-a-loos are used by the club visitors. No wastewater treatment or on-site wastewater disposal is to be proposed. Port-a-loos are maintained and serviced on a weekly basis to ensure hygiene and sanitation standards are met.

5.7 Traffic, Vehicle Access and Parking

Vehicular access to, and from, the Site will be provided via a single access. This is provided through the existing entrance located at the western end of the site, near Tuhirangi Road's dead-end. This is an access controlled entrance, access is controlled by a gate. The existing vehicle crossing will be retained in its current location. This vehicle access at site's boundary has a formed access width of 8m and a carriageway width of 3m further to the centre of the site.

The proposed works relate to transportation components are listed below:

- Establish car park area (15 car parking spaces including 1 accessible parking) on the existing gravel hardstand for parking spaces.
- Bicycle parking area including 2 short stay bicycle racks.
- The access track from the site entrance to the area of activity is existing. Widening of a part of the track and a passing bay is proposed to promote safety level of internal traffic movements.

The proposed parking area will enable a safe and efficient transport for the proposed activity. From the parking area, administrative shed, waiting area and shooting bays are within walking distance. A total of 15 car parking lots (including 1 accessible parking lot), 2 short stay bicycle racks are considered adequate to cater visitors and players' demands. Since the existing accessway is significant in length, one passing bay is proposed for traffic to comfortably wait until opposing vehicle safely pass. The passing bay, road widening and car park area is shown on Drawing RC-201 in **Appendix C: Infrastructure Assessment Report and Plans**. Proposed passing bay, road widening section, parking spaces are sufficient in length and width, which comply with requirements under Chapter E27 – Transport of the AUP. Further details have been provided within the **Traffic Impact Assessment** prepared by Terra Consultants and attached in **Appendix G**.

5.8 Ecological Enhancement Zones

International researches (United States Environmental Protection Agency 2005; Kajander and Parri 2014) suggest that retaining or establishing vegetation cover in the vicinity of the shooting range is important, particularly if the vegetation is dense and high between the shooting range and the area subjected to noise. Particularly, the zone closest to the range is important. Therefore, the proposal has considered a revegetation planting proposal to create a 'surrounding ecosystem' around existing shooting bays which will be encompassed by densely planted indigenous vegetation which will blend into the existing bush vegetation on site.

The Ecological Enhancement Zone **(EEZ)** and its ecological significance and applied enhancement and mitigation strategy is comprehensively detailed in **Appendix F – Ecological Assessment Report.** In summary, the EEZ is an area that contains both terrestrial and wetland indigenous vegetation replanting of approximately 4.33 ha. The infilled and restored indigenous vegetation replanting is characterised by:

- The kanuka shrubland, are representative of their habitat types and contain a high diversity of flora and fauna taxa for the ecological district.
- Regenerating kanuka scrub on site supports at least two 'Threatened-Nationally Vulnerable' taxa including kanuka and manuka which encompass an approximately 45% of the total proposed terrestrial planting.
- A wide range of wetland vegetation including rautahi, pukio, purei, ti kouka, jointed twig rush, harakeke and raupo.
- The overall layout of the development footprint has been designed to integrate with this EEZ zone to create a vegetated buffer area between the development and the wider ecological setting, which as it establishes will aid potential absorption of the noise generated from gunshots.

The proposed enhancement areas will be revegetated with a mix of appropriate native species suited to the site based on the ecosystem types noted in the immediate vicinity. In the short term (1-3 years following revegetation), the revegetation plantings will assist in sediment filtering of overland run-off, act as a natural erosion control agent, and extend habitat for some more common mobile avifauna species. In the medium term (3-5 years), the enhancement areas will provide/extend physical habitat for a wider range terrestrial and aquatic fauna, and also provide water quality benefits through shading and by filtering overland run-off. In the longer term (>5 years), this enhancement will result in a net gain in ecological function for the existing terrestrial and aquatic habitats noted on site and surrounds and will allow for natural self-sustaining processes to begin including natural regeneration, shading out of any weedy species and increasing habitat complexity.

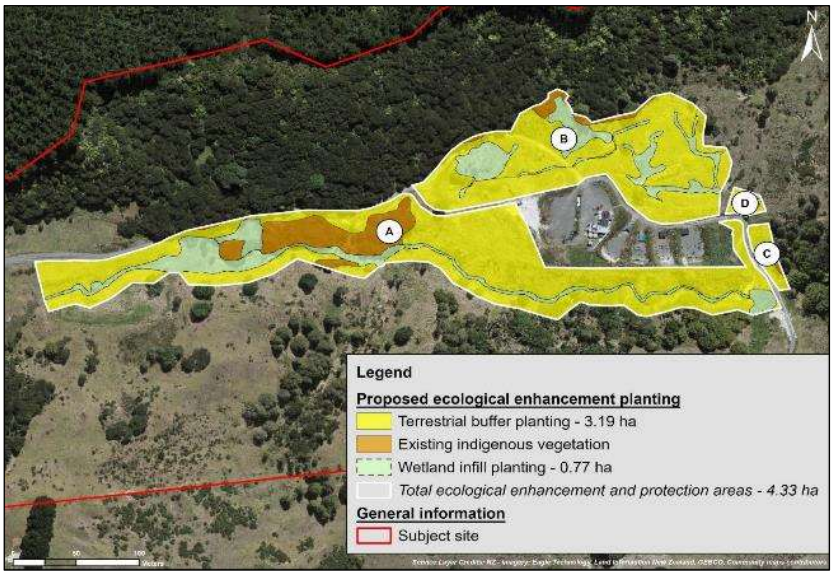

Figure 13 - Proposed ecological enhancement planting and protection area.

5.9 Utility Services

Power is currently available to the site with overhead cables and electricity poles being present to the west of subject site on Tuhirangi Road, it is anticipated that the site will not use the existing power connection to accommodate the proposed activity rather making use of existing solar panels to power lights on shooting bays, the administrative shed and waiting and relaxing area.

5.10 Preliminary Site Investigation

A Preliminary Site Investigation **(PSI)** was developed by ENGEO in July 2017 and an PSI addendum in May 2023 to review the scale of activity and support the proposal. Under these reports, contamination specialists have reviewed the site's history, taking several soil, surface water, sediment samples to assess. While potential HAIL activities are identified in the centre the site, associated with five existing shooting bays; and shooting ranges are included as item C2 of the Ministry for Environment's HAIL list, the portion of proposed earthworks area that will intersect existing bay 5 is approximately 54m^2 and soil disposal level is considered a permitted activity (NESCS allows 2.7m^3 of soil to be disturbed as a permitted activity while an estimation of 0.54m^3 of soil is to be removed for disposal per year).

To mitigate any potential adverse effects from the shooting range and residue contaminants, ENGEO has also prepared an Adaptive Environmental Management Plan. The report and addendum conclude the risk of future lead contamination in soil (from shooting range activities) leaching from the site was considered to be relatively low risk. A shooting range best management practices (BMP) were recommended to be implemented and their performance monitored. Please refer to Appendix J and **Appendix J** - Adaptive Environmental Management Plan and **Appendix K** - Preliminary Site Investigation and Addendum for more information.

6.0 PLANNING FRAMEWORK

The Proposed Auckland Unitary Plan decisions (the PAUP) were publicly notified on the 19th of August 2016 and from this date the full text of the PAUP has had legal effect. The PAUP subsequently became 'Operative in Part' on the 15th of November 2016. At the time of the most recent update to the Unitary Plan (21st June 2019), any appeals relevant to the assessment of this application had been resolved, and all applicable rules can therefore be treated as operative pursuant to section 86F of the Act.

If a rule in the Auckland Unitary Plan: Operative in Part (the AUPOP) has been appealed, the corresponding rule in the legacy Auckland District Plan (LDP) will continue to have legal effect until the appeal is resolved and therefore both rules are relevant in assessing any resource consent that is affected by an appeal. When considering the weighing between the AUPOP and the LDP, the relevance of the issues at appeal will need to be considered.

The Site is within the Rural – Rural Production Zone of the AUP-OP. The land is not subject to any precincts. There are neither overlays nor designations subject to the site, except three controls over Macroinvertebrate Community Index – Exotic, Urban and Rural.

7.0 REASONS FOR CONSENT

The proposed land-use, regional and district level resource consent requirements are summarised as follows.

7.1 Operative District Plan:

The following tables contains assessments of the proposal against the relevant Unitary Plan provisions, including those of the Rural – Rural Production Zone, Transport Chapter and all relevant Auckland-wide standards.

Chapter H19 – Rural – Rural Production Zone	
Table H19.8.1 Activity Table	**Activity Status**
(A52) Organised sport and recreation	The proposal includes a Shooting range which is classified as an Organised sport and recreation in Rural Production Zone. As such, resource consent is required as a **Restricted Discretionary Activity.**
(A72) One dwelling per site	No dwelling is proposed on site. **Permitted Activity.**
H19.10.1 General	**Activity Status**
(1) Areas used for disposal of non-residential waste or composting must be located at least 100m from the boundary of adjoining sites in the Rural – Countryside Living Zone, Future Urban Zone and any residential zones.	**Complies**. No waste disposal area is proposed.
(2) Areas used for disposal of non-residential waste or composting adjoining all rural zones other than Rural – Countryside Living Zone, must be located at least 20m from the boundary of adjoining sites	**Complies**. No waste disposal area is proposed.
(3) Pens or areas used for intensive farming (excluding poultry hatcheries), or any effluent disposal system, including any area on which effluent is being disposed of by way of spray irrigation, or any treatment plant or ponds, or any composting area, must be at located least: 250m from any dwelling located on any site other than the site on which the activity is carried out; and 100m from any boundary of the site on which the activity is located	**Complies**. No intensive farming waste disposal area is proposed.
H19.10.2 Building height	**Activity Status**

(1) Dwellings and buildings accessory to dwellings – buildings must not exceed a height of 9m.	**Complies.** No building nor structure exceed 9m height measured from Natural Ground Level.
(2) Other buildings – buildings must not exceed a height of 15m.	**Complies.** No building nor structure exceed 15m height measured from Natural Ground Level.
H19.10.3 Minimum yards setback	**Activity Status**
(1) Buildings and accessory buildings must comply with the minimum yard setback requirement as set out in Table H19.10.3.1: • *Front yard: 10m* • *Side or rear yards for buildings other than dwellings and their accessory buildings: 12m* • *Riparian yards: 20m from edge of permanent and intermittent stream*	**Does not comply.** The proposal complies with front yard and side or rear yards requirements but does not comply with riparian yards setback. (I.e.: Earth bunds and retaining walls of over 1.5m in height which are defined as buildings under chapter J – Definitions are existing and is proposed within 20m setback from top of bank of permanent and intermittent streams).
H19.10.10 Dwellings	**Activity Status**
The site of the proposed dwelling must not be located on a closed road or road severance allotment.	**N/A.** No dwelling is existing or is proposed.
H19.10.11 Minor Dwellings	**Activity Status**
The following standards apply to minor dwellings: *(1) There must be no more than one minor dwelling per site;* *(2) The building must comply with the relevant yards setback requirement and height standards for buildings in the zone as set out in standards H19.10.2 and H19.10.3;* *(3) The proposed minor dwelling must be located on a site greater than 1ha;* *(4) The proposed minor dwelling must have a floor area less than 65m2 excluding decks and garaging; and,* *(5) The minor dwelling must share the same driveway access as the principal dwelling.*	**N/A.** No minor dwelling is existing of is proposed.
H19.10.17 Rainwater tanks	**Activity Status**

(1) Rainwater tanks must not be located: in a riparian, lakeside or coastal protection yard unless less than 1 m in height or wholly below ground level; in a front yard unless they are at least 1.5m from the front boundary and are a maximum height of 1 m. *(2) Rainwater tanks must not be located on or outflow across an existing effluent dispersal area.* *(3) Any overflow from the rainwater tank must discharge to the existing authorised stormwater system for the site.*	**Complies.** Two rainwater tanks of 25m^3 are located to the south of existing maintenance shed, outside of the riparian yard, outside of the outflow of any effluent dispersal areas (no effluent dispersal is existing or proposed). Also, potential overflow water from the existing rainwater tanks will flow into the proposed swale.

Chapter E3 – Lakes, rivers, streams and wetlands	
No stream or wetland reclamation or diversion or damming of a watercourse is proposed and consent for such activities are not required under Chapter E3.	
Table E3.4.1 **Activity Table**	**Activity Status**
A2 – Conservation planting complying with the standards in E3.6.1.2	**N/A.** no planting proposed in, on or over streams and wetlands.
A3 – Conservation planting not complying with the standards in E3.6.1.2.	**N/A.** no planting proposed in, on or over streams and wetlands.
A4 – Planting of aquatic invasive plants	**N/A.** no planting proposed in, on or over streams and wetlands.
A6 - Depositing any substance excluding litter, refuse, other waste and/or contaminated material	**N/A.** Proposed stormwater outlet is not located in the stream area.
A10 - Channel clearance less than 100m complying with the standards in E3.6.1.5.	**Permitted**. Four existing culverts that convey streams under the existing access track required stream bed disturbance. Compliance with E3.6.1.5 was achieved.
A29 - Bridges or pipe bridges complying with the standards in E3.6.1.16	**Complies**. Proposed stormwater infrastructure (pipe) is not in, over or under any streams.
A32 - Culverts or fords less than 30m in length when measured parallel to the direction of water flow complying with the standards in E3.6.1.18	**Permitted.** No new culverts/fords over stream is proposed under the proposal.

A39 - Stormwater or wastewater outfall complying with the standards in E3.6.1.14	**Complies**. The proposed stormwater outfall will comply with mentioned Standard.

Chapter E4 – Other discharges of contaminants	
Table E4.4.1 Activity Table	**Activity Status**
(A15) Discharge of water or contaminants (including washwater) onto or into land and/or into water not complying with the relevant standards or not otherwise provided for by a rule in the Plan.	The proposal involves in discharge of stormwater from earth-bunds in five shooting bays into land and water not otherwise provided for by a rule in the Plan, and therefore a **Discretionary Activity** under Rule E4.4.1(A15).

Chapter E8 – Stormwater – Discharge and diversion	
Table E8.4.1 Activity Table	**Activity Status**
A6 - Diversion and discharge of stormwater runoff from compacted metal surfaces ancillary to rural production activities, including hardstands and tracks, that complies with Standard E8.6.1.	**Permitted.** Proposed stormwater discharge from metal accessway and parking area will comply with Standard E8.6.1.
A7 - Diversion and discharge of stormwater runoff from impervious areas up to 5,000m2 outside an urban area that complies with Standard E8.6.1 and Standard E8.6.2.4.	**Permitted.** Area of stormwater discharge catchment is approximately 5,447m^2, however, the total impervious area of the catchment measured to be 2,300m^2 (parking and metal access) which is well-below 5,000m^2 and complies with Standard E8.6.1 and E8.6.2.4. The activity is considered a Permitted activity.

Chapter E9 – Stormwater quality – High contaminant generating car parks and high use roads	
Table E9.4.1 Activity Table	**Activity Status**
A2 - Development of a new or redevelopment of an existing high contaminant generating car park up to 1,000m2.	**Permitted.** Proposed car park is under 1,000m^2 for 15 parking lots (including 1 accessible parking) and considered permitted activity.

Chapter E11 – Land Disturbance - Regional	
Table E11.4.1 Activity Table – All Zone and Roads	**Activity Status**
(A7) Up to 2,500m^2 within the Sediment Control Protection Area	**Permitted.** The proposal involves earthwork for proposed shooting bay, road widening and passing bay, topsoil respreading over an existing parking area and accessway involving 2,212m^2 within a Sediment Control Protection Area.

Chapter E12 – Land Disturbance - District	
Table E12.4.1 **Activity Table – All Zone and Roads**	**Activity Status**
(A6) Earthworks greater than 2,500m² is a restricted discretionary activity	Consent is required as a Retrospective consent. Earthworks already undertaken on a site, includes unconsented works undertaken by previous owners of the site and subsequent earthworks to construct the five existing shooting bays. The amount of retrospective earthworks is greater than 2,500m². **Restricted Discretionary Activity.**
(A10) Earthworks greater than 2,500m³ is a restricted discretionary activity	Consent is required as a Retrospective consent. Earthworks already undertaken on a site, includes unconsented works undertaken by previous owners of the site and subsequent earthworks to construct the five existing shooting bays. The amount of retrospective earthworks is greater than 2,500m³. **Restricted Discretionary Activity.**
E12.6.2 General Standards	
E12.6.2(1)(b) for Land disturbance within riparian yards and coastal protection yards are limited to less than 5m² or 5m³ for general earthworks.	**Restricted Discretionary Activity.** Consent is required for proposed earthwork within the road widening section which is located within a riparian yard and exceeding 5m² and 5m³ permitted.
E12.6.2(11) Earthworks (including filling) within a 100 year annual exceedance probability (AEP) flood plain: must not raise ground levels more than 300mm, to a total fill volume up to 10m3 which must not be exceeded through multiple filling operations; and must not result in any adverse changes in flood hazard beyond the site.	**Complies.** No proposed earthwork is located within a 100 year AEP flood plain.
(12) Earthworks (including filling) within overland flow paths must maintain the same entry and exit point at the boundaries of a site and not result in any adverse changes in flood hazards beyond the site, unless such a change is authorised by an existing resource consent.	**Complies.** No proposed earthworks result in any change to the entry and exit point at boundary of the subject site.
Chapter E15 – Vegetation management and biodiversity	
Table E15.4.1 **Activity Table – All Zone and Roads**	**Activity Status**
(A17) Vegetation alteration or removal within 10m of rural streams in the Rural – Rural Production Zone	**Restricted Discretionary –** Consent is required for vegetation removal to establish the proposed road widening section on the northern side of the existing accessway, approximately 100m from proposed administrative area.
Chapter E25 – Noise and vibration	

Table E25.4.1 Activity Table	Activity Status
(A1) Activities that comply with all relevant permitted activity standards are a permitted activity.	**Complies.** The proposal has been designed to meet the standards relating to internal noise amenity within the Rural – Rural Production Zone (E25.6.3) (refer Attachment D - Acoustic Assessment and Memo).
(A2) Activities that do not comply with a permitted activity standard are a restricted discretionary activity.	**Complies.** Marshall Day has assessed the proposal and consider the gun ranges can comply with AUP recommended noise limits.

Chapter E27 – Transport	
Table E27.4.1 Activity Table	**Activity Status**
(A1) Parking, loading and access which is an accessory activity and complies with the standards for parking, loading and access.	**Complies.** The proposal meets the relevant standards of Chapter E27. No resource consent required.

7.1.1 Land Use Consent (s9)

H19 – Rural Zones – Rural Production Zone

- The proposed development involves the construction and operation of associated structures for an *"organised sport and recreation activity"* (outdoor shooting) on a site located in the Rural Production Zone, and therefore a **Restricted Discretionary Activity** under Rule H19.8.1(A52).
    - Retrospective: 4 shooting bays and ancillary structures (parking space, administrative shed, waiting area, a container, two port-a-loos and two water tanks of 25,000L).
    - Proposed: 1 shooting bay including an ancillary structure (shelter)

- Earth bunds and a retaining wall and ballistic fence of over 1.5m in height are within 20m from the edge of permanent and intermittent streams in a Rural Production Zone, which does not comply with Standard 19.10.3.1 Minimum yards setback requirement. This activity requires retrospective consent being a **Restricted Discretionary Activity.**

E4 – Other discharges of contaminants

- The proposal involves in discharge of stormwater from earth-bunds in five shooting bays into water not otherwise provided for by a rule in the Plan, and therefore a **Discretionary Activity** under Rule E4.4.1(A15).

E12 – Earthworks District

- Retrospective consent is required as a **Restricted Discretionary Activity** for earthworks already undertaken on a site, to bring them in line with the requirements of the Auckland

Unitary Plan. This includes unconsented works undertaken by previous owners of the site and subsequent earthworks to construct the five existing shooting bays. This is a Restricted Discretionary Activity under Rule E12.4.1(A6) and (A10).

- Earthworks are proposed within an area larger than $5m^2$ with a volume greater than $5m^3$ within a riparian yard and therefore a **Restricted Discretionary Activity** under Rule E12.6.2(1)(b).

E15 – Vegetation management and biodiversity

- **Restricted Discretionary Activity –** for vegetation removal to establish the proposed road widening section on the northern side of the existing accessway, approximately 100m from proposed administrative area.

7.1.2 Other

Consent is also sought for any other consenting matters that the Council may identify when processing this application.

7.2 Status of the resource consent

Overall, pursuant to Standard C1.6(1) and C1.6(2), consent is required as a **Discretionary Activity.**

8.0 ENVIRONMENTAL EFFECTS ASSESSMENT

The following assessment is an analysis of both positive and adverse actual and potential effects arising from the proposal.

8.1 Assessment of Actual and Potential Effects on the Environment

Section 104(1)(a) of the Act requires that the Council has regard to any actual and potential effects on the environment of allowing the activity. The actual and potential effects arising from the proposal are outlined within the matters and assessment criteria of the AUP, and are addressed in this section.

An assessment against the relevant objectives and policies relating to the proposal can be found in Appendix H – Objectives and Policies Assessment

8.2 Permitted Baseline

Pursuant to Section 104(2) of the Act, when forming an opinion for the purposes of Section 104(1)(a), a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. Case law has further explored how the permitted baseline and receiving environment should be considered and applied, and has clarified that this includes:

- The existing environment and associated effects from lawfully established activities;
- The effects from any consents on the subject site that are likely to be implemented;
- The environment as modified by any resource consents that have been granted and that are likely to be implemented; and
- The environment as likely to be modified by activities permitted in the Plan.

The permitted baseline refers to the effects of permitted activities on the subject site. In this situation, there is no relevant permitted baseline. The proposal is for an Organized sport and recreation activity in a Rural – Rural Production Zone which is a Restricted Discretionary Activity under the Auckland Unitary Plan (Operative in Part).

8.3 Receiving Environment

The receiving environment beyond the subject site includes permitted activities under the relevant plans, lawfully established activities (via existing use rights or resource consent), and any unimplemented resource consents that are likely to be implemented. This is the environment within which the adverse effects of this application must be assessed.

It is noteworthy that Tuhirangi Road is a dead-end metal local-road with length distance of approximately 2.5km feeding access for about 20 lot parcels from State Highway 16. Because of the nature of the local road, it is anticipated a small volume of traffic to serve the main purpose of farming activities, and on-site services to the subject site and neighboring properties.

In this case, the immediate area currently consists of majority large-lot production lot and pastoral land. They can be placed in two categories, large rural production and smaller rural lifestyle blocks. Large-lot production can vary from 30 to 200 hectares while rural lifestyle blocks are predominantly from 1 to 5 hectares. Evidence for large-lot production can be picked up from 56, 192, 297 Tuhirangi Road. While smaller lifestyle blocks are located in 255, 246, 271, 394, 305 Tuhirangi Road. Among most immediate sites:

Property address	Site description
Lot 1 DP 184719	A large forestation lot of 204.5 hectares with dense forest vegetation and a dwelling located in the south-western portion adjoining Tuhirangi Road.
Lot 13 DP354238	A large forestation lot of 160.6 hectares with dense forest vegetation. Identified as Makarau forest in NZ topographical map and Auckland Council GIS.
297 Tuhirangi Road	A large rural production lot of 74.22 hectares, this site is owned by the owner of the subject site. There is a warehouse, maintenance facilities and cattle paddocks located in the western portion near Tuhirangi Road access.
246 Tuhirangi Road	A 2.84 ha rural life-style block with a primary dwelling located at the centre of the lot.
271 Tuhirangi Road	A 3.79 ha rural life-style block with a primary dwelling located at the centre of the lot.

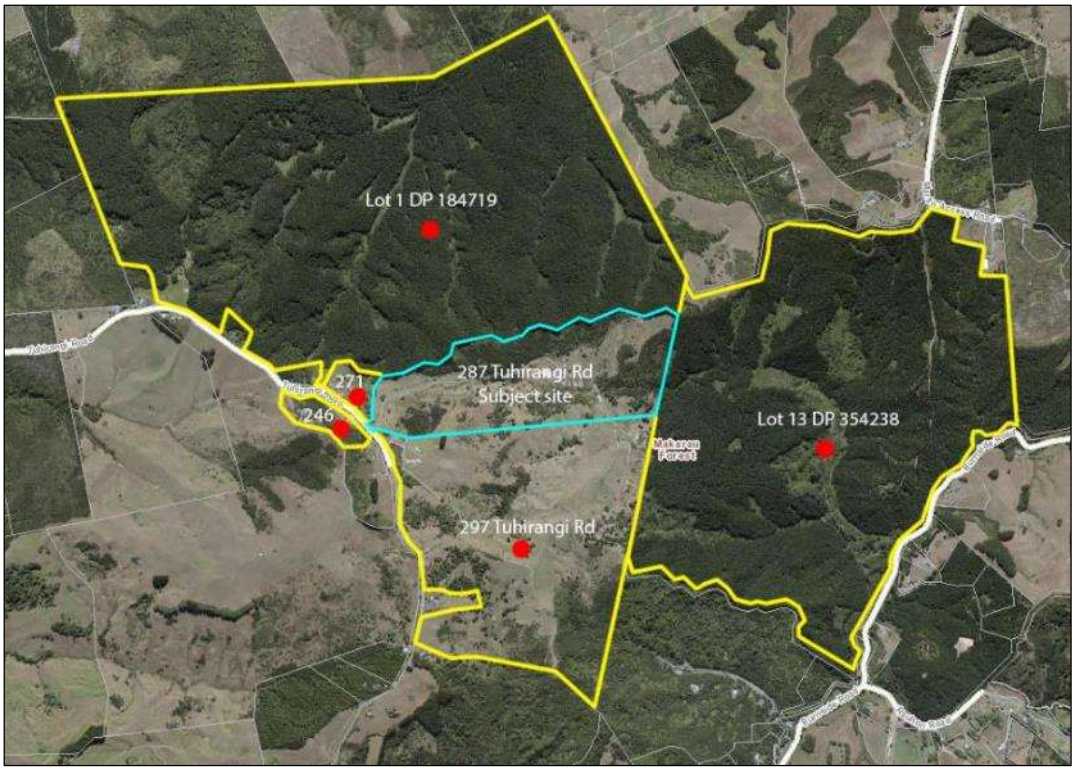

Figure 14 - Receiving environment & immediate adjoining sites
(red circles – adjoining sites, turquoise boundary – subject site)

8.3.1 Actual and Potential Effects on the Rural Production Zone

8.3.1.1 Effects on Rural Character and Visual Amenity

One of the first objectives of Chapter H19 sets out the anticipated outcome that "*The character, amenity values and biodiversity values of rural areas are maintained or enhanced while accommodating the localised character of different parts of these areas and the dynamic nature of rural production activities"*. It is therefore important to consider the potential adverse effects of the proposal on the rural character of the area.

The landscape features and qualities of the rural (particularly in the context of Makarau) can be interpreted to include:

- Large areas of forest (including Makarau Forest), natural and production vegetation, and/or comparatively limited 'non-productive' grass space;
- Limited visual dominance of dwellings to be seen from the street. Scattered rural lifestyle blocks and rural residential sites.
- Wide range of rural production, rural industries, and rural commercial activities in the zone;
- Mixed primary production including pastoral farming and forestry relating to topography, land tenure pattern and water availability on the east coast;
- Makarau forest and mountain ranges providing the backdrop to the North and East proportion of the site.
- Lots which, notwithstanding the above points, have limited or low capacity for rural lifestyle activities (in direct contrast with lots in Rural – Countryside Living Zone, which is a receiver area for transferable rural-urban).

With this in mind, it is observed that:

- The five shooting bays and administrative area are located at almost 1km horizontal distance from the edge of Tuhirangi Road (which is a local rural road) and approximately 80m below the road level due to the steep topography conditions of the site. The distance of the shooting bays from the road, the existing vegetations have eliminated any potential for visual intrusiveness of shooting ranges (earth bunds and shooting shelters) as viewed from Tuhirangi Road or viewed from further afield (i.e: rural production areas and crop fields alongside Tuhirangi Road).

- All buildings are single level in height and located within an existing exotic grass area.

    - The largest building - existing farm maintenance building is of an area of 84m^2, located within the valley of the site, between shooting bay 1 and the formed carpark. The building is of basic mono-pitched design and, while prominent in its immediate surroundings due to the adjoining open space of the carpark, is clad with recessive timber board and batten painted in a matte black to reduce the overall visual impact of the structure as viewed from further afield. The structure is not easily visible from Tuhirangi Road.

- The five range shelters (4 existing and 1 proposed) are small ancillary structures, located well within the extent of the site and between earth bunds that form the shooting bays. As a result, the shelters will be sufficiently hidden from the view of members of the public using Tuhirangi Road and from the view of residents in the wider community. The shelters will not be an obtrusive addition to the landscape, being simple structures with a minimal collective building bulk.
- The embraced earth bunds surround each range shelter and valley-form of the topographical conditions will work as an artificial screening methodology to screen on-site activities from public view.

- Only one existing dwelling in 304 Tuhirangi Road will have the potential line-of-sight to the shooting bay shelters due to the location of the dwelling on a ridgeline (elevations of 175m). However, there is a significant horizontal distance between this dwelling and proposed ranges of 800 meters.

- The existing building intensity is consistent with that seen within the immediate context of the site, where scattered farm-style dwellings are located and more exposed along Tuhirangi Road.

- Compare with neighbouring developed sites, the subject site is essentially a lower building coverage land parcel and stand in contrast to the already developed and much higher building intensity and smaller lot size within the rest of the local area.

- Existing buildings are not out of the ordinary in the zone or local context, visually the building appear similar to other ancillary farm buildings, e.g. barn and/or storage shed. Similarly, the shootings bays are of 7m wide and 25m long earth bunds will appear to be bunds formed for farming activities (may perceived as animal pens, feeding lots or water reservoirs).

- A 4.33ha of Ecological Enhancement Zone including 3.19 hectares of terrestrial planting buffer zone will act as a layer of natural visual screening to mitigate potential adverse visual amenity effects while maintaining original rural character.

- In summary, the proposal does not represent a significant modification to the visual amenity of the existing landscape and will not involve in removal of any significant vegetation as defined in the District Plan.

For these reasons, it is considered that any adverse effects on the wider environment in terms of rural character will be less than minor.

8.3.1.2 Effects of Noises

All noise generated from firearms discharges is to be mitigated by the design of the ranges and the natural terrain shielding provided by the surrounding slopes on all sides of the site. Acoustic modelling and testing carried out by Marshall Day Acoustics (MDA) demonstrates that the potential noise generated would be well within acceptable and 'permitted' standards for the Rural Production Zone.

The methodology and details of the acoustic testing can be found in **Appendix D – Acoustic Assessment and Memo**, however a brief summary has been provided below for the context of this assessment.

The AUP sets out a maximum noise level threshold, to be measured within the notional boundary of any site within a rural zone under Rule E25.6.3:

Time	Noise level
Monday – Saturday 7am – 10pm	55dB L_{Aeq}
Sunday 9am – 6pm	
All other times	45dB L_{Aeq} 75dB L_{AFmax}

As discussed in the **Appendix D – Acoustic Assessment and Memo**, "*experience from other gun clubs is that a Rating Level of 55 decibels is too lenient and that, due to the nature of gun fire noise, an overall noise limit of 45dB L_{Aeq} provides an acceptable acoustic amenity at the nearest affected properties*". MDA has therefore considering the proposed operational hours, control of Gun Noise, topographical conditions and established an acoustic modelling to determine the noise received at notional boundary of nearest neighbours using AR15 single shots and pistols shots modelling.

It is demonstrated in MDA's model, all nearby receivers in neighbouring properties are within recommended noise performance standards and considered acceptable under Auckland Unitary Plan requirements. Micky Yang, acoustician from Marshall Day Acoustic, acknowledges even in a more conservative scenario when the daily number of rounds tripled and special day event 8 times multiplied, the adverse effects from gun firing sound still comply with District Plan requirements with safety margin of at least 3 decibels.

The specialist recommended a more stringent noise performance standard adopting from Waiuku Pistol Club (see **Appendix D – Acoustic Assessment and Memo** and table below) as a condition of consent for the development. The applicant would accept such a condition of consent in order to avoid the adverse effects of noise generated from proposed development.

Time	Noise level
Monday – Saturday 7am – 10pm	45dB L_{Aeq} 55dB L_{AFmax}
Sunday 9am – 6pm	
Special event days	50dB L_{Aeq} 60dB L_{AFmax}

Overall, the nature and character of the gunfire noise that will be generated will be well within the AUP Permitted noise levels and the proposal is capable of complying with more onerous standard for noise generation. It is therefore a reasonable conclusion that the noise generated by the shooting activity will not have adverse effects on the ability of residents of surrounding properties beyond the immediately adjacent sites to enjoy the rural environment which they are located. Therefore, noise generated by the activity will result in less than minor adverse effects on the rural character and amenity values of the neighbourhood.

8.3.1.3 Effects of Traffic Volume

A Traffic Engineering Memorandum has been prepared for Terra Consultants by Nui McGregor. The following statements are made within the report:

- The development is potentially creating an additional 4 traffic movements (one-way) during peak hour for the newly introduced shooting bay. The total traffic movement that would be generated from a 5 shooting bays shooting range are estimated to be 20vph at peak hours on to the surrounding road network.

- The existing condition of the vehicle crossing, and private driveway have been reviewed. During the site investigation, a minor safety concern has been raised within the existing driveway. To increase the safety level for internal traffic movement, a passing bay and driveway widening section have been proposed.

- The minimum sight distances at the existing vehicle crossing have been checked and confirmed sufficient sight distances are provided at the vehicle crossing.

- The existing road network and existing intersection have been reviewed and discussed in this report. No safety concerns have been raised for the existing road network.

The report concludes that any actual and potential effects in terms of traffic generation will be less than minor, which I am in agreement with given the points discussed above. Please refer to **Appendix G: Traffic Engineering Memorandum** for more information.

8.3.1.4 Effects of Stormwater Discharge

The subject site does not have access to public stormwater and wastewater networks. To address this, the proposal includes the construction of stormwater conveyance, treatment, and stormwater discharge outfall structure. In comparison to the existing situation, the proposed impervious area will be reduced from 8,891m2 to 7,452m2 through the replanting of part of the parking area and accessway. Stormwater runoff from the accessway will be minimal, while runoff from the remaining car park areas, administrative area, and maintenance shed will flow to a proposed swale and two underground culverts.

To treat the stormwater before discharge, the applicant proposes three mitigation methods: a vegetated swale, contaminant treatment devices, and an Adaptive Environmental Management Plan (EMP).

- A 100m long vegetated road-side swale is proposed to slow down and treat stormwater runoff before it enters the existing stream system. The swale, planted with native grasses and, shrubs, serves multiple purposes. It helps absorb water, reduces runoff volume, stabilizes the soil with plant roots, and filters out pollutants such as sediment.

- While it is not expected that contaminants will be discharged on-site, the applicant plans to install contamination treatment devices for the five shooting bays to ensure proper treatment in case of any contamination (2 devices over 5 shooting bays). The proposed treatment device is the Up-Flo filter, which captures pollutants from stormwater runoff, including sediments, metals, oils, trash, and organic matter. This filtering technology has been approved by the Auckland Council.

- An Adaptive Environmental Management Plan **(Appendix J)** has been prepared by ENGEO, outlining a contaminant program that considers the responsibilities of stakeholders and includes monitoring and maintenance programs for various components of the shooting ranges. ENGEO also recommends a Shooting Range Best Management Practice to minimize the potential leaching of contaminants.

In summary, the vegetated swale will collect stormwater from office and track catchments, as well as treated runoff from the shooting bays, before conveying it to a green outfall located to the east of proposed bay 5. The outlet will be constructed to meet green outfall standards, including erosion and scour protection measures.

The vegetated swale is expected to treat 75% of surface flow water as required in GD01 while Up-Flo Filters devices will act as a heavy metals/car parks residue/sediments hydraulics filter. This integrated method will address the management of stormwater on site with particular focus on preventing potential contaminants from entering any waterways. Monitoring and scheduled maintenance tailored made for shooting range under the Adaptive Environmental Management Plan and Best Management Practice will suitably mitigate any potential adverse water quantity and quality effects associated with the discharge of stormwater from the impervious surfaces. The conclusion being, that such adverse effects will likely be less than minor in nature.

8.3.2 Effects of contaminants discharge

A Preliminary Site Investigation was prepared in 2017 and a review of the PSI in 2023 has been prepared by ENGEO to review the proposed activity. As part of the PSI, the organic content and PH were also tested as these parameters can be used to assess the leaching potential of metals in soil. Based on the findings of the leaching assessment and samples, the risk of future lead contamination in soil (from shooting range activities), the estimated leachate concentrations were below the target leachate concentration, leaching from the site was considered to be relatively low risk. This is including the assessment of lead leaching.

However, there is a risk of bullet shells contaminants (on inner slopes of earth bunds and shooting bays' ground) will follow stormwater run-off into water. Therefore, different mitigation methods including contaminants treatment filters (Up-Flo filters), vegetated swales and shooting range best management practices (BMPs) are proposed to maintain sustainable water quality before discharging to water. EnGeo has also prepared an Adaptive Environmental Management Plan to address potential environmental issues associated with operation of the shooting range. Details of the specialist' assessment can be found in **Appendix J and K – Adaptive Environmental Management Plan and Preliminary Site Investigation and Addendum.**

It is considered that any adverse effects in terms of contaminants discharge to the environment can be sufficiently remedied or mitigated such that the resultant effects would be less than minor.

8.3.3 Earthworks and land preparation effects

The proposed earthworks are to be undertaken in accordance with the recommendations detailed within the **Appendix C: Infrastructure Assessment Report and Plans** which, in addition to the engineering drawings and calculations, includes appropriate sediment and stormwater control

measures to protect all overland flow paths within the vicinity, and to minimise any sediment tracked onto roadways as a result of vehicle movements on and off site. The proposed controls are to be constructed and maintained in accordance with Auckland Council's GD2016/005 document. The proposed works will be occurring on a small portion of the overall site, involving land that has already been substantially modified by past activities (accessway, parking area and shooting bays).

A **geotechnical report** has been prepared by ENGEO in May 2017 (**Appendix Q – Geotechnical Plan Review**) and a Geotech review has been made by ENGEO in May 2023 (**Appendix N – Geotech Addendum**) to assess the updated proposal. In details, proposed location of the new shooting bay and road works (passing bay and road widening sections) have been reviewed and the following assessment is made:

- Because proposed passing bay and road widening area are located in an area of potential instability, EnGeo recommend further geotechnical investigation and slope stability analysis to be carried out to assess the suitability without compromising the stability of the area. The applicant offers a condition of consent to appropriately stabilised this section to ensure no risk to surrounding land in this regard.

- While EnGeo considers earthworks for shooting bays might have been undertaken not in accordance with recommendations, the specialists consider the chance of surficial slumping or scour to affect persons or structures are relatively insignificant. This conclusion relying on the fact that constructed earth bunds are low in height, have been intensively vegetated and located in a rural environment away from site boundaries. Participants are likely to conduct sports activity in a control manner in the shooting shelter, away from the bunds itself. To avoid any risks to the stream environment, the applicant has proposed the bunds to be rehabilitated to achieve the slope recommendation in May 2017 report under EnGeo supervision (this has been made in accordance with the Geotech specialist's recommendation in **Appendix N – Geotech Addendum**).

- As a further mitigation method, an intensive indigenous vegetated buffer has been proposed by the applicant between proposed bay and existing bays to the stream environment (EEZ zone A in Figure 32, pp 60 of **Appendix F – Ecology Report**), providing good root support system to concrete the structure of the berms while filtering sediment run-off and improve stream water quality.

An Erosion and Sediment Control Plan has been provided, which shows the measures to be taken to avoid, remedy or mitigate any adverse effects arising from the proposed earthworks. These measures primarily involve the installation of silt fencing and sediment retention ponds.

No archaeological sites within the immediate vicinity (100m) of the proposed earthworks have been identified on Auckland Council's or the New Zealand Archaeological Association's online records, however standard accidental discovery protocol will apply in the event of any artefacts being unearthed.

As the proposal requires relocation of shooting bay 5, certain earthworks will be carried out in the area of an existing shooting bay, which is defined as item C2 in the Ministry for Environment's Hazardous Activities and Industries List (HAIL). However, the portion of proposed earthworks area for new shooting bay 5 that intersect the existing shooting bay is insignificant at 54m^2 and the amount of soil to be disposed every year is calculated of approximately 0.54m^3, the earthwork disturbance activity is considered to meet the permitted activity limits specified in Regulation 8(3) of the NESCS. Please refer to **Appendix K: Preliminary Site Investigation and Addendum** for more information.

It is considered that any adverse effects in terms of the proposed earthworks to the environment can be sufficiently avoided, remedied or mitigated such that the resultant effects would be less than minor.

8.3.4 Effects on vegetation

The extent to which vegetation is removed will be restricted along a small section of the road widening area of the accessway, road widening is proposed to promote traffic safety. Area of vegetation to be removed is of approximately 62.7m^2 Kanuka scrub. However, this is restricted to a thin, narrowed area of maximum 2m width runs along existing metaled accessway rather than a widened section. Therefore, it will primarily give effects to small, young and low scrubs and will not compromise the ability of remaining vegetation to re-establish and regenerate naturally over time. According to **Appendix F – Ecology Assessment Report,** the area of vegetation removal is located at the edge of VS2 (Kanuka scrub forest), thus no habitat fragmentation is anticipated.

There are no practical alternative locations for proposed road widening section, since it is located at a turn of the accessway, and vehicles require a widened area to safely stop to the left-hand side (Kanuka forest side), observe and wait before entering administrative area.

The proposal aims to create a vegetated buffer between proposed development footprint and wider ecological features on site. This will be enhanced through implementation of the Ecological Enhancement Zone (EEZ) to reduce potential secondary effects associated with operational phase of proposed development (i.e. increase human presence). Refer to figure 15 below for dashed line areas serving as proposed EEZ.

Overall, any actual and/or potential adverse effects vegetation removal to prepare for the widened road section is considered less than minor.

8.3.5 Effects on streams and natural inland wetlands

There are 21 streams including 2 permanent streams and 19 intermittent stream located within the subject site. Most remarkably, Kotipu Stream originates within the site boundaries and flows in an easterly direction towards the Rauhori Stream eventually to Makarau River and later Kaipara Harbour. According to an assessment from Wild Ecology in Appendix F – Ecology Report, no stream habitats will potentially be impacted by the proposed development. The report also conclude that condition and ecological values of the streams contained within the site boundary is of a typical rural landscape

within Auckland region, where more accessible watercourses have been degrades and less accessible streams are generally incur lesser effects.

Similarly, to natural inland wetlands, the majority of wetland areas on site are generally of poor ecological condition and value as a direct result of past modification, with the exception of wetland areas that are less accessible to both stock and human modification. This is associated with initial modification through land clearance, and more recent modification as a result of the creation of motocross tracks, as well ongoing unrestricted grazing pressures. Development area is well outside the footprint of any natural inland wetlands and appropriate erosion and sediment control measures are proposed and will be maintained for the best practice of proposed development.

The proposal will involve in a discharge of water from parking spaces and shooting bays' earth bunds into water which not provided for by a Rule in the Plan. To manage water quality and avoid contaminants to enter the water, three mitigation measures including vegetated swale, contaminant treatment devices (Up-Flo filter) and an Adaptive Environmental Management Plan (EMP) are proposed. In term of effects on wetlands, there is no evidence of a hydrological connections, and stormwater discharges as part of site development will not result or are not likely to result in complete or partial drainage of the natural inland wetland in close proximity. Madara Vilde of Wild Ecology has reviewed the proposal and provided assessment under page 57 of the Ecological Report and concurred with the statement above. The specialist also noted:

> *"The incremental increase in impervious surfaces as a result of development of the site and establishment of the stormwater dispersal devices is anticipated to involve some minor earthworks and will result in some additional hydraulic inputs, that will be diverted towards existing watercourses and wetland areas. Due to the incremental increase in impervious surface associated with the site's development, the overall volume of water entering the aquatic features is not expected to increase to any quantifiable level. These discharges are not likely to change the water level range or hydrological function of the wetland areas."*

Please refer to **section 9.1.4** of this report and **Appendix F – Ecology Report** for more assessment under the NESF. It is anticipated that any potential adverse effects relating to the proposal to surrounding streams and natural inland wetlands will be considered less than minor.

8.3.6 Effects on ecological values

To contain adverse development effects to surrounding ecosystems, the proposal proposes a "development pocket" strategy which is to be encompassed by indigenous vegetation. The overall layout of the development footprint has been designed to integrate with the wider ecological values and serve multiple purposes, including provision of a vegetated buffer area between the development and the wider ecological setting, which as it establishes will aid potential absorption of the noise generated from gunshots.

The total ecological enhancement and protection area is of approximately 4.33 ha of stream, wetland and existing bush areas encompassing the immediate development footprint boundaries. The

ecological enhancement area design follows the natural confines of the site and is aimed at establishing boundaries that can be fenced with practical ease.

The proposed enhancement areas will be revegetated with a mix of appropriate native species suited to the site based on the ecosystem types noted in the immediate vicinity. In the short term (1-3 years following revegetation), the revegetation plantings will assist in sediment filtering of overland run-off, act as a natural erosion control agent, and extend habitat for some more common mobile avifauna species. In the medium term (3-5 years), the enhancement areas will provide/extend physical habitat for a wider range terrestrial and aquatic fauna, and also provide water quality benefits through shading and by filtering overland run-off. In the longer term (>5 years), this enhancement will result in a net gain in ecological function for the existing terrestrial and aquatic habitats noted on site and surrounds and will allow for natural self-sustaining processes to begin including natural regeneration, shading out of any weedy species and increasing habitat complexity.

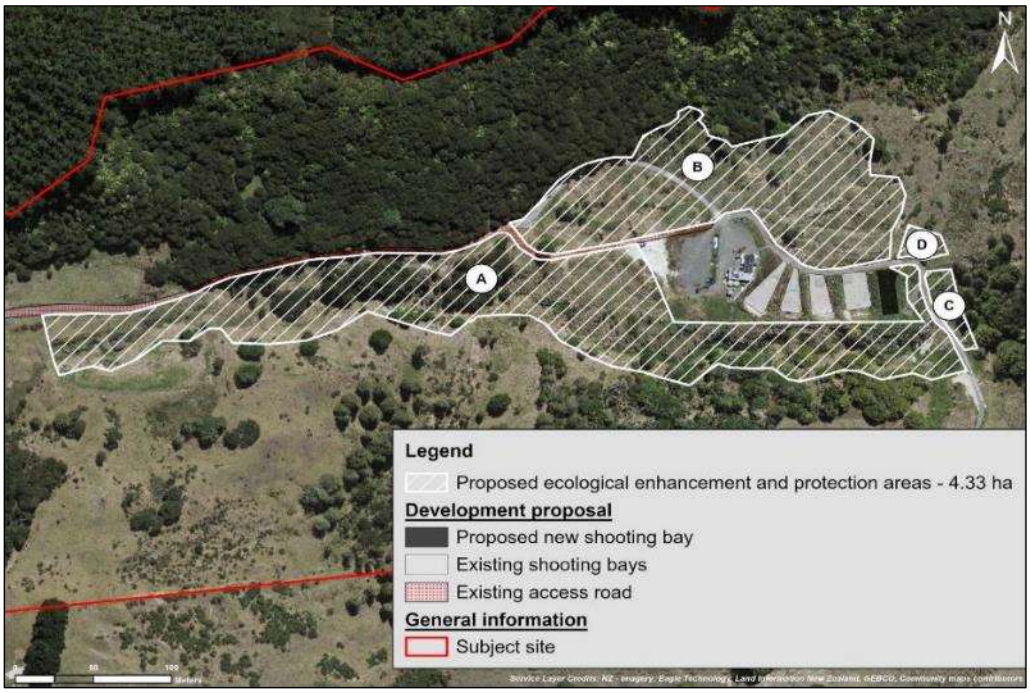

Figure 15 - Proposed ecological enhancement areas in relation to development area.

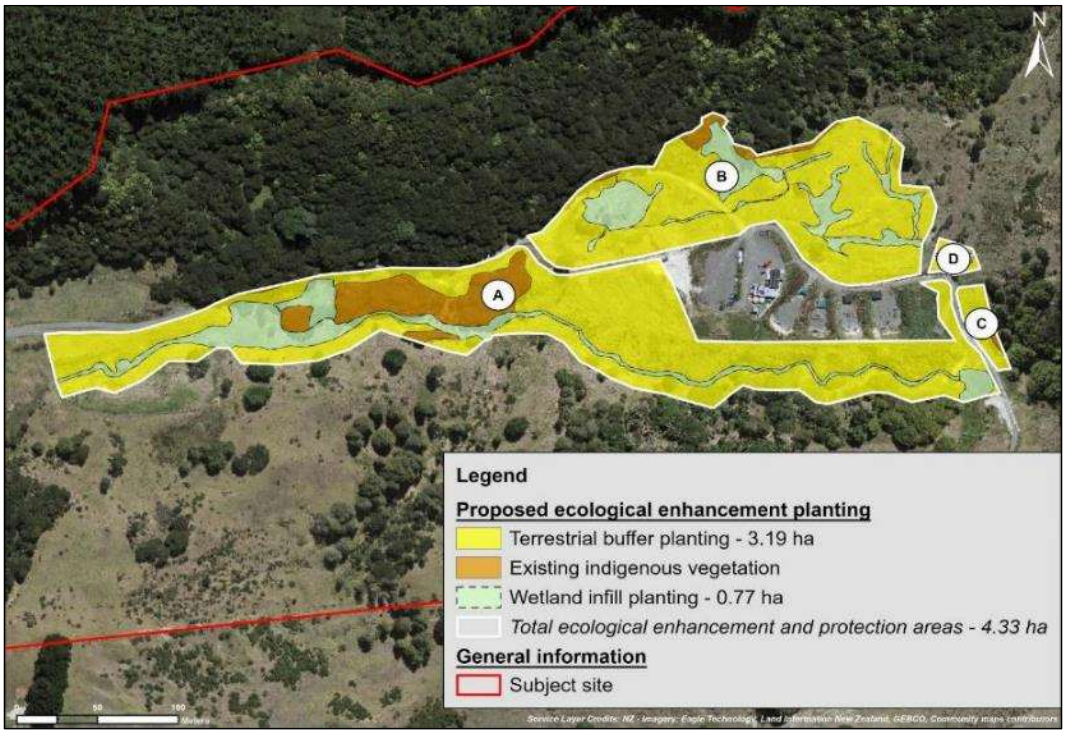

Figure 16 - Proposed ecological enhancement planting and protection area.

- Proposed revegetation will provide ecosystem regulating services through revegetation planting such as carbon capture, storage, erosion control, nutrient cycling, climate regulation, water quality improvement, noise pollution mitigation and reducing the risk of contamination residues to enter freshwater environments.

- The proposal aims to create a vegetated buffer between the proposed development footprint and the wider ecological features noted on site. This vegetated buffer will separate the development with wider adjacent stream riparian environment and will reduce any potential secondary effects associated with operation.

- Vegetation will act as a green sponge that binds any residual pollutants from the proposed activity. Using vegetation for water treatment facilities have been used for quite some time with good results in the treatment of surface runoff from road areas and shell contaminants.

- Generally planting areas are to be separated in 2 zones depending on their immediate planting/management needs (Terrestrial buffer planting – 3.19 ha, Wetland infill planting – 0.77 ha).

Finally, the applicant proposes that an Ecological Management Plan (EMP) which will cover a full suite of integral management components including full revegetation planting detail, eco-sourcing, stock exclusion, pest animal and plant control, biosecurity and disease management, fencing, ongoing maintenance and monitoring is prepared as a condition of consent. For more information of the avifauna values, herpetofauna values, please follow the assessment of ecological value by Madara Vilde of Wild Ecology and attached in **Appendix F – Ecological Assessment Report.**

Overall, it can be concluded that location of proposed shooting bay, proposed mitigation measures including the EMP and the protection and management of the ecological enhancement area,

mitigation planting will ensure that the subject site and surrounding environment will sustain a change of a less than minor degree reducing to negligible in time on the site and surrounding ecological values.

8.3.7 Natural hazards and flooding

Auckland Council Geomaps indicates the site is subject to a number of overland flow paths, an identified flood plain and three scattered minor flood prone areas adjoining the accessway and parking spaces (See Figure 17 below).

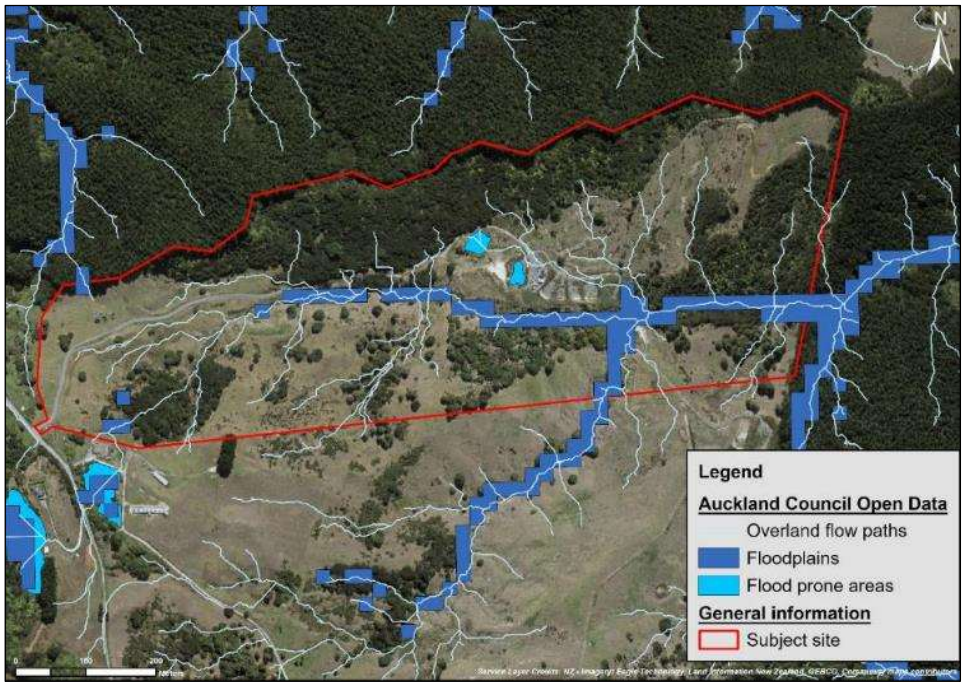

Figure 17 - Flood plains and Flood prone areas - Source: Council GIS and Ecology report

Terra Consultants has assessed the effects of the proposal on existing floodplain which was incorporated in **Appendix C: Infrastructure Assessment Report and Plans**. The estimated catchment area for the overland flow path, flood plain and flood prone areas are assessed in this report.

With regards to hydrological features, there is an overland flow paths with catchments between 3 to 100 ha (3.12 ha as per Council Geomaps) located within the 'Development pocket". Although the proposed shooting bay 5 will located within this overland flow path and obstruct the flow of the path, the entrance and exit points of any overland flow path relative to site boundaries will remain unchanged. Considering the topographical conditions have been modified in the past; the proposal does not propose to change any exit and entrance point of any overland flow path at site boundary and appropriate stormwater vegetated swale has been proposed to attenuate storm waterflow, it is considered the proposal will not create further adverse effects to the surrounding environment.

For 1% AEP flood plain, the ground levels of the existing and proposed shooting bay range from RL 75m to RL 69m. The top bank of the permanent stream adjoining the development area will range from RL 66m to RL 60m, therefore the shooting range level is of approximately 9m higher than top of stream's bank. Cross sections provided in **Appendix C: Infrastructure Assessment Report and Plans**

has shown no evidence of any adverse effects of the development to exacerbate downstream properties nor the environment.

Appropriate sediment and erosion control measures have been proposed and will be implemented in accordance with Auckland Council's requirements. Please refer to drawing RC300 of **Appendix C: Infrastructure Assessment Report and Plans** for more details.

In conclusion, any adverse effects from existing overland flow path and flood plains within the site will not be exacerbated under the proposal and are considered less than minor. For more details, please refer to **Appendix C: Infrastructure Assessment Report and Plans.**

8.3.8 Effects on Mana Whenua (cultural) values

The Site is not identified as being a Site of Cultural Significance to Māori and wahi tapu nor Maori Land according to Council GIS. It is however important to note that each site and its cultural significance will vary depending on its unique context, history, and associations with Māori culture. Assessing the cultural significance of a site for Māori requires a comprehensive understanding and respectful consideration of Māori cultural values, traditions, and historical context. A thorough assessment would typically involve consultation and engagement with local Māori communities, cultural experts, and relevant iwi (tribes) or hapū (sub-tribes) associated with the area. This ensures that the assessment aligns with Māori perspectives and incorporates their knowledge and input.

The applicant is willing to consult local Iwi during the notification process.

8.3.9 Positive effects

The Auckland Shooting Club utilises the opportunity of the subject site to propose a logic layout that improve site constraints with appropriate stormwater treatment plan, infrastructure in support of a high-quality, safe shooting range environment. The proposal promotes sustainable management of the natural and physical resources of the district, and the social, economic and cultural well-being of people and communities by:

- Protecting and enhancing 4.33ha of existing unprotected indigenous vegetation (3.19ha terrestrial buffer planting and 0.77ha wetland planting) within the site in perpetuity, improving significant from existing situation. This ecological enhancement area also acts as a buffer-band that completely separates the stream environment and organised shooting sports activity.
- Improving the existing natural environment and character via the replanting of an established area of accessway, abandoned shooting bay and parking to the west of the administrative area.
- Appropriately reduce impervious area (metaled surfaces) on-site and provide an improved and integrated stormwater management system including 100m length vegetated swale, treatment filters, piping under existing accessway to allow treated stormwater to flow through to a proposed vegetated swale from where the stormwater will enter a proposed

pipe leading to a discharge location in the form of a green outfall (riprap apron and a grassed channel).

- Provide tailor-made Adaptive environmental management plan (AEMP) and Best management practice (BMP) to remediate, treat and monitoring potential contaminant discharge commensurate with the scale and character of the development, which is a shooting range.
- Improving on-site traffic movements and address safety concern by the development of a passing bay and a driveway widening section. Supplement of additional accessible parking and short-stay bicycle parking to embrace integrated transport.
- Essentially creating a 5 shooting-bays shooting range to the local shooting community as organised sports and creation activities, effectively improving social amenity of Auckland and regional area.

8.3.10 Conclusion – Effects on the Environment

For the reasons outlined in the above sections, it is considered that the proposal will not generate any significant adverse effects on the environment that cannot be avoided, remedied or mitigated through conditions of resource consent, and that overall, any resultant rather it will result in a high-quality organized sport and recreational activity that improves the amenity and character value of the site and achieves the development outcomes intended for the area. Overall, it is concluded that the actual or potential adverse effects on the environment will be less than minor.

9.0 STATUTORY CONSIDERATIONS

The Resource Management Act 1991 (RMA) is the principal statutory document governing the use of land, air and water. The purpose of the RMA, as set out in Section 5, is to "promote the sustainable management of natural and physical resources". This section of the AEE sets out the framework under the RMA that applies to the resource consents that are being sought from the Auckland Unitary Plan.

The following section analyses the relevant statutory provisions that apply to the application and the locality. Significantly, these are the provisions of the RMA and associated policies and documents that relate to resource consents. The RMA sets out the statutory framework, within which resources are managed in New Zealand. The framework sets out a hierarchy of tests that must be passed in order for resources to be utilised, either on a temporary or permanent basis. Section 104 of the RMA sets out the matters for consideration when assessing a resource consent.

Under section 104(1) of the RMA, when considering an application for resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to:

i. Any actual and potential effects on the environment of allowing the activity
ii. The relevant provisions of a national policy statement
iii. A New Zealand Coastal Policy Statement
iv. A regional policy statement
v. A plan or proposed plan; and
vi. Any other matter that the consent authority considers relevant and reasonably necessary to consider the application

Overall, the proposal is to be considered as a discretionary activity. Section 104C states that a consent authority may grant or refuse an application for discretionary activity. If granted, the consent authority may impose conditions of consent.

The following assessment addresses the other relevant provisions of Section 104(1) of the RMA. It is noted that the actual and potential effects of the proposal are described in section 8 above, where it was concluded that any adverse effects are less than minor.

9.1 Section 104 Assessment

Section 104(1)(a) of the RMA requires that a council have regard to any actual or potential effects on the environment of allowing an activity. Pursuant to section 104(3)(a), a council must not have regard to any effect on a person who has given written approval to the proposal, nor any trade competitor or effects of trade competition. No written approvals have been sought or received in relation to this application.

In the assessment of environmental effects of the proposal set out in Section 8 of this report, it is concluded that the adverse effects of the proposal will be less than minor.

In addition, the following positive environmental effects have been identified:

- The proposal preserves the expression of natural pattern of landform.
- Area for development is clustered at the centre of the site as a "development pocket" which retain a sense of unbuilt spaciousness in intervening areas.
- The proposal achieves a high-level of on-site amenity and retains the amenity value of the area in Makarau by avoiding building in highly visible locations, such as significant view lines or hilltops where building and structures are likely to be seen prominently. All buildings and structures are adequately screened from roads and neighbours thanks to natural topography or existing vegetation.
- An ecological enhancement proposal is made under the proposal to ensure the retention of on-on-site indigenous vegetation and ecological significance.
- The proposal does not compromise the ability for the wider site to be developed in an appropriate manner.

It is considered that on balance, any actual or potential effects arising from the proposal will be less than minor.

The activity status of this resource consent application is Discretionary, a comprehensive assessment table of the proposal against the relevant assessment criteria and standards is provided in **Appendix H - Assessment Table (Objectives & Policies).**

In terms of Section 104(1)(b) of the RMA, the following sub-sections provide an assessment of the activities associated with the construction, operation, and maintenance of the shooting range against the:

- Auckland Unitary Plan (AUP).
- National Environmental Standards for Highly Productive Land (NES:HPL)
- National Environmental Standards for Contaminants in Soil (NES:CS)
- National Environmental Standards for Freshwater (NES:F)

9.1.1 Auckland Unitary Plan

An assessment against the relevant objectives and policies of the AUP is provided below and should be read in conjunction with **Appendix H – Assessment Table (Objectives & Policies, and Assessment Criteria).**

9.1.1.1 H19 – Rural zones – Rural Production Zone

H19.3.2. Objectives

1) A range of rural production, rural industries, and rural commercial activities take place in the zone.

2) *The productive capability of the land is maintained and protected from inappropriate subdivision, use and development.*

H19.3.3 Policies

1) *Provide for a range of existing and new rural production, rural industry and rural commercial activities and recognise their role in determining the zone's rural character and amenity values.*
2) *Provide for forestry activities including: planting and management of new and existing forests in recognition of their production values, land stability and carbon sequestration functions, and multiple use for active recreation; woodlots and farm-scale forestry; and planting of indigenous species and amenity exotic species for long-term production purposes and the eventual harvesting of these species.*
3) *Enable the establishment of new greenhouses and the expansion of existing greenhouses in specific locations where there are advantages for operational efficiencies, transport accessibility and the provision of energy such as natural gas supplies and services, and manage the amenity expectations of other activities in these areas.*
4) *Provide for intensive farming, while managing the adverse effects and require compliance with good industry practice.*
5) *Require intensive farming of new species, including terrestrial, freshwater and marine species not currently farmed in the Rural – Rural Production Zone to:*
    a. *be designed and operated to prevent the escape of any species of animal or plant that could have an adverse effect on the natural environment; and*
    b. *not include any mustelid species.*

The development is an Organised sport and recreation activity (outdoor shooting range) on a site located in the Rural Production Zone, and therefore a **Restricted Discretionary Activity** under Rule H19.8.1(A52). With that in mind, it is observed that:

- Organised sport and recreation activity is a type of competitive activity that require physical effort and skills, occur on a regular basis, possess formal rules, referees and officials with formal structures (Chapter J – AUP). The proposal for a Shooting Range therefore will enable the social and economic well-being of the community in the Auckland region since shooting remains a popular recreational activity and shooting ranges need to be reasonably provided for.

- While there are no Auckland wide zones or precincts which are specifically designated for a Shooting range neither address the unique noise effects from shooting, this type of activity is most appropriate in a rural zone for the remote, scattered nature of dwellings in rural zones thereby limiting adverse amenity effects.

- The application a land-use resource consents in nature, with no subdivision and will not compromise the productive capability of the land (Objective 19.3.2.2). In fact, the proposal supports the continuous farming activity on-site and neighbouring site in 297 Tuhirangi Road which under the same ownership by limiting the area of activity within a defined space. The newly introduced activity will not in any way compromise existing rural production activity. In

fact, existing ancillary structures including maintenance shed will be upkeep to support on-site rural production activity.

- The location of the subject site is located at the end of a local road's cul-de-sac which does not incur significant traffic and public access. As the subject site is orientated East-West, the location of the shooting bays is strategically designed at best possible location, approximately 700m horizontal distanced from road frontage boundary and 150m horizontal distanced from surrounding properties boundaries. In fact, all five shooting bays (four existing and one proposed) are designed to be as close as possible to the adjoining Makarau Forests in the North and East directions to mitigate any potential adverse effects including noise effects.

- The layout design has paid attention to existing topographical condition of valley-like shape topography so all shooting bays and shooting activities will be screened from public view to maintain the rural character and amenity values of the zone.

- It is not proposed to change the existing built form (buildings and shooting bays) with the exception of the construction of a new shooting bay. This new shooting bay is of a similar design and characters with what are already existing on-site. At a larger scale, the built form is consistent with that seen within the immediate context of the site (1km parameters), whereby dwellings and accessory buildings are scattered on both sides of Tuhirangi Road to make space for pastural and horticulture activities.

- Marshall Day Acoustics has reviewed the potential adverse noise effects from the shooting bays and concluded that no adverse noise effects from operational activity are anticipated on the surrounding environment as the noise generated from shooting activity are well within the permitted activity standards of the AUP as well as within more onerous noise limits that is offered as a condition of consent.

- Wild Ecology has advised the team of the ecological considerations of the site and to avoid activities that may have adverse effects in the sensitive receivers such as streams and wetlands. Wild Ecology has reviewed the proposal and consider any potential adverse ecological effects associated with the project can be avoided, minimised or mitigated through appropriate design principles and development controls, including the development strategy of a 'development pocket' which is to be encompassed by indigenous vegetation and appropriate earthworks avoidance within a 10m setback from natural inland wetlands and 20m setback from intermittent and permanent streams.

- Four ecological enhancement planting areas are proposed, refer to Figure 15 and 16 in Section 8.3.4. These ecological enhancement planting is to buffer the immediate development foot-print and connect and expand the existing riparian, wetland and bush areas on site. The proposed revegetation planting will provide a wide variety of ecosystem services including habitat provisioning services, erosion protection, nutrient filtration, provision of habitat for indigenous fauna and associated ecosystem, cultural and recreational services. It will also enhance the amenity values for the future users of the shooting facilities and promote enjoyment of the existing ecological values on site.

- The proposal achieved an integrated management of the effects of the use, development or protection of land and associated resources of the Auckland region.

The proposal is therefore consistent with the relevant objectives and policies of the Rural – Rural Production Zone.

9.1.2 National Policy Statement for Highly Productive Land

Considering the National Policy Statement for High Productivity Land (NPS – HPL), according to Manaaki Whenua Landcare Research map, the entire portion of the site is located within LUC Class 6 soil. Class 6 land is not suitable for arable use and has some low pastoral grazing and production forestry suitability (Landcare Research 2010). Similarly, the Unitary Plan Maps has classified certain lands as High Productive Land – Transitional definition from NPS – HPL (LUC 1, 2 and 3), the subject site does noy contain HPL according to the Unitary Plan Map. The shooting bays and ancillary areas are contained within a defined areas and it is not proposed to expand this area of activity elsewhere on the subject site. Potential adverse effects on HPL is therefore avoided. Since no soils on the site have been identified as highly productive land as defined under NPS-HPL (2022), the application does not require further assessment against the NPS-HPL (See figure 17 and 18 below).

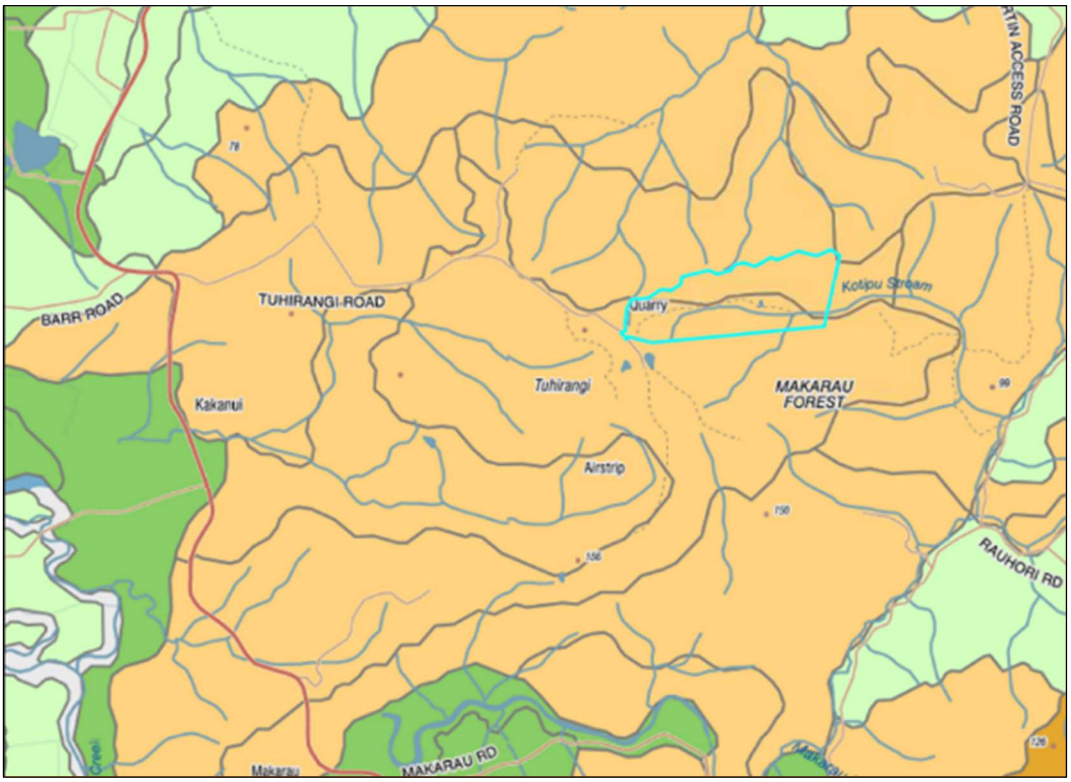

Figure 18 – Location of the site in Land capability map (Source: Our Environment - Manaaki Whenua Landcare Research map)

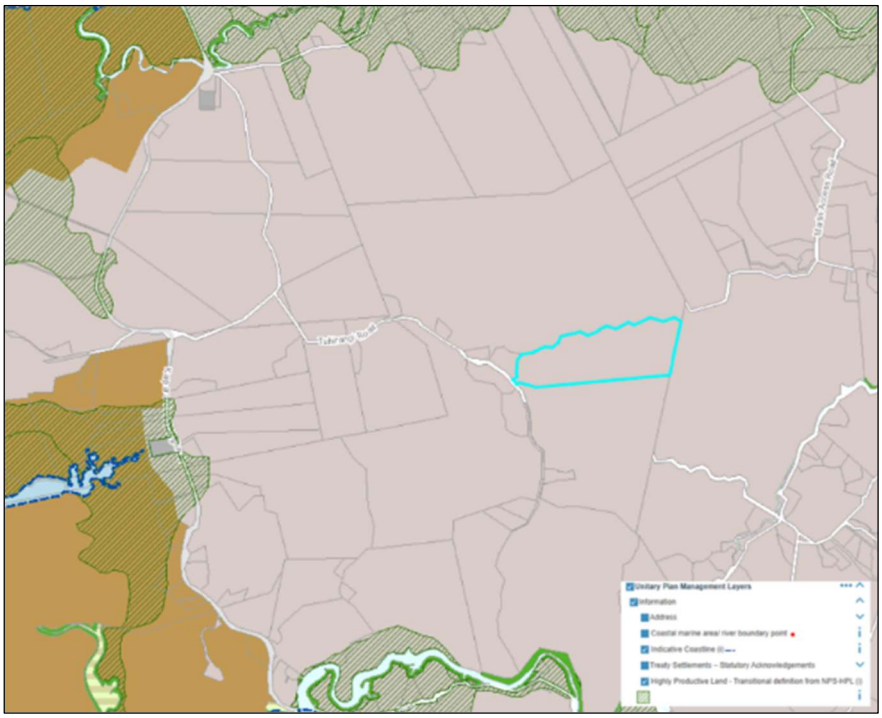

Figure 19 - Location of the site in Unitary Plan Maps in relation with transitional HPL regions (green dashed)

9.1.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES:CS)

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) is a nationally consistent set of planning controls to ensure that land affected by contaminants in soil is appropriately identified and assessed at the time of being developed and if necessary remediated, or the contaminants contained, to make the land safe for human use.

Land that is covered by the NESCS includes:

7) *The piece of land is a piece of land that is described by 1 of the following:*
   a. *an activity or industry described in the HAIL is being undertaken on it;*
   b. *an activity or industry described in the HAIL has been undertaken on it;*
   c. *it is more likely than not that an activity or industry described in the HAIL is being or has been undertaken on it.*

In this case, the NESCS applies to this application due to historic activities associated with the shooting range operation in the centre of the site, predominantly on Shooting Bay 1 to 5, Section 5(7)(b) applies and the piece of land where the shooting bays are located is considered a HAIL site

Refer to **Appendix L** - **PSI Addendum** and **Appendix K - Preliminary Environmental Site Investigation** for an assessment that the piece if land is a HAIL site and that consent is not required pursuant to the NESCS:

"The NESCS now applies to the 'piece of land' associated with the existing shooting bays, as shooting ranges are included as item C2 of the Ministry for the Environment's (MfE's) Hazardous Activities and Industries List (HAIL)3. However, the portion of the proposed earthworks area that will intersect the piece of land (existing Bay 5) is approximately 54 m2; the NESCS allows 2.7 m3 of soil to be disturbed as a permitted activity, and 0.54 m3 of soil to be removed for disposal per year. As the earthworks plan indicates that this is an area of filling, proposed works are anticipated to meet the permitted activity limits specified in Regulation 8(3) of the NESCS."

I concur with the above assessment.

Given that the existing shooting bays is HAIL site, stormwater treatment is purposefully treated to avoid potential contaminant discharge entering receiving environment. The stormwater treatment proposal entails:

- Collect and redirect stormwater run-off to two contamination treatments devices (Up-Flo filter) to properly treat potential contaminants before discharge to vegetated swale.
- Contamination treatment devices selected are Up-Flo filters. These devices have been reviewed and approved by Auckland Council to be efficient to remove trash, sediments, nutrients, organics, metals contaminants and oils. Please refer to **Appendix M – Up Flo Filter Specification** for Up-Flo filter details.
- Treated stormwater will flow through proposed pipes across the existing accessway to a proposed vegetated swale from where the stormwater will be treated a second time, using more natural and organic methodology. Stormwater then will enter a pipe leading to a discharge location in the form of a green outfall (riprap apron and a grassed channel).
- To better manage stormwater quality and diminish potential risks, an Adaptive Environmental Management Plan (**Appendix J**) has been established pursuant to Best Management Practices (BMPs) for shooting range, to develop a monitoring programme and identify factors to be considered based on the results of monitoring programme. The Plan also assign roles and responsibilities for stakeholders for a more sustainable use of the development.

9.1.4 National Environmental Standard (NES) for Freshwater 2020

The National Environmental Standards for Freshwater Management 2020 (NESF) provides local authorities with direction on how to manage freshwater under the Resource Management Act 1991. The NESF came into force on 3 September 2020 and set requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. On 5th January 2023, an amendment to the NESF has come into effect to assess any hydrological connection between an activity of taking, us, damming or diversion of water and the wetland. This statuary context informed Ecological Report (**Appendix F**), consent is not required under the NES:F, refer to Section 6 of the Ecological Report for assessments that consent is not required, extract from Section 6:

"Drainage of natural wetlands

52 Non-complying activities

(1) Earthworks outside, but within a 100 m setback from, a natural inland wetland is a non-complying activity if it—

(a) results, or is likely to result, in the complete or partial drainage of all or part of a natural inland wetland; and

(b) does not have another status under any of regulations 38 to 51.

Assessment:

Consent under Regulation 52(1) is not required/applicable as earthworks associated with the site development required to take place within a 100m setback of the identified natural inland wetland areas will not result or is not likely to result in complete or partial drainage of the natural inland wetland features identified on site and immediate boundaries should appropriate erosion and sediment control measures are constructed and maintained in accordance with the principles outlined in relevant expert reporting prepared for the proposal and best practice.

52(2) The taking, use, damming, diversion, or discharge of water outside, but within a 100 m setback from, a natural wetland is a non-complying activity if it—

(a) results, or is likely to result, in the complete or partial drainage of all or part of a natural wetland; and

(b) does not have another status under any of regulations 38 to 51.

Assessment:

Consent under Regulation 52(2) is not required/applicable. The diversion of water and discharge of water outside but within a 100m setback from natural inland wetlands associated with stormwater discharges and diversions as part of site development will not result or are not likely to result in complete or partial drainage of the natural inland wetland features identified. The incremental increase in impervious surfaces as a result of development of the site and establishment of the stormwater dispersal devices is anticipated to involve some minor earthworks and will result in some additional hydraulic inputs, that will be diverted towards existing watercourses and wetland areas. Due to the incremental increase in impervious surface associated with the site's development, the overall volume of water entering the aquatic features is not expected to increase to any quantifiable level. These discharges are not likely to change the water level range or hydrological function of the wetland areas.

Other activities
Regulation 54 amended (Non-complying activities)

54(a) vegetation clearance within, or within a 10 m setback from, a natural inland wetland

Assessment:

Consent under Regulation 54(a) is not required as no disturbance or vegetation clearance within a 10m setback of any identified natural inland wetland area is proposed.

54(b) earthworks within, or within a 10 m setback from, a natural inland wetland

Assessment:

Consent under Regulation 54(b) is not required as the proposal will not result in earthworks being carried out within a 10m setback from any identified natural inland wetland areas. All sediment and erosion controls for the wider site development are to be installed as per GD05 and associated technical reporting prepared for the site development.

54(c) the taking, use, damming, or diversion of water within, or within a 100 m setback from, a natural inland wetland if—

(i) there is a hydrological connection between the taking, use, damming, or diversion and the wetland; and

(ii) the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland.

Assessment:

Consent under Reg 54(c) is not required, as while the stormwater diversions associated with the site development will occur within a 100m setback from the identified wetland areas, and may have a hydrological connection with these areas, they will not change or are unlikely to change the water level range or hydrological function of the wetland.

54(d) the discharge of water into water within, or within a 100 m setback from, a natural inland wetland if—

(i) there is a hydrological connection between the discharge and the wetland; and

(ii) the discharge will enter the wetland; and

(iii) the discharge will change, or is likely to change, the water level range or hydrological function of the wetland

Assessment:

Consent under Reg 54(d) is not required as while stormwater is proposed to be discharged (after treatment) into intermittent stream I21. I21 does not have any hydrological connection with any of the identified natural inland wetland areas on site as it is a tributary of P1, and drains into a permanent stream habitat that is forested and does not form part of any wetland features. Stormwater discharges will not enter any of the wetland areas on site, and therefore stormwater discharges will not charge or are not likely to change the water level range or hydrological function of the wetland areas. "

I concur with the above assessment.

Given proximity of the shooting bays (existing and proposed) to streams and wetland and the historical encroachment into permanent and intermittent stream riparian margins, the following is recommended to mitigate, remedy or avoid adverse on watercourses:

- The establishment of four different ecological enhancement areas of A, B, C, D as per Figure 20 below. These areas spread out over 4.33 hectares and will cover the majority of existing natural inland wetlands, allow the intensification of native plantings and weed control (primarily pampas and gorse) along the riparian edge of permanent streams. As detailed in **Appendix F – Ecological Assessment Report**, these enhancement areas will be protected and fenced to avoid stock and pedestrians trespassing.
- It is expected that these above mitigation methodologies will not only provide a good level of appropriate native vegetation cover as well as a good stabilisation for the steep banks and weed suppressant, but also embrace the "development pocket" area of the shooting range and restricted any adverse environmental and sedimentation effects to the surrounding environment.

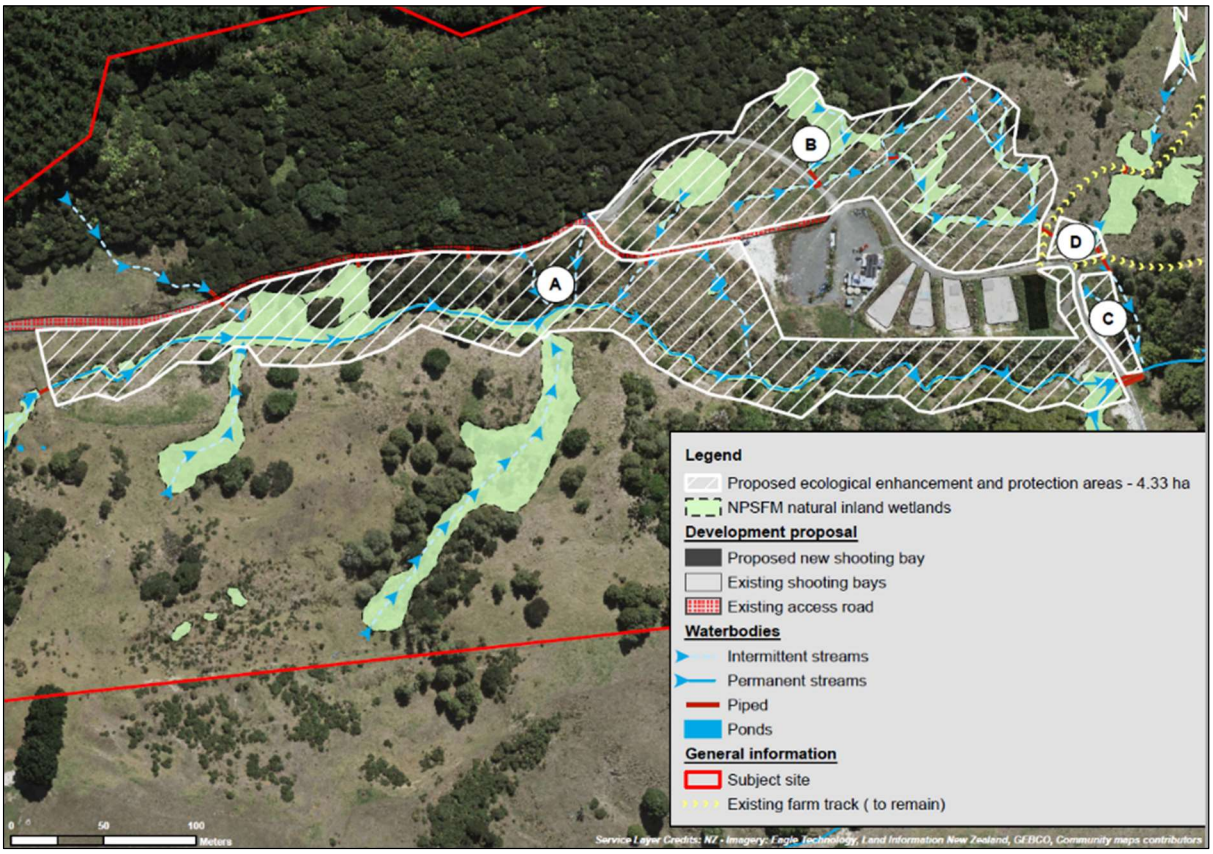

Figure 20 - Proposed ecological enhancement and protection areas

9.1.5 Other Statutory Matters

9.1.5.1 Part 2 of the Resource Management Act 1991

It is understood that a consent authority is generally no longer required to consider Part 2 of the RMA beyond its expression in the relevant statutory planning documents, unless it is appropriate to do so. In this case, it is considered that the planning context is generally clear, noting as mentioned that the site is located in a remote area away from urban residential areas. In any case, the proposed Shooting range aligns well with the various planning directions set out earlier. However, for completeness and in accordance with Schedule 4(2)(1)(f) of the RMA, Part 2 of the RMA is considered in the following paragraphs.

The purpose of the RMA is to promote the sustainable management of natural and physical resources. In this regard, the Proposed Shooting Range will provide a quality space for the Recreational/Sport shooting community in Auckland, who are growing members of the community and will enable people and communities (including future generations) to provide for their social, economic, and cultural wellbeing through the establishment of an additional range and type of recreational options for the society. Furthermore, the establishment of the Proposed Shooting Range will assist in ensuring the efficient use of land.

The construction and operation of the Shooting Range will not affect the safeguarding of the life-supporting capacity of air, water, soil and ecosystems. Likewise, Section 8 of this AEE provides details

on the measures proposed by the applicant to avoid, remedy or mitigate the actual and potential effects of the project on the environment and to manage effects on the wellbeing of people in accordance with Section 5 of the RMA.

With respect to the key matters in Sections 6, 7 and 8 of the RMA, the following points are pertinent:

- Appropriate consideration has been given to the management of the potential risks from natural hazards on the Site (i.e. flooding from permanent streams, overland flow paths) in the design and construction methodologies for the proposed Shooting Range;

- The Proposed Shooting Range will enable the efficient use of natural resources (being land) via the development of an integrated recreational area on a site which enables the accommodation of an activity that require physical effort and skills, are competitive and occur on a regular basis;

- The design of the Proposed Shooting Range has been undertaken in a manner that, as far as practicable, complies with the development standards in the Rural – Rural Production Zone, and other AUP Chapters including E8 – Stormwater Discharge and Diversion, E12 Land Disturbance, E25 – Noise and Vibration, E27 – Transport and E36 – Natural Hazards and Flooding and is appropriate to the characteristics of the Site and the surrounding environment. As such, it is considered that the overall amenity values and the quality of the environment will be maintained; and

- The effects of climate change have been considered in the design of the stormwater management system for the Site.

Overall, and based on the technical assessments that have been commissioned by the applicant, it is considered that the Proposed Shooting Range will promote the sustainable management of natural and physical resources in accordance with Part 2 of the RMA (noting that Part 2 of the RMA is not being explicitly relied upon given the full coverage of relevant resource management issues provided in the District Plan).

9.1.6 Summary

Section 88 of the Act outlines the information required for resource consent applications, as does the Fourth Schedule in regard to an assessment of effects of the proposed activities. When considering a resource consent application, subject to the matters set out in Part II of the Act, the Council must have regard to matters set out at Section 104 of the Act, (i.e. any actual and potential effects of allowing the activity, any written submissions, District Plan controls, Regional Plan and National Policy Statements and Standards.

In summary, the proposed development will promote the sustainable management of the natural and physical resources of the Site, and any adverse effects on the environment will be adequately avoided, remedied or mitigated.

10.0 NOTIFICATION ASSESSMENT (SECTIONS 95A-95E)

Section 95A sets out the steps that must be followed in order to determine whether to publicly notify an application or not. These steps are addressed in the following sections.

10.1 Public Notification Assessment

Under **Step 1**, public notification is **mandatory** because:

- The applicant is requesting public notification of the application;

In this case, the potential adverse effects generated from the proposal have been assessed in section 8 of the report and have concluded that the potential adverse effects are less than minor.

10.2 Public Notification Conclusion

Having undertaken the s95A public notification tests, the following conclusions are reached:

- Under step 1, public notification is mandatory,

It is therefore recommended that this application be processed **with public notification.**

10.3 Limited Notification Assessment

As the application will be publicly notified, under sections 95B and 95E a council do not need to decide whether there are any affected persons and give limited notification to those persons.

11.0 CONCLUSION

The proposed Shooting Range in 287 Tuhirangi Road has been assessed overall as a **Discretionary activity.**

This application sets out the relevant assessment required for resource consent applications under the RMA. The plans and technical assessments submitted with the application have been provided in support of the application and in relation to the relevant criteria.

In terms of the RMA, all appropriate matters in section 104 are considered to have been addressed including the:

- Actual and potential effects;
- The relevant provisions of any plan of proposed plan; and
- Any other matters

It is concluded that the proposal satisfies these matters and is in accordance with the relevant provisions of the statutory documents. The proposal will be a sustainable use of resources and consistent with the Objectives and Policies of Auckland Unitary Plan, Rural - Rural Production Zone and relevant matters of national importance. Therefore, in our view, consent can be granted to the proposal pursuant on a **public-notification basis** as per applicant's request.