

## TOTARA HCVF MANAGEMENT MONITORING 2023/2024

### Updated November 2024

Pest control work completed in Totara was limited due to access issues created by Cyclones Hale and Gabrielle. All tracks in the forest were impassable due to slips and downed trees. The main track has been reopened so that the Logic Forest Management (neighbour) could access their block through Totara forest for planting season. Logic has completed pest control for goats and deer in their block on a regular basis.

JNL has not completed any harvesting in Totara since 2019.

Approximately 1 hectare of native forest was lost due to slips following 2023 cyclones. The following photos are of the Makahakaha Stream bush pre and post cyclone Gabrielle. The photo to the right shows a large slip in the native forest as well as numerous slips on the neighbouring farm that were a result of the heavy rain fall.



Photo 1 – taken October 30<sup>th</sup>, 2022

Photo 2 – taken February 21<sup>st</sup>, 2023



The following photo point taken in Makahakaha Stream bush taken in 2017 and in 2024 are shown below. The 2024 photo shows the slip as seen from a distance in photo 2.



Photo 3. Taken 2017



Photo 4. Taken in 2024 of slip.

A second slip occurred in the Makahakaha Stream bush that cannot be seen in the previous photos:



Photo 5. Drone photo taken January 29<sup>th</sup> 2024.

## Pest Control

Below is a list of pest culling activities that occurred in 2023:

- Feral pest solutions culling – 60 goats/4 deer
- Enviropest (contractor) put out poison (cyanide) over two weeks – 190 possums
- Bait stations filled with Double tap baits – see photo below.
- 20 deer taken by JNL staff and permit holders.

JNL participated in the first annual Whangara Catchment Cull competition where they ended up in fourth place after culling 5 deer, 10 goats, 25 possums, 2 hares, 2 turkeys and 1 ferret.



Photo 6. Possum caught on trail cam in bait station.

## Water Monitoring

Water monitoring was completed in two locations during April 2024. Included in the water monitoring were eDNA samples. Clarity readings taken during the monitoring using a clarity tube the results showed good clarity, with readings at 90 at the upper site and low at the lower site. The results are listed in the table below.

SITE	DATE	CLARITY	eDNA collected	TICI Value	TICI Rating
Totara upper	19/04/2024	90	yes	91.35	Average
Totara lower	19/04/2024	91	yes	98.54	Average

From the eDNA samples the several fish species were identified in the upper Totara site. Of the fish identified 4 species were previously unknown to Juken ECF. A list is provided in the table below.

Longfin eel	<i>Anguilla dieffenbachii</i>
Shortfin eel	<i>Anguilla australis</i>
Common bully	<i>Gobiomorphus cotidianus</i>
Bluegill bully	<i>Gobiomorphus hubbsi</i>
Common Smelt	<i>Retropinna retropinna</i>
Torrent Fish	<i>Cheimarrichthys fosteri</i>
Inanga (common galaxias)	<i>Galaxias maculatus</i>

Also of note, the eDNA results include Sika deer, a new species of deer not thought to be in the area.

## Photo Points

A new photo point was established in Makahakaha Stream Bush A. A trail cam was set up for multiple days to monitor for pests. Only two deer passes were recorded. A bird recorder was also set up to record any night birds. Morepork was the only bird recorded.





Photo 7. New photopoint in Makahakaha Stream Bush