

STREAM WIDTH CERTIFICATION

53A, 53B, 55 RUSSELL ROAD & 88, 130, 132 UPPER OREWA ROAD, WAINUI

I Diane Alison Moriarty, Licensed Cadastral surveyor of McKenzie and Co Consultants Ltd, confirm that the rivers outlined in the report below were measured by myself or under my direction to determine whether an esplanade reserve is required to be vested under section 230 of the Resource Management Act 1991 (RMA).

The RMA provides the definition of a river as follows:

River means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal).

The Act also defines the bed of a river as:

bed means,—

(a) in relation to any river—

(i) for the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the river cover at its annual fullest flow without overtopping its banks:

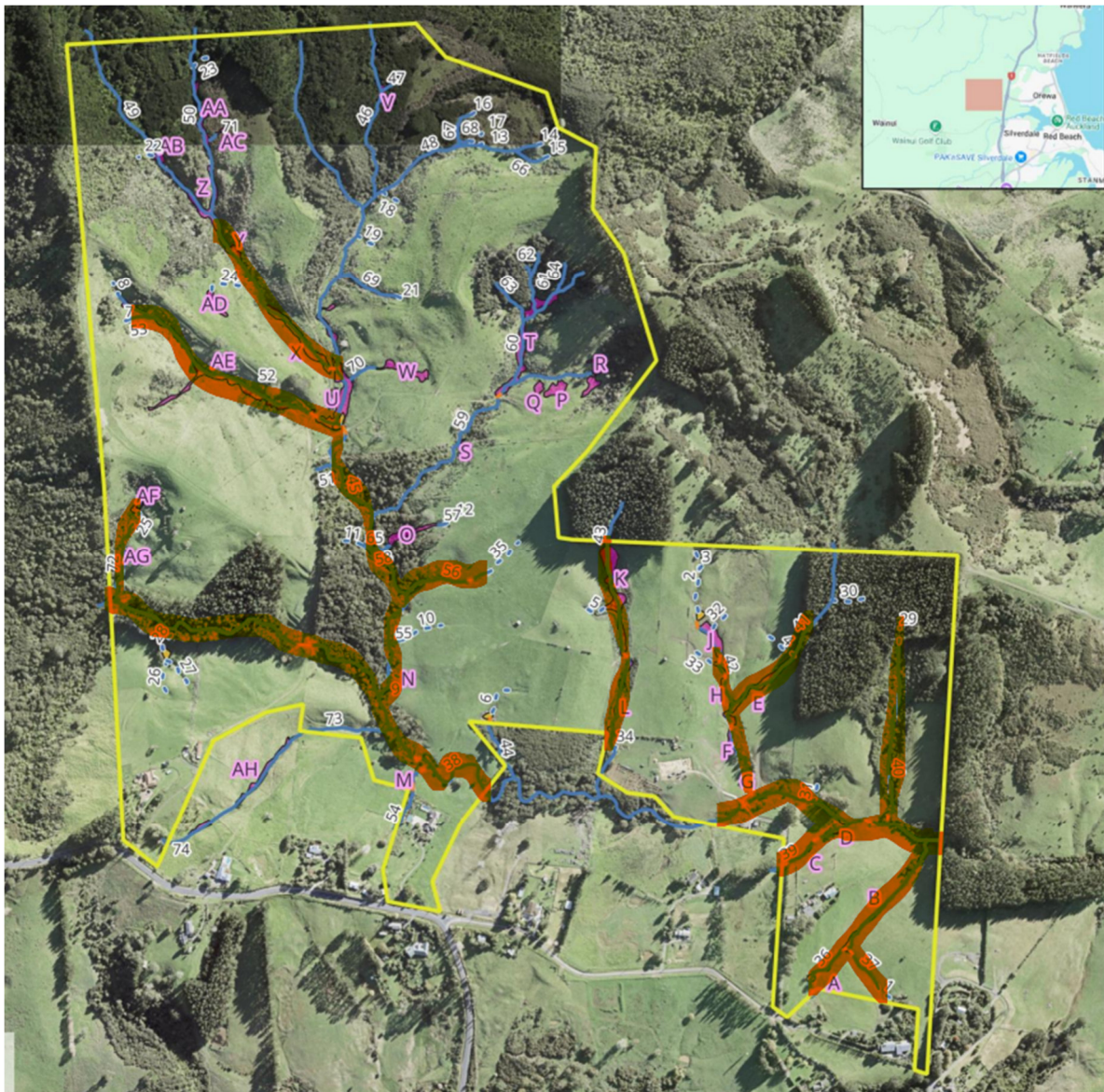
It must be noted that wetlands are not included in the definition of a “river” and have their own separate definition as follows:

wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions

Only the streams identified as permanent and intermittent by the VIRIDIS report were measured on site. Ephemeral streams do not fall within the RMA definition of a river.

The streams have been identified in accordance with the diagram prepared by VIRIDIS Environmental Consultants in their report dated February 2025 and shown below. The solid blue lines are the permanent and intermittent streams. The dashed blue lines are the ephemeral streams, and the magenta areas identified with a letter are wetlands.

The streams highlighted in orange are the streams that have been measured on site and a summary of these measurements is outlined below.



VIRIDIS ENVIRONMENTAL CONSULTANTS STREAM/WETLAND MAP

Stream 36

This stream flows through Wetland B as identified by VIRDIS Environmental Consultants. As outlined above a wetland has its own definition under the RMA and is not included in the definition of a “river”. It is also impossible to determine the location of the bed of the river within the wetland therefore the measurements for Stream 36 exclude wetland B.

The average width of Stream 36 (excluding wetlands) is **1.3m**

Stream 37

The average width of Stream 37 is **0.5m**

Stream 38

This stream is split by the neighbouring property boundaries of Lot 1 DP 397356 (35 Russell Road) & Lot 1 DP 431409. Therefore, it has been measured in two sections as follows:

Eastern End – From the eastern boundary of Lot 1 DP 336616 (55 Russell Road) to the northern boundary of Lot 1 DP 397356 (35 Russell Road). The average width of this section of Stream 38 is **2.5m**

Western End – From the western boundary of Lot 1 DP 431409 to the western boundary of Lot 1 DP 153477 (132 Upper Orewa Road). The average width of this section of Stream 38 is **2.0m**

Stream 39

The average width of Stream 39 is **0.8m**

Stream 40

The average width of Stream 40 is **0.6m**

Stream 41

This stream flows through Wetlands E, F & G as identified by VIRDIS Environmental Consultants. As outlined above a wetland has its own definition under the RMA and is not included in the definition of a “river”. It is also impossible to determine the location of the bed of the river within the wetland therefore the measurements for Stream 41 exclude Wetlands E, F & G

It must also be noted that it was not possible to measure the full length of the stream due to logging operation happening within the top 200m of the stream. Therefore, the average measurement does not include this section. However, the final measurement of the width of the riverbed at the edge of the logging area was 0.7m. It is unlikely that the stream would widen beyond this point as it is upstream in steep terrain.

The average width of Stream 41 (excluding wetlands) is **1.2m**

Stream 42

The average width of Stream 42 is **0.7m**

Stream 43

The average width of Stream 43 is **0.9m**

Stream 45

The average width of Stream 45 is **2.0m**

Stream 49

This stream flows through Wetland Y as identified by VIRDIS Environmental Consultants. As outlined above a wetland has its own definition under the RMA and is not included in the definition of a “river”. It is also impossible to determine the location of the bed of the river within the wetland therefore the measurements for Stream 49 exclude Wetland Y.

It must also be noted that it was not possible to measure the full length of the stream due to dense gorse scrub at the top of the catchment. However, the final measurement of the width of the riverbed at the edge of the scrub was 0.6m. It is unlikely that the stream would widen beyond this point as it is upstream in steep terrain.

The average width of Stream 49 (excluding wetlands) is **1.1m**

Stream 52

This stream flows through Wetlands V and AG as identified by VIRDIS Environmental Consultants. As outlined above a wetland has its own definition under the RMA and is not included in the definition of a “river”. It is also impossible

to determine the location of the bed of the river within the wetland therefore the measurements for Stream 52 exclude these wetland areas.

The average width of Stream 52 (excluding wetlands) is **0.9m**

Stream 56

The average width of Stream 56 is **0.5m**

Stream 72

The average width of Stream 72 is **0.7m**

Remaining permanent and intermittent streams not measured

Streams 51, 53, 54, 55, 57 & 73 – not found

Streams 46-48, 50 & 59-71 – steep terrain with dense gorse scrub

Conclusion

Although not all streams have been measured, the streams that have been measured all calculate an average measured width of less than 3.0m. The remaining unmeasured streams are all located at the upper most reaches of the catchment in steep terrain and therefore it is very unlikely that these streams would measure over 3.0m in width.

Considering the above, it is therefore determined that all the streams within the above-mentioned properties and as defined under section 2 of the RMA are less than 3.00m wide. Therefore, an esplanade reserve is not required to be vested under section 230 of the RMA.

Signed  06/06/25

Diane Moriarty
Licensed Cadastral Surveyor