POUARUA WATER STORAGE SCHEME, GISBORNE – ARCHAEOLOGY / CULTURAL AND HISTORIC HERITAGE

For Wi Pere Trust

April 2026

By

Kim Tatton (MA Hons)

Clough & ASSOCIATES LTD

321 Forest Hill Rd,
Waiatarua, Auckland 0612
Telephone: s 9(2)(a)
Mobile s 9(2)(a)

POUARUA WATER STORAGE SCHEME – ARCHAEOLOGY / CULTURAL AND HISTORIC HERITAGE

Methodology

The following data was relied on for an initial desk-top archaeological / historic heritage assessment of the Pouarua Dam Site and Distribution Network:

- Archaeological site information sourced from the New Zealand Archaeological Association's (NZAA) ArchSite platform.
- The four Tairawhiti Resource Management Plan (TRMP) heritage overlays, were accessed from the Gisborne District operative plan
  - Heritage Alert Layer Overlay 1 (a predictive model of human settlement);
  - Archaeological Sites and Areas Schedule Overlay 2 (derived from ArchSite data, archaeological survey reports and Heritage NZ List);
  - Wāhi Tapu and Wāhi Tapu Areas Schedule Overlay 3 (identified by tangata whenua and Heritage NZ Listed Waaahi tapu and waahi tapu areas); and
  - Post-European Contact and Central Business District Schedules Overlay 4;
- Rarangi kōrero – Heritage New Zealand List sourced from Heritage New Zealand;
- Modern aerial photographs and LiDAR data sourced via LINZ data service;
- Historic aerials accessed via the online portal Retrolens.co.nz;
- Historic survey plans sourced from Prover.
- Initial meeting with Heritage New Zealand (HNZ)

This desk-top assessment is concerned with physical evidence of past human activity and is not an assessment of cultural values or wāhi tapu. Advice about Māori cultural values can only be provided by tangata whenua.

Archaeological Background

Te Tairāwhiti

Te Tairāwhiti is a rich archaeological landscape, containing evidence from all periods of human history in Aotearoa. The region contains several small-scale settlements dating from the initial occupation of Aotearoa around 750 years ago.

The majority of archaeological sites in the region date from the later end of the pre-contact sequence in Aotearoa (post c. AD 1500). Pā and pits are numerous, both adjacent to river channels and in the hill country on the margins of river valleys (Jones 1986, 1988, 1989a, 2001). Flat land pā typically utilised bends or confluences of channels and were cut off from the surrounding area by artificial defences.

Away from the flats, pā utilise a mixture of natural and artificial defences. Hill-top pā are most concentrated in river valley systems and in the coastal strips, where they overlooked the best land for gardening.

The region is also notable as the scene of some of the first contact between Europeans and Māori. While little direct evidence of these first contacts is present in the archaeological record, the period following contact is well represented.

Sites from the historic period are also recorded in the TRMP post-European Contact Schedule and Rarangi Kōrero. These sites are concentrated in the Gisborne urban area and smaller coastal settlements. These sites are predominantly historical buildings, although the schedule also includes things such as war memorials.

Waipoua River Catchment

The Waipaoa River catchment and its tributaries were a significant site of Māori settlement from the 12th century AD, with dense habitation on and near fertile flood-free alluvial terraces and fans and hill slopes, with evidence of intensive horticulture. Early settlement evidence suggests initial use of levees soon after their formation, with continuous occupation into the 19th century.

Settlement was influenced by soil fertility (especially Waihirere silt loams near the main river, but also Matawhero silt loams to a lesser degree), climate (frost-free), and strategic defensive location on river terraces and abandoned courses. However, access to the river and to wetlands resources generally is the most important factor in determining which soils were used in the Waipaoa River valley.

Of soils close to the river, the Waihirere silt loams were used most intensively, and where these are compact and large in area at several points along the river, there was nucleated settlement on a large scale. Of these areas, the most important is the settlement complex on the fan encompassing Ormond, Waituhi, Repongaere, and Waerenga a Hika (some 200 ha). Settlement there must have had a self-reinforcing character with a combination of river access, broad areas of stable levee soils, abandoned river channels, active flood plains with some potential for horticulture, and adjacent hill country with easy slopes, lakes and wetlands. No other area of the valley had such potential on such a scale.

Horticulture and settlement took place in strips up to 1 km wide along the river edge of this belt of soils, as evidenced by concentrations of ovens, blackened soils, artefact find spots, and fractured gravels. Pa were located on the pleistocene terraces and elevated slopes, often with large storage pit volumes, indicating significant food preservation. Smaller pa occur nearby, especially in inland valleys.

The Māori settlements on the Waerenga a Hika fan were the principal focus of the conflict between Pai Marire under Te Kooti and European forces (with Māori allies) in 1865. The conflict was not primarily about land, but it is not without significance that this area was and still is the prime horticultural locality of the Waipaoa plains.

Following these conflicts Te Mungunga (Ormond) was ceded to the Crown for redistribution and as a military settlement in 1869. In 1870 the Armed Constabulary was stationed at Ormond, building a redoubt and block house beside the Waipoua River, and the township of Ormond and the Constabulary barracks developed side by side. The presence of the Barracks and the rapid influx of military settlers led to a boom in businesses and services, and for some time Ormond was bigger than Gisborne.

Erosion and modern agriculture have obscured some archaeological features, but aerial surveys reveal extensive prehistoric activity. Archaeologically, the density of surface-visible settlement both on the fans and hill country in the general locality south of Ormond is reduced because of intensive modern cropping and horticulture.

POUARUA DAM

Potential Effects

Refer to Figure 1.

- There are no previously recorded archaeological sites in ArchSite within the Pouarua Dam project area, however, no known archaeological survey has been carried out.

- There are no sites within the project area identified on the TRMP Archaeological Sites and Areas Overlay 2, Wahi Tapu and Wāhi Tapu Areas Schedule Overlay 3, and Post-European Contact and Central Business District Schedules Overlay 4.

- The proposed alignment of the rising main, the Waipoua River Intake, new pump station and possible alternative river intake will cross within the TRMP Heritage Alert Layer Overlay 1 in the vicinity of Lavenham Road and Tangihanga Road.

  The TRMP Heritage Alert Layer Overlay 1 is a tool for the recognition and protection of cultural heritage accompanied by a schedule of archaeological sites. The Alert Layer is an early warning system and predictive model of past human settlement where unrecorded archaeological / cultural and historic heritage sites may exist and be impacted on by the proposed activity.

- The proposed alignment of the rising main, the Waipaoa River Intake, new pump station and possible alternative river intake are located in proximity to recorded archaeological sites Y17/396 Pa (WP 48), Y17/464 Pit, Y17/453 Pits and Terraces, Y17/25 Pits, but outside the buffer areas surrounding these archaeological sites / Wāhi Tapu mapped and listed in TRMP Schedule G2A and Schedule G3.

  The proximity of the proposed activity to these places increases the risk of unrecorded archaeological / cultural and historic heritage sites that may be impacted by the proposed activity. However, the TRMP enables development within the site-specific buffer area identified around each archaeological
  site where there is no adverse effect on the archaeological site.

- A previous Heritage NZ archaeological Authority was granted for the construction of the Tangihanga Dam and destruction of Y17/397 Oven site, in the vicinity of the proposed Waipaoa River intake.

- LiDAR and historic aerials indicate the possibility of unrecorded archaeological surface features (Pits / Terraces) on ridgelines within the Project area.

Proposed Mitigation

- As the Pouarua Dam project area will cross within the TRMP Heritage Alert Layer Overlay 1 in the vicinity of Lavenham Road and Tangihanga Road and no known archaeological survey has been carried out over the wider project area, an archaeological assessment of the effects on archaeology / cultural and historic heritage should be undertaken as part of the FTAA Substantive Application, including archaeological field survey, to identify any previously unrecorded sites (TRMP C4.1.6.2);

- The effects of the Project on any sites identified during the archaeological assessment could be mitigated in a variety of ways including:
  - modification of the project design in some areas to avoid visible archaeological surface features where possible;
  - development of construction methodologies that minimise the potential for effects on archaeological sites / cultural and historic heritage;
  - appropriate effects management in this area will be confirmed as part of the archaeological authority process, and subject to review by Heritage New Zealand Pouhere Taonga.

- A General Archaeological Authority under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) should be applied within the FTAA process for the Project area as a precaution, and for any archaeological sites identified as affected during the development of detailed design;
  - In the event of an Archaeological Authority application under the HNZPTA Council shall have regard to assessment matters to ensure that adverse effects are avoided, remedied or mitigated (TRMP C4.1.6.3).
  - Mitigation of effects will also be provided by appropriate monitoring, archaeological investigation and recording as required by the Conditions of the Archaeological Authority under the HNZPTA.

Conclusion

There is the potential for unrecorded archaeological / cultural and historic heritage sites to be located within the proposed Pouarua Dam project area that could be affected by the proposed activity.

It is considered that these potential effects can be mitigated to an acceptable level by the proposed mitigation/management and that the potential effects (post mitigation) are able to remain consistent with the Objectives of the TRMP (C4.1).

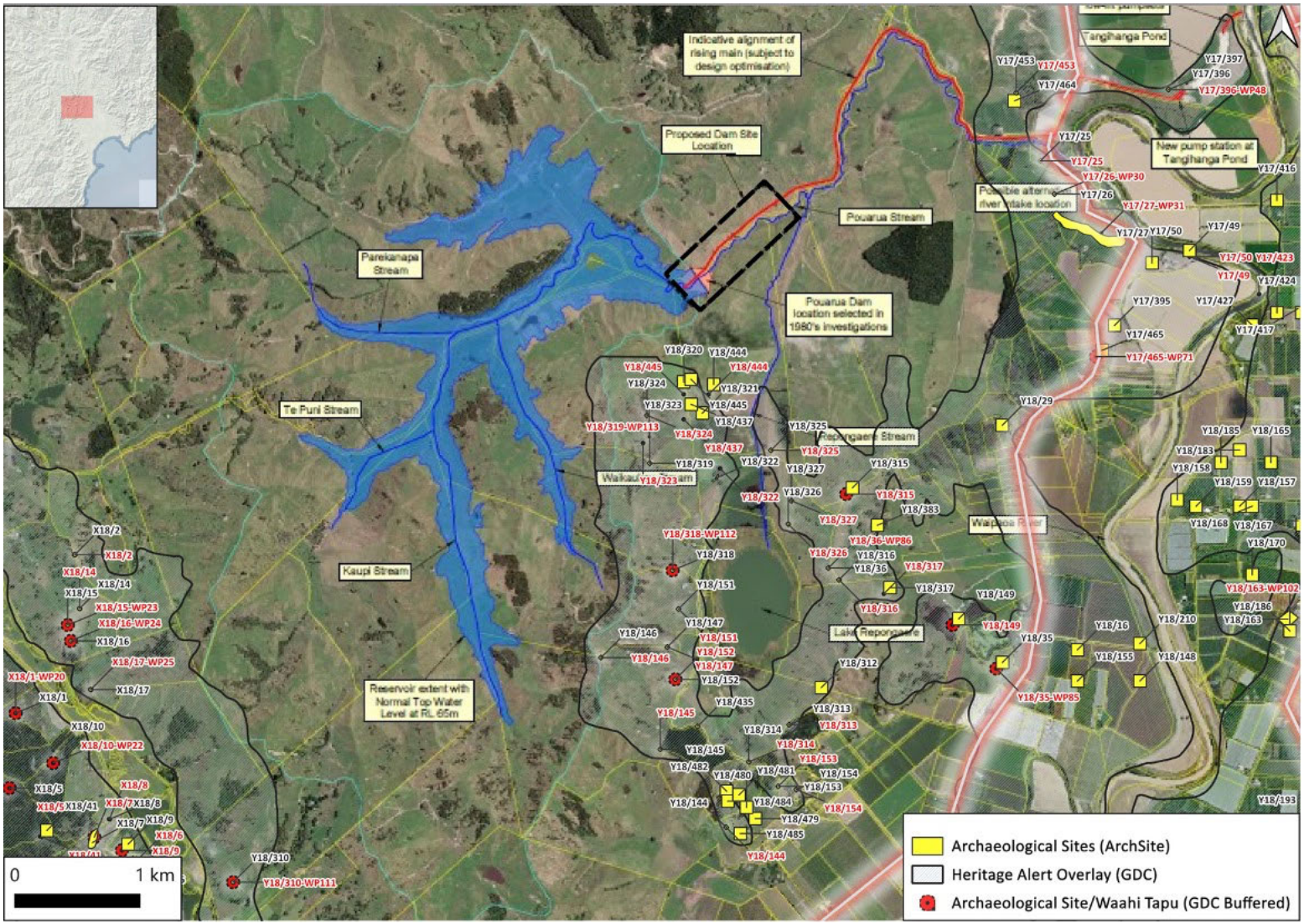

Figure 1. The location of recorded archaeological sites (ArchSite and TRMP Archaeological Sites and Areas Overlay 2), Wāhi Tapu and Wāhi Tapu Areas Schedule Overlay 3 and the TRMP Heritage Alert Layer Overlay 1 in relation to the Pouarua Dam Project area

DISTRIBUTION NETWORK

Potential Effects

Refer to Figure 2 – Figure 11.

- The majority of the proposed alignment of the Distribution Network is located within the TRMP Heritage Alert Layer Overlay 1, to the west and east of the Waipaoa River.

  The TRMP Heritage Alert Layer Overlay 1 is a tool for the recognition and protection of cultural heritage accompanied by a schedule of archaeological sites. The Alert Layer is a predictive model of past human settlement where unrecorded archaeological sites may exist and be impacted by the proposed activity.

- The proposed alignment of the Distribution Network is located within close proximity to a number of recorded archaeological sites in ArchSite, and identified within the TRMP Archaeological Sites and Areas Overlay 2, and in several places will cross within the recorded extent (buffer) of sites (see Figure 3 – Figure 10).

  The proximity of the proposed activity to these places increases the risk that recorded and unrecorded archaeological / cultural and historic heritage remains may be impacted by the proposed activity. However, the TRMP enables development within the site-specific buffer area identified around each archaeological site where there is no adverse effect on the archaeological site.

- The proposed alignment of the Distribution Network is located within close proximity to several scheduled Wāhi Tapu and Wāhi Tapu Areas Overlay 3, and in three locations will cross with the buffer of Wāhi Tapu sites - Y17/465 = WP71 (Pa – Takitimu) (Figure 3), Y18/34 = WP 84 (Pa/Cemetery – Wahanui) (Figure 6) and Y18/304 = WP 110 (Pa/Urupa) (Figure 9).

  The proximity of the proposed activity to these places increases the risk that recorded and unrecorded archaeological / cultural and historic heritage remains may be impacted by the proposed activity. The effects on the physical (archaeological) evidence of past human activity is not an assessment of effects on cultural values or wāhi tapu. Advice about Māori cultural values can only be provided by tangata whenua.

- The proposed alignment of the Distribution Network in the road reserve is located within close proximity to a number of HNZ Listed Historic Places and Listed Wahi Tapu Area (see Figure 11).

  These sites are unlikely to be directly affected however, as they are principally located on adjacent properties. However, the proximity of the proposed activity to these places increases the risk that recorded and unrecorded archaeological / cultural and historic heritage remains may be impacted by the proposed activity.

- The proposed Distribution Network will be constructed by open trenching within road reserves (including SH2 and SH35, and local roads), which have been modified, to at least some extent, by road construction and associated works.

- Archaeological experience indicates that while road construction will have removed or truncated archaeological remains in areas, deeper subsurface archaeological remains may survive within road reserves depending of the depth of roading earthworks and be affected by trenching / construction works.

- It is likely that subsurface archaeological remains will be exposed and affected by the proposed Distribution Network in areas where archaeological sites have previously been recorded in close proximity and within the recorded extent (buffer) of sites, but also within areas where previously surface archaeological features have not been identified given the archaeological landscape of the Waipaoa River Catchment.

- LiDAR and historic aerials indicate the possibility of unrecorded archaeological surface features (Pits / Terraces) on ridgelines within the Project area.

Proposed Mitigation

- As the proposed Distribution Network will cross within the TRMP Heritage Alert Layer Overlay 1 to the west and east of the Waipaoa River an archaeological assessment of the effects on archaeology / cultural and historic heritage should be undertaken as part of the FTAA Substantive Application, including archaeological field survey, to identify recorded archaeological / cultural and historic heritage sites that may be affected and highlight areas where there is also potential for unrecorded subsurface archaeological remains (TRMP C4.1.6.2).

- The effects of the Project on any sites identified during the archaeological assessment could be mitigated in a variety of ways including:
  - modification of the project design in some areas to avoid visible archaeological surface features, or identified areas of potentially high archaeological sensitivity, where possible;
  - development of construction methodologies that minimise the potential for effects;
  - appropriate effects management in this area will be confirmed as part of the archaeological authority process, and subject to review by Heritage New Zealand Pouhere Taonga.

- A General archaeological Authority under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) should be applied within the FTAA process for the Distribution Network as a precaution, and for any archaeological sites identified as affected during the development of detailed design.
  - In the event of an Archaeological Authority application under the HNZPTA Council shall have regard to assessment matters to ensure that adverse effects are avoided, remedied or mitigated (TRMP C4.1.6.3).

- Mitigation of effects will also be provided by appropriate monitoring, archaeological investigation and recording as required by the Conditions of the Archaeological Authority under the HNZPTA.

Conclusion

There is a high potential that the proposed Distribution Network will impact on recorded archaeological / cultural and historic heritage sites and/or unrecorded subsurface archaeological remains located within road reserves.

It is considered that these potential effects can be mitigated to an acceptable level by the proposed mitigation/management and that the potential effects (post mitigation) are able to remain consistent with the Objectives of the TRMP (C4.1).

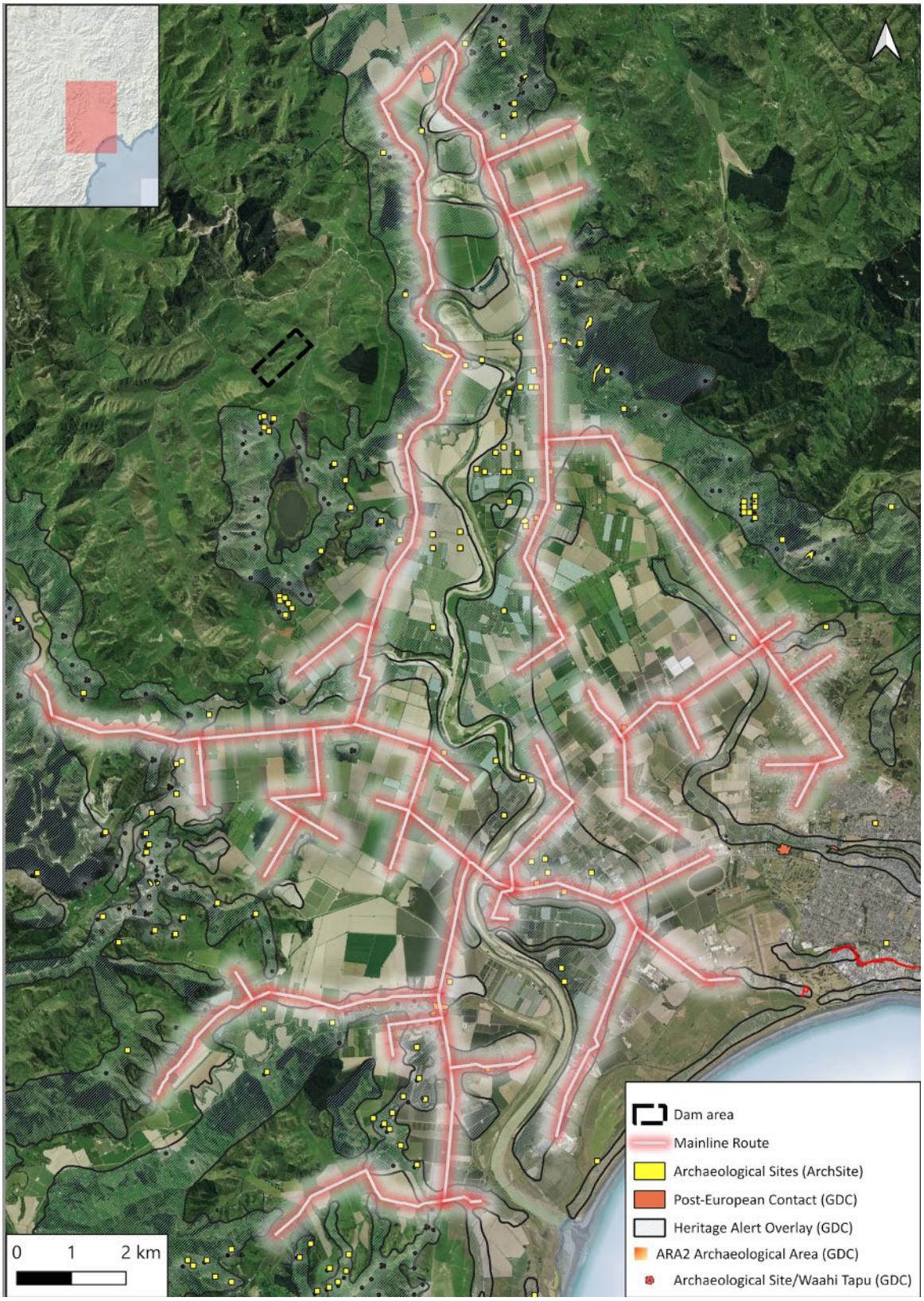

Figure 2. Overall view of the proposed PWSS Distribution Network

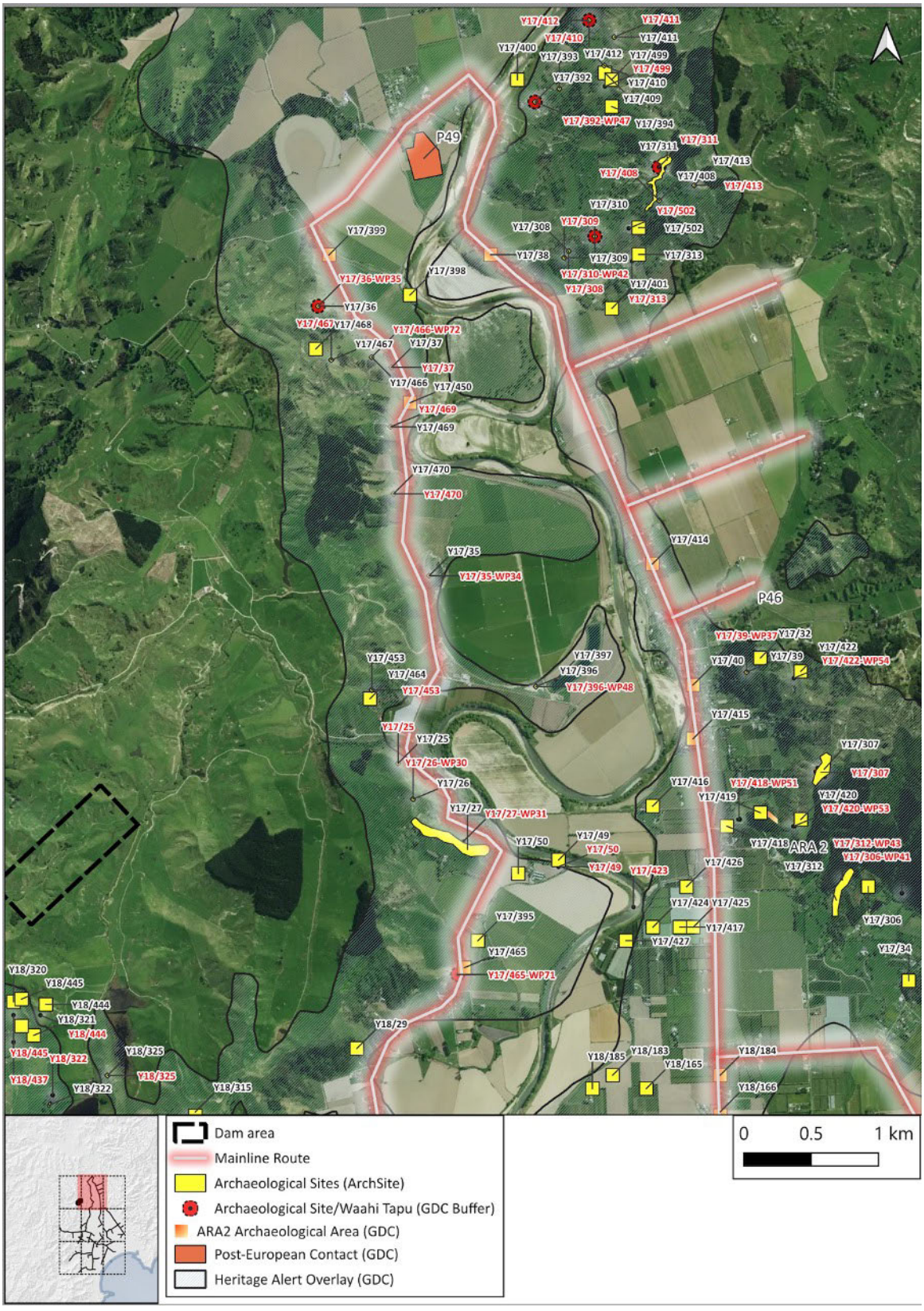

Figure 3. Proposed PWSS Distribution Network – North

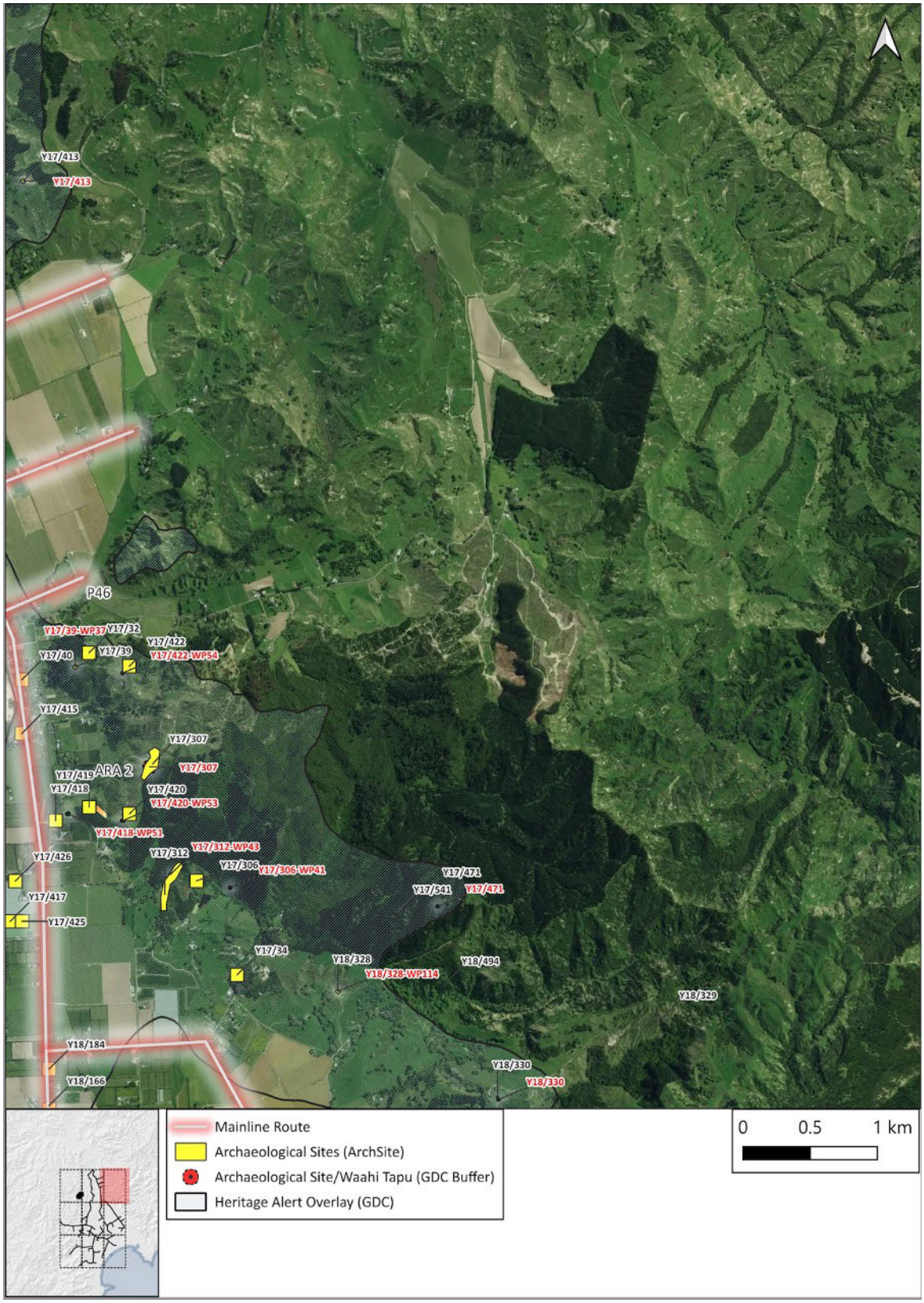

Figure 4. Proposed PWSS Distribution Network – North-East

Figure 5. Proposed PWSS Distribution Network – West

Figure 6. Proposed PWSS Distribution Network – Central

Figure 7. Proposed PWSS Distribution Network – East

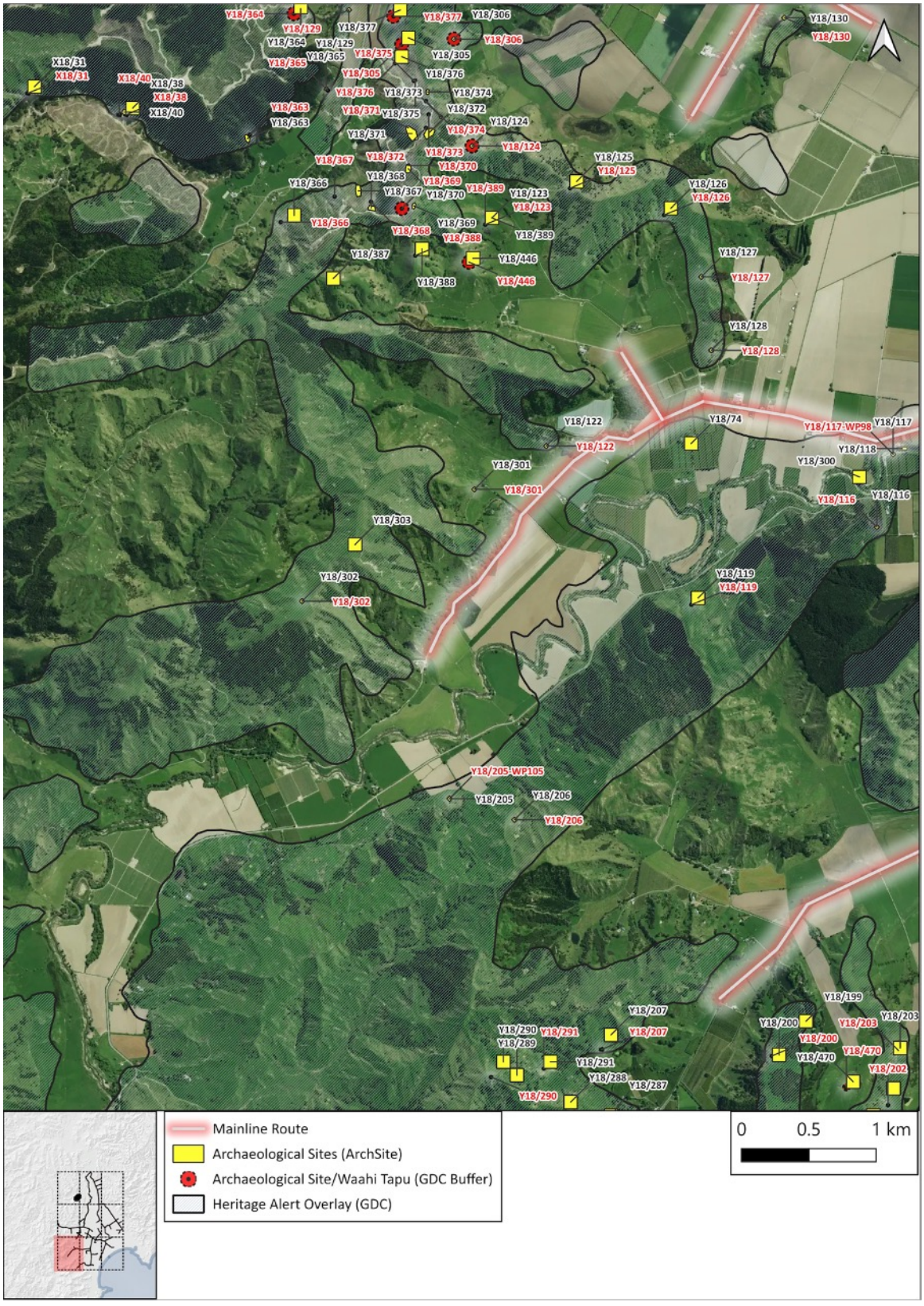

Figure 8. Proposed PWSS Distribution Network – South-West

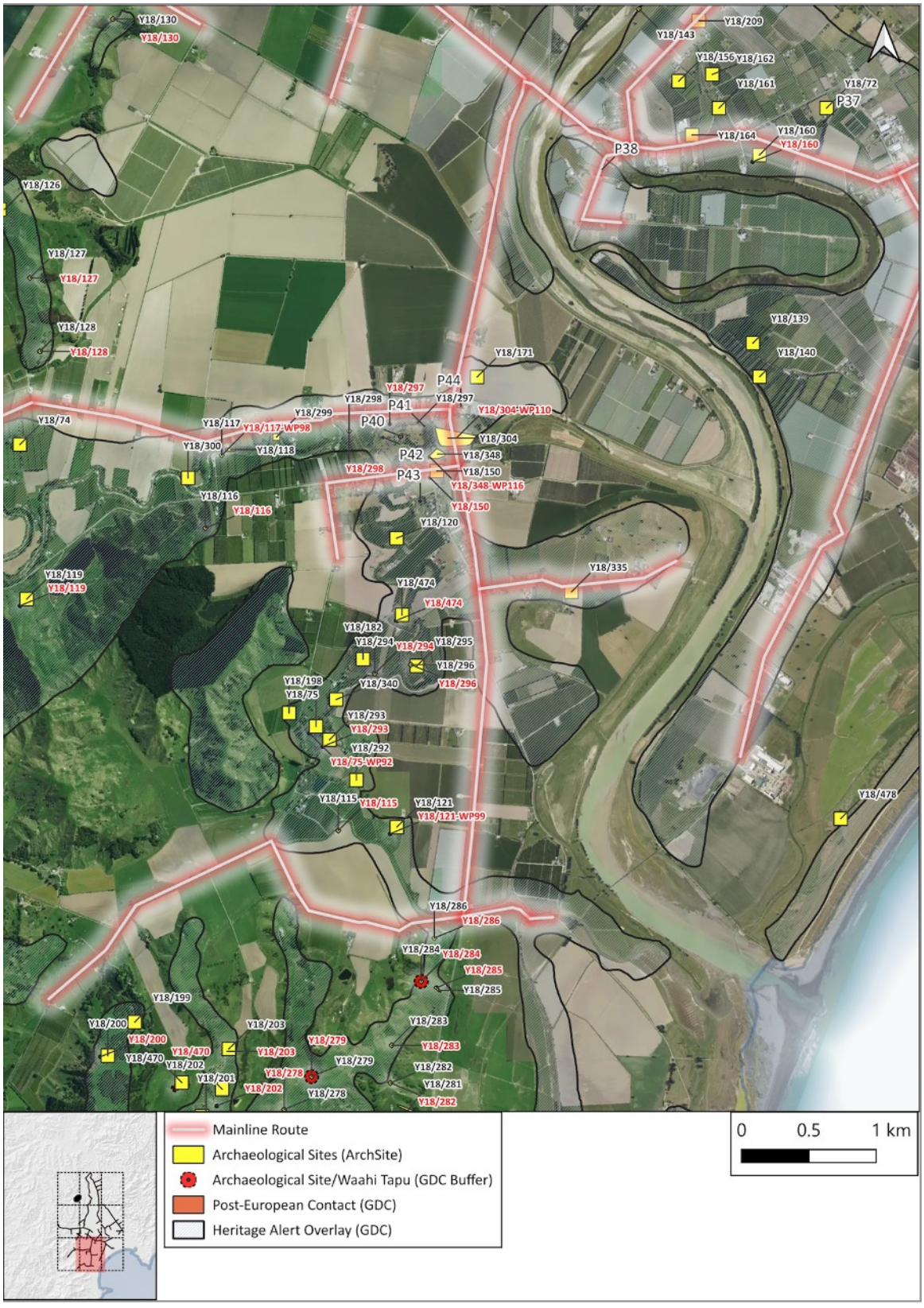

Figure 9. Proposed PWSS Distribution Network – South

Figure 10. Proposed PWSS Distribution Network – South-East

Figure 11. Overall view of the proposed PWSS Distribution Network – HNZ Listed Historic Places (Cat 1 & 2) and Wahi Tapu Area