

Technical Specialist Memo - Arboriculture

To:	Warwick Pascoe – Premium Project Lead Celia Wong – Senior Planner, Resource Consents Louise Barclay & Jo Hart – Senior Planner, Notices of Requirement
From:	Regine Hoi Gok Leung – Senior arborist of EST Team, Resource Consents
Qualifications & Relevant Experience:	<p>I hold the qualification(s) of Bachelor of Science in Biology (1998) and Master of Philosophy in Geography (2001). I am also a Certified Arborist (since 2009) of International Society of Arboriculture (ISA) and hold the Tree Risk Assessment Qualification (TRAQ) of ISA (2022 – 2027) and have 26 years of experience in arboricultural assessment.</p> <p>I am a full member of New Zealand Arboricultural Association and International Society of Arboriculture. I have prepared expert evidence and technical assessments for resource consent applications, monitoring and compliance, plan changes, notices of requirement for designation and fast-track applications, and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions.</p>
Preparation in Accordance with the Code of Conduct:	<p>I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (Code), and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.</p>
Date:	1 April 2026

1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name:

North West Rapid Transit

Fast-Track application number:

FTAA-2511-1146

Council Resource Consent References:

BUN60461580

LUC60461581

DIS60461582 (contamination)

CST60461583 (structures)

CST60461584 (disturbance of seabed (other))

CST60461585 (veg removal)

WAT60461586 (groundwater)

LUS60461587 (structure)

LUS60461588 (works)

Notice(s) of Requirement

NOR number	Description
NoR 1	Busway between Brigham Creek Rarawaru station and north of Westgate Te Waiarohia station (including stations, Park and Ride and all local road connections)
NoR 2	Busway between north of Westgate Te Waiarohia station and north of Royal Road Mānutewhau station (including stations, Park and Ride and all local road connections)
NoR 3	Busway between Royal Road Mānutewhau Station and Te Whau River (including all stations and local road connections)
NoR 4	Brigham Creek Rarawaru station including Park and Ride
NoR 5	Westgate Te Waiarohia station
NoR 6	Royal Road Mānutewhau station
NoR 7	Lincoln Road Wai o Pareira station
NoR 8	Te Atatū Ōrangihina station
NoR 9	Busway between Waterview interchange and west of Ivanhoe Road (including all stations and local road connections)
NoR 10	Busway between Ivanhoe Road and Ian McKinnon Drive (including all stations and local road connections)

NoR 11	Point Chevalier station
NoR 12	Western Springs station

Site address:

Generally alongside State Highway 16 between Brigham Creek and Auckland City Centre

- NWRP_Part 6_5_Property Schedule_Land within designation boundary and
- NWRP_Part 6_6_Property Schedule_Land adjacent to the designation boundary)

2.0 Executive Summary / Principal Issues

Arboricultural assessment within the project site is limited to trees located in between Great North Road and the Northwestern Motorway/State Highway 16 (SH16) opposite Western Springs Park and a group of pōhutukawa trees at St Francis School, Point Chevalier within NoR - 9 and based on Indicative Drawings. Tree impacts in other NoRs are covered in general as vegetation clearance within SEAs and riparian margins under Ecological Assessment. It is noted that tree impacts of coastal area within 150m of MHWS were missing. To ensure the tree impacts at Detailed Design stage are acceptable, I recommend arboricultural input by a qualified arborist on the proposed tree works to retain mature trees in the first instance and provide mitigation replanting within different habitats (SEAs, riparian margins, coastal area within 150mm MHWS, road berm & open space zoned land) to ensure there is no net loss of canopy coverage in each habitats.

3.0 Documents Reviewed

- NWRP_Part 2 – The Project
- NWRP_Part 3 – Project Benefit
- NWRP_Part 4 - Resource Management Act 1991 Approvals
- NWRP_Part 6 _1 Indicative Design_West
- NWRP_Part 6 _2 Indicative Design_East
- NWRP_Part 6 _3 Indicative Cross Section
- NWRP_Part 6 _4 Designation Plans
- NWRP_Part 6 _12 Arboricultural Management of Pōhutukawa and Notable Trees
- NWRP_Part 6 _15 Assessment of Ecological Effects

4.0 Additional Reasons for Consent Not included in AEE (Resource Consent only)

Trees within 150m of MHWS may be impacted by the proposed development, in particular for the works near to Waterview and Henderson Creek. The reason for consent of vegetation alternation and removal along coastal area within 150m of MHWS shall be covered as Restricted Discretionary Activity under E26.3.3.1 (A77).

5.0 Specialist Assessment (Notice(s) of Requirement and Resource Consent)

Arboricultural assessment

Resource Consents

The works areas of the development of NWRT are applied under proposed Designations. Detail in the arboricultural assessment for the tree impacts associated with the project is limited to the works located in between Great North Road and the Northwestern Motorway/State Highway 16 (SH16) opposite Western Springs Park and a group of pōhutukawa trees at St Francis School, Point Chevalier and based on proposed works in the Indicative Design drawings. there is intention to retain the mature trees within Open space zoned land by working around them and remove trees with less significant amenity or functions so that the tree impacts can be avoided, minimized and reduced in the first instance. Any loss of protected trees will be mitigated with new tree plantings with details of new trees including their sizes, species and planting locations to be agreed with the tree asset owner (Community Facilities).

No detailed arboricultural assessment for impacts on protected trees (such as species, size and maturity of individual specimens) within the works areas covered under two SEA overlays, riparian margins of 10 streams or terrestrial land adjacent to coastal area within 150m of MHWS. Instead, these protected trees were counted with other shrubs and ground cover identified overall as vegetation clearance and impacts under Ecological Assessment (NWRT_Part 6 _15). The overall development will likely result in approximately 12ha of vegetation loss across the terrestrial habitats throughout the Project Area. At least a further approximate 3ha of vegetation will be removed for temporary construction areas. Of the vegetation loss, approximately 0.4ha of vegetation (including protected trees) will likely be lost from within the two terrestrial SEAs. About 0.212ha (weeds within SEAs to be removed are excluded) replanting will be provided within the subject SEAs and riparian margin, or to be offset in SEAs and riparian margins outside the proposed Designation to ensure that a no net loss of protected vegetation. It is noted that the assessed vegetation impacts may vary during the Detailed Design stage.

A kauri tree located within SEA_T_4938 at Henderson Creek will be impacted due to the proposed works in the vicinity. To prevent the spread of Kauri Dieback disease, Kauri Dieback Management Protocol will be implemented within the Kauri Hygiene zone.

I note that assessment criteria under E15, E16, E17 & E26 of AUP have been reviewed in the AEE Report. However, the existing environment and tree impacts for trees located on coastal area within 150m of MHWS of the overall project site were not included (in particular for the works near to Waterview and Henderson Creek), and thus I recommended that reason of

consent for vegetation alternation and removal along the coastal area within 150m of MHWS should be included as a Restricted Discretionary Activity under E26.3.3.1 (A77).

Overall, I can support the proposed tree works within the terrestrial habitats covered by SEAs and riparian margin of streams. The assessment shows that the tree impacts will be avoided, reduced and minimized in the first instance. It is noted that in the proposed condition under arboriculture, a SQP (arborist) will prepare tree protection plan for retained trees within the works area to be protected during construction and mitigation replanting or offset replanting will be provided to ensure there is no net loss of trees/vegetation within the SEAs or riparian margins.

For a large scale development like this project, transversing different terrestrial habitats with impacts assessment based on Indicative Drawings, includes lots of variables to be considered and confirmed during the Detailed Design stage. I consider the overall tree impacts are acceptable. To ensure the tree impacts at Detailed Design stage are acceptable, I recommend arboricultural input by a qualified arborist on the proposed tree works to retain mature trees in the first instance and provide mitigation replanting within different habitats (SEAs, riparian margins, coastal area within 150mm MHWS, road berm & open space zoned land) to ensure there is no net loss of canopy coverage.

Notice of Requirement (NoR)

Arboricultural assessment of trees located in between Great North Road and the Northwestern Motorway/State Highway 16 (SH16) opposite Western Springs Park and a group of pōhutukawa trees at St Francis School, Point Chevalier within NoR - 9 were prepared by Leon Saxon of Arborlab Limited based on the Indicative Design drawings in Part 6 and assessment via site visit. It is noted that the majority of mature trees located on the road berm, dominated by Pohutukawa trees, will be retained or worked around with encroachment within their protected root zone and canopy pruning proposed. At Western Springs, approximately twenty-six trees located within Open Space zoned land which measure greater than 4m in height or greater than 400mm in girth are likely to require removal (Trees 27-33, Tree 35, Tree 37, Tree 39, Trees 41-53 and Trees 62-64) for the construction of permanent structures. The row of pōhutukawa alongside the playing fields at St Francis School will largely require removal due to conflict with the Indicative Design. Trees 80 and 81 are located outside the Proposed Designation and are likely able to be retained in good health, albeit with some construction activities within their TPZs. Trees 82, 83 and 84 are located outside the Proposed Designation and are likely able to be retained in good health.

To mitigate the loss of protected trees within Open Space zoned land, replacement planting for vegetation removed from the Western Springs Open Space zoned area is proposed with quantum, placement and species to be agreed at the time of detailed design in consultation with the tree asset manager. Overall, I can support the proposed tree works within NoR - 9. The assessment shows that the tree impacts have been reduced and minimized in the first instance. It is noted that in the proposed condition under arboriculture, a SQP (arborist) will prepare tree protection plan for retained trees within the works area to be protected during construction, and replacement planting to be agreed with tree asset owner.

Assessment for NoR-10 was limited to impacts on two Notable trees, and I will leave the review of NoR -10 to Heritage Arborist. For the remaining 10 NoRs there is no detailed arboricultural assessment to identify the existing trees or the tree impacts in each NoR. Similar to resource consents, to ensure the tree impacts at Detailed Design stage in NoRs are acceptable, I recommend arboricultural input by a qualified arborist on the proposed tree works to retain mature trees in the first instance and provide mitigation replanting within different habitats (SEAs, riparian margins, coastal area within 150m MHWS, road berm & open space zoned land) to ensure there is no net loss of canopy coverage.

6.0 Section 67 Information Gap

At the time of writing this Memo I have identified the following information gaps:

Protected trees located at coastal land within 150m of MHWS

There is no information about trees located within 150m of MHWS and their associated impacts from the proposed development, in particular for the works near to Waterview and Henderson Creek. However, I consider this missing information is low risk as the works areas are mainly in the envelope of State Highway 16. I recommend the tree impacts to be reviewed at the Detailed Design stage with specialist input from a qualified arborist to avoid, minimise and reduce the tree impacts by retaining mature specimens and provide mitigation replanting to ensure no net loss of canopy coverage within 150m of MHWS.

Protected trees located on the road berm and open space zoned land other than NoR -9

Other than the arboricultural assessment of trees located in between Great North Road and the Northwestern Motorway/State Highway 16 (SH16) opposite Western Springs Park and a group of pōhutukawa trees at St Francis School, Point Chevalier, there is no information about protected trees located on the road berm and open space zoned land of the remaining 11 NoRs and their associated tree impacts. However, I consider this missing information is low risk as the works areas are mainly in the envelope of State Highway 16. I recommend the tree impacts to be covered at the Detailed Design stage with specialist input from a qualified arborist to avoid, minimise and reduce the tree impacts by retaining mature specimens and provide mitigation replanting to ensure no net loss of canopy coverage within the road berm and open space zoned land.

7.0 Recommendation

Overall, I can support the application based on the available information and recommend the following measures for reducing tree impacts and ensure no net loss of canopy coverage within different habitats and areas including SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land via mitigation planting and offset planting.

Arboricultural Input at Detailed Design stage

I recommend specialist input from a qualified arborist during the Detailed Design stage to avoid, minimise and reduce the tree impacts by retaining mature specimens, and provide mitigation replanting or offset planting to ensure there is no net loss of canopy coverage within the different habitats and areas including SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land. The impacts on the canopy coverage and the replanting can be assessed based on i-Tree model.

8.0 Proposed Conditions (Resource Consent)

It is recommended specialist input from qualified arborist during the Detailed Design stage to avoid, minimise and reduce the tree impacts by retaining mature specimens, and provide mitigation replanting or offset planting to ensure there is no net loss of canopy coverage within the different habitats and areas including SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land. This condition will be additional to the proposed conditions of resource consent which are mainly for works during construction stage.

Recommended wording is below:

- An Arboricultural report prepared by a suitably qualified and experienced Arborist must be prepared and submitted to the Council for certification prior to the commencement of construction. The report must include detail to demonstrate that tree impacts on mature specimens are avoided, minimized and reduced through retention in the first instance, and provide for mitigation or offset planting to ensure there is no net loss of canopy coverage within the different habitats and areas including; SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land. Construction works must not commence until Council has certified that there will be no net loss of canopy cover within each of the habitats.

9.0 Proposed Conditions (Notices of Requirement)

It is recommended specialist input from qualified arborist during the Detailed Design stage to avoid, minimise and reduce the tree impacts by retaining mature specimens, and provide mitigation replanting or offset planting to ensure there is no net loss of canopy coverage within the different habitats and areas including SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land. This condition will be additional to the proposed conditions of NoRs which are mainly for works during construction stage. Recommended wording is below:

- An Arboricultural report prepared by a suitably qualified and experienced Arborist must be prepared and submitted to the Council for certification prior to the commencement of construction. The report must include detail to demonstrate that tree impacts on mature

specimens are avoided, minimized and reduced through retention in the first instance, and provide for mitigation or offset planting to ensure there is no net loss of canopy coverage within the different habitats and areas including; SEAs, riparian margins, coastal land within 150m MHWS, road berm and open space zoned land. Construction works must not commence until Council has certified that there will be no net loss of canopy cover within each of the habitats.

10.0 Designation Review Matrix – Specialist Review				
NOR number	Location Description	Information Adequacy (High / Moderate / Low)	Key Issues Identified	Comments / Recommendations
NoR 1	Busway between Brigham Creek Rarawaru station and north of Westgate Te Waiarohia station (including stations, Park and Ride and all local road connections) (0.3km length)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 2	Busway between north of Westgate Te Waiarohia station and north of Royal Road Mānutewhau station (including stations, Park and Ride and all local road connections) (3.3km length)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 3	Busway between Royal Road Mānutewhau Station and Te Whau River (including all stations and local road connections) (5km length)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 4	Brigham Creek Rarawaru station including Park and Ride (within NoR 1)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 5	Westgate Te Waiarohia station (within NoR 2)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 6	Royal Road Mānutewhau station (within NoR 3)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 7	Lincoln Road Wai o Pareira station (within NoR 3)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 8	Te Atatū Ōrangihina station (within NoR 3)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 9	Busway between Waterview interchange and west of Ivanhoe Road (including all stations and local road connections) (2.7km length)	<input type="checkbox"/> High x Mod <input type="checkbox"/> Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 10	Busway between Ivanhoe Road and Ian McKinnon Drive (including all stations and local road connections) (2.7km length)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 11	Point Chevalier station (within NoR 9)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.
NoR 12	Western Springs station (within NoR 10)	<input type="checkbox"/> High <input type="checkbox"/> Mod x Low	Can refer to above Sections 5 & 6 - Arboricultural assessment and information gaps identified.	Can refer to above Section 7- Recommendation.