

**URBAN AND LANDSCAPE DESIGN SECTOR PLAN**  
MOIR HILL AND HIKAUAE CREEK SECTOR



Plan Preparation

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Ara Tūhono  
**Pūhoi to  
Warkworth**

A NZ Transport Agency **PPP Project**



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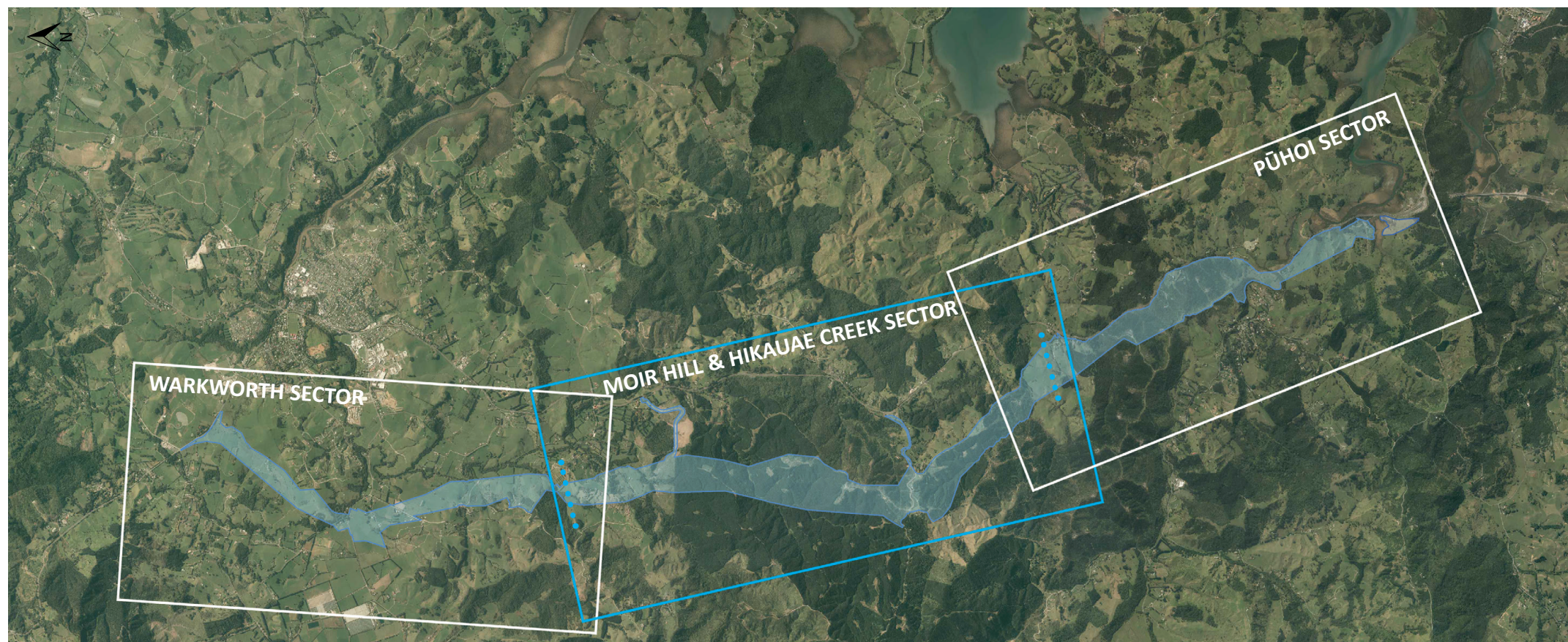
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# 1. INTRODUCTION







NX2 ULDS Sectors

# 1. INTRODUCTION

The Pūhoi to Warkworth Project (the Project) will extend the four-lane Northern Motorway (SH1) 18.5km from the Johnstone’s Hill Tunnels to just north of Warkworth. It is the first stage of the Ara Tūhono – Pūhoi to Wellsford Road of National Significance. It will be open for traffic by late 2021. Ara Tūhono means a connecting pathway (‘Ara’ meaning pathway/passage and ‘Ara Tūhono’ means connecting or linking one part to another). The name Ara Tūhono was gifted by Hōkai Nuku to the NZ Transport Agency.

The motorway will be a four-lane dual carriageway road built to the west of the existing SH1 and bypass Warkworth, on the western side.

The Project is being delivered through a PPP (Private Public Partnership) between the Government (NZ Transport Agency) and a private consortium, the Northern Express Group (NX2). While the NX2 private-sector consortium will be responsible for financing, designing, building, maintaining and operating the motorway for 30 years, the motorway will remain a public asset.

The NZ Transport Agency (Transport Agency) secured designations and a range of resource consents in order to deliver the Project through a Board of Inquiry Process. The 18.5km road has been split into three zones; Pūhoi, Moir Hill and Hikauae Creek, and Warkworth sectors. Each Urban and Landscape Design Sector Plan (ULDS) focuses on the permanent outcomes of the works. The three zones slightly cross over; and accordingly transitional areas are provided to complete views of these areas.

This ULDS has been prepared in accordance with the Urban and Landscape Design Framework (ULDF) and in compliance with designation conditions D33, D34, D36, D36A and D37. This ULDS is comprised of two parts; the first is the design elements (sections 1-6), and the second is a spatial, visual representation of the elements which are physically located along the alignment (sections 7-8).

Where numbers are bracketed, e.g. [D34], please refer to section 1.3 for a list of relevant conditions related to this ULDS, as well as a link to the entire suite of conditions for the Project.

*The purpose of a ULDS is to demonstrate the implementation of the ULDF through integrating the Project's permanent works into the surrounding landscape and topography, having regard to the local landscape character and context along the route [D34].*

*This ULDS relates to the Moir Hill and Hikauae Creek Sector of the Pūhoi to Warkworth Project. This is the central of three sectors as shown above. The other two sectors will separately follow the same process.*

*The overall outcomes of the ULDF is to ‘let the landscape speak’ [D26] by means of:*

- *A clean, uncluttered highway.*
- *A stitched-together landscape.*
- *Celebration of the cultural footprint of Mana Whenua.*

*These over-riding outcomes are described in sections 3-6 of this document and are shown in the sector plans in section 7.*



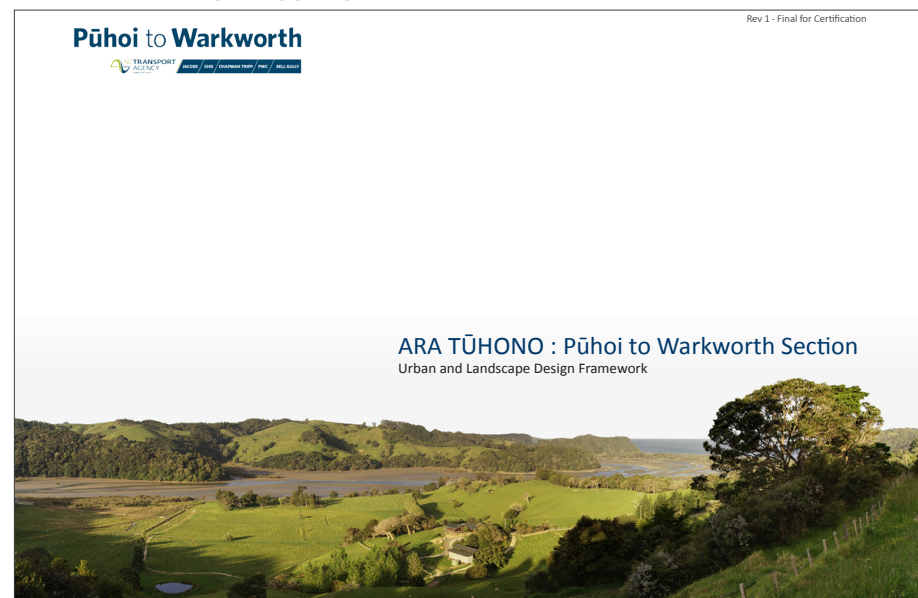
## 1.1 URBAN AND LANDSCAPE DESIGN FRAMEWORK

A designation and various resource consents are in place for the Pūhoi to Warkworth section of Ara Tūhono. These conditions must be complied with during and post construction. The designation conditions in place are broad, and were intended to allow for flexibility in the design of the motorway. This is different to other Transport Agency Projects in the past. This flexibility is balanced by conditions that set out a certification process for the ULDF and a requirement for ULDSPs to comply with the ULDF. The ULDF was prepared and certified in accordance with the designation conditions D26-D32. Condition D33 requires the preparation of a ULDSP in compliance with the ULDF. Condition D38C requires certification by Auckland Council that the ULDSP is consistent with the ULDF. The ULDSPs provide design details to the community and compliance with the ULDF provides a benchmark for appraising the project as a whole in combination with the relevant consent conditions [D33] [D34] [D38A] [D38C] [D41].

## 1.2 ULDSP

This ULDSP is one stage of a design life-cycle as shown on the diagram in section 1.4. The landscape and urban design team have provided guidance on urban and landscape design matters at each stage of the design, with the ULDF providing the guiding principles [D34]. The ULDF describes the urban and landscape design outcomes and provide a benchmark for appraising the Project as a whole.

This Draft ULDSP has been prepared by suitably qualified urban designers and landscape architects in collaboration with the Iwi Advisor of Hōkai Nuku, ecologists and a bridge architect. Hōkai Nuku is the authorised voice of the four Iwi and Hapū Mana Whenua of the Project area, specifically, Ngāti Manuhiri, Ngāti Mauku/Ngāti Kauae of Te Uri o Hau, Ngāti Rango of Kaipara and Ngāti Whātua and has been appointed by the Transport Agency to provide specialist advice for the Project. Hōkai Nuku have a particularly important role to play in the preparation of this ULDSP which is detailed in sections 3.3 and 6 [D38A] [D41].



Urban Landscape Design Framework (ULDF)  
www.nzta.govt.nz/projects/ara-tuhono-puhoi-to-warkworth

## 1.3 DESIGNATION CONDITIONS

The Board of Inquiry decision on Pūhoi to Warkworth includes detailed conditions (<http://www.epa.govt.nz/Resource-management/previous/Puhoi/Final-report-and-decision/Pages/default.aspx>) relevant to urban design and landscape matters, covering process, design and implementation. The conditions have been paraphrased in the table below.

Condition requirement summary	Condition No.	Where addressed
Prepare a sector ULDSP	[D33]	Section 1
Purpose of a ULDSP	[D34]	Section 1
Urban design and landscaping elements detail requirements	[D36(a)]	Sections 4, 5.3-5.8 and 7
Landscape design information and detail requirements	[D36(c)]	Sections 4.2, 4.12-4.15, 5 and 7
Plant sourcing	[D36A]	Section 5.15
ULDSP matters to consider/address	[D37]	Sections 3, 4, 5, 6 and 7
Preparation requirements	[D38A]	Sections 1.1, 1.2
Prepare specific area ULDSPs	[D38AA]	Not relevant in this sector
Provision of Draft ULDSP to stakeholders for comment	[D38B]	Section 1.4
Provision of Final ULDSP to Auckland Council for certification	[D38C]	Section 1.4
ULDSP to be implemented	[D41]	Section 1
Moirs Hill Walkway	[D70AA]	Section 5.3
Works in watercourses	[RC49(a)]	Sections 5.5- 5.8

Condition D33 requires:

Following certification of the ULDF, the Requiring Authority shall prepare an Urban and Landscape Design Sector Plan (ULDSP) for each sector of the Project in compliance with the ULDF.

Condition D34 states:

The specific details to be addressed in a ULDSP are required by various conditions: The purpose of the ULDSPs is to implement the ULDF through integrating the Project's permanent works, including areas of earthworks, structures, and mitigation works for landscaping, visual screening for residential properties, heritage, noise attenuation (if any) and ecology, into the surrounding landscape and topography, having regard to the local landscape character and contexts along the highway route.

Condition D36 requires that each ULDSP shall include:

Each ULDSP may be staged in accordance with Conditions D38, D38AA and D38C for the construction and permanent phases of the Project and shall include (where relevant):

(a) Detailed design drawings and information for the urban design and landscaping elements, including:

- Form, articulation and finish of all bridge elements;
- Pedestrian and cycle facilities on local roads;
- Highway furniture, including road safety barriers, signage gantries, light standards;
- Retaining walls and noise walls (if any);
- Treatment of cut and fill batters, including benching;
- Stormwater measures, including wetlands

(c) Landscape design details within the designation, including:

- Landscaping treatments (landform and planting), including rehabilitation of all areas used for temporary work and construction yards;
- Pest removal, weed control and identification of vegetation to be retained;
- Proposed planting including – plant species (including consideration of native food-bearing species), mixes (canopy and succession species), spacing/densities (which may incorporate any planting required under Conditions D59 and D60), and sizes (at the time of planting);
- Integration of riparian planting required pursuant to the resource consents for the Project;
- Provision or enhancement of wildlife corridors where practicable;
- Planting programme – the staging of planting in relation to the construction programme and the maintenance regime; and
- Detailed specifications in accordance with the Transport Agency P39 Standard Specification for Landscape Treatments.

Condition D37 requires the consideration of the following:

- Where bridges will be viewed from afar or below (e.g. from Pūhoi River and from Woodcocks Road), pay particular attention to the visual amenity of the structure as well as the design of the underside of the structure, including having regard to the utility requirements and ongoing maintenance.
- Optimise views (subject to the obligation to mitigate noise) from bridges by appropriate barrier design;
- Employ techniques to create cut rock face that resemble natural fractures where appropriate;

- Design any terracing and benching to break up their faces to reduce visual dominance where appropriate, including being irregular and responding to the natural bedding layers of the base material;
- Minimise the visual impact of:
  - Roadside drainage channels through design, location and planting;
  - Cuttings and fill embankments through appropriate grading to integrate with the surrounding landscape (where practical) and landscaping, avoiding “engineered” looking landforms and retention and incorporation of naturally occurring landforms and features within the area of earthworks (e.g. rock outcrops, watercourses, ridges); and
  - Spoil disposal areas through appropriate contouring to appear as natural as possible in keeping with the surrounding landscape characteristics.
- Address the compatibility of finished land cover with the surrounding land cover;
- Give consideration to planting replacement vegetation (as required by Condition D59) in the general location from where it was removed.

D38AA requires a specific permanent phase ULDSP to be prepared for:

- The area on the eastern side of the Pūhoi River on (CT NA37A/148), with a focus on establishing visual screening of the Project and construction yard for nearby residents as soon as practicable. This ULDSP shall be developed in consultation with a suitably qualified stormwater engineer to ensure appropriate consideration is given to the identified floodplain.
- The designation north of Woodcocks Road, with a focus on establishing a visual screen of the Project (including the intersection of the Project with the existing State Highway 1) for nearby residents in Viv Davie-Martin Drive.
- For the land situated between the Project and the right branch of the Mahurangi River, extending from the Kauri Eco Viaduct (Te Arawhiti Pua Ngahere) to Wyllie Road. The ULDSP shall ensure the proposed access track becomes inaccessible to motor vehicles and motorcycles and shall include:
  - The removal of surfacing from any access track and its rehabilitation as far as practicable;
  - Dense planting which may include replacement planting required under condition D59.
- For the viaducts spanning the Okahu inlet together with both approach embankments.

Advice Note:

As outlined in Section 06 of the Ara Tūhono: Pūhoi to Warkworth Section Urban and Landscape Design Framework, the specific permanent phase ULDSPs required by designation Condition D38AA may be integrated with the ULDSP prepared for each sector of the Project (designation Condition D33), so long as they specifically address the requirements of designation Condition D38AA

#### 1.4 CONSULTATION AND CERTIFICATION

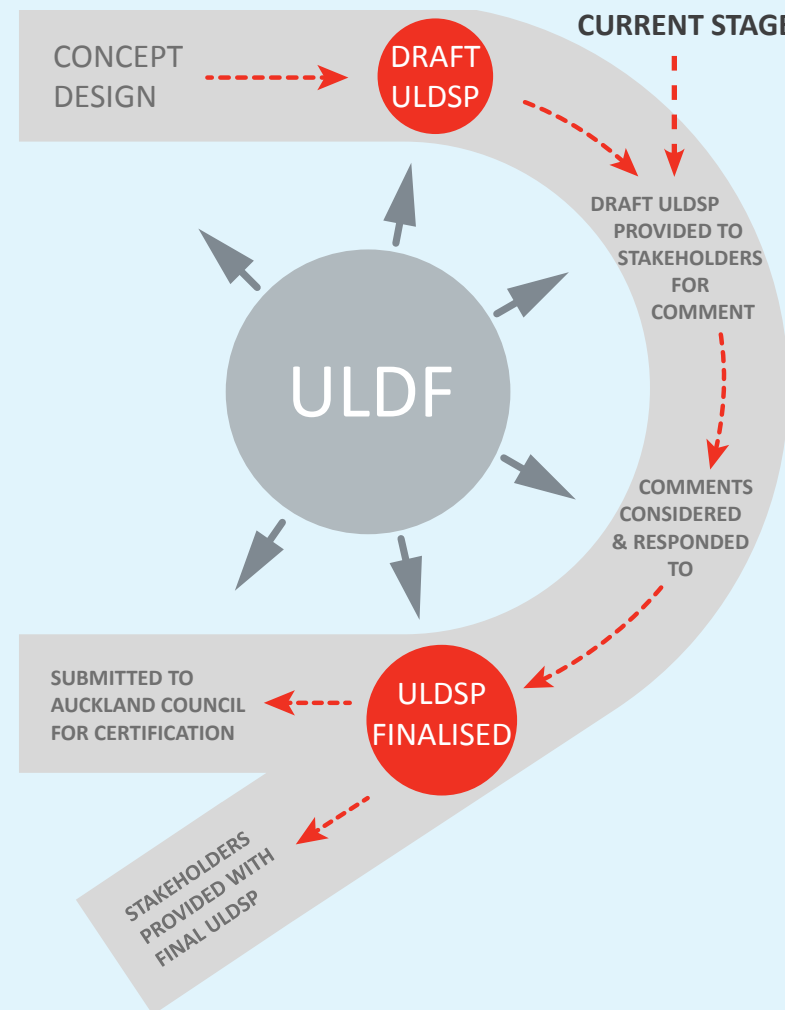
The ULDSP consultation and certification process is summarised in the design process diagram on the right. The Draft ULDSP (this document) has been provided to a number of residents and stakeholders for comment, as specified in condition sD38B and D30(a)-(d).

The condition states that if NX2, on behalf of the Transport Agency, has not received any comments from these stakeholders within 20 days of provision of the Draft ULDSP then the Requiring Authority may consider that the stakeholder concerned has no comments. Comments can be submitted via email to [info@nx2group.com](mailto:info@nx2group.com).

Comments and suggestions will be considered and summarised and responded to on the [NX2 website](#). At this point in the process, staff may contact stakeholders to discuss specific comments.

A Final ULDSP will include changes made as a response to stakeholders comments (where relevant).

This Final ULDSP will be provided to Auckland Council for certification, and at the same time a copy will be provided to the stakeholders whose comments were sought pursuant to D38B [D38C]. Once certified, the ULDSP will be implemented and maintained [D41] [D38B] [D38C].



Project design process

#### 1.5 BACKGROUND DOCUMENTS

The ULDF is the primary document providing guidance for landscape and urban design, setting the overarching outcomes. Condition D33 requires the preparation of a ULDSP in compliance with the ULDF. The following documents underpin and are to be used to interpret the ULDF [section1.5]:

- Land Transport Management Act (2003)
- NZ Transport Agency Environmental Plan (2008)
- NZ Transport Agency Environmental and Social Management Standard (Z/19) (2010)
- Bridging the Gap: NZ Transport Agency Urban Design Guidelines (2013)
- NZ Transport Agency Landscape Guidelines (Final Draft) (2014)
- NZ Transport Agency P39: The Standard Specification for Highway Landscape Treatments
- Board of Inquiry, Ara Tūhono: Pūhoi to Warkworth Final decisions, conditions, hearing transcripts, landscape and visual assessment report, and other relevant supporting documentation
- Ara Tūhono: Pūhoi to Warkworth Ngā Pā o Te Hēmara Tauhia (Pā Sites R10/921 and R10/1369) Management Plan
- Ara Tūhono: Pūhoi to Warkworth Cultural Heritage and Archaeological Management Plan
- Ara Tūhono: Pūhoi to Warkworth Cultural Harvest and Use Protocol (February 2016)
- Kauri Dieback Biosecurity Plan
- Northern Gateway Toll Road Themes



Bridging the gap: NZTA Urban design guidelines



NZTA Landscape Guidelines