

MEMORANDUM



Urban & Environmental

To: Auckland Council: Michael Luong
From: Barker & Associates
Date: 3 April 2020
Re: Waihoehoe Plan Change Request: Planning RFI Response

Waihoehoe Plan Change Request – Oyster Capital

I write in response to your request dated 5 March 2020 for further information under Clause 23(1) to Schedule 1 of the Resource Management Act 1991 relating to the above private plan change request. This letter sets out our responses to the matters raised in your letter, and is supported by the following attachment prepared by the technical specialists supporting the plan change request:

- Attachment 1: Waihoehoe Plan Change Application dated 25 March 2020
- Attachment 2: Waihoehoe Plan Change dated 25 March 2020
- Attachment 3: Urban Design Assessment dated 25 March 2020
- Attachment 4: Response to Landscape and Visual Effects Request for Further Information
- Attachment 5: Response to Geotech Request for Further Information
- Attachment 6: Response to Ecology Request for Further Information
- Attachment 7: Response to Stormwater Request for Further Information
- Attachment 8: Response to Transport Request for Further Information
- Attachment 9: Auckland Unitary Plan and Waihoehoe Precinct Provisions for Roads, Open Spaces

The requests and our responses are set out below.

1.0 PLANNING

1.1 TRANSIT ORIENTATED DEVELOPMENT

Request 1: *Given the announcement around early station provision (with location of these stations being a separate issue), can you please advise whether and how the plan change request would be altered given the greater certainty now provided over early access to public transport?*

Stantec has undertaken further transport modelling to determine the impact of the transport infrastructure projects that the Government has confirmed funding for, including bringing forward the delivery of the Drury Central train station. This updated modelling now shows that the standards which seek to stage development with transport upgrades can be significantly simplified. In particular the local upgrades required to enable certain development capacities include:

- Safety improvements of the Great South Road/Waihoehoe Road intersection (required in approximately 2026); and

- Capacity improvements of the Great South Road/Waihoehoe Road intersection (required in approximately 2038 if there is direct access to the centre from SH1 and 2033 if there is not direct access).

In addition to simplifying the triggers criteria are now proposed to ensure that internal pedestrian and cycling linkages to the Drury Central train station are staged with development. This is discussed further within Section 1.10.3 of this response.

Request 2: *Given the importance attached to transit access in managing transport pressures, as well as shaping urban form, has consideration been given to the plan change only coming into effect once the Drury Central train station is operational? Could provision be made for enabling works to occur in the meantime?*

Delaying the Plan Change so that it comes into effect once the Drury Central train station is operational is not necessary nor is this supported. Since the lodgement of the Drury East Plan Change applications the Government has committed to funding the Drury Central Train Station, with construction due to be completed late 2024 **refer Figure 1**. Given it is likely to take two years for the Plan Changes to become operative followed by two years of enabling works to prepare the land at Drury East for development, it is highly likely that the train station will be operational prior to the occupation of any new dwellings, retail or commercial buildings. As there is general alignment between the delivery of the train station and construction of Drury East getting underway, it is not necessary to delay the Plan Change.

Notwithstanding that there is alignment of the timeframes, the proposed delay of the Plan Change is not supported. It is not essential for the Drury Central train station to be aligned with the first dwellings to deliver a development that is well supported by public transport. Now that there is commitment from the Government to deliver the Drury Central train station by 2024 the Plan Change can with more certainty seek to enable a planning framework that seeks to respond to this through ensuring there are road, walking and cycling connections to the train station at the early stages of development within the walkable catchment of the station. Auckland Transport's approach to providing public transport services is that they continue to monitor growth and transport conditions and prioritise the necessary infrastructure and service improvements as circumstances demand and budgets and practicalities allow¹. Therefore, demand will drive the investment in supporting public transport services and a level of development is necessary prior to completion of the train station will provide a population to support investment in supporting bus networks.

¹ Joint statement of evidence of Alastair Cribbens, Steve Wrenn and Liam Winter on behalf of Auckland Transport for Auckland Unitary Plan Topic 080 and 081 Rezoning and Precincts dated 3 December 2015 pg 14.

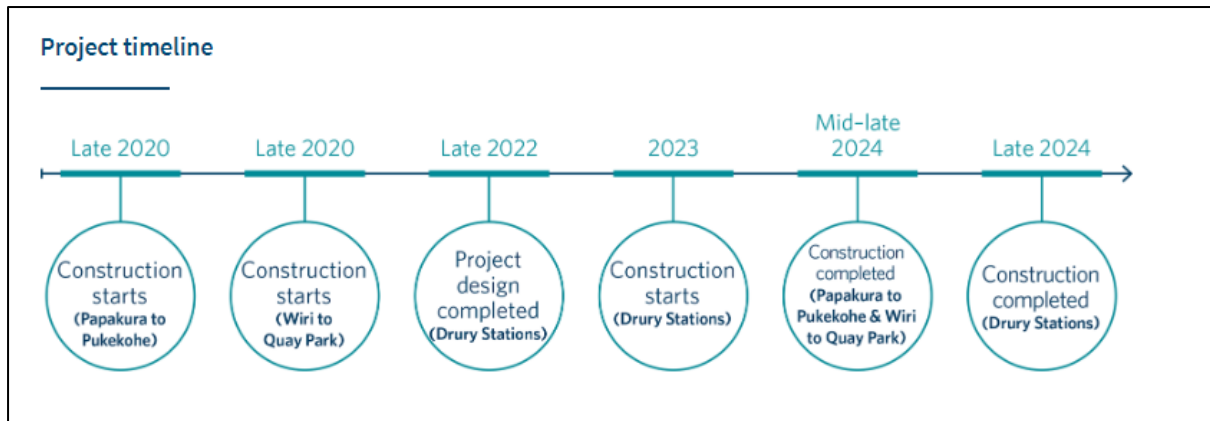


Figure 1: Drury Train Station Project Timeline Source: NZTA

1.2 CO-ORDINATION / INTEGRATION ACROSS THREE PLAN CHANGES

Request P3: Please advise on the risks associated with implementation of the three plan changes as separate precincts and how those risks are to be mitigated?

Transport Request 1: The transport modelling assessment and planning provisions currently speak to all three PPCs being accepted as a package and progressing in parallel. In the event that the PPCs are disaggregated, or deviate from each other in terms of timing as a result of the public notification process/resolution of critical elements, please provide further information as to how the transport effects of each individual PPC can be understood and mitigated and how the provisions may need to be amended as a result. Please confirm to what extent the PPC relies on the PPCs submitted by FHDL and Oyster Capital, and how the delay or rejection of one or both of these PPCs might affect the Kiwi Property PPC.

In our view the risks associated with implementation of the three plan changes as separate precincts largely relates to the integrated delivery of transport infrastructure. Since the initial drafting of the Plan Change the Government has announced an infrastructure funding package which brings forward the delivery of many key projects such as the Drury Central train station and the Mill Road corridor.

The results of the updated modelling undertaken by Stantec accounting for the early delivery of now funded infrastructure projects has shown a delay in the timing for unfunded local upgrades that need to occur to enable development. The unfunded local roading projects that are required to enable capacity are now largely confined these to safety and capacity improvements to the Great South Road and Waihoehoe Road intersection. In addition, new provisions are now proposed to require the developers to stage the early delivery of internal linkages to the train station within their precinct or Plan Change area. The precinct provisions for these internal linkages have been developed in an integrated way across the Plan Changes, but do not rely on infrastructure works being undertaken by another party, given that there are options to access the Drury Central train station via interim upgrades to the existing road network.

In parallel with the Plan Changes, the Drury East developers intend to develop an infrastructure funding agreement between themselves, the Council and other relevant parties addressing these

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required but as yet unfunded local transport upgrades. This funding agreement will minimise the risks with implementation of the three plan changes as separate precincts and is intended to be in place prior to a hearing on the Plan Change. If that were to occur there is an option to remove the transport staging provisions from the Plan Change entirely.

The developers have already reached agreement with Watercare around network upgrades required to be installed and these works have physically commenced.

In our view, there are no other risks associated with managing the development of the three Plan Change areas via separate precincts given that the zoning framework and planning provisions have, and continue to be developed, in an integrated manner. However, we provide specific responses to the three potential risks listed on page 2 of the planning RFI:

Issue noted in the Planning RFI	B&A Response
The proposed rules associated with infrastructure delivery and how these may be interpreted if only one or two of the plan changes are operative	The transport infrastructure rules have been simplified. The upgrades to the transport network would be triggered by one or all of the developments as the rule applies to the entire Drury East area (refer to the precinct plans showing the transport staging boundary). In this regard, there would be no difference if the development progressed concurrently or one development proceeded ahead of the other.
How costs are to be shared across the three plan change areas for required (identified) upgrades if development in one of the plan change area exceeds the triggers, but the other plan changes are not operative.	As noted above, the Drury East developers intend to enter into a Development Agreement to fund the necessary local upgrades prior to the Hearing on the Plan Change.

1.3 URBAN FORM

Request 4: *Please advise why an alternative zoning pattern has been proposed and the implications of this for the population and housing targets set out in the Council's Structure Plan.*

In response to this request for further information the zoning pattern has now been revised so that it is entirely Terrace Housing and Apartment Building zone consistent with the Council's Drury Opaheke Structure Plan. To ensure the proposed change in zoning supports the outcomes for development identified in the Stormwater Management Plan, the impervious area control is proposed to be amended as detailed in the precinct provisions.

1.4 URBAN DESIGN

Request 5: Please advise as to whether any consideration has been given to incorporating best practice outcomes relating to urban form and urban design. AUP Policy B2.3 A quality built environment should be referenced.

Urban Design 3: The UDS report sets out a rationale for structure planning and development of a masterplan for the PC area. However, there is no assessment of how the key outcomes identified will be ensured by the proposed zone and precinct provisions. Please provide an analysis of how the key outcomes identified will be achieved (further queries relating to the detail of this is set out in various points below).

The proposed Plan Change relies largely on standard zones and Auckland-wide provisions to manage the way in which the Plan Change area is used and developed, which is the policy intent of precincts under the AUP. In this regard we note that the AUP sets out a clear hierarchy of provisions in A1 – Introduction. The purpose of precincts is to “enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling”². In a greenfield context, these place-based provisions relate to specific environmental features that development needs to respond to, and which are justified following a s32 analysis. This approach does not support the use of precincts to provide a greater or lesser degree of regulation than the zone or Auckland-wide provisions, unless there are clear place-based reasons for doing so, which are different to other parts of the region.

Consistent with other greenfield precincts within the Auckland Unitary Plan, the Plan Change includes a precinct, which includes place-based provisions that create a spatial framework for development. In our view, the precinct provisions are appropriately focused on the layout of development necessary to achieve the objectives of the AUP, including:

- Achieving an appropriate urban layout;
- Providing an integrated and connected street network;
- Providing a network of open space which integrates with the natural features of the area; and
- Ensuring development integrates with public transport and that development coordinates with the required infrastructure upgrades.

On balance, this approach enables the Plan Change area to develop to a scale and intensity which is broadly consistent with areas of similar zoning patterns across the region. Additional provisions have been incorporated to Waihoehoe precinct to achieve best practice outcomes relating to urban form and urban design in accordance with AUP Policy B2.3 A quality built environment. In particular additional provisions are included to:

- Require consent for new roads with assessment criteria to ensure a connected street network which integrates with the wider Drury area;
- The road cross sections will ensure there are pedestrian and cycle paths to encourage active transport modes;

² Refer A1.6.5 of the AUP.

- The assessment criteria for roads will also ensure that the delivery of pedestrian and cycling linkages to the train station are staged with development; and
- Additional policy direction is provided within the precinct to integrate the network of public open spaces with natural features including the stream network.

1.5 WAIHOEHOE ROAD FRONTAGE

Request 6: *Please advise how urban design considerations will be addressed for development that abuts Waihoehoe Road to ensure a consistent approach on both sides of the road.*

The proposed zoning pattern will result in the Terrace Housing Apartment Building (THAB) zone locating on the northern side of Waihoehoe Road and the Business – Mixed Use zone locating on the southern side of Waihoehoe Road. This arrangement is anticipated within the AUP and there are many examples of this occurring in Auckland, including Broadway, Newmarket; Park Road, Grafton; Great North Road, Pt Chevalier; Ash Street, New Lynn and Great North Road, Glen Eden, to name a few.

In the future, Waihoehoe Road will be a 32m arterial road. Buildings of up to 16m and increasing to 25m and 32.5m in the Drury Centre precinct, would be comfortably accommodated on a widened Waihoehoe Road. A transition in height towards the Drury Centre, would also signal the greater height and density enabled in the Drury Centre precinct. In addition, the Mixed Use zone requires buildings to be setback 6m above 18m in height when opposite a residential zone, which would provide a consistent street frontage height along Waihoehoe Road. Also, within these zones, assessment criteria for all new buildings are relevant. The assessment criteria ensure that development achieves attractive and safe streets.

1.6 ZONE BOUNDARIES

Request 7: *Please provide a rationale for the split zoning across small lots or advise whether the zone boundaries could be amended?*

The entire Plan Change area is now proposed to be THAB zone so there is no longer proposed to be any split zoning across property boundaries.

1.7 ZONING OF FLOOD PLAINS

Request 8: *Please explain why these areas have been zoned for housing, when the clear intent is to retain them in an undeveloped state. Have alternative zoning strategies been considered?*

The approach to zoning flood plains within the AUP is to apply an appropriate zone regardless of the overlays that apply³. That approach leaves overlays to perform their proper independent function of providing an important secondary consideration, whereby solutions and potential adverse effects can be assessed on their merits. It also avoids the risk of double-counting the overlay issue both at the zone definition and then at the overlay level.

³ Auckland Unitary Plan Independent Hearings Panel Report to Auckland Council – Changes to the Rural Urban Boundary, Rezoning and Precincts: Hearing topics 016, 017 Rural Urban Boundary, 080 Rezoning and precincts (General) and 081 Rezoning and precincts (Geographic areas) July 2016 pg 19

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Therefore, in following this approach the THAB zone is proposed to be applied to the entire Plan Change area. Areas which are affected by flooding will become stormwater reserves through the resource consent process once there is a detailed design for the site and the boundaries can be accurately determined.

1.8 OBJECTIVES

Proposed objective	Further information request	Response
Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre, public transport and the natural environment.	9. It is unclear from the objective and associated policies how development is to 'integrate with public transport', versus development to support public transport use.	Agree that the wording of this objective is not correct. Precinct provisions have been amended accordingly.
	10. Please advise why the term 'transit-oriented' is not used in the objective?	Given that the Drury Central train station will not be located within the precinct the term transit-orientated is not proposed. However, given that supporting public transport use is important as noted above, this reference has been included and is considered more appropriate for this precinct.
Access to the precinct occurs in an effective, efficient and safe manner that manages significant adverse effects on State Highway 1 and the surrounding road network.	11. Please explain why this objective refers to managing impacts on the State Highway and road network, but does not refer in a positive way to supporting public transport use (rail, bus), consistent with transport assessments.	This objective is specifically focused on alleviating any adverse effects on the road network.
	12. Please consider whether the objective should refer to achieving a high modal split for access to and from the precinct by train and bus to better reflect the outcomes of the transport assessments.	Disagree. This is a base assumption of the transport modelling and the precinct provisions, both of which include provisions to encourage access to public transport.
Development is supported by appropriate infrastructure	13. Please advise whether this objective is necessary given similar objectives in the AUP RPS.	The Plan Change is enabling the urbanisation of a greenfield area where supporting infrastructure is still to be developed. The live zoning provides certainty for developers and infrastructure providers to work through the delivery of this infrastructure so that development occurs in a coordinated manner. This objective acknowledges this outcome which is being sought within the precinct.

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Proposed objective	Further information request	Response
	14. Please advise whether this objective should rather focus on ensuring development is integrated with necessary infrastructure by early delivery of key 'urban form shaping infrastructure and place making development'.	We are of the view that this objective is sufficiently broad to cover both longer term infrastructure that is required and infrastructure that is required in the shorter term to support placemaking.
Freshwater and sediment quality is progressively improved over time in the Drury Centre precinct.	15. The objective refers to Drury Centre, when the objective is to apply to the Waihoehoe Precinct.	This is an error. The precinct provisions have been amended accordingly.
	16. Please advise whether this objective accurately reflects the outcomes sought by the Stormwater Management Plan?"	This objective is consistent with Objective E1.2(1), which the SMP has been prepared in accordance with. Yes, this objective supports the outcomes of the SMP.

1.9 POLICIES

Proposed policy	Comment	Response
Require collector roads to be generally in the locations shown in IX.10.X Waihoehoe: Precinct Plan 1 while allowing for variation where it would achieve a highly connected street layout that integrates with the surrounding transport network.	17. Please clarify how this policy will achieve continuity of linkages across Precinct boundaries?	<p>The location of collector roads align with adjacent precincts as shown on Precinct Plan 1. The north-south collector road will continue the existing Fitzgerald Road. The eastern collector road will integrate with future development in the east, and is in the location shown on the Council's Structure Plan and the SGA ITA that was prepared to inform it.</p> <p>Only one other local road is proposed to connect with the Drury Centre precinct across Waihoehoe Road, which is offset from the Drury Boulevard (collector road) shown in Precinct Plan 2 of the Drury Centre precinct.</p> <p>The assessment criteria for new roads allows for this provided that an integrated and well connected transport network is achieved. The criteria also address the extent to which new roads coordinate with neighbouring sites and support the</p>

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Proposed policy	Comment	Response
		integrated completion of the network over time.
Ensure that development provides a local road network that achieves a highly connected street layout that integrates with the collector road network within the precinct and the and surrounding transport network.	18. Please consider whether, in addition to providing a connected road network, the local road network should also support the desired urban form and design outcomes through appropriate block depths, widths and road cross sections.	Agree in part. The local road network should also support the desired urban form and design outcomes through appropriate block depths and widths and street cross sections. This guidance however, is more appropriately provided as assessment criteria. Therefore, matters of discretion and assessment criteria have been updated accordingly.
Require streets to be attractively designed and appropriately provide for all transport modes.	19. Please advise whether this policy repeats matters already addressed in relevant Auckland wide chapters.	This policy provides a policy linkage for <i>Activity (A1) Development of public or private roads</i> which links to matters for discretion/assessment criteria that require roads to be designed in accordance with the cross sections included within Appendix 1 of the Precinct, which are consistent with Auckland Transport guidance.
Ensure that the timing of development in Waihoehoe Precinct is coordinated with the transport network infrastructure upgrades necessary to mitigate any significant adverse effects of development on the following parts of the transport network: (a) The State Highway 1 interchange at Drury; (b) Great South Road from the Drury interchange to the immediate north of Waihoehoe Road; (c) Intersection of Great South Road and Waihoehoe Road; (d) Waihoehoe Road.	20. Without quantification of the term 'significant adverse effect', this policy may be very difficult to administer. Please explain was is considered to be a significant effect.	As previously discussed Stantec has undertaken further traffic modelling to determine the impact of the transport infrastructure projects that the Government has confirmed funding for. This updated modelling now shows that the standard which seeks to stage development with transport upgrades can be significantly simplified. Accordingly, this policy is now proposed to be simplified to align with the updated standard.
	21. This policy does not make reference to any of the public transport infrastructure referred to in the infrastructure trigger rules. Please explain.	
	22. Has consideration been given to what 'internal' roading needs to be in place early to provide bus, walking and cycling access to the train station?	
Ensure that the following is taken into account when considering whether a proposal would have significant adverse effects on the transport network: increased use of public transport will support greater	23. It is noted that if anticipated use of public transport is not achieved (such as from poor access to the station and lack of supportive urban form) this may create adverse effects that need to be addressed through other infrastructure	This policy is proposed to be deleted.

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Proposed policy	Comment	Response
<p>efficiency in the transport network and may provide additional capacity; implementing the southern section of the Mill Road Corridor from the Drury South interchange to Fitzgerald Road, or any further roading upgrades, that may provide additional capacity in the transport network and may delay the timing of required upgrades at the Drury interchange and the Great South Road/Waihoehoe Road intersection.</p>	<p>investments. Equally, other urban developments in the wider area may take up available capacity of some of the additional network infrastructure to be provided.</p> <p>Have these outcomes been considered in the formulation of the policy?</p>	
<p>Support improvements to water quality and habitat, including by providing planting on the riparian margins of permanent and intermittent streams.</p>	<p>24. It is noted that a number of precinct specific on-site stormwater management methods may be needed. If this is so, then policy support for a higher standard of on-site management of stormwater will be required, for example if more than SMAF1 type outcome is to be delivered.</p> <p>Please comment.</p>	<p>The SMP is proposing a higher standard of stormwater management than what is required within SMAF 1. In particular all roads are proposed to be treated irrespective of whether they are high contaminant generating or not. This method will support improvements to water quality, and for this reason, no amendments to this policy are proposed.</p>
<p>Provide opportunities to deliver a range of site sizes and densities in the Terrace Housing and Apartment Buildings zone.</p>	<p>25. The purpose of this policy is unclear. The policy may suggest that the THAB zoning is inappropriate for the land in question.</p> <p>Please clarify the purpose of this policy</p>	<p>As previously discussed in Section 1.3, the entire Plan Change area is now proposed to be zoned Terrace housing and Apartment Building zone however, there is still an intention to develop in accordance with the structure plan developed by HUE due to the stormwater constraints. This policy creates a linkage to the additional standards such as vacant lot subdivision, minimum site size, and maximum impervious area which will ensure development is consistent with the structure plan.</p>

1.10 METHODS

1.10.1 Collector Roads

Request 26: *Given the role of collector roads in providing access to adjoining sites and areas, please explain if the above notification rule provides scope for notification of applications that involve alternative alignments?*

The intention of the notification rule was to preclude notification only for Collector Roads in the location shown on Precinct Plan 1. Alternative alignments would have been subject to the normal tests for notification. We have amended the wording of the notification provision to make this clear.

1.10.2 Subdivision Standards

Request 27: *Please explain the purpose of this amendment and its implications for urban form and housing capacity?*

As previously discussed in Section 1.3, the entire Plan Change area is now proposed to be zoned THAB zone however, there is still an intention to develop in accordance with the structure plan developed by HUE due to the stormwater constraints. The development form outlined on the HUE structure plan will likely require a mix of super lot and vacant lot subdivision to provide for the mix of housing types anticipated by the structure plan and the THAB zone.

The Waihoehoe Precinct applies the subdivision standards of the Mixed Use zone to the site as noted in Table E38.8.3.1.1, which provides for vacant lot subdivision down to 240m², while also providing for super lot subdivision that will enable the comprehensive development of more intensive forms of housing, including apartments. The likely urban form result of this, would be a mix of apartments, terraces and compact stand-alone dwellings, consistent with development forms indicated in the HUE structure plan. Its impact on housing capacity would be no different to the THAB zone, given that under the THAB zone rules, land use consent can be sought for stand-alone and terrace housing developments, with subdivision occurring later.

1.10.3 Staging of Development with Transport Upgrades

Request 28: *Can you please explain whether the rule is capable of being administered efficiently and effectively, having regard to these issues?*

We agree that the incorporation of permitted activity standards to coordinate the release of development capacity with infrastructure introduces a level of complexity into the Plan Change. The Drury East Developers are currently progressing a developer funding agreement to confirm the funding of the required local road upgrades. It is our preference that once this funding agreement is in place, that the permitted activity standards to coordinate the release of development capacity with infrastructure be deleted from the Plan Change. In the interim however, it is important to include the proposed permitted standards to ensure there is transport infrastructure to service development.

As previously discussed Stantec has undertaken further traffic modelling to determine the impact of the transport infrastructure projects that the Government has confirmed funding for including bringing forward the delivery of the Drury Central train station. This updated modelling now shows that the standard which seeks to stage development with transport upgrades can be significantly simplified. In particular the local upgrades required to enable certain development capacities⁴ are now limited to:

⁴ Development capacities are divided into a threshold for dwellings, a commercial GF threshold and a retail GFA threshold. The required local upgrade is required when any of the thresholds are exceeded. The thresholds that are listed for each required local upgrade are cumulative.

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- Interim safety upgrade to the Waihoehoe / Great South Road intersection to provide safe crossing facilities for pedestrians and cyclists on all approaches.
- Upgrade and signalisation to the Great South Road/Waihoehoe Road intersection to signals.
- Capacity upgrade of the Waihoehoe / Great South Road intersection.

The simplification of the triggers will significantly assist with the administration of the rule. The first local road upgrade is a safety upgrade to the Waihoehoe / Great South Road to provide safe crossing facilities for pedestrians and cyclists on all approaches. This must occur prior to any new dwellings, retail or commercial development. Therefore, this is straightforward to implement/monitor. The second required upgrade is signalisation of the Waihoehoe / Great South road intersection. The dwelling and GFA thresholds are projected to be reached in 2033 or 2038 depending on whether or not direct access is provided from State Highway 1 into the Drury Centre. These timeframes are long term and beyond of the life of the AUP. Therefore, at plan review there will be an opportunity to check whether this rule is still relevant prior to these thresholds being met.

Notwithstanding this, it is recognised that to administer this permitted standard, Council will be required to keep a register of the number of dwellings that are new or additional, including valid but unimplemented land use and subdivision resource consents. The standard requires all vacant lot subdivisions and new dwellings to comply with this standard. This includes vacant lots created via super lots or subdivision for house lots as well as 4+ dwellings in the residential zones or any development in the business zones. Where a developer wants to construct a single dwelling on a site as a permitted activity, that unit would already have been 'counted' under the subdivision consent that created the lot. Council has the ability and technology to monitor this - it will just be a matter of putting a system in place.

The RFI also raises concerns that an individual will not be able to determine compliance with the trip generation limits. A transport assessment will need to be undertaken to determine compliance with trip generation limits. Importantly, this is a restricted discretionary activity and not a permitted activity. The purpose of the inclusion of Standard IX6.3 Trip Generation Limit is to provide for developments which are just over the dwelling and GFA thresholds to apply for resource consent as a restricted discretionary activity rather than a full discretionary activity. Therefore, a transport assessment will be required anyway.

The incorporation of permitted activity standards to coordinate the release of development capacity with infrastructure is accepted practice within the AUP. In particular, similar rules have been included into existing AUP precincts⁵. While it is accepted that this approach introduces complexity to the planning provisions, a live urban zoning is required to be in place to provide enough certainty for developers to fund local infrastructure. We will continue to work with Council to refine the details of transport staging rule prior to notifying the Plan Change.

⁵ Drury 1, Franklin, Glenbrook 3, Huapai Triangle, Opaheke 1, Whenuapai 1 & 2, Beachlands 1, Karaka North, Clevedon Waterways, Puhinui, Redhills, Wainui and St Lukes

1.10.4 Riparian Margins

Council’s planning, stormwater and ecology experts have all requested further information regarding the required riparian margin rule.

Requests for Further Information: Riparian Planting	
RFI	Request
E12	Further detail is requested as to why the full 20 m anticipated by the Drury-Opāheke Structure Plan is not proposed and the effect this deviation from the structure plan guidance will have in terms of ecological connectivity across the plan change area.
E13	Further detail is requested as to what protection measures for revegetation measures are proposed, and if any measures are required within the plan change to ensure such measures are adopted. Similar riparian vegetation standards elsewhere in the Auckland Region have specified that such margins must be offered to Council for vesting (at no cost) or are required to be covenanted.
E14	The Ecology Report has identified two wetlands within the plan change area. Yet the provisions of the precinct plan for watercourses, including IX.6.2 and IX.9(1) are specific to intermittent and permanent streams. Wetlands within the Plan Change area, are subject to the same provisions of the NPS:FM, AUP:OP and Drury-Opāheke Structure Plan that seek the maintenance and enhancement of the ecological values of wetlands. It is not clear why wetlands are excluded from this standard. It is considered that further assessment is required as to the appropriateness of this exclusion given the existing policy provision and direction from national, regional and catchment-specific scales.
SW 06	Please explain why a 10m wide riparian margin is proposed when the Drury-Opāheke Structure Plan Stormwater Management Plan identified a 20m riparian margin as being appropriate. No evaluation of these two options is provided including their consistency with the objectives and policies of the AUP.
P29	Please advise as to the advantages and disadvantages of a 20m, 15m or 10m wide riparian margin building setback for the streams in the precinct.
P30	Please explain how the revegetation rule would be implemented.

Responses to these requests are provided below and within the updated Section 32 report *refer 11.3.4*.

Spatial Extent of the Planted Margin

Further information has been requested by Council’s Ecologist and Stormwater Expert in relation to the spatial extent of the required planted riparian margin. The Drury - Opāheke structure plan generally proposes a 20m riparian restoration margin along streams while noting that the actual width of the riparian restoration margin will be subject to more detailed investigation at the Plan Change Stage and may differ from 20m⁶.

In response to this request for further information additional analysis is provided within the Section 32 Assessment Report to support the inclusion of the proposed 10m planted riparian margin requirement. In summary a 10m planted riparian margin is still the preferred option for the following reasons:

- The 10m minimum required planted riparian margin ensures that indigenous biodiversity along streams is restored to enhance the ecological values of streams, while maintaining

⁶ Drury - Opāheke structure plan pg 21

flexibility for appropriate development of cycle and pedestrian paths which must be located outside of planted riparian margins and generally within the wider esplanade reserve;

- The 10m minimum required planted riparian margin aligns with Auckland Regional Council Technical Publication TP148 Riparian Management Guideline (Becker et al., 2001) which recommends a 10m riparian buffer width based on research undertaken into what constitutes a sustainable riparian zone that is self-seeding and able to minimise weed growth;
- The 10m minimum required planted riparian margin also aligns with the Auckland Design Manual which recommends a 10 m width planted on each stream bank with wider strips of 20 m or more are encouraged for larger rivers⁷; and
- The proposed precinct provisions are consistent with those incorporated within other greenfield precincts within the AUP⁸ which incorporate a 10m planted riparian margin.

Spatial Extent of Building Setback from Streams

Request 29 of the Planning RFI asks for an assessment of the advantages and disadvantages of a 20m, 15m or 10m wide riparian margin building setback for the streams in the precinct. A 10m riparian margin building setback already applies within the underlying Terrace Housing and Apartment Building zone. A 20m building setback aligns with future esplanade requirements for subdivision. As this is a greenfield environment and it is likely subdivision will occur first, we agree that it is sensible to introduce a 20m building setback along streams greater than 3m in width to align with the esplanade reserve requirements under the subdivision provisions. Therefore, Standard IX6.4 Riparian Margins has been updated accordingly.

Implementation of the Riparian Planting Rule

Further detail has been requested by Council's planner (Request 30) regarding when planting should occur, how much planting is required and whether planting can occur in stages as development proceeds. Riparian margin planting of streams is required as a permitted activity standard. As the plan change area is a greenfield environment an application for land modification, development and subdivision which adjoins a permanent or intermittent stream will trigger the requirement to show compliance with this standard. The special information requirement will direct applications for land modification, development and subdivision to be accompanied by a riparian planting plan identifying the location, species, planter bag size and density of the plants. Council will then approve the planting plan as part of the consent application.

Protection of Riparian Planting

Further detail has been requested by Council's Ecologist (Ecology Request 13) regarding what protection measures for revegetated areas are proposed⁹. The ecologist has suggested that riparian margins should be offered to Council for vesting or protected through covenanting.

⁷ <http://www.aucklanddesignmanual.co.nz/regulations/technical-guidance/wsd/guidance/conceptdesign/enhancingthereceivingenvironment/riparianbuffers>

⁸ Birdwood 2, Clarks Beach, Drury 1, Drury South, Flat Bush, Franklin 2, Glenbrook 3, Hingaia 1,2 & 3, Long Bay, Redhills and Whenuapai 3 (Proposed)

⁹ Kiwi E14, Fulton and Hogan E16, Oyster E13

No specific rules are included within the Plan Change to protect the required planted riparian margins because this can be effectively managed via conditions on the resource consent that are enforceable by the Council. There is also the option to vest the riparian margin and this would be at Council's discretion as part of the resource consent process, although we note that the Council often has limited funds to do this.

Application of Riparian Planting Rule to Wetlands

Wetlands are dynamic and complex environments and therefore unlike streams technical analysis, including soil sampling, is required to determine the edge of a wetland from which a required planted riparian margin would apply. Consequently, there is not enough certainty to apply the riparian planting rule to wetlands as a permitted activity standard.

1.10.5 Streams

Request P31: *Please advise whether the permanent and intermittent stream locations should be shown on a precinct plan.*

It is not proposed to map the streams on the precinct plan. The precinct plans are drawn within illustrator and are not spatially accurate. Therefore, depicting the streams on precinct plans will not assist with determining compliance with the planted riparian margin rule or required esplanade setback. In any case, E3 of the AUP effectively manages streams, and in our opinion, there is no resource management reasons for taking a place-specific approach to this matter given that it would not link with any specific method in the Waihoehoe Precinct.

1.10.6 Stormwater Management

Request P32: *Please advise if stormwater provisions need to be added to the precinct provisions following the assessment of stream erosion risks that is underway, and if so the wording of these provisions.*

A stream erosion assessment has been used based on the Auckland Council Stream Erosion Risk Tool however issues have been encountered with the tool, that mean this assessment cannot be completed within the timeframes of the RFI response. The technology and understanding in this area are evolving but are not ready yet and we will continue to work with Council to complete this assessment prior to the hearing of the Plan Change.

Notwithstanding the issues being encountered with the analysis it would not be possible to identify any additional measures to avoid/mitigate effects at this stage because these will need to be discussed with Mana Whenua to seek their views.

1.11 SECTION 32 ANALYSIS

RFI	Request	Response
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P33	Please provide a zoning analysis of the zoning options for the northern portion of the land.	Refer to Section 11.3.1.1 of the Section 32 Assessment Report.
P34	Please explain the risks to plan change implementation in the event that Council is not in a position to undertake the monitoring required and if an appropriate development / funding agreement cannot be completed across all affected land owners in the three Precincts?	Refer to Section 11.3.2 of the Section 32 Assessment Report.
P35	Does the proposed method address other infrastructure to be provided by Council (eg social and community facilities) or Watercare?	<p>As noted above, the Applicant has already entered into an agreement with Watercare and the works are already underway to service the area.</p> <p>The provision of other social facilities will require on-going discussions with Council's community facilities team. This is not different to planning for schools and healthcare in greenfield areas undertaken by the Ministries of Education and Health.</p> <p>The Drury-Opaheke Structure Plan was the appropriate time to undertake a needs assessment and for Council to start planning for these essential social facilities. We understand that the Ministry of Education is already well underway with this. Planning for the provision of these facilities will occur separately but alongside the Plan Change process.</p>
P36	Please advise whether the proposed staging rule is an efficient and effective method of implementing the objective, particularly objective 1, in comparison to other possible options?	Refer to Section 11.3.2 of the Section 32 Assessment Report.
P37	Please provide an analysis of the advantages and disadvantages of the proposed non-notification rule as it relates to collector type roads.	As previously discussed in Section 1.10.1 through this Plan Change process, the community will have the chance to submit on the indicative alignment shown on the precinct plans. For this reason, it is appropriate to enable this activity to be processed on a non-notified basis. For collector roads proposed in an alternative alignment, it is appropriate that this activity is subject to the normal tests for notification.

2.0 URBAN DESIGN

The Urban Design requests for further information and our responses are set out below.

RFI Number	RFI Action	Draft Response
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UD3	<p>The UDS report sets out a rationale for structure planning and development of a masterplan for the PC area. However, there is no assessment of how the key outcomes identified will be ensured by the proposed zone and precinct provisions. Please provide an analysis of how the key outcomes identified will be achieved (further queries relating to the detail of this is set out in various points below).</p>	<p><i>Refer to Section 1.4 of this letter.</i></p>
UD4	<p>Section 2.9 of the report references the Drury – Opaheke Structure Plan (the “Structure Plan”). However, no reference is made to the accompanying ‘Southern Structure Plan Area Neighbourhood Design Statement: Drury-Opaheke and Pukekohe-Paerata’ (August 2019) (the “NDS”). Please provide an analysis of how the proposed Plan Change provisions respond to the five key themes outlined in the NDS.</p>	<p>The Plan Change provisions respond to the five key themes within the Neighbourhood Design Statement: Drury – Opaheke (NDS) in the following ways.</p> <ul style="list-style-type: none"> • The Plan Change meets the NDS key theme for a variety of density and mix of uses through the revised zoning proposition of Terrace housing and Apartment Zone across the entire plan change site. The THAB zone enables a high degree of building typologies and forms, from semi attached homes (Duplexes) to terrace homes to walk up apartments and traditional multi-level apartments. This will ensure a variety of housing products and ensure a diverse and mixed community. • The Plan Change meets the NDS key theme for many safe choices of movement and access to good services and amenity as demonstrated in section 4.2 proposed movement network section of the Urban Design Statement. Potential off-street cycling and pedestrian has been allowed for that are sensible and complement the on-street network. The on-street network has separated cycle ways along collector roads and park edge roads. The combination of these two elements will ensure alternative travel and movement throughout the proposed plan change are is both possible and attractive. • The Plan Change meets the NDS key theme of neighbourhoods that celebrate their unique identity and are safe and easily understood through the retention of the many key streams and utilising them as positive asset for the area while developing a sensible urban grid that is legible, safe and easily understood. <p>The Plan Change meets the NDS key theme of neighbourhoods that protect and enhance the natural environment while enabling urbanisation through the retention and protection of streams and wetlands as discussed in section 4.5 of the Urban Design Statement - Proposed blue/green and open space network.</p>

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		Furthermore, the natural environment will be further enhanced through the inclusion of swales where streams.
UD5	Section 2.6 of the UDS report outlines the key issues that have been identified in the cultural values assessments, including the use of Te Aranga Maori design principles. This is also addressed in the NDS. Please advise how these principles have been reflected in the proposed PC provisions.	In preparing the Plan Change the applicant has undertaken extensive consultation with Iwi authorities who have an interest in the Plan Change area. Iwi have also prepared Cultural Value Assessments. The outcomes of this consultation and the assessments have directly informed the development of the Plan Change. Refer to Section 5.1.2.3 within the Section 32 Assessment Report which provides an overview of the outcomes sought by Mana Whenua and how these are being provided for within the Plan Change.
UD6	The rationale for the THAB and MHU zones is based on proximity to public transit (the rail station), employment opportunities to be established in Drury and in Drury South and the services and amenities provided in the proposed Metropolitan Centre being sought in the Kiwi Property Plan Change request (described in Section 4.7). Please provide an analysis of the criticality of timing of these various components and the implications of the live zoning of the Oyster PC area prior to delivery of rail transit or development of the Drury Centre (as proposed by the Kiwi Property private Plan Change request).	<p>As previously discussed in Section 1.1 there is now a commitment from the Government to deliver the Drury Central train station by 2024. This generally aligns with when development within Waihoehoe Precinct is intended to get underway and therefore this will support compact neighbourhoods in walking distance to the train station. In particular the Plan Change enables more intensive residential zoning in close walking proximity to the train station and requires road and provides for walking and cycling connections to the train station to be delivered at the early stages of development.</p> <p>In terms of sequencing development with the Drury Centre we acknowledge that development of the centre will likely happen over a longer period of time compared with the surrounding residential development. However, this is typical of many greenfield developments, and the Drury Centre will develop in response to growth in the surrounding residential catchment, including the subject site. Further, the existing Drury Village would provide for the day-to-day needs of residents in the Plan Change area in a walkable distance, while the Drury Centre is developing.</p>
UD7	The rationale for the extent of THAB zoning and its boundary with MHU zoning is the approximate 10 minute walking catchment from the heart of the proposed Metropolitan Centre and the train station location as proposed in the Kiwi Property PC request. I note that the Structure Plan shows the entire area as being zoned THAB. The proposed location of the train station also differs from possible locations suggested in other Council documents, such as further to the north in the vicinity of Waihoehoe Road. Please provide an analysis of the criticality of the location of	Refer to Section 1.3 of this letter. The entire Plan Change area is now proposed to be rezoned to THAB zone in accordance with the Drury Opaheke Structure Plan.


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	<p>the train station in determining a suitable zone boundary (i.e. if the train station is located further north, should the THAB zone also extend further north as per the Council's Structure Plan to maximise the residential catchment within easy walking distance of the station?).</p>	
UD8	<p>Section 3.1 (p.11) identifies Waihoehoe Road as a proposed Collector Road. However, I think this is a typo as it is identified elsewhere as an Arterial Road. The report does acknowledge the access limitations from this street. Please advise how the positive street address outcomes identified would be ensured by the Precinct provisions.</p>	<p>Refer to draft response UD3 which refers to streetscape outcomes being determined by the underlying zone.</p>
UD9	<p>The PC identifies the proposed Fitzgerald Road extension as a Collector Road. However, this is identified as an Arterial Road in both the Structure Plan and the Southern Growth Alliance Integrated Transport Assessment. Please provide an urban design analysis of the implications of this classification and the appropriate zoning along this corridor in the event that it is classified as an Arterial Road. As with Waihoehoe Road, how will a positive street frontage be achieved?</p>	<p>Stantec has provided detailed analysis on the ITA for the Plan Change and in their RFI response for identifying the Fitzgerald Road extension as a collector road rather than an arterial road. However, we note that the status of the road will be ultimately determined through a separate process.</p> <p>In either case, a positive street frontage will be achieved through the various controls currently found within the AUP. This will be managed at the resource consent stage as this is when buildings and their interfaces can be appropriately assessed, and this is not different to other developments that front onto busy streets in Auckland, where opportunities for vehicle access may be limited. The same will apply to matters such as how minor road connections on to this road extension.</p>
UD10	<p>Section 3.4 identifies the railway corridor as being along the eastern boundary. But it is located along the western boundary. In relation to the eastern boundary, how will the recommendations for achieving a suitable interface with the land to the east of the PC area (Section 3.5) be achieved through the proposed Precinct provisions?</p>	<p>Refer UD3.</p> <p>A suitable interface has been allowed for along the eastern boundary through the provisions of two key road connections from 116 Waihoehoe Rd eastward. These two connections will ensure a suitable urban grid is maintained as land east of the Plan Change are developed at a later date. The assessment criteria for new roads provides for consideration of how proposed roads integrate with neighbouring site to enable the coordinated development of the street network over time.</p>

<p>UD11</p>	<p>The structure plan shown in Section 4 is more detailed than the proposed Precinct Plan. How will the key structuring elements be achieved through the proposed Precinct Provisions?</p>	<p><i>Street Network</i></p> <p>The Urban Design Report prepared by HUE sets out a structure plan for the Plan Change area which depicts an integrated movement network to achieve a connected and safe transport network that caters for all transport modes. The approach to delivering this movement network within the Plan Change area involves relying on the Auckland-wide provisions and also incorporating place-based provisions into the precinct. This will allow key elements of the proposed integrated movement network to be incorporated into the final layout, while allowing flexibility to finalise design and location when undertaking detailed design.</p> <p>Resource consent is required for the development of public or private roads within the Plan Change area as a restricted discretionary activity. The assessment criteria at clause IX.7.2 of the Plan Change provide further guidance to both Council and an applicant as to how the street network should be established across the Plan Change area.</p> <p>Precinct Plan 2 sets out the key new collector roads required to support future development of the Plan Change area.</p> <p>The Urban Design Report prepared by HUE in support of the Plan Changes sets out cross-sections for various street typologies across the Plan Change area. These cross-sections are included within Appendix 1 of the Plan Change. On the major vehicle routes through and around the Plan Change area provision has been made for segregated cycle facilities with physical buffers. Footpath widths vary depending on location and function of the road.</p> <p>To ensure that the pedestrian and cycle paths which will provide connectivity with the Drury Central train station are staged with development, additional assessment criteria have been included. The proposed assessment criteria set out the staged delivery of interim and permanent cycle and pedestrian connections to the Drury Central Trains Station, generally within the walking catchment of the station.</p>
<p>UD12</p>	<p>What challenges will the current fragmented land ownership present to achieving the key structuring elements, particularly in relation to the street connections and open space/stormwater management areas?</p>	<p>The Structure plan and the image below demonstrates that the Plan Change is capable of achieving a rational urban grid as the area is developed over time, and in the event that the smaller land holdings adjacent to the rail corridor do not develop then as the image below demonstrates a connected neighbourhood is still achieved.</p>

		<p>We do acknowledge that fragmented landholdings are challenging to delivering comprehensive development, as some existing landowners may not wish to development, while others want to proceed. This is common across all greenfield areas. In our view, it is a matter of working around this as best as possible, which the diagram below illustrates.</p> 
<p>UD13</p>	<p>How will the blue/green and open space network (described in Section 4.5) be secured through the proposed Precinct provisions? Will the ownership be private or public?</p> <p>How will the street edges and amenities described be achieved?</p>	<p><i>Open Space Network and Ecological Enhancement</i></p> <p>The Urban Design Report prepared by HUE identifies an opportunity to develop open space around existing intermittent streams and flood sensitive/prone areas. The approach to delivering these open spaces within the Plan Change area involves relying on the Auckland-wide provisions and also incorporating place-based provisions into the precinct.</p> <p>There is a policy direction included within the Waihoehoe Precinct to integrate the provision of open space with the natural features of the Plan Change area. This will ensure that consideration is given to locating open space around stream networks to create ecological corridors.</p> <p>E38 Subdivision – Urban provisions applies within the Plan Change area and includes policies and assessment criteria to guide the provision and design of open space generally across the Plan Change area. These provisions will ensure that there is adequate provision of open space across the Plan Change area to meet the</p>

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		<p>recreational needs for the future population.</p> <p>Tailored rules are proposed to apply with the Waihoehoe Precinct that require riparian margins to be planted either side of a permanent or intermittent stream to a minimum width of 10m measured from the bank of the stream.</p>
UD14	Section 4.7 describes proposed open spaces being publicly vested in accordance with the structure plan. But the structure plan is not included in the proposed Precinct provisions. How will the spatial layout of the open space network be determined through the Precinct provisions?	Refer to response to UD 13 above.
UD15	Please advise how the proposed PC provisions will secure suitable visual connectivity and public access to the open space network and ensure a positive interface between the private and public realm will be achieved.	Refer to response to UD 13 above. The provisions within E38 Subdivision – Urban and Chapter H Zones will guide the provision and layout of open space and the design of the interface between private development and open space.
UD16	The stormwater issues for the PC area create considerable constraints to achieving a well-connected network of streets and creation of regular block proportions. The Illustrative Masterplan contained in Section 6 shows a possible block layout that responds to those constraints. It would be helpful to carry out more detailed design testing of housing typologies to demonstrate how the amenity outcomes recommended in the report can be achieved (e.g. a positive interface with Waihoehoe Road). In particular, an analysis of the appropriate zoning (MHU or THAB) should demonstrate the most suitable development pattern that responds to the open space network in a positive manner.	<p>Refer to draft response UD3 which refers to design outcomes being determined by the underlying zone.</p> <p>The structure plan demonstrates a possible urban grid layout that is consistent with best practice urban design. However, this is only one possible solution and there are many ways in achieving similar outcomes or potentially better ones through more rigorous design investigation. This detailed design investigation is more appropriately dealt with at resource consent stage, as it is typically done with other such land development sites.</p> <p>Block testing for the same reason is not necessary at this stage as this will be determined through an integrated process with the house designs that will be part of the resource consent process.</p>

3.0 ECOLOGY

The Ecology requests for further information and our responses are set out below.

RFI	Request	Response
E10	The receiving environment includes areas of the Manukau Harbour scheduled as Significant Ecological Areas (SEA) within the AUP:OP. In order to assess the potential effect of the plan change re-zoning on the life-supporting capacity of the receiving	Refer to Section 1 of the Ecology Response memo.

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	<p>environment, further detail is requested by way of the potential ecological effects. Potential ecological effects include hydrological change in the stream network and the associated effects of both deposited and suspended fine sediments, in the receiving environment. Please indicate in this assessment if any measures are required within the plan change to address the identified effects.</p>	
<p>E11</p>	<p>A change from the current, rural land use to predominantly residential land uses is associated with increased imperviousness, which has the potential to alter the stormwater regime, in regard to both stormwater quantity and quality. Both stormwater quantity and quality can have adverse effects on water quality in the receiving environment. Section 4.2.5.2 of the Drury-Opāheke Structure Plan notes that stream erosion is a significant issue because the resulting sediment is a major contaminant.</p> <p>Insufficient detail has been provided on the effect the increased imperviousness would have on stream erosion. It is considered that further, more detailed, site specific stream erosion assessments may be required, either now or at a time preceding development, to prevent exacerbating stream erosion issues. It is noted that Stormwater Management Area Flow 1 (SMAF 1) provisions will apply within the plan change area, but no corresponding assessment has been provided as to if this represents the best practicable option and adequately manages this potential effect.</p>	<p>Refer to Section 1 of the Ecology Response memo.</p>
<p>E12</p>	<p>The Drury-Opāheke Structure Plan envisioned the restoration of 20 m riparian margins along streams, although it also notes that the actual width provided would be subject to more detailed investigation. The proposed precinct proposes a minimum of 10 m of riparian restoration along streams, without any corresponding detailed investigation or assessment of the effect of this change.</p> <p>Further detail is requested as to why the full 20 m anticipated by the Drury-Opāheke Structure Plan is not proposed and the effect this deviation from the structure plan</p>	<p>Refer to <i>Section 1.8.4 Riparian Margins</i> of this letter and Section 11.3.4 of the Section 32 Assessment Report.</p>

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	guidance will have in terms of ecological connectivity across the plan change area.	
E13	<p>The Drury-Opāheke Structure Plan notes that protection of the riparian planting is envisioned through esplanade reserves or other methods. No mention of protection measures is contained within the application material.</p> <p>Further detail is requested as to what protection measures for revegetation measures are proposed, and if any measures are required within the plan change to ensure such measures are adopted. Similar riparian vegetation standards elsewhere in the Auckland Region have specified that such margins must be offered to Council for vesting (at no cost) or are required to be covenanted.</p>	Refer to <i>Section 1.8.4 Riparian Margins</i> of this letter and Section 11.3.4 of the Section 32 Assessment Report.
E14	The Ecology Report has identified two wetlands within the plan change area. Yet the provisions of the precinct plan for watercourses, including IX.6.2 and IX.9(1) are specific to intermittent and permanent streams. Wetlands within the Plan Change area, are subject to the same provisions of the NPS:FM, AUP:OP and Drury-Opāheke Structure Plan that seek the maintenance and enhancement of the ecological values of wetlands. It is not clear why wetlands are excluded from this standard. It is considered that further assessment is required as to the appropriateness of this exclusion given the existing policy provision and direction from national, regional and catchment-specific scales.	Refer to <i>Section 1.8.4 Riparian Margins</i> of this letter and Section 11.3.4 of the Section 32 Assessment Report.
E15	<p>Could the applicant please clarify what is meant by the statement below taken from section 4.5 of the Urban Design Assessment: However, these will need to be reformed to ensure that these devices function correctly as water management devices and ecological areas and to fit appropriately within the proposed development layout.</p> <p>Please clarify what is meant by the term 'reformed' in this context in reference to these natural wetlands and how they are intended to function as water management devices?</p>	The Master Plan does not represent a detailed subdivision design. The final layout will be determined through the resource consent process.
E16	The IX.4 Activity Table within the Waihoehoe Precinct specifies that the activity table gives effect to, amongst	This is standard wording used in the AUP precinct template.

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	<p>others, sections 9(2) and 13 of the Resource Management Act (RMA). It is not clear what corresponding activities within the IX.4 Activity Table would be considered under sections 9(2) and 13 of the RMA and why the existing provisions of the AUP:OP cannot be relied upon.</p>	
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4.0 STORMWATER MANAGEMENT

The Stormwater requests for further information and our responses are set out below.

RFI		Request	Response
01	Stormwater Planning	<p>Please provide an assessment of how the proposed plan changes meet the outcomes of the NPS-FM and the related matters in the AUP Regional Policy Statement.</p> <p>How does the s32 report acknowledge and address methods to meet regional policy statement objectives that are relevant to the plan change areas, including B7.3 E1.3.8 and E1.310? Please update if necessary.</p>	<p>Refer to Section 8.1.4 of the Section 32 Assessment Report. Refer to Section 1 of the Ecology Response memo.</p>
02	Stormwater quality	<p>Please clarify how objectives in the AUP for water quality will be met. The Planning report (pg46) emphasises that high contaminant generating roads and carparks will be treated (treatment of these roads is covered by region wide rules in Chapter E9 AUP). However, it is unclear how many roads are anticipated to meet the thresholds to trigger E9 rules and if additional roads should be treated to meet the proposed objective.</p> <p>There is also reference in the Drury East – Fulton Hogan request (page 46) to a treatment train approach and</p>	<p>Refer to Section 1 of the Stormwater memo.</p>

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		<p>secondary treatment but it is unclear if this is part of the approach to treat high contaminant generating roads or is an additional response applied to all roads to meet objectives E1.3.8 and E1.3.8 and meet Schedule 4 NDC requirements greenfield developments.</p> <p>A matrix showing what tools will be used in what proposed land use zone to avoid any adverse effects on water quality should be included in the SMPs as part of identifying how adverse effects will be mitigated and how these achieve AUP policies for water quality.</p>	
03	Water quality	<p>Please more fully describe how the water quality policies in E1 will be achieved, and what options have been considered to meet the policies.</p>	<p>Refer to Section 8.1.4 of the Section 32 Assessment Report. Refer to Section 1 of the Ecology Response memo.</p>
04	Hydrology Mitigation	<p>Please provide an assessment of the degree to which SMAF1 avoids or remedies changes in hydrology which will result from the urban land uses proposed in the plan changes.</p> <p>A Regional Erosion Threshold Metric risk assessment identifies areas at risk of erosion and provides some quantification of the amount of erosion caused, however it does not address how effects will be avoided, remedied or mitigated.</p> <p>Identification of measures to avoid effects and mitigate should also be made and the BSTEM model is appropriate for this task. More detail on this tool is being supplied to the applicants.</p>	<p>Refer to Section 2 of the Stormwater memo.</p>

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05	Flooding	<p>Please address the matters identified and discussed in the memo to Healthy Waters from Tonkin and Taylor dated 19 Feb 2020.</p> <p>We note that all applicants need to explain what the effect cumulatively across developments will be on the Drury township flooding and parts of the catchment that interact with the Slippery Creek floodplain.</p>	Refer to Section 3 of the Stormwater memo.
06	Riparian Margins	Please explain why a 10m wide riparian margin is proposed when the Drury-Opaheke Structure Plan Stormwater Management Plan identified a 20m riparian margin as being appropriate. No evaluation of these two options is provided including their consistency with the objectives and policies of the AUP.	Refer to <i>Section 1.8.4 Riparian Margins</i> of this letter and Section 11.3.4 of the Section 32 Assessment Report.
07	Ecological corridors and blue green network.	<p>Please clarify what the ecological corridors are and how they contribute to meeting objectives and policies of the AUP.</p> <p>They are mentioned briefly but there is no description on how these align to the Blue-Green network identified in the Drury-Opaheke Structure Plan, nor are the streams or corridors noted specifically in the precinct plan or stormwater management plan.</p> <p>Planning provisions to enable the ecological corridor are not provided in the precinct plan nor is an assessment given in s32 assessment reports.</p>	Refer to Section 3 of the Ecology Response memo.
08	Development staging	Please explain if and how the precinct plan is to manage flood risks (such as staging of development in conjunction with flood mitigation measures).	Refer to Appendix A of the Stormwater Memo.

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		Flood attenuation is proposed in the SMP but there are no precinct plan provisions to ensure that flood attenuation is provided or when it would be appropriate to not have flood attenuation.	
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