

Appendix 4

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Transport memo



Urban & Environmental

**Project:** Milldale **Project No:** 310204177  
**To:** Greg Dewe (Fulton Hogan Land Development) **Date:** 24 April 2024  
Nick Roberts (Barker and Associates)  
**From:** Trevor Lee-Joe (Stantec NZ)

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**RE:** Milldale Stage 10-13 Fast Track Application

### Background

The Milldale suburb is located in Wainui, in the northern region of Auckland. The suburb has been structure planned and master planned and construction within the suburb officially began in 2019. Prior to construction Milldale was subject to the necessary planning approvals to support the anticipated development of the suburb to accommodate some 4,500 dwellings and 40,000m<sup>2</sup> of commercial area. From a transportation perspective, an Integrated Transportation Assessment (ITA) was undertaken, inclusive of detailed modelling, and a final report was issued in October 2019 which concluded that with the recommended roading infrastructure implemented the anticipated build out could be supported with no significant impacts on the surrounding transport network. It should be noted that the modelling and report were reviewed by representatives of Auckland Transport (AT) and the New Zealand Transport Agency Waka Kotahi (NZTA) through the process and the ITA was subsequently approved by AT (a copy of the approval letter issued by AT is attached to this memo).

### Unfunded Projects

The ITA and the AT approval letter identify three unfunded roading projects which would be required to support the full buildout of Milldale to 4,500 dwellings if the O Mahurangi - Penlink project (Penlink), a new seven-kilometre highway linking the Whangaparaoa peninsula with State Highway 1 (SH1), was not to proceed. The unfunded road projects comprised:

- An additional westbound lane on the Silverdale Interchange over-bridge;
- Four-laning of Dairy Flat Highway between Pine Valley Road and the Silverdale Interchange; and
- Additional upgrade of the Dairy Flat Highway / Pine Valley Road intersection.

As indicated in the ITA, the trigger for these projects was offered at 3,800 dwellings if Penlink didn't proceed. However, as of November 2023 the Penlink project entered its main construction phase and the target date for completion of the project is late 2026. Based on this, the unfunded projects listed above will not be required. Furthermore, the current number of dwellings occupied within Milldale currently sits at around 1,500 to 1,600 and by 2026, a conservative estimate would be 2,500 dwellings occupied in Milldale. This is well below the trigger identified by the modelling for the three unfunded projects.

### Other Supporting Projects

In terms of the other mitigation measures identified through the modelling as being required to support the build out of Milldale, Fulton Hogan Land Development Ltd (FHLDL) entered into two Infrastructure Funding Agreements (IFA's) with AT and Auckland Council to deliver these projects. A number of these projects have already been completed, some are currently being constructed and others will be completed through the continued development of Milldale. The status of each of the agreed projects as at April 2024 is shown in **Table 1** below.

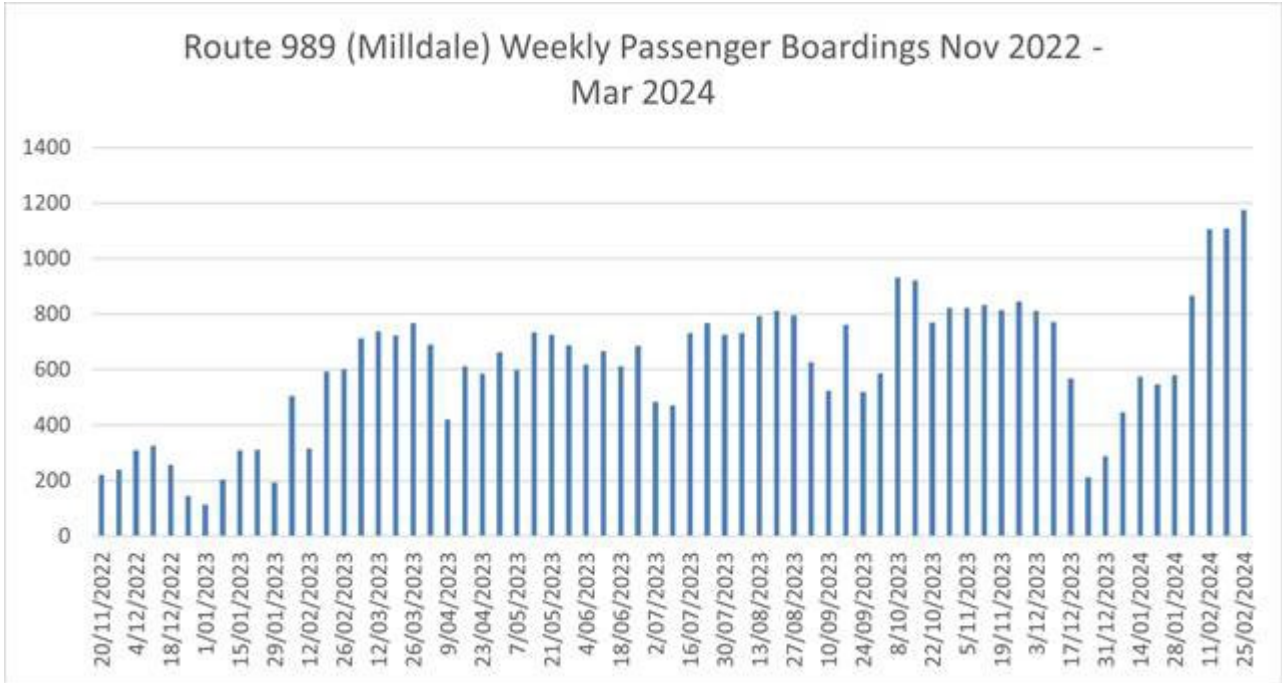
**Table 1: Project Status**

Project Description	Status as at April 2024	Additional Comments
Left turn slip lane on the northbound off-ramp at the Silverdale Interchange	Completed and operational (2021)	
Weiti Stream Bridge	Completed and operational (2022)	
Argent Lane / Pine Valley Road / Old Pine Valley Road roundabout	Completed and operational (2023)	
Highgate Over-bridge	Construction commenced 2023 and due for completion by end of 2024	Currently around 70% complete
Argent Lane / Wainui Road roundabout	Consented and due to commence construction in Spring 2024	
Pine Valley Road / Dairy Flat Highway intersection upgrade	Consented, detailed design complete, due to commence construction in Spring 2024	
Argent Lane extension to connect Dairy Flat Highway to Wainui Road	Being constructed in stages as development within Milldale proceeds. Currently 50% complete.	Full completion by 2026
Wainui Road upgrade to collector road standard between Lysnar Road and Argent Lane	Consented and will be constructed as the suburb is built out	
Lysnar Road / Wainui Road Intersection upgrade	Consented and will be constructed as the suburb is built out	
Lysnar Road Bridge	Consent application has been submitted with Auckland Council and will be constructed in conjunction with the adjacent stage of development (Stage 8)	
Sidwell Road / Endsley Rise Intersection	Consent application has been submitted with Auckland Council and will be constructed in conjunction with the adjacent stage of development (Stage 8)	

As indicated in the details of Table 1, all of the identified mitigation measures have been completed or will be completed either by 2026 or as the Milldale suburb is fully built out to 4,500 dwellings.

## Public Transport

Further to the provision of roading infrastructure within and around Milldale, FHLDL has continued to work together with AT to enable a robust and efficient public transportation system to support the residents of Milldale. A new bus route (989 bus-route) was established in November 2022 which connects Milldale (John Fair Drive) and the Hibiscus Coast Station. AT has provided the patronage figures for this bus route from the time the route was established through to March 2024 and these figures are illustrated in **Figure 1**.



**Figure 1: Bus Patronage (Route 989)**

As shown, patronage numbers have continued to increase for the route and this trend is likely to be maintained as the Milldale suburb continues to be developed. This will ensure that public transport continues to provide a viable alternative transport mode and help reduce reliance on private vehicles.

**Fast Track Application**

FHLDL is currently seeking a fast-track consenting process for the remainder of the build out of the Milldale suburb (Stages 10-13). This will expedite the delivery of much needed housing to support population growth in Auckland, particularly in the northern region. The internal roading typologies for Stages 10-13 will be consistent with the typologies adopted for Stage 1 through 9, which have been subject to approvals by AT for each respective stage.

Since the completion of the original ITA in 2019 Stantec have been involved with every stage of development at Milldale since which, has involved separate transport assessments for each stage consented (Stages 1 through 9). None of these assessments have identified any additional projects to be required over and above those contained in the original ITA. As such it is considered that the projects shown in Table 1 remain current and will ensure that the delivery of the balance of the dwellings within Milldale will not adversely impact the operation of the surrounding transport network, particularly now that Penlink is currently being constructed and due for completion at the end of 2026. In addition, the dwelling yields, infrastructure provision (completed and programmed) and current rate of build are consistent with the modelling assumptions of the ITA.

Overall, it is considered that the fast-track process sought by FHLDL can be accepted from a transportation perspective.

**Stantec New Zealand**



**Trevor Lee-Joe**  
Principal Transportation Engineer

Appendix 5

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Stormwater and Climate Change Resilience Memo



Urban & Environmental

**To**

Greg Dewe  
Fulton Hogan Land Development Ltd

Nick Roberts  
Barker & Associates

**From**

Woods  
Shakti Singh – 3 Waters Engineer  
Pranil Wadan – Principal Engineer

**Reviewed**

Pranil Wadan – Principal Engineer

W-REF: P24-128 MDL Fast Track Application  
24 April 2024

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## STORMWATER MEMORANDUM

### 1. Introduction

This stormwater memorandum has been prepared to support the proposed Milldale development Stages 10, 11, 12 and 13 through the fast-track consenting process. This document addresses Subpart 2 of the Fast Track Approvals Bill, section 14 - Referral application, (3) - (v), as stated below:

*A description of whether and how the project would be affected by climate change and natural hazards*

This memorandum confirms:

- That the proposed development is not at risk of flooding caused by the effects of climate change or natural hazards, and,
- That the performance and resiliency of the stormwater infrastructure (existing and future) addresses the effects of climate change.

### 2. Existing work done to date

There is currently an adopted Stormwater Management Plan that covers the Milldale development extent, this document is referred to as the "Wainui East Stormwater Management Plan" (SMP) which was prepared by Woods and dated September 2016.

The work undertaken as part of this adopted SMP considered climate change based on 2.1°C increase in temperature by 2090, This was based on the Ministry for Environment and Auckland Council guidelines at the time.

As part of the continual development of Milldale, the flood models prepared for the Wainui East SMP have gone through various Healthy Waters reviews. The recent model review was undertaken by Healthy Waters in 2022 where several updates were made, these include (but are not limited to) the following:

- Updating of roughness coefficients;
- Updating tailwater conditions used in the model; and
- Updating the model and simulating using a 3.8°C future climate change allowance by 2110.

In addition to this, there is currently work being undertaken for the wider Wainui and Milldale North Structure Plan area. An updated Wainui East SMP has been prepared currently under consultation with Healthy Waters. As noted above the currently adopted SMP only considered impacts of future climate change for 2.1°C by 2090, whilst the updated SMP considers both 2.1°C and 3.8°C by 2110 scenarios.

Appendix A of this memorandum contains the details of the 100-year 3.8°C rainfall depth and TP108 rainfall profile used in the flood model.

### 3. Model Information

#### 3.1. Key assumptions

The flood modelling undertaken is based on the parameters and assumptions set out in the Wainui East SMP. Key assumptions are summarised as follows:

- The model scenario incorporates consented landform and stormwater infrastructure information to date (with the use of as-built data) and proposed design for the current Milldale Stages under EPA and resourcing consenting phase.
- All the future earthworks have been included in the models based on a preliminary design surface which lifts the proposed development outside the floodplain.
- Pass flows forward strategy has been adopted for all future stages. This is noted to be in line with the recommendation provided in the adopted Wainui East SMP.
- Maximum Probable Development (MPD) impervious coverage was assumed for the entire Milldale development area. This is noted to be constant 65% impervious coverage which is in line with the adopted Wainui East SMP.

### 4. Model Results

Figure 1 shows the peak water depth for the simulated Post Development flood model during a 100-year ARI storm event with allowance for 3.8°C future climate change.

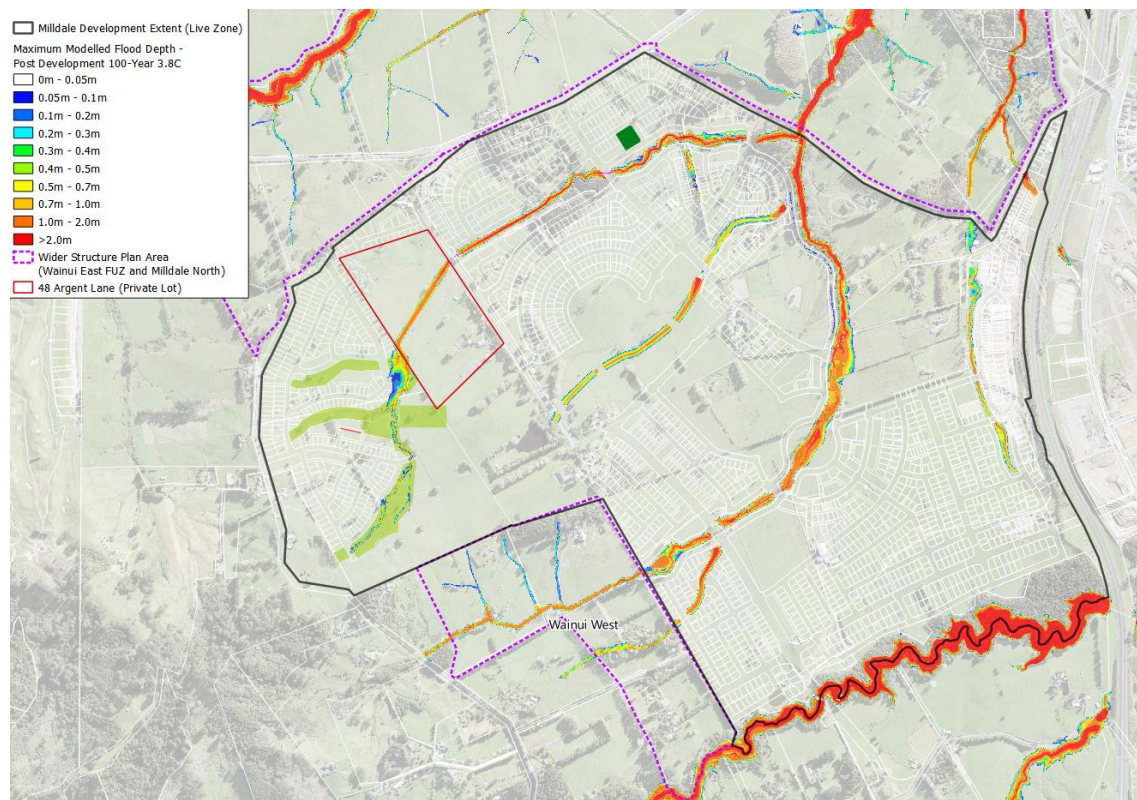


Figure 1: Peak flood depth - Post Development Model (100-year 3.8 ARI storm event)

A summary of the findings from model results are as follows:

- The model confirms that the flooding can be contained within the stream network, with no flooding observed within proposed development areas; and
- Adoption of the pass flows forward strategy for the future Milldale development stages does not impact any areas upstream/downstream of the site.

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## 5. 2023 Auckland Anniversary Weekend Floods (27<sup>th</sup> Jan 2023 – 2<sup>nd</sup> Feb 2023)

On 27<sup>th</sup> Jan 2023 regions across the upper North Island of New Zealand experienced widespread catastrophic floods caused by heavy rainfall, with Auckland being the most significantly affected. The peak 24-hour rainfall depth recorded at the Milldale area was 216mm, as per the rain gauge stationed approximately 2km downstream of the site on Orewa River. It is noted for comparative purposes that the existing 24hr rainfall depth for the 100yr storm event is 225mm.

The Milldale Development was extremely resilient during this event and ultimately performed as per design. Overland flow paths were noted to be traversing on designated roads and channels with no flooding observed to encroach any properties or lots and flood flows contained within the stream network (without overtopping).

## 6. Conclusion

Woods have undertaken a stormwater assessment to support the Fast Track referral application for the future Milldale development Stages 10, 11, 12 and 13. This document addresses Subpart 2 of the Fast Track Approvals Bill, section 14 - Referral application, (3) - (v), as stated below:

*A description of whether and how the project would be affected by climate change and natural hazards*

The assessment concludes the following:

- The work undertaken to date confirms that the development is resilient to future climate change including uplift to 3.8°C by 2110 and is not identified to be at risk of being impacted by the effects of climate change or natural hazards.
- The infrastructure developed to date as part of Milldale is shown to be resilient and cater for the uplifted climate change scenario.
- The development has demonstrated its resilience as shown during the significant Auckland Anniversary weekend flood event.

# APPENDIX A - 100-YEAR 3.8°C RAINFALL DEPTH AND RAINFALL PROFILE

Table 1: Rainfall depth table

Storm Event	24-hour Rainfall Depth (mm)
100-year no climate change	225
100-year with 2.1°C climate change	262.8 (+16.8%)
100-year with 3.8°C climate change	298.6 (+32.7%)

Table 2: TP108 rainfall profiles

Time (hr: min)	Time interval (min)	Existing rainfall profile	2.1°C rainfall profile	3.8°C rainfall profile
0:00 – 6:00	360	0.34	0.33	0.27
6:00 – 9:00	180	0.74	0.73	0.66
9:00 – 10:00	60	0.96	0.95	0.91
10:00 – 11:00	60	1.40	1.40	1.43
11:00 – 11:30	30	2.20	2.20	2.36
11:30 – 11:40	10	3.80	3.82	4.35
11:40 – 11:50	10	4.80	4.86	5.50
11:50 – 12:00	10	8.70	8.86	9.97
12:00 – 12:10	10	16.20	16.65	18.56
12:10 – 12:20	10	5.90	5.95	6.76
12:20 – 12:30	10	4.20	4.24	4.81
12:30 – 13:00	30	2.90	2.92	3.20
13:00 – 14:00	60	1.70	1.70	1.62
14:00 – 15:00	60	1.20	1.19	1.19
15:00 – 18:00	180	0.75	0.75	0.70
18:00 – 24:00	360	0.40	0.39	0.34

Appendix 6

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Ecology Memo



Urban & Environmental

TO: Greg Dewe  
Fulton Hogan Land Development

Date: 29 April 2024  
Document No: 10015-021-1

FROM: Mark Delaney, Lead Ecologist

## MILLDALE DEVELOPMENT STAGES 4C & 10-13 - FAST TRACK APPLICATION – PRELIMINARY ECOLOGY ASSESSMENT

### Introduction

Fulton Hogan Land Development (FHLD) is intending to lodge an application for the proposed Milldale development stages 4c and 10-13 (at several properties located south of Wanui, Cemetery and Lysnar Roads, 'the site') to be listed on the schedule Fast-track Approvals Bill. If included on the schedule it would seek approvals for its proposal using the fast-track process. This memorandum provides a high-level ecological assessment of the proposal, including an evaluation of regional significance of the project's potential contributions to ecology.

### Methodology

A conservative, high-level desktop assessment and several site visits to the surrounding area (undertaken by an experienced ecologist over the past two years) informed an assessment of the site's existing ecological values. Terrestrial features were assessed based on their botanic and habitat values, the latter of which was qualitatively assessed, considering indigenous lizards, birds and bats. Streams were identified based on modelled overland flow path catchment sizes as provided in the Auckland Council's Geomaps. Any overland flow path with a catchment size of 1 ha or greater has been considered a potential natural stream. Indicative wetland areas were identified based on wetland delineation protocols (MfE 2021; MfE 2022; Clarkson 2013; Fraser et al. 2018) and classified as per the National Policy Statement for Freshwater Management 2020 (NPS-FM) definition of a 'natural inland wetland'.

The key ecological features identified by the assessment are presented in Attachment A. It is noted that these features are indicative and that at future stages of the application, these features can be ground-truthed and further defined.

### Existing Environment

The site is located within the Rodney Ecological District of the Auckland region. Historically (pre-human), the area would have likely been comprised of the kauri, podocarp, broadleaved forest ecosystem type (WF11) and would have supported a diverse range of invertebrates, amphibians, reptiles, birds and bats (Singers et al. 2017). However, historical aerials available for the area (dating back as far as 1940) indicate that the site and much of the surrounding landscape has been progressively cleared over the years to make way for agricultural and horticultural land use (Attachment B).

Currently, the site consists of predominantly farmland and rural residential life-style blocks. Part of FHLD's Milldale project is already underway, with numerous residential lots established to the east and south. Within the site boundaries, recognised ecosystem types are limited to open water bodies (OW), which are listed under Auckland Council's Geomaps as farm ponds. No areas meeting the AUP-OP definition of a significant ecological area (SEA) were present on site.

## Terrestrial ecology

The site consists predominantly of pasture grasses. Outside of the pasture grasses there is some limited garden amenity planting around the existing dwellings, several mature exotic shelter belts and some isolated native trees such as mānuka (*Leptospermum scoparium*) and kānuka (*Kunzea ericoides*) present on site. The wider environment surrounding the site is largely devoid of any significant terrestrial vegetation. The botanical value of the vegetation within the site was assessed as negligible, being predominately pasture with limited exotic trees. This vegetation provides very low-quality fauna habitat for lizards, bats and birds, due to the lack of diversity, structure and connectivity. However, native lizards and bats may be present in low numbers.

## Freshwater ecology

Based on numerous visits to the site and the surrounding area in the past two years, it is understood that a large amount of creeping bent (*Agrostis stolonifera*) is present, often sporadically and spread out across the landscape, occasionally covering entire hillsides. This exotic grass species, though introduced to New Zealand in the late 1800s for the purpose of supporting livestock grazing, is not recognised by the Ministry for the Environment's National List of Exotic Pasture Species (Cosgrove *et al.* 2022). Instead, this species is classified as facultative wetland (FAC-W) and, under the wetland delineation protocols, areas dominated by creeping bent are technically defined as natural inland wetlands. This is the case for the site, where areas of deliberately managed pasture, predominantly covered by creeping bent, are inappropriately classified as wetlands, despite no other signs of wetland characteristics (i.e., soils or hydrology)<sup>1</sup>. These areas have little to no ecological value, due to a lack of species diversity, structural tiers, hydrological heterogeneity, and aquatic habitat. For this reason, and due to their sporadic and spread-out presence, the creeping bent areas on site have not been mapped as key ecological features in Attachment A.

Based on the desktop assessment and initial site walkovers, no other natural inland wetlands were identified. However, further detailed assessments, in accordance with relevant/current best practice methodology, will be required to identify and map any potential wetlands at future application stages.

A network of natural streams and overland flow paths are also present on site. Over time, some of these channels have been deliberately deepened and straightened, to better drain the site's stormwater. Additional artificial drainage channels, not associated with any historical natural stream, are also present within the site. These freshwater features, though connected to additional habitat (i.e., the Orewa River), are expected to have been impacted by years of farming practise (e.g., alteration, runoff, stock damage) and suffered from lack of riparian vegetation (i.e., no filtration, bank stabilisation or shading function is currently offered by the site's pastoral riparian vegetation). For this reason, the streams and modified overland flow paths on site were assessed to hold low ecological value, and the fauna community that resides in these streams is expected to be limited to common, pollution-tolerant species (e.g., *Anguilla australis*). The confirmation of such features and the further definition of their extent and value can be confirmed at future application stages.

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<sup>1</sup> Soils tests have shown that the profile is highly leached, with low nutrients and poor structure – likely due to stock damage (Scott Fraser, pers. comm. 2 November 2024). Hydrology assessments of the area indicate that the hydrology of the areas is unable to support a naturally function wetland of such large and intermittent presence as those areas that contain creeping bent (Jon Willaimson, WWLA, pers comm 2023).

## Assessment of Effects

### Proposal

FHLD intends to create approximately 1,100 residential lots on site, which will be built on by partners already active in earlier stages of the Milldale project. Once complete, the Milldale project will provide over 4,000 homes, schools, a retirement home, town centre, neighbourhood shops and other community amenity features. A master plan of the development, including the area ear-marked for stages 4c and 10-13, is provided in Attachment C.

FHLD intend to avoid the reclamation and removal of many of the key ecological features (as shown in Attachment A) and undertake restoration and enhancement activities (i.e., planting the margins of freshwater streams). However, if adverse effects on streams or wetlands are unavoidable, the effects management hierarchy will be applied to ensure the proposed activities meet the relevant National Environmental Standards for Freshwater (NES-F) standards and adverse effects on the health of freshwater and freshwater ecosystems are appropriate.

In addition, areas dominated creeping bent, as described above, are to be removed. The hydrological function of these areas can be easily mitigated through appropriate stormwater controls. The removal of these areas is expected to have a negligible ecological effect.

It is noted that the proposal provides further opportunities for enhancement, for example, through additional planting activities, which can increase connectivity, diversity and buffering function of vegetation on site.

### Effects on terrestrial values

Terrestrial ecological values on site are limited to areas of exotic shelterbelts, amenity plantings and a few isolated native trees, which offer very limited low-quality fauna habitat. The removal of this vegetation for future developments is considered appropriate for the project and is not considered to result in a significant loss of ecological function or terrestrial habitat. Rather, the proposal offers the opportunity to for extensive planting within the margins of freshwater environments, which will allow for an increase in habitat quality, native vegetation diversity, ecological connectivity and buffering function of terrestrial vegetation on site. Additionally, the intended riparian and wetland buffer planting will greatly increase terrestrial ecological connectivity, diversity and habitat values. In light of Auckland's history of biodiversity loss and ecosystem fragmentation, this proposal presents a significant opportunity for biodiversity gain within the area.

Any potential direct effects on indigenous fauna can be appropriately managed through fauna management plans.

### Effects on freshwater values

The site's existing freshwater values are associated with a network of streams and modified overland flow paths. At future application stages, the extent and quality of these features will be further defined. However, based on preliminary assessment, these features are considered likely to be degraded and adversely affected by the current land use. The proposal will seek in the first instance to avoid the reclamation or modification of these features, however, reclamation may be required if avoidance cannot be achieved. The effects of any adverse effects will be managed at future application stages, ensuring that the mitigation hierarchy is appropriately applied.

Through proposed riparian margin planting, the proposal is expected to promote an improvement in water quality (i.e., via increased filtration function of riparian vegetation), shading, bank stability and in-stream fauna habitat, while providing buffer and connectivity function. As some of the existing stream habitats are in poor condition, these restorative actions represent an overall increase in freshwater value.

Indirect adverse effects, such as sedimentation or pollution from stormwater or wastewater discharges, are proposed to be adequately mitigated through appropriate controls and following best practice guidelines (Woods 2024), to ensure adverse effects on ecological values are no more than minor. Where adverse effects cannot be avoided, these will be managed appropriately through the mitigation hierarchy.

### Relevant legislation

The proposal is considered to align with the policies and objective of key pieces of environmental legislation, such as the NPS-FM and the National Policy Statement for Indigenous Biodiversity (NPS-IB).

The main objective of the NPS-FM is to ensure the health and well-being of water bodies and freshwater ecosystems are prioritised. To prioritise the health and well-being of freshwater ecosystems on site, FHL D has engaged Viridis to conservatively identify and qualitatively assess these features, so that reclamation or disturbances are avoided as far as practicable. Potential significant adverse effects for future development will be able to be appropriately avoided, minimised, remedied, offset or compensated under the effects management hierarchy. Furthermore, the proposal will result in the establishment of planted riparian margins, which will improve the overall quality of freshwater environments on site and within the downstream receiving environment.

The main objective of the NPS-IB is to ensure, at a minimum, that no overall loss in New Zealand's biodiversity occurs by protecting and restoring indigenous biodiversity values. The proposal is considered to be consistent with the objectives of the NPS-IB, as no overall loss in indigenous terrestrial biodiversity is anticipated as a result of the urbanisation of the site. Rather, the proposal provides the opportunity to improve the site's terrestrial biodiversity through planting and enhancement activities, which will improve the overall diversity, native species habitat and quality of the site's terrestrial features.

### Conclusion

The potential impacts of FHL D proposed stages 10-13 of its Milldale residential development have been assessed from a high-level in relation to the ecological values currently associated with the site. These include areas of low-value exotic vegetation, and a network of moderate to low-value streams and modified overland flow paths. The proposed avoidance of reclamation or removal of these features, along with mitigation measures for indirect effects (e.g., suitable stormwater and wastewater management), will prevent a loss in the site's biodiversity value. It is recognised that the ecological features are indicative at this stage and that the extent and quality of these features will be further defined at future application stages. Notwithstanding the above, it has been acknowledged that the proposal presents ample opportunity for the enhancement and protection of the existing key ecological features. Given the proposed ecological enhancement activities, it is considered that the development's contribution to environmental value would be regionally significant.

## References

- Cosgrove G.; Dodd M.; James T., 2022. National list of exotic pasture species. Prepared for the Ministry for the Environment by AgResearch Ltd. Wellington: Ministry for the Environment.
- Fraser et al. 2018. Hydric soils – field identification guide. Report LC3223 prepared for Tasman District Council. Hamilton: Manaaki Whenua – Landcare Research.
- MfE 2021. Wetland delineation hydrology tool for Aotearoa New Zealand. Ministry for the Environment.
- MfE 2022. Wetland Delineation Protocols. Ministry for the Environment.
- Singers N.; Osborne B.; Lovegrove T.; Jamieson A.; Boow J.; Sawyer J.; Hill K.; Andrews J.; Hill S.; Webb C., 2017. Indigenous terrestrial and wetland ecosystems of Auckland. Auckland Council.
- Woods Limited, 2024. Stormwater memorandum. W-REF: P24-128 MDL Fast Track Application. 23 April 2024.

## Attachments

- Attachment A – Map of key ecological features
- Attachment B – Historic aerials
- Attachment C – Milldale master plan




## Key ecological features on site

Fulton Hogan Land Development

### Legend

 Development site

 Predicted watercourses (catchment > 1 ha)

### SOURCES

Nearmaps aerial imagery (2023)

**DISCLAIMER:**  
This map/plan is not an engineering draft. This map/plan is illustrative only and all information should be independently verified on site before taking any action.

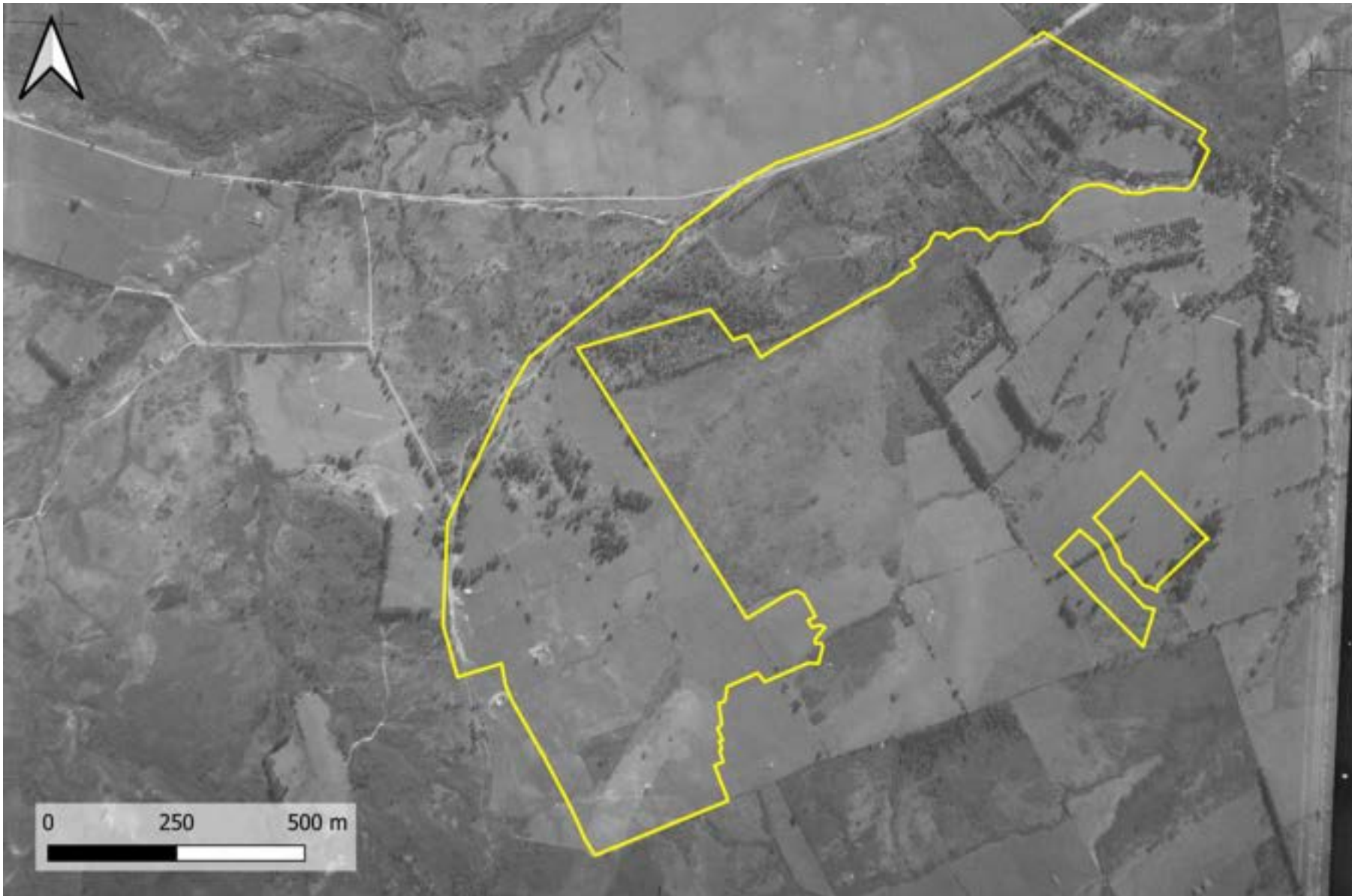
SCALE **1:8,900** @ **A4**

PROJECT NO. 10015

DRAWN BY: A.N

DATE: 29 April 2024



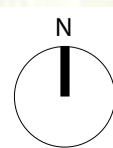


*Figure 1. Historic aerial of the development site, dated 1940.*



0 100 200 400m  
 SCALE 1:10,000 @ A3, 1:5,000 @ A1  
 REVISION 14

**MILLDALE ILLUSTRATIVE MASTERPLAN  
 FAST TRACK APPLICATION**  
 APRIL 2024



Appendix 7

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Economic Impact Assessment



Urban & Environmental

# PROPERTY ECONOMICS



**MILLDALE STAGES 4C AND 10-13**

**FAST-TRACK APPLICATION**

**ECONOMIC IMPACT MEMORANDUM**

Client: Fulton Hogan

Project No: 52401

Date: April 2024

2 May 2024

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## ECONOMIC MEMORANDUM

To: **Fulton Hogan**

c/- Gregory Dewe

Operations Manager

s 9(2)(a)

RE: **FAST-TRACK ECONOMIC IMPACT OVERVIEW OF MILLDALE STAGES 4C & 10-13 DEVELOPMENT**

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### INTRODUCTION

Property Economics has been commissioned to provide a high-level overview of the potential economic impacts resulting from the proposed residential development by Fulton Hogan Land Development Limited (FHLd, “the Applicant”). This application is for the construction of 1,100 residential dwellings comprising various typologies in Milldale, Auckland.

This economic impact memorandum relates to an application for listing in Schedule 2A of the Fast-track Approvals Bill (“the FTA Bill”).

Specifically, this economic memorandum assesses the latest residential market metrics to determine if the Applicant’s development will deliver significant economic benefits and contribute positively to the regional economy and satisfy some of the economic and housing supply criteria set out in Section 17 - *Eligibility Criteria for Projects that May Be Referred to Panel* of the FTA Bill. A high-level forecast is also conducted to quantify the economic injection and employment generation, assisting in understanding the subject development’s contribution to the regional economy.

In addition, this economic overview identifies the potential for any additional efficiencies to better meet community demands and future needs, and the economic benefits resulting from the efficiencies of utilising the FTA Bill process over standard resource consenting timeframe.

### OVERVIEW OF THE FHLd DEVELOPMENT

Positioned around 25-minute drive north of Auckland City Centre, Milldale is a large new suburb that sits directly across from Millwater. Accessible via the Silverdale SH1 interchange through Pine Valley Road, or the Millwater interchange west off SH1, Milldale offers convenient connections with the rest of the region. The subject development, located to the northwest of Milldale’s established residential development stages 1-9, is poised to contribute to the continued growth and expansion of the Milldale community.

Specifically, the purpose of the subject development is to facilitate the construction of 1,100 dwellings on the site. This will primarily consist of standalone houses and terraced dwellings, complemented by a limited number of four-level apartment buildings (limited to Stage 4C). A visual representation detailing the location and extent of the development site alongside its surrounding zoning contexts is provided in the figure following.

**FIGURE 1: SUBJECT SITE IN THE CONTEXT OF THE AUP ZONING ENVIRONMENT**



Source: FHLD

The underlying zoning of the subject site primarily consists of a mix of residential zones outlined in the Auckland Unitary Plan Operative in Part (AUP). This reflects the anticipation for residential development within the area.

Based on available information, Property Economics notes a wide array of established, consented, and planned infrastructure in the vicinity (refer to Appendix 1). These infrastructure developments and projects are designed to support both existing residential areas and future developments, including the subject development.

In addition to infrastructure, the Milldale area offers a diverse range of services and facilities. These include the completed (and partly occupied) Summerset retirement village, a recently constructed primary school, two childcare centres, and ongoing development of neighbourhood shops and office spaces planned to be operational by the end of 2024.

The presence of current, ongoing, and future infrastructure, services, and amenities in the area suggests that the subject development would seamlessly integrate with the existing urban

environment of Milldale, facilitating the delivery of a significant number of new dwellings without additional significant infrastructure investment required as the area is already serviced and 'ready-to-go'. This sets it apart from most other residential developments in the broader region that require significant infrastructure investment and upgrades before residential development can occur.

It is clear from the significant level of infrastructure investment within and around Milldale, and the extensive level of development that has occurred to date that Milldale has been a long identified and well planned for growth node in Auckland. The Applicant's development would simply round out the development of Milldale in a more timely and efficient manner at a time when getting new residential supply into Auckland's pipeline is critical to addressing the regional housing supply issues.

The following figure shows the final stages of Milldale in the context of the overall masterplan for the suburb.

**FIGURE 2: SUBJECT SITE IN THE CONTEXT OF WIDER MILLDALE MASTER PLANNED DEVELOPMENT**



Source: Fulton Hogan

## CATCHMENT POPULATION GROWTH AND RESIDENTIAL DEMAND

Table 1 presents the population and household growth projections within the assessed core catchment<sup>1</sup> over the next decade. These projections are derived from Stats NZ population growth projections for both the High and Medium growth series.

The catchment has an estimated population base of around 90,810 as at June 2023. Looking ahead, under the Stats NZ High growth scenario, the catchment is anticipated to experience a population growth of approximately +25% between 2023 and 2033, representing a net increase of around +22,330 people and resulting in a population base of around 103,360 people by 2033.

Simultaneously, the Stats NZ projection forecasts the number of households in the catchment growing from just under 36,000 in 2023 to around 43,200 households by 2033 under the High growth scenario. Accommodating this growth on a one household per dwelling basis, therefore, would necessitate around 7,210 new dwellings in the catchment over the next 10 years.

**TABLE 1: POPULATION PROJECTIONS AND ESTIMATES FOR THE CATCHMENT**

Medium Growth Scenario	2023	2028	2033
Population	90,810	96,940	103,360
Households	35,980	37,630	40,340
Households Growth		1,650	4,360
Total Dwellings Required (incl. Unoccupied)		1,940	5,130
<b>Net Dwellings Required + NPS Buffer</b>		<b>2,330</b>	<b>6,160</b>

High Growth Scenario	2023	2028	2033
Population	90,810	103,240	113,140
Households	35,980	39,430	43,190
Households Growth		3,450	7,210
Total Dwellings Required (incl. Unoccupied)		4,060	8,480
<b>Net Dwellings Required + NPS Buffer</b>		<b>4,870</b>	<b>10,180</b>

Source: Stats NZ, Property Economics

In contrast to the High growth scenario, the Medium growth projection adopts a more conservative growth trajectory, predicting a future population base of around 103,360 people by 2033, reflecting a +14% growth. This corresponds to a net population growth of +12,550 people over the next decade. Under the same growth projection, households are expected to grow by an additional +4,360, indicating a demand for around 4,360 new dwellings on a one household per dwelling basis.

Note that these demand figures exclude unoccupied dwellings identified as empty or used for holiday homes, but form part of total dwelling demand. According to the 2018 Census data, the dwelling occupancy ratio within the catchment was around 85%. Applying this ratio suggests that, including unoccupied dwellings, the catchment would require a total of over 5,100 new dwellings and around 8,500 new dwellings by 2033, under the Medium and High growth scenario, respectively.

<sup>1</sup> Refer to Appendix 2 for the geospatial extent of the catchment.

Factoring in the appropriate NPS-UD buffers<sup>2</sup> would increase the net additional dwelling requirement in the catchment to 6,160 dwellings under the Medium growth scenario and just under 10,200 dwellings under the High growth scenario. Incorporating such buffers enhances market efficiency, maintains relative competitiveness, slows the rate of land and house price growth, and provides greater choices in terms of location, price, and typology.

The latest net migration data from Stats NZ indicates net migration into NZ is at record levels reflecting a strong post-Covid rebound with NZ increasingly being viewed as an attractive country for people to permanently migrate. High net migration puts increased pressure on Auckland's constrained housing stock, already under significant pressure, and amplifies the need for new residential capacity to be injected into the supply pipeline over the short term.

If high levels of net migration are sustained, the current population growth projections for Auckland could be conservative. Therefore, it can be reasonably expected that total new dwelling requirements for the catchment over the next decade are likely to be higher than that identified in the growth projections.

## RESIDENTIAL MARKET TRENDS

### [Median House Price Trends in Silverdale, Red Beach and Orewa](#)

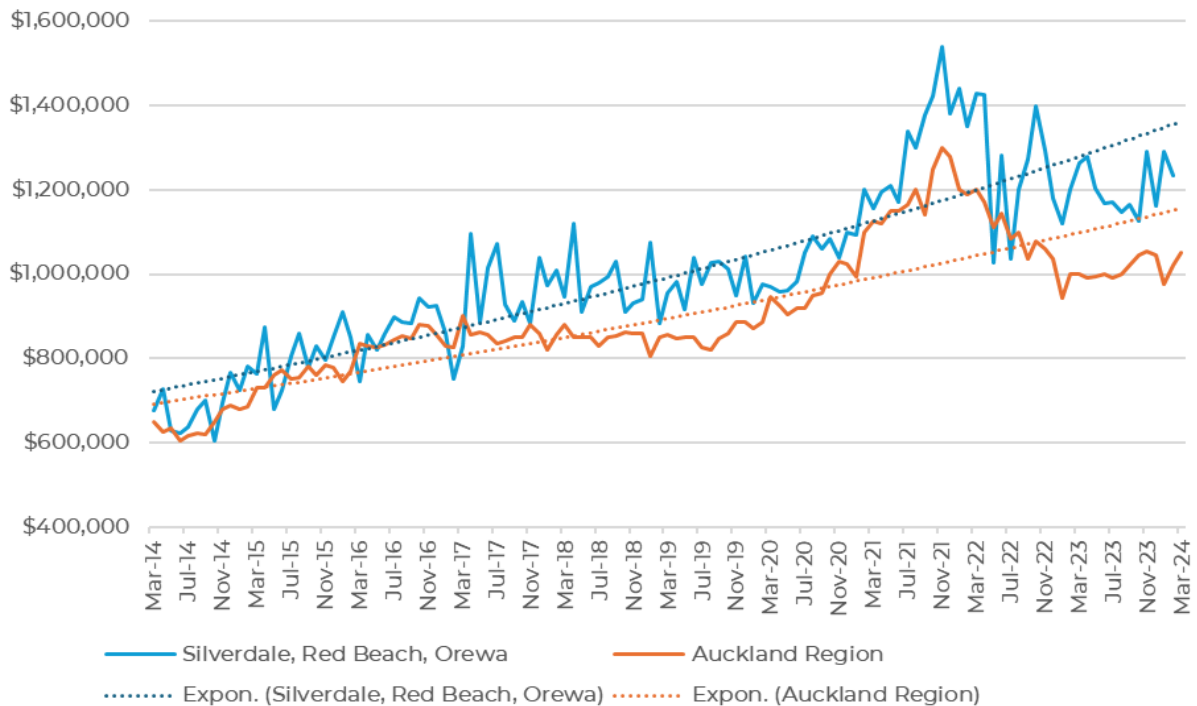
To shed light on the demand for residential properties in urban areas close to the Applicant's development site, Figure 3 presents an overview of the local residential markets of Silverdale, Red Beach, and Orewa. It shows median house prices trends over the past decade, spanning from March 2014 to February 2024.

In general, there was a significant trend observed in the area's median house prices, which increased from about \$675,000 in March 2014 to roughly \$1,232,5000 in February 2024, indicating a material increase of approximately +83%. This surge notably exceeded the growth rate of the wider Auckland Region's median house price, which rose from around \$649,000 to slightly over \$1 million during the same period, equating to a +60% increase over the past decade.

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<sup>2</sup> The competitive margins for Tier 1 and Tier 2 councils are to provide 20% additional residential capacity over the projected demand for short- and medium-term timeframes.

**FIGURE 3: RESIDENTIAL MEDIAN SALES PRICE TRENDS IN SILVERDALE, RED BEACH, AND OREWA**



Source: CoreLogic.

The continuous rise in the local median house price indicates the growing attractiveness of the area as well as a lag in the rate of new home constructions relative to the demand for residential properties. This imbalance between supply and demand has significantly contributed to the escalating property prices in the local area. This suggests the sales rate in Milldale is a reflection of a lack of new supply being delivered to the market rather than demand, i.e., demand is likely higher than sales indicate.

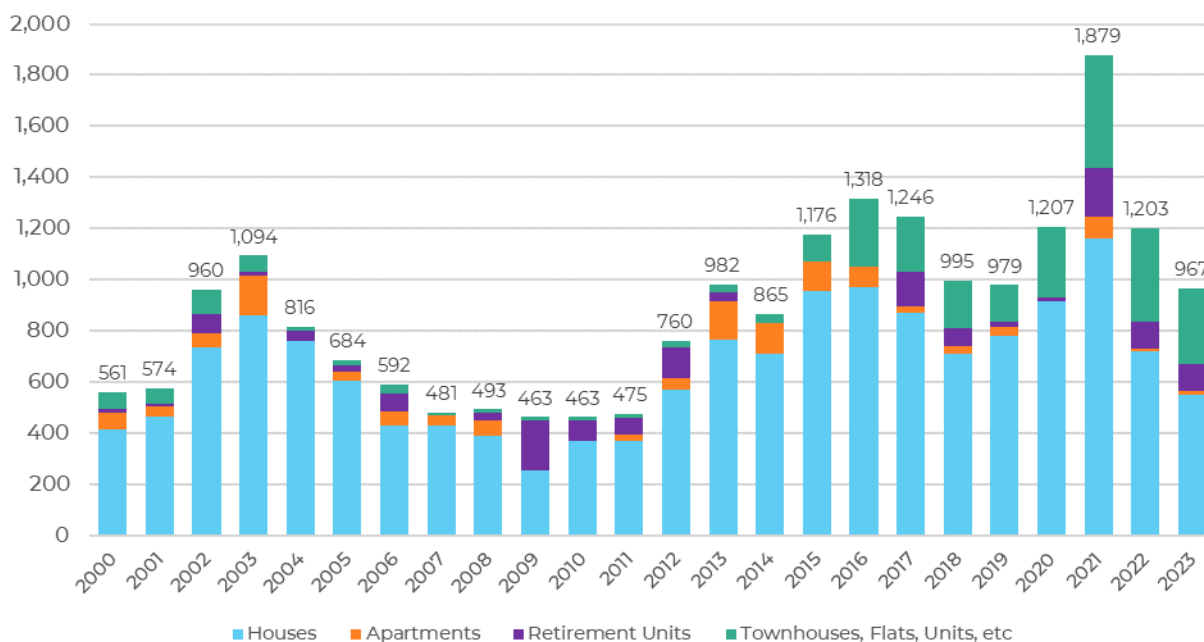
Furthermore, over the past decade, the Millwater – Silverdale local area has experienced notable enhancements in infrastructure, expanded amenities, and improved connectivity to the rest of the Auckland Region. These developments have collectively bolstered Milldale's appeal as a residential destination and have further fuelled demand for properties in Milldale, thus contributing to the consistent upward trajectory in property prices observed in the area.

Considering these trends, enabling the subject development to introduce approximately 1,100 new dwellings would represent a significant injection into the Milldale market and assist in slowing house price growth. Consequently, the application has the potential to enhance housing affordability in the local market and the wider Auckland Region, positively impacting their economic and social well-being by providing an increase in supply that is likely to deliver homes at more serviceable levels of debt.

### Catchment Building Consents

Figure 4 illustrates the trends in residential building consents of the catchment categorised by dwelling typology, utilising data obtained from Stats NZ. The data covers the period from 2000 to 2023.

**FIGURE 4: CATCHMENT RESIDENTIAL BUILDING CONSENTS BY TYPOLOGY**



Source: Stats NZ

The above figure indicates that in 2021, the total number of consents surged to a record high of around 1,880 within the catchment area, marking a level over three times of that observed in the early 2000s. Consequently, over the past 23 years, the catchment area has seen an average of around 885 residential consents issued per year.

Specifically, the majority (around 74%) of these consents were for Standalone dwellings, totalling around 660 consents per annum. Terraced dwellings made up about 13% of the total consents, averaging around 120 consents per year. In contrast, apartments accounted for a smaller share, with only 50 consents per year, constituting around 6% of the total consents over the same period.

These trends indicate historically limited interest in higher-density dwellings in the area, or developers predominantly focused on delivering standalone homes for purchase. Consequently, the demand for higher-density housing in the local area has largely remained untapped.

Over the past decade, there has been a noticeable shift in this pattern, especially since 2015, with a marked rise in Townhouses and Terraces compared to the broader Auckland Region. In 2023, a record 31% of all residential dwelling consents in the area were for Townhouses, Flats, and Units. This reflects the growing diversity in residential preferences within the local market and affordability issues starting to become more pronounced.

At present total dwelling consent activity is in a decline due broader to macroeconomic factors. With elevated construction costs and high interest rates damping demand, the profitability of housing development has fallen relative to the peak of activity in 2020/21. However, New Zealand is currently experiencing record levels of immigration which, if residential construction activity fails to pick up, will crowd out the market again and cause increased supply-side issues and amplify current unaffordable levels further.

Given Auckland's scale, no single project alone would solve the city's housing supply issues. It will require multiple shovel ready brownfield and greenfield developments. The subject development represents an efficient and important contribution towards alleviating Auckland's housing shortage that can be fed into the development pipeline straight away.

Because of its project-readiness, the application's impact is anticipated to extend beyond its immediate scope through indirect effects on the regional market. By stimulating local economic activity during construction and creating employment opportunities, it injects income into the community, potentially assisting households facing affordability challenges. Consequently, the subject development has the potential to contribute to the facilitation of a more balanced and accessible regional housing market.

## ECONOMIC INJECTION AND EMPLOYMENT GENERATION

This economic impact assessment estimates the total additional gross economic output<sup>3</sup> into the Auckland economy that would be brought about by the application's development. The specifications and details have been provided by the Applicant and represent the Project's configuration and costings at this point in time.

It is important to note that this is not site specific, i.e., the report does not endeavour to identify the extent to which particular parts of the Auckland Region will benefit economically. It also assesses the likely economic impacts upon aggregate Auckland business activity given the activity proposed.

Although there are undoubtedly economic benefits that are specific to the location, they are primarily driven by proximity to transport corridors, efficiencies, ownership opportunities, site size and the opportunity costs associated with other sites.

The economic impacts likely to be experienced as a result of the proposed development are broken down by the development phase which includes the construction costs (CAPEX<sup>4</sup>) of the development and the proportion of those costs that are retained within the Region.

The direct economic impacts are derived from the actual spending / expenses incurred through the anticipated development.

Indirect economic impacts are the increased spending brought about by those firms / households and their employees / occupants, who supply the operation, while induced economic benefits are measured in terms of the additional income that will be spent in the area due to increased business activity.

This includes costs, which have been valued for the overall development.

Based on our high-level forecast assuming a 3-year development timeframe starting 2024 the total (direct, indirect and induced activities) impact on business activity within the Auckland region as a result of the proposed development over the 3-year period is estimated to be around \$676 million.

In terms of employment multipliers this would contribute 1,160<sup>5</sup> FTE jobs during the peak development year within Auckland (2025), with a total number of FTE years at approximately 3,470 over the development period for the Project.

These projected levels of economic injection and employment opportunities created would be beneficial for the regional economy and catalyse growth (and efficiencies) of the northern Auckland communities.

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<sup>3</sup> For example, this has not taken into account any short-term loss of operational employment currently on site.

<sup>4</sup> CAPEX – Capital Expenditure

<sup>5</sup> NB These are all jobs created through the direct construction phase including indirect and induced employment through all business sectors (not solely construction jobs).

The efficiency of the FTA Bill process means these economic benefits would be generated in the market an estimated 2 years earlier than the subject development going through the standard resource consenting pathways.

This scale of economic injection and employment generated as a result of the project is considered of regional significance relative to the scale of development across Auckland.

## ECONOMIC BENEFITS SYNOPSIS

There are a range of potential economic benefits that are likely to be achieved within the market beyond the direct economic activity (such as employment and economic output) generated. These are outlined in more detail below.

- **Increased Housing / Residential Capacity Supply:** In an economic environment where the market identifies a diverse range of circumstances, expanding the residential choices available to consumers enables them to make decisions that better suit their personal needs and preferences. In this regard, the provision of additional residential product provides more options that, putting aside the costs element, will improve the community wellbeing.
- **More Affordable Housing:** The preceding analysis in this overview indicates that the Silverdale – Red Beach – Orewa market experienced a significant +83% rise in median house prices over the past decade, which surpassed the growth rate of the wider region's housing prices, doubling it. Although there are several contributing factors, an undersupply of new homes in the market relative to the increase in demand, is one of the driving forces behind this house price inflation. Consequently, an increase in the supply of housing is generally positive for housing affordability.
- **Increased Choice of Location:** One of the advantages of the subject development is that it provides not only capacity and thereby opportunity for consumers to live in the Milldale area but in a location that is proximate to the existing urban environment (Silverdale & Orewa) and the already established Milldale residential area. Being adjacent to the existing and expected urban area essentially means the subject development has the potential to extension of the urban environment. This supports Policy 1 of the NPS-UD by contributing positively to a well-functioning urban environment.
- **Decreased Marginal Infrastructure Costs:** The larger number of residents in an area means greater returns on the use of the local (existing and planned) infrastructure. This can vary depending on the level of unused capacity of existing infrastructure and the cost of replacement / upgrade of said infrastructure. Given that the subject development is positioned within the existing urban footprint, it is likely to mitigate new infrastructure expenses relative to growth areas situated in distant greenfield locations. This development consequently enhances infrastructure use efficiency, particularly the potential use of the established infrastructure in the local area.

- **Increased Economic Activity / Local Employment:** The increased local population base will result in a net increase in the number of full-time equivalent employees able to work in the local area and the surrounding suburbs due to the subject development generating increased demand for local businesses and services. This will be a net gain for the local economy and stimulate further growth and amenity improvements for the area.
- **Diverse Buyer Pool:** Milldale – Silverdale is a popular area for a broad range of homebuyers including families, retirees, singles, and young couples. Additional residential development would likely stimulate demand within a diverse group of people, particularly with the increased diversity of residential typologies and range of dwelling price points.
- **Greater Level of Growth:** Growth from residential developments work as a catalyst to spur further growth in the area. The subject development has the potential to increase interest for additional residential / small-scale commercial activity within the area and provide impetus for growing its local economy.
- **Increased Amenities:** The subject development would provide high-amenity residential environment with master-planned, purpose built, and targeted amenity values in a co-ordinated and integrated manner. This can significantly improve the amenities of the receiving environment and generate community benefits.

## CONCLUSION

Based on the high-level economic overview presented in this memo, Property Economics considers that allowing the application to be applied for under the FTA Bill, via the Schedule 2A pathway, this application will generate net positive contribution to the future economic and social wellbeing of the local communities, and through flow-on effects to other areas of the regional economy.

With a continuous expansion of the Milldale development and community, it can be expected that once fully development, there will be an added benefit of the applicant bringing additional housing supply on early, increasing capacity, and in terms of overall house price, a potential reduction or at a minimum slowing the rate of house price growth. This potential outcome is important for fostering a vibrant and thriving regional economy and particularly fulfil the FTA Bill Section 17(3)(c) by increasing housing supply, meeting housing demands, and contributing to a well-functioning urban environment within the region.

Furthermore, the supply of higher-density residential offerings aligns with the site's anticipated outcome and facilitate a range of typologies and intensification in accordance with the directives outlined in the NPS-UD and the MDRS. This fulfils the FTA Bill Section 17(3)(j) as well and improves urban efficiency.

As such, enabling the subject development to be applied for under the FTA Bill would ensure the identified flow of economic benefits to the community and the regional economy can be brought forward in a timely manner.



If you have any queries, please give me a call.

Kind Regards

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## APPENDIX 1. STATUS OF MILLDALE TRANSPORTATION PROJECTS

Project	Status at April 2024	Notes
Left turn slip lane at the Silverdale Interchange	Completed in 2021	
Weiti Stream Bridge	Completed 2022	
Argent Lane, Pine Valley Rd and Old Pine Valley Rd roundabout	Completed 2022	
Shared path from Sidwell Rd under SH1 to Millwater	Completed 2023	
Bridge over SH connecting Milldale to Highgate Business Park	Construction commenced 2023 due to be completed by the end of 2024	Project recently passed the 70% complete mark
Argent Lane/Wainui Rd Roundabout	Consented and due to commence construction in Spring 2024	
Pine Valley Rd, Dairy Flat Highway Intersection Upgrade	Consented, Detailed Design complete and due to commence construction in Spring 2024	
Argent Lane Extension between Wainui Road and Dairy Flat Highway	Being constructed in stages as the development proceeds. Currently 50% complete with further portions currently under construction.	The whole of this project is due to be completed by 2026.
Wainui Rd upgrade to a collector standard between Lysnar Rd and the Argent Lane/Wainui Rd roundabout.	Consented and will be built in conjunction with the development being sought through the present application.	
Lysnar Rd/Wainui Rd intersection upgrade	Consented and will be built in conjunction with the development being sought through the present application.	
Lysnar Rd Bridge	Consent application has been submitted with Auckland Council and will be constructed in conjunction with the adjacent stage of development (Stage 8)	
Sidwell Rd/Endsley Rise Intersection	Consent application has been submitted with Auckland Council and will be constructed in conjunction with the adjacent stage of development (Stage 8)	

## APPENDIX 2. RESIDENTIAL CATCHMENT



Source: Google Maps, Stats NZ, LINZ